



2019

S&S Cycle, Inc.

Dealer Catalog #61

LOOKING FOR REPLACEMENT PARTS?

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MILWAUKEE-EIGHT® ENGINES

Exciting new performance products for motorcycles with the new HD® Milwaukee Eight® engine.

2007–2016 BIG TWIN

Performance upgrades for 2007-'17 HD® big twins with Twin Cam 96™, 103™, 110™ engines. From the basics like slip-on mufflers and air cleaners to camshafts, fuel systems, and big bore kits, to complete big inch engines. Replacement parts and service items too!

1999–2006 BIG TWIN

Everything you need to upgrade and maintain 1999-'06 HD® big twins with Twin Cam 88® and Twin Cam 88B™ engines. Exhaust, intake, fuel systems, cams, big bore kits, and complete engines. Also many service and replacement components.

SPORTSTER® & BUELL®

HD® Sportster® motorcycles are becoming increasingly popular. S&S offers a lot of options for increasing displacement and performance. Carburetors, air cleaners, big bore kits, cam shafts, cylinder heads, and much more.

STREET®

Performance products for Harley-Davidson® Street® & Street Rod™ engines.

1984–1999 BIG TWIN

Performance products and service replacement parts for HD® Evolution® engines. The newest of these engines is 20 years old, and many are in need of an engine overhaul. Why not upgrade to a stroker or big bore kit while you have it apart? Why not replace it with a new engine? Just turn the page.

1926-1984 VINTAGE

Building an old school chopper, a retro vehicle or restoration? We have the engine components you need. Keep that old iron on the road!

VICTORY®/INDIAN®

Performance parts for Victory® and Indian® motorcycles.

TOOLS & SHOP SUPPLIES

Every job is easier with the right tools. Keep your bike running in top condition! You'll find special tools, shop supplies and fluids you need, whether you are a "do-it-yourselfer" or a professional servicing technician.

APPAREL

S&S apparel and other promotional items.

COMPANY POLICY & WARRANTY

Information on sales, ordering, shipments, S&S internet policy, and special orders. Warranty policies on all S&S parts and S&S assembled engines.

APPENDIX & INDEX

Useful information for our customers: identify S&S components, measuring manifolds, calculating cylinder head bolt lengths, and an easy to use index to find products in this catalog.



60 124" engines were produced for our 60th year

A WORD ABOUT DYNO NUMBERS

With a motto like "Proven Performance®", which is a registered trademark of S&S® Cycle Inc., it is very important that we be able to back up our claims regarding performance. It is also vitally important to be able to evaluate new designs in our development process. One of the tools we depend on for both of these functions is the chassis dynamometer.

Something that needs to be understood about dynamometers is that the results from one dyno will not necessarily be identical to those from another dyno. So comparing results from different dynos is bound to create a certain amount of confusion. This is especially true with dynos from different manufacturers. However, results of tests run on the same machine can be compared with a high degree of confidence. We can determine, for example if a performance modification increased power or torque, but there is a problem if you expect absolute values.

There are several brands of dynamometers which are in common use in the performance industry. These dynos will yield very reliable values for comparison, especially when tests are performed on the same machine. However values obtained from these dynos may not always agree. Which value is correct? It depends on who you ask.

NO ABSOLUTES

In our literature and catalogs, we publish dyno results so our customers easily can see how our products improve performance over stock. However, it must be remembered that these are comparative values, and should not be taken as absolutes. If a similar or even identical engine or motorcycle is tested on another dynamometer, the results will more than likely differ.



SYMBOL KEY



CONFIGURE TO ORDER: CTO allows you to choose available options for a specific part or kit, and covers both "special order" parts and "made to order" kits. Some CTO kits have a base price with additional upcharges for the optional selections. In some cases, the entire price of a kit is determined by upcharges for the options selected. It is best to call an S&S customer service representative and configure the kit with exactly the options you want.



VIDEO If you see this icon, there is a video available.



These are our latest innovations to the market.

EMISSIONS SYMBOLS



Part numbers marked with this logo are replacement parts for specific S&S certified emission engines and are legal for sale and use on these engines. The number(s) listed by each logo in the catalog indicates the model(s) of S&S certified engines that use the part. Use the table below to reference your engine model to its number in the logo.

Engine Model Number	
V96E	1
V100C, V113E, V113C	2
V124E, V124C	3
X117E, X117C	4



Example: This part is legal for use on V96E, V124C, and V124E engine models.



Part numbers marked with this logo are legal to be sold for and used as replacement parts on Harley-Davidson® motorcycles in all 50 states. These parts may only be installed on a motorcycle model listed in the part's description. Selling or installing these parts on a pollution controlled motorcycle not listed is in violation of California and/or Federal emissions laws and could result in fines and penalties.

Note:

Vehicles 1977 model year and earlier are exempt from emissions regulations. Owners of such vehicles may install any parts desired without concern about violating exhaust emissions regulations. However, local noise ordinances still apply to these vehicles, so the owner of a 1977 or earlier vehicle can still receive a noise citation if the vehicle is too loud.

MILWAUKEE-EIGHT®

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SUPERSTREET 2:1 EXHAUST SYSTEM

FITMENT

- 2018–'19 HD® Softail® models

FEATURES AND BENEFITS

- Classic 2-1 styling with world famous S&S performance!
- Fully heat shielded design, blue-proof muffler
- Stainless steel header construction
- S&S engineered High Flow catalyst (49 state model) brings legal performance to the street!
- Available in chrome or ceramic black finish
- Oxygen sensor ports allow use of wide band or stock O2 sensors
- Mid mounts require brake pedal kit
- Removable dB reducer (included) meets SAE J2825 sound standard
- Made in the USA!



SUPERSTREET 2 INTO 1 EXHAUST SYSTEM — 49-STATE*

Black with Black Endcap	550-0789
Chrome with Black Endcap	550-0791 [±]

SUPERSTREET 2 INTO 1 EXHAUST SYSTEM — RACE ONLY†

Black with Black Endcap	550-0788
Chrome with Black Endcap	550-0790 [±]

*DISCLAIMER: FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.

LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY.

†DISCLAIMER: FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.

LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY.

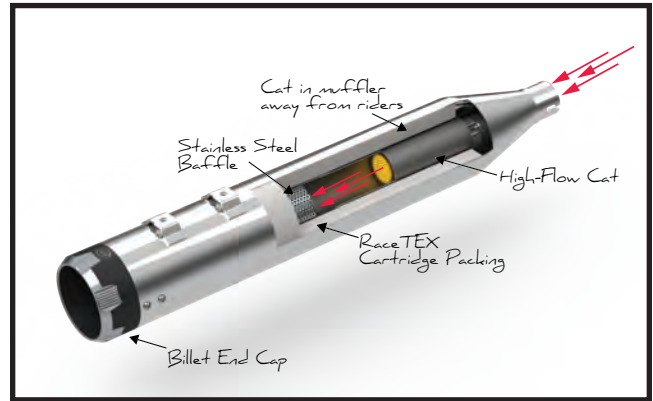


REPLACEMENT PARTS: SEE PAGE 31

EL DORADO 50-STATE M8 HIGH PERFORMANCE EXHAUST SYSTEM

FEATURES AND BENEFITS

- Improved power and torque
- Deep bass rumble throughout the RPM range
- Stainless steel header construction
- Includes adapters for wide band or wide band O2 sensors
- 50-state legal
- SAE J2825 Sound Level Compliant
- Exempt from emissions tampering regulations under CARB EO# K-010-1
- High Flow Cats to increase exhaust flow for optimum torque
- Catalysts located in mufflers moves heat away from rider
- Available in Show Chrome or Ceramic black Finish
- Highlight Machined Thruster or Tracer end cap
- Bold Styling of Mk45 Mufflers



EL DORADO 50-STATE EXHAUST SYSTEM FOR 2017-'18 TOURING MODELS

Finish	End Cap	Part #
Chrome	Highlight Machined Thruster	550-0699A ±
Black	Highlight Machined Thruster	550-0700A
Chrome	Highlight Machined Tracer	550-0701A ±
Black	Highlight Machined Tracer	550-0702A

Exempt from emissions tampering regulations under CARB EO# K-010-1 for all 2017-2018 FL Touring Models

CARB
compliant
CARB EO K-010-1



Black w/Tracer



Black w/Thruster



Chrome w/Thruster



Chrome w/Tracer

REPLACEMENT PARTS: SEE PAGE 38

SIDEWINDER 2:1 EXHAUST SYSTEM

FITMENT

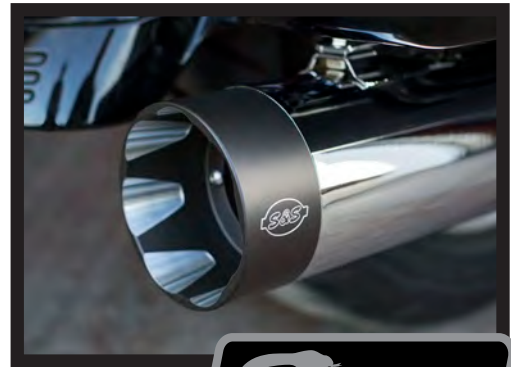
- 2017-'19 M8 FL Models

FEATURES AND BENEFITS

- 2:1 styling for high-performance baggers
- High-flow cat
- Increased power and torque
- Available in show chrome or ceramic black finish
- Machined aluminum endcap
- Includes adapters that allow use of wide band or stock O2 sensors
- Stainless steel header construction
- Deep 2:1 performance exhaust note
- Removable dB reducer
- SAE J2825 Sound Level Compliant
- All hardware included
- Made in USA!



Removable dB reducer



SIDEWINDER 2:1 EXHAUST SYSTEM FOR 2017-'18 M8 TOURING MODELS — 50-STATE**

Finish	Part #
Chrome	550-0758A[±]
Black	550-0759A

SIDEWINDER 2:1 EXHAUST SYSTEM FOR 2017-'19 M8 TOURING MODELS — RACE ONLY*

Chrome	550-0728[±]
Black	550-0729

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

**Exempt from emissions tampering regulations under CARB EO# K-010-2 for all 2017-2018 FL Touring Models



REPLACEMENT PARTS: SEE PAGE 36

GRAND NATIONAL® 2:2 EXHAUST SYSTEM

FOR 2018-'19 FAT BOB® MODELS

FITMENT

- 2018-'19 Harley-Davidson® Fat Bob® Models

FEATURES AND BENEFITS

- 2-2 Free-flow design equals solid HP gains
- Hidden crossover provides performance benefits of 2:1
- Full heat shields on both front and rear headers
- Stainless steel header construction
- High Flow catalytic converter maintains the performance of a straight through system
- CARB EO# K-010-4, 50 State Legal
- Race inspired Grand National® end cap
- Available in chrome or ceramic black finish
- Oxygen sensor ports allow use of wide band or stock O2 sensors.
- Removable dB reducers (included) meet SAE J2825 sound standard
- Right side passenger peg relocation bracket
- Made in USA!



Removable dB reducer



GRAND NATIONAL® 2:2 EXHAUST SYSTEM FOR 2018-'19 M8 TOURING MODELS — 50-STATE COMPLIANT*

Finish	Part #
Chrome	550-0781A ±
Black	550-0780A

GRAND NATIONAL 2:2 EXHAUST SYSTEM — RACE ONLY**

Chrome	550-0761 ±
Black	550-0760

Exempt from emissions tampering regulations under CARB EO# K-010-4 for 2018 to 2019 Fat Bob models

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

Grand National



REPLACEMENT PARTS: SEE PAGE 37

GRAND NATIONAL® SLIP-ON MUFFLERS

FOR 2018-'19 HD® FAT BOB® MODELS

FITMENT

- 2018-'19 Harley-Davidson® Fat Bob® Models

FEATURES AND BENEFITS

- Up to 12% more horsepower and 6% more torque (when used with Stealth Air Cleaner Kit)
- Race inspired design
- Ceramic black finish
- Deep performance rumble replaces stock whisper tone
- No mapping required
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



GRAND NATIONAL® SLIP-ON MUFFLERS FOR 2018-'19 HD® FAT BOB® MODELS

Description	Part #
Grand National Slip-On Mufflers for 2018-'19 HD® Fat Bob®	550-0734

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2018 Fat Bob models.



REPLACEMENT PARTS: SEE PAGE 33

GRAND NATIONAL® SLIP-ON MUFFLERS

FOR 2018-'19 HD® SOFTAIL® MODELS (EXCEPT FAT BOB® & SPORT GLIDE® MODELS)

FITMENT

- Fits 2018-'19 HD® Softail® models (excluding Fat Bob® & Sport Glide® models)

FEATURES AND BENEFITS

- Up to 12% more horsepower and 6% more torque (when used with Stealth Air Cleaner Kit)
- Race inspired Grand National endcap design
- Deep performance rumble replaces stock whisper tone
- Show chrome or ceramic black finish
- Removable dB reducer
- SAE J2825 Sound Level Compliant
- Made in USA!



Removable dB reducer

GRAND NATIONAL® MUFFLERS FOR 2018-'19 M8 SOFTAIL® MODELS – 49-STATE COMPLIANT**

Fitment	Muffler Body Finish	Part #
M8 Softail models, except Heritage Softail® Classic & Softail® Deluxe	Black	550-0754
M8 Softail models, except Heritage Softail Classic & Softail Deluxe	Chrome	550-0755 [±]
M8 Heritage Softail Classic & Softail Deluxe models	Chrome	550-0757 [±]

GRAND NATIONAL MUFFLERS FOR 2018-'19 M8 SOFTAIL® MODELS – RACE ONLY†

M8 Softail models, except Heritage Softail® Classic & Softail® Deluxe	Black	550-0737
M8 Softail models, except Heritage Softail Classic & Softail Deluxe	Chrome	550-0738 [±]
M8 Heritage Softail Classic & Softail Deluxe models	Chrome	550-0740 [±]

[†]DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

^{**}DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE

[±]Qualified Manufacturer Declared 49-State Emissions Compliant Catalyst Exhaust Component



REPLACEMENT PARTS: SEE PAGE 34

SLASH CUT SLIP-ON MUFFLERS

FOR 2018-'19 HD® SOFTAIL® MODELS (EXCEPT FAT BOB® & SPORT GLIDE® MODELS)

FITMENT

- Fits 2018-'19 HD Softail® models (excluding Fat Bob® & Sport Glide® models)

FEATURES AND BENEFITS

- Up to 12% more horsepower and 6% more torque (when used with Stealth Air Cleaner Kit)
- Wake up your bike without breaking your budget
- Classic slash cut styling
- Show chrome or ceramic black finish
- Removable dB reducer
- SAE J2825 Sound Level Compliant
- Made in USA!



Removable dB reducer

SLASH CUT MUFFLERS FOR 2018-'19 HD® SOFTAIL® MODELS — 49-STATE COMPLIANT**

Fitment	Muffler Body Finish	Part #
M8 HD Softail models, except Heritage Softail® Classic & Softail® Deluxe	Black	550-0752
M8 HD Softail models, except Heritage Softail Classic & Softail Deluxe	Chrome	550-0753 [±]
M8 HD Heritage Softail Classic & Softail Deluxe models	Chrome	550-0756 [±]

SLASH CUT MUFFLERS FOR 2018-'19 M8 SOFTAIL® MODELS — RACE ONLY†

M8 HD Softail models, except Heritage Softail® Classic & Softail® Deluxe	Black	550-0735
M8 HD Softail models, except Heritage Softail Classic & Softail Deluxe	Chrome	550-0736 [±]
M8 HD Heritage Softail Classic & Softail Deluxe models	Chrome	550-0739 [±]

†DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE

[±]Qualified Manufacturer Declared 49-State Emissions Compliant Catalyst Exhaust Component



REPLACEMENT PARTS: SEE PAGE 34

Mk45 TOURING MUFFLERS

FITMENT

- 2017–'19 Harley-Davidson® touring models with Milwaukee-Eight® engine
Does not fit Trike or Freewheeler models

FEATURES AND BENEFITS

- Bold 4.5" design — with stainless steel baffle and RaceTEX cartridge packing
- Available in show quality or ceramic black finish
- Choose from S&S Thruster or Tracer end-cap designs in chrome or black
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



MK45 4.5" SLIP-ON MUFFLERS

Muffler Body Finish	End Cap Finish & Style	Part #
Chrome	Chrome Thruster	550-0665[±]
	Highlight Machined Thruster	550-0664[±]
	Chrome Tracer	550-0669[±]
	Highlight Machined Tracer	550-0668[±]
Black	Chrome Thruster	550-0667[±]
	Highlight Machined Thruster	550-0666
	Chrome Tracer	550-0671[±]
	Highlight Machined Tracer	550-0670

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017-2019 FL Touring models



Removable dB reducer



550-0665[±]



550-0664[±]



550-0669[±]



550-0668[±]



550-0667[±]



550-0666



550-0671[±]



550-0670

REPLACEMENT PARTS: SEE PAGE 32

GRAND NATIONAL® 4" SLIP-ON MUFFLERS FOR 2017-'19 FLH TOURING MODELS

FITMENT

- 2017-'19 FLH Touring Models

FEATURES AND BENEFITS

- Show quality chrome or ceramic black finish
- Race inspired Grand National end cap
- High flowing baffle design
- Aggressive sound and excellent horsepower
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Grand National

GRAND NATIONAL® 4" MUFFLERS FOR 2017-'19 TOURING M8 ENGINES EXCEPT FREEWHEELER® OR TRIKE MODELS

Finish	Part #
Chrome	550-0693[±]
Black	550-0694

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017-2019 FL Touring models

REPLACEMENT PARTS: SEE PAGE 35

SLASH CUT 4" SLIP-ON MUFFLERS

FITMENT

- 2017–'19 Touring Models

FEATURES AND BENEFITS

- Available in show chrome or ceramic black finish
- Stripped down styling
- Aggressive sound
- Economical price
- Removable dB Reducer
- Excellent choice for Trike and Freewheeler® models (See Chart)
- Made in USA!



SLASH CUT 4" TOURING MUFFLERS FOR 2017–2019 TOURING M8 ENGINES*

Finish	Part #
Chrome	550-0695[±]
Black	550-0696

SLASH CUT 4" TOURING MUFFLERS FOR 2017–2019 TRIKE MODELS (SEE PAGE 48 FOR MORE DETAILS)**

Chrome	550-0691[±]
Black	550-0692

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017-2019 FL Touring models

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

Qualified Manufacturer Declared Emissions Replacement Part on the FL Touring Models Listed Below.

California FL Touring Models:

Fuel Injected MY 1995-2003, 2007, and 2009-2016;

CVO MY 2000-2003, and 2009-2016

49 State FL touring Models:

Carbureted MY 1995-2005;

Fuel Injected MY 1995-2005, and 2007-2016;

CVO MY 2000-2005, and 2009-2016

REPLACEMENT PARTS: SEE PAGE 35

1986-2019
Sportster® & Buell®

2014-2019
Street® &
Street Rod™

1984-1999
Evolution®

1926-1984
Vintage Engines

Indian® &
Victory® Models

Tools
& Shop Supplies

Apparel

Warranty &
Company Policy

Appendix
& Index



EC SLIP-ON MUFFLERS

FEATURES & BENEFITS

- EC approved with S&S Performance and Style
- Race-inspired Grand National endcap design or the Classic Slash Cut design complements any bike style
- Show Chrome or Ceramic black finish
- 82mm can with perforated stainless steel baffle and RaceTex cartridge packing
- Equipped with S&S engineered high-flow catalytic converter
- All hardware and gaskets included



GRAND NATIONAL® EC SLIP-ON MUFFLERS FOR 2018 M8 HD® SOFTAIL® MODELS

M8 Softail® Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® models	Black	550-0824
M8 Softail® Street Bob, Low Rider, Slim®, Fat Boy & Breakout models	Chrome	550-0825
M8 Softail® Heritage Classic & Deluxe® models	Chrome	550-0826

EU Type-Approval: e9*134/2014*2018/295H*11028*00

SLASH CUT EC SLIP-ON MUFFLERS FOR 2018 M8 HD® SOFTAIL® MODELS

M8 Softail® Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® models	Black	550-0821
M8 Softail® Street Bob, Low Rider, Slim, Fat Boy & Breakout models	Chrome	550-0822
M8 Softail® Heritage®/Deluxe® models	Chrome	550-0823

EU Type-Approval: e9*134/2014*2018/295H*11027*00

REPLACEMENT PARTS: SEE PAGE 40



STEALTH TEARDROP AIR CLEANER KITS

FEATURES AND BENEFITS

- Classic Teardrop Styling
- Contemporary Stealth backing plate and high flow air filter
- S&S stinger creates smooth path for air into intake
- Easy to install
- Gloss black or chrome
- Slasher style sold as cover only
- Now available for M8 applications!



STEALTH TEARDROP AIR CLEANER KITS

Description	Part #
Chrome Stealth Teardrop plus Stealth Kit (170-0354A)	170-0524
Gloss Black Stealth Teardrop plus Stealth Kit (170-0354A)	170-0525

Exempt from emissions tampering regulations under CARB EO# D-355-24

STEALTH TEARDROP COVER ONLY

Chrome	170-0530
Gloss Black	170-0531
Slasher – Chrome	170-0532
Slasher – Gloss Black	170-0533

REPLACEMENT PARTS: SEE PAGE 30



CARBON FIBER STEALTH AIR CLEANER KITS

FEATURES & BENEFITS

- Strong and lightweight
- Corrosion resistance
- Simple installation
- Also available as cover only



CARBON FIBER TEARDROP KIT

Fitment	Part #
2017–'19 M8 models	170-0498

Kit includes Stealth Air Cleaner 170-0354A which is exempt from emissions tampering regulations under CARB EO# D-355-24.



CARBON FIBER TEARDROP
COVER ONLY

170-0501

REPLACEMENT PARTS: SEE PAGE 30

STEALTH AIR CLEANER KITS

NEW STEALTH TEARDROP KITS SEE PAGE 19

FITMENT

- 2017–'19 Harley-Davidson® models with the Milwaukee-Eight® engine
- Works with Screamin' Eagle® 64mm

FEATURES AND BENEFITS

- Use with any S&S Stealth cover (see page 21)
- Use with your stock Harley-Davidson® Milwaukee-Eight® engine air cleaner cover (Adapter required — see below)
- High flow (1" taller) filter kit available (P/N 170-0127*)
- Backplate made from high-strength advanced synthetic polymer —reduces heat transfer to intake air
- Cooler, denser air allows for more efficient cylinder fill and better performance
- Included actuator cover, hides TBW servo motor for a clean, attractive installation
- Exempt from emissions tampering regulations under CARB EO# D-355-24



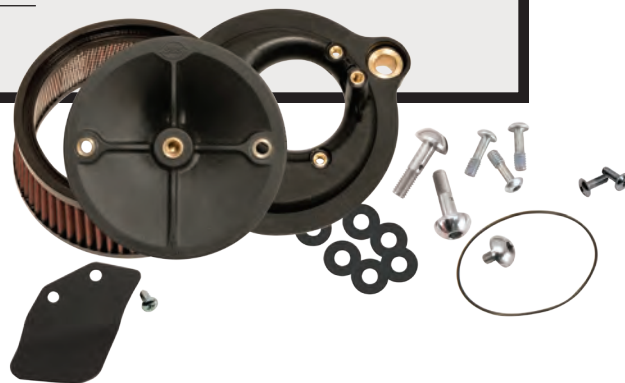
STEALTH AIR CLEANER KITS

Description	Part #
Chrome Mini Cover plus Stealth Kit (170-0354A)	170-0435A±
Gloss Black Mini Cover plus Stealth Kit (170-0354A)	170-0436A
Chrome Airstream cover plus Stealth Kit (170-0354A)	170-0390A
Gloss Black Airstream cover plus Stealth Kit (170-0354A)	170-0397A
Tri-Spoke cover plus Stealth Kit (170-0354A)	170-0392A
Torker cover plus Stealth Kit (170-0354A)	170-0393A
Air 1 cover plus Stealth Kit (170-0354A)	170-0394A
Stealth Air Cleaner Kit for Stock M8 and 64mm Throttle Body	170-0354A
Adapter for Stock M8 Air Cleaner Cover	170-0352

Exempt from emissions tampering regulations under CARB EO# D-355-24



The S&S Stealth air cleaner backplate in this kit is made from the same high-strength, advanced, synthetic polymers used in high performance automotive intake manifolds and high-end handgun bodies! This material offers superior mechanical properties, thermal stability, and chemical resistance. Designed to reduce heat transfer to the intake air for more efficient induction.



REPLACEMENT PARTS: SEE PAGE 30

EC STEALTH AIR CLEANER KITS

- 2018–'19 M8 Softail® Models (e9 11026G)
- 2017–'19 M8 Touring Models

EC STEALTH AC KITS

2018–2019 M8 Softail Model cover sold separately	170-0521
2017–'19 M8 Touring Models cover sold separately	170-0521

EU Type-Approval: e9*134/2014*2018/295G*11026*00



STEALTH AIR CLEANER KIT COVERS

NEW STEALTH TEARDROP COVERS SEE PAGE 19



Carbon Fiber



Mini in Chrome



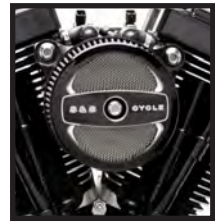
Mini in Gloss Black



Tri-Spoke



Torker



Air 1



Airstream in Chrome



Airstream in Gloss Black



Muscle in Chrome



Muscle in Gloss Black



Bobber-dished

STEALTH COVERS

Carbon Fiber	Mini		Tri-Spoke	Torker	Air 1	Bobber-Dished	
Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights	Chrome	Wrinkle Black
170-0501	170-0367[±]	170-0366	170-0210	170-0206	170-0214	170-0119[±]	170-0123

Airstream		Muscle		Displacement			Bobber-Domed	
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	111	124	143	Chrome	Wrinkle Black
170-0118[±]	170-0396	170-0121[±]	170-0463	170-0319	170-0321	170-0323	170-0120[±]	170-0124

124" & 128" BIG BORE KITS

FITMENT:

- 2017–up touring models
- 2018–up Softail® models

FEATURES AND BENEFITS:

- 107" to 124" Big Bore Kit
- 114" to 128" Big Bore Kit
- 4.250" Bore
- Forged Pistons
- 11.1 Compression Ratio
- Wrinkle Black or Black Granite Finish
- Available with or without Highlighted Fins
- Bolt-on Kit — No Machining Required
- Includes Gaskets & Hardware



SPECS FOR 124" & 128" BIG BORE KITS				
Displacement	Bore	Stroke	Piston Type	Compression Ratio
124" 4 3/8 Stroke	4.250	4.375	Forged	11.1
128" 4 1/2 Stroke	4.250	4.5	Forged	11.1

124" & 128" BIG BORE KITS FOR 2017–UP TOURING MODELS & 2018 SOFTAIL® MODELS

Displacement	Finish	Part #
124"	WBlack with Non-Highlighted Fins	910-0681
	WBlack with Highlighted Fins	910-0625
128"	WBlack with Non-Highlighted Fins	910-0685
	WBlack with Highlighted Fins	910-0684
	Black Granite with Highlighted Fins	910-0733

DISCLAIMER: FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.
 LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY.

CYLINDERS

FITMENT:

- 2017–up touring models
- 2018–up Softail® models

FEATURES AND BENEFITS:

- 4.250" Bore
- Wrinkle Black or Black Granite Finish
- Available with or without Highlighted Fins

CYLINDER SETS

Finish	Part #
WBlack with Non-Highlighted Fins	910-0683
WBlack with Highlighted Fins	910-0682
Black Granite with Highlighted Fins	910-0739

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POWER PACKS

LIMITED TIME PRICING, GOOD ONLY
FROM OCTOBER 1ST THROUGH JANUARY 31ST 2019

**107" TO 124" BIG BORE KIT:**

- Wrinkle Black Finish
- Available With or Without Fin Highlighting
- Bolt-On Kit — No Case Machining Required
- 4.250" Bore
- Forged Pistons
- 11.1 Compression Ratio

OIL PUMP/CAM PLATE:

- Precision Machined from Billet Aluminum
- Passage Plugs Removable for Servicing
- Independent Scavenge Sections for Flywheel Cavity And Cam Chest
- Debris Screens in Both Scavenge Pickups
- Magnet in Cam Chest to Help to Stop Debris from Entering Oil Pump
- Increased Flow Capacity on Both Feed & Scavenge Side
- Pressure Relief Valve is Adjustable with Unit Installed in Engine

PUSHRODS:

- Quickee Pushrods
- Chrome or Gloss Black Pushrod Tubes Available

TAPPETS:

- S&S Premium Tappets

TAPPET CUFFS:

- Hard Anodized Black Coating
- Billet Aluminum Construction
- Stronger than Stock Material Eliminates Distortion
- Improve Tappet Stability in High Lift & High RPM Situations

CAM:

- S&S 550 Cam—Designed for Big Bore Applications
- Available in Both Gear Drive & Chain Drive Variations
- Gear Drive Kits Provide Improved Cam Timing Accuracy & Eliminate Stock Chain Tensioner
- Gear Drive Kits Include Outer Drive Gears

VALVE SPRINGS:

- Works Well with Cams up to .605 Lift
- High Performance Conical Single Wire Spring
- Includes Top Collars, Keepers, & Valve Seals/Bottom Collars

M8 POWER PACKAGE KIT FOR 2017 TOURING MODELS & ALL 2018–19 HD® MODELS WITH 107" ENGINE

Cooling System	Finish	Drive	Pushrod Tubes	Part #
Oil	Highlighted Fins	Chain	Chrome	310-1052
Oil	Highlighted Fins	Gear	Chrome	310-1053
Oil	Highlighted Fins	Chain	Black	310-1056
Oil	Highlighted Fins	Gear	Black	310-1058
Oil	Non-Highlighted Fins	Chain	Black	310-1057
Oil	Non-Highlighted Fins	Gear	Black	310-1059
Water	Highlighted Fins	Chain	Chrome	310-1050
Water	Highlighted Fins	Gear	Chrome	310-1051
Water	Highlighted Fins	Chain	Black	310-1054
Water	Highlighted Fins	Gear	Black	310-1055

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

CAM PLATE & OIL PUMP KITS

FITMENT

- 2017 touring and 2018–'19 touring M8 models

CAM PLATE

- Precision machined from billet aluminum
- Passage plugs removable for servicing
- Bronze bushings for better lubrication & improved wear characteristics
- Made in USA

OIL PUMPS

- Precision machined from billet aluminum
- Independent scavenge sections for flywheel cavity and cam chest
- Debris screens in both scavenge pickups
- Magnet in cam chest to help prevent debris from entering pump
- Increased flow capacity on both feed and scavenge side
- Pressure relief valve can be adjusted with unit in engine
- Made in USA

KITS

- Buy together and save



CAM PLATE & OIL PUMP KITS FOR M8 MODELS

Description	Part #
Cam Plate & Oil Pump/Water-Cooled	310-0997A
Cam Plate & Oil Pump/Oil-Cooled	310-0998A
CAM PLATE ONLY	310-0939A
OIL PUMP ONLY	
Description	Part #
Water-Cooled	310-0947
Oil-Cooled	310-0959

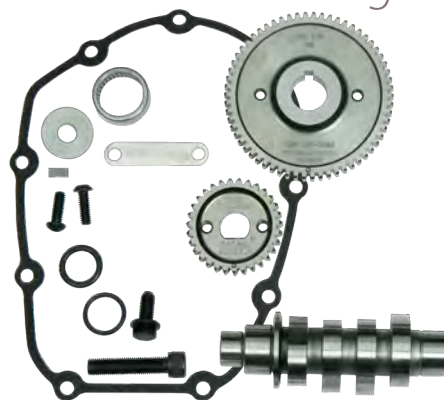
CAM KITS

FITMENT

- 2017 touring and 2018–'19 touring M8 models

FEATURES AND BENEFITS

- 465C chain drive and 465G gear drive cams both provide increased torque and horsepower
- 350G gear drive cam has stock specs, but eliminates cam drive chain and tensioner
- Kits include all required bearings, o-rings and hardware
- Gear drive cams provide improved valve timing accuracy
- Made in the USA



S&S® CAMSHAFT SPECIFICATIONS											
Cam Name	Cylinder	Valve Timing		Valve Duration		Valve Lift		Lobe Center Line		Valve Lift @ TDC	
		Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
		Open BTDC/ Close ABDC	Open BBDC/ Close ATDC								
350G Stock Grind Gear Drive	Both	-7.0/1.0	33.0/-14.0	174.0	199.0	.350	.374	94.0	113.5	.057	.048
465 Performance	Front	2.6/14.6	30.1/8.8	197.2	218.9	.462	.462	96.0	100.6	.087	.109
	Rear	2.8/14.4	33.1/5.8	197.2	218.9	.462	.462	95.8	103.6	.088	.098
475 HP	Front	6.2/27.2	55.5/28.5	213.5	263.9	.475	.475	100.5	103.5	.107	.208
	Rear	2.2/31.2	52.5/20.2	213.5	252.5	.475	.475	104.5	106.0	.093	.170
550 Big Bore	Front	9.4/29.4	62.5/30.5	218.9	273.1	.550	.550	100.0	106.0	.127	.232
	Rear	3.1/31.1	59.4/38.4	214.2	277.8	.550	.550	104.0	100.5	.099	.264

CHAIN DRIVE CAMSHAFTS FOR 2017–'19 HD® MODELS WITH M8 ENGINE

Description	Part #
465C	330-0620
475C	330-0641
550C	330-0643

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REPLACEMENT PARTS

Description	Part #
Cam Cover Gasket	310-0911
Pinion Gear	330-0622
Undersized Pinion Gear	330-0626
Oversized Pinion Gear	330-0627
Cam Gear Drive	330-0621

GEAR DRIVE CAMSHAFTS FOR 2017–'19 HD® MODELS WITH M8 ENGINE

Description	Part #
350G - Stock	330-0625
465G	330-0624
475G	330-0645
550G	330-0647

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

CAMSHAFT INSTALLATION KITS FOR M8 2017–'19 TOURING

Description	Part #
Chain Drive Installation Kit	330-0619
Gear Drive Installation Kit	330-0623



All reference to H-D® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D® part number shown.



CAM CHEST KITS

FITMENT

- 2017–'19 touring models
- 2018–2019 Harley-Davidson® Softail® models

OIL PUMP/CAM PLATE:

- Precision machined from billet aluminum
- Passage plugs removable for servicing
- Independent scavenge sections for flywheel cavity and cam chest
- Debris screens in both scavenge pickups
- Magnet in cam chest to help to stop debris from entering oil pump
- 44% flow increase on supply side and 58% flow increase on scavenge
- Pressure relief valve is adjustable with unit installed in engine

PUSHRODS:

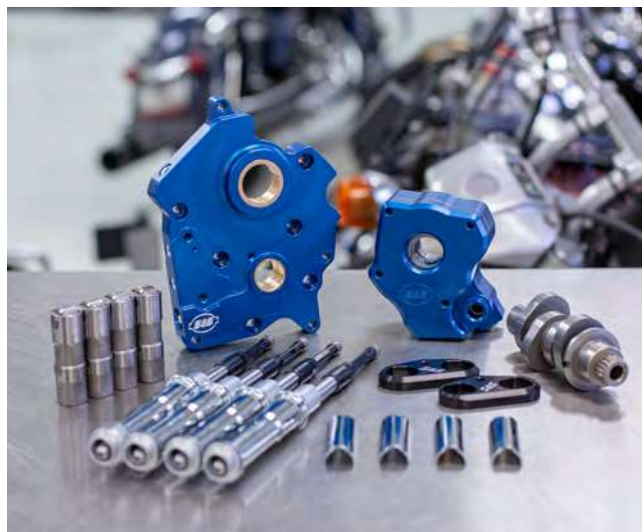
- Quicke Pushrods
- Chrome or Gloss Black pushrod tubes available

TAPPETS:

- S&S Premium Tappets

TAPPET CUFFS:

- Hard anodized black coating
- Billet aluminum construction
- Improve tappet stability in high lift and high rpm situations



CAM:

- S&S 465 or 475 cam
- 465 is a torque cam—perfect for touring applications
- 475 is a bolt-in 100hp cam!
- Available in both gear drive and chain drive variations
- Gear drive kits provide improved cam timing accuracy and eliminate the stock cam chain tensioner

INCLUDES ALL GASKETS, BEARINGS, AND HARDWARE REQUIRED FOR INSTALLATION • MADE IN USA

CAM CHEST KITS FOR 2017–'19 TOURING MODELS & 2018–'19 SOFTAIL® MODELS

Cooling system	Cam	Pushrods	Part #
Oil Cooled	Chain Drive 465C	Chrome	310-1003
	Chain Drive 475C	Chrome	310-1004
	Gear Drive 465G	Chrome	310-1005
	Gear Drive 475G	Chrome	310-1006
	Chain Drive 465C	Black	310-1011
	Chain Drive 475C	Black	310-1012
	Gear Drive 465G	Black	310-1013
	Gear Drive 475G	Black	310-1014
Water Cooled	Chain Drive 465C	Chrome	310-0999
	Chain Drive 475C	Chrome	310-1000
	Gear Drive 465G	Chrome	310-1001
	Gear Drive 475G	Chrome	310-1002
	Chain Drive 465C	Black	310-1007
	Chain Drive 475C	Black	310-1008
	Gear Drive 465G	Black	310-1009
	Gear Drive 475G	Black	310-1010

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

TAPPET CUFFS

FITMENT

- 2017–'19 touring models
- 2018–'19 HD Softail® models

FEATURES AND BENEFITS

- Hard anodized black coating
- Billet aluminum construction
- Stronger material eliminates distortion
- Improve tappet stability in high lift and high rpm situations
- An easy upgrade when changing tappets or doing a cam change



TAPPET CUFFS

Fitment	Part #
2017–'19 HD® touring models 2018–'19 HD Softail® models	330-0655



PREMIUM HIGH PERFORMANCE TAPPETS


FITMENT

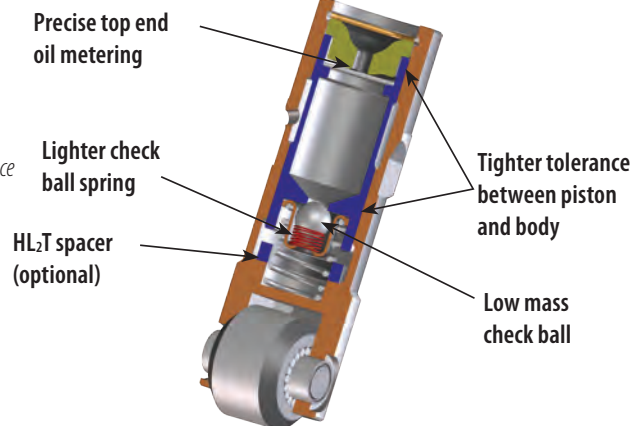
- 2017–'19 big twins with the Milwaukee-Eight® engine

FEATURES

- Reduced valve train noise from start up to shut down
- Close tolerances for low leak down rates—*fast pump up and superior high rpm performance*
- Low mass, bearing grade, silicon nitride check ball and lighter check ball spring—*enhances fast pump up and quiet operation*
- 100% tested to ensure that leak down and top end oil flow are within specification

PREMIUM HIGH PERFORMANCE TAPPETS

Tappet Sets	Part #
Set of 4 tappets with HL ₂ T kit	330-0174 
Set of 4 tappets without HL ₂ T kit	330-0175 



HIGH PERFORMANCE HYDRAULIC TAPPETS

FITMENT

- 1999–'19 big twins
- S&S T-Series engines

HIGH PERFORMANCE HYDRAULIC TAPPET SETS

Description		Part #
Standard Tappet Set (4)	Without HL ₂ T Kit	33-5350  18538-99A, 18538-99B, 18538-99C

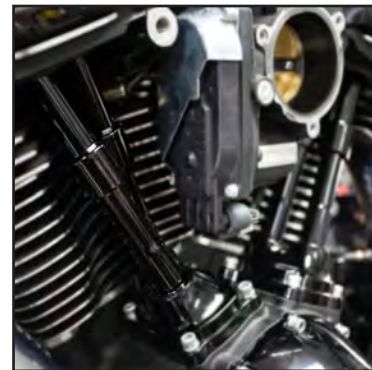
*S&S tappets with HL₂T Kit require the use of adjustable pushrods.



BLACK PUSHROD KITS

FEATURES AND BENEFITS

- Stylish black pushrod tubes enhance the look of your engine
- Great match for the black engine covers offered on some new HD models
- Quickee pushrods eliminate the need to remove the top end and cooling lines saving time and money
- Covers also available without pushrods (*requires separate purchase of keepers*)



QUICKEE PUSHROD KIT IN GLOSS BLACK FOR M8

Description	Part #
Quickee Pushrod Kit (<i>includes covers, o-rings, & cover keepers</i>)	930-0137
Cover Keeper Set	930-0138
Pushrod Cover Kit	930-0124



QUICKEE ADJUSTABLE PUSHRODS

FITMENT

- 2017–2019 big twins with the Milwaukee-Eight® engine

FEATURES AND BENEFITS

- Adjustable to accommodate all tappets and cam base circle diameters and engine heights
- Easy to install — removal of rocker box not needed
- Perfect for S&S HL₂T
- No threads on wrench flats



KIT CONTENTS

- Pushrods, chrome pushrod covers, o-rings, and cover keepers

QUICKEE ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Kit (<i>includes chrome pushrod covers, o-rings, & cover keepers</i>)	930-0123[±]
Pushrods Only	93-5122 

PUSHROD COVER KEEPER SET FOR 2017-'19 BIG TWINS WITH THE M8 ENGINE[±]

Description	Part #
Pushrod Cover Kit	106-1340
2.200"	930-0129



NOTE

S&S quickee pushrods require aftermarket tubes.

VALVE SPRINGS

FEATURES AND BENEFITS

- Works well with cams up to .605" lift
- High Performance conical single wire spring
- Kit includes: Springs, Top Collars, Keepers, Valve seal/bottom collar

VALVE SPRING KIT

Description	Part #
Valve Spring Kit for M8 2017-'19 Models	900-0958



REPLACEMENT PARTS FOR VALVE SPRING KITS

Description	Part #
Valve Keeper	900-0956
Top Collar	900-0952

S&S® OIL

FEATURES AND BENEFITS

- Ultimate protection
- Superior lubrication for reduced engine wear and lower oil temperatures
- Provides consistent viscosity, and resists thermal breakdown and oxidation at elevated temperatures
- Includes a oil drain plug o-ring for convenience

S&S® OIL CHANGE KIT

Description	Part #
2017-'19 Harley-Davidson® Models with Milwaukee-Eight® engine	3601-0492



S&S® OIL

Description	Part #
20W50 Synthetic, 1 quart	3601-0407
20W50 Synthetic, 2.5 Gallon	3601-0408
Primary, Synthetic, 1 quart	3603-0044
80W140 Gear, Synthetic, 1 quart	3604-0007

OIL FILTERS

FEATURES AND BENEFITS

- Captures smaller particles than stock filters
- Low restriction to oil flow
- Direct bypass — bypass oil does not pass over dirty filter media
- Smaller diameter for easier installation
- Black or chrome finish



S&S® OIL FILTERS

Year Application	Micron Rating	QTY	Chrome	Black
1999-'17* Twin Cam 88°/96™/103™ and Milwaukee-Eight® engines	10µ	each	31-4104A	31-4103A
		12 pack	310-0242 63798-99A	310-0241 63731-99A

*Contains an anti-drain back valve

GASKETS

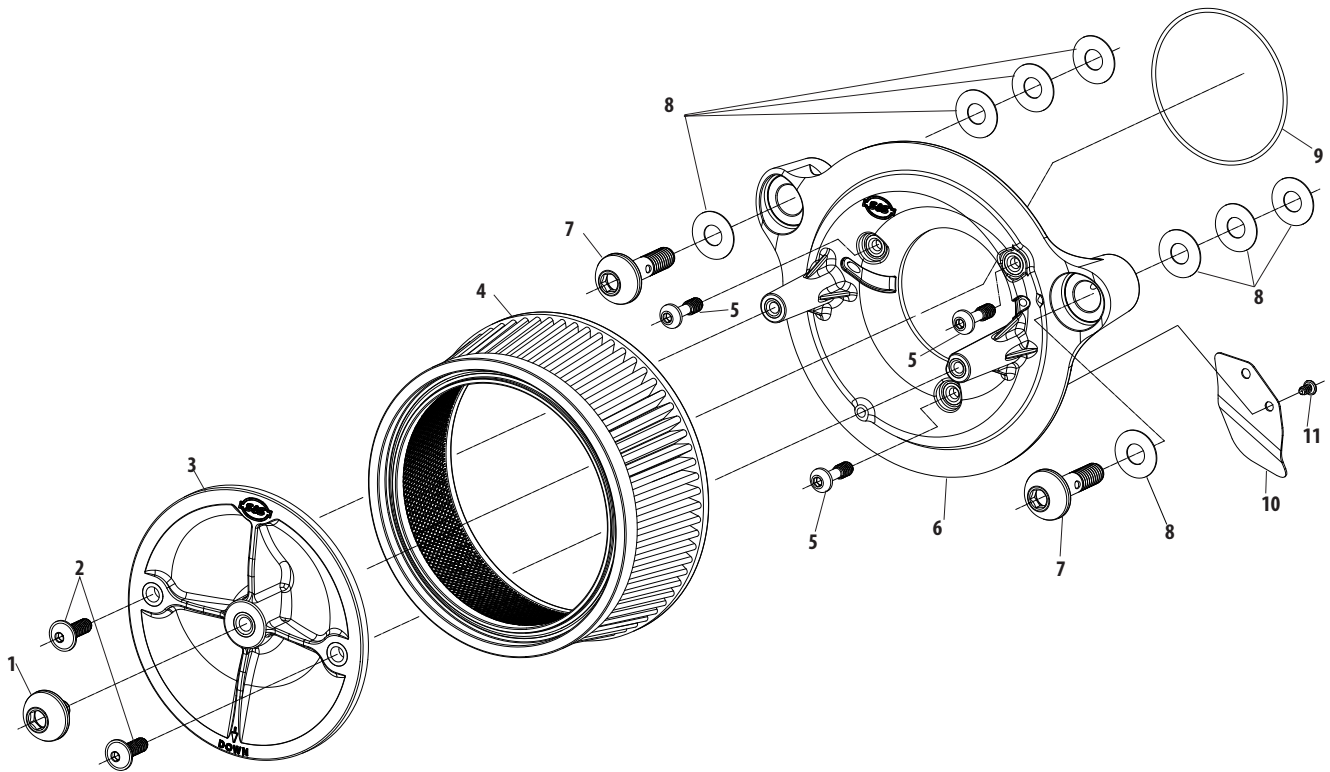
GASKETS

Cam Cover		310-0911
Exhaust Gaskets	each	106-5029
	10 pack	93-1072
Valve Stem Oil Seal, Hat Style, 6mm, M8 2017 Touring	8 pack	900-0959

STEALTH AIR CLEANER KIT REPLACEMENT PARTS

INCLUDING EC VERSIONS

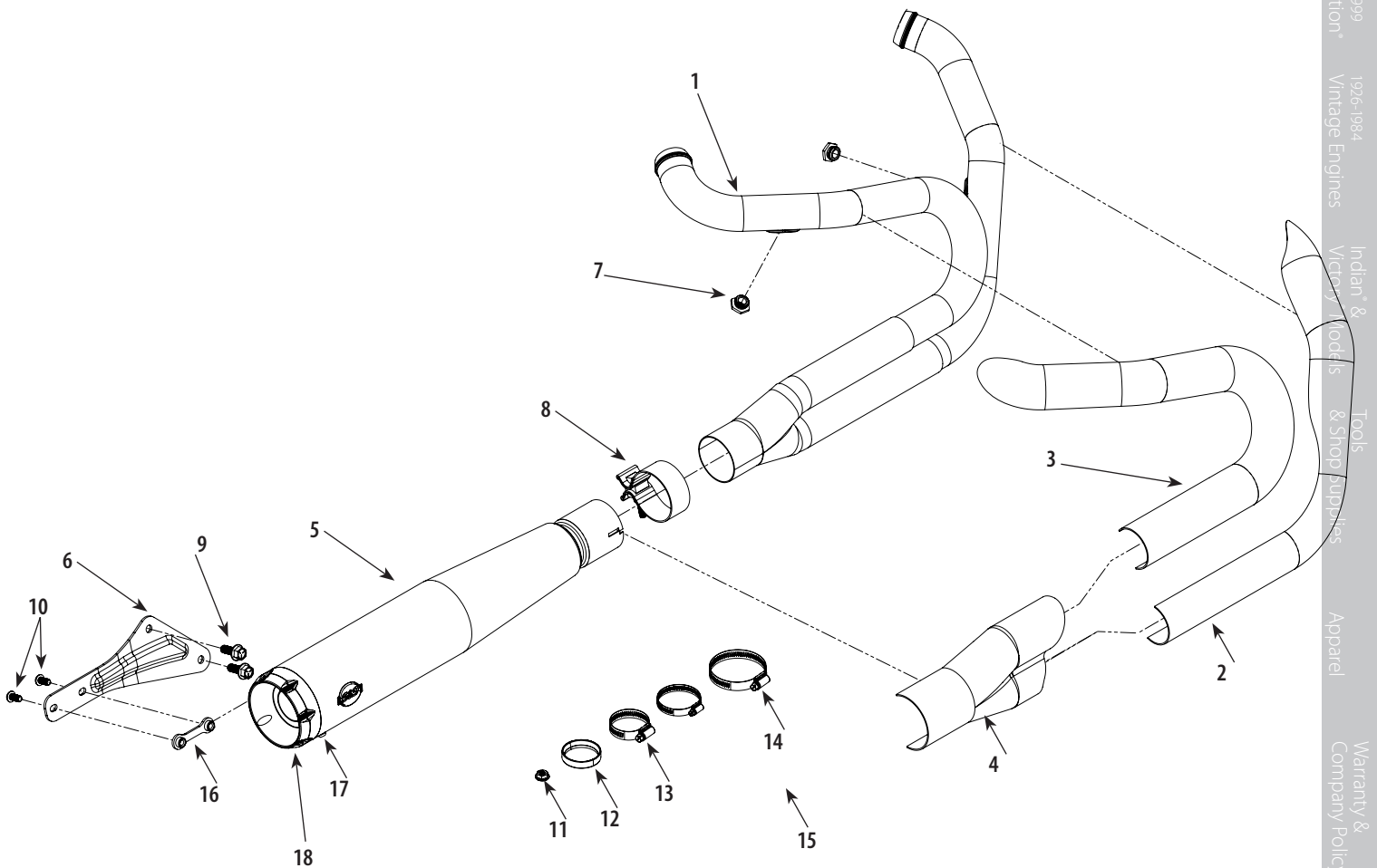
1. Screw, SHCB, 3/16-18 x .500", Polished, Stainless Steel . . . **170-0508**
2. Screw, SHC, Flanged Button, 1/4-20 UNC x .750" (Each) . . . **500-0060**
3. Plate, Top, Air Filter, Molded, Plastic **170-0026**
4. Filter, Air, Tapered, Standard Pleated,
5.500" x 6.000" x 2.375", Cotton **170-0126**
5. Screw, SHCB, 1/4-20 UNC X .825" (Each) 3 required **500-0059**
6. Backplate, Air Cleaner, Throttle by Wire, Stock Bore, Injection Molded . . .
Polymer, M8 2017 Touring **170-0353**
EC Backplate **170-0542**
7. Screw, Backplate Vent, SHCB, 3/8-16 x 1-1/2",
Polished, Stainless Steel (Each) 2 required **170-0045**
8. Washer, Flat, 7/8" x .380" x .021", Rubber Coated, Cold
Rolled Steel (Each) 8 required **50-7054**
9. O-ring, 2.75" ID x 2.875 OD, X 1/16" Buna, (-039) **50-8207-S**
10. Cover, Electrical Plug, Throttle by Wire, Aluminum
M8 2017 Touring **170-0355**
11. Screw, #10-14 x .375" Long, Plastite **500-0568**



SUPERSTREET 2:1 EXHAUST SYSTEM REPLACEMENT PARTS

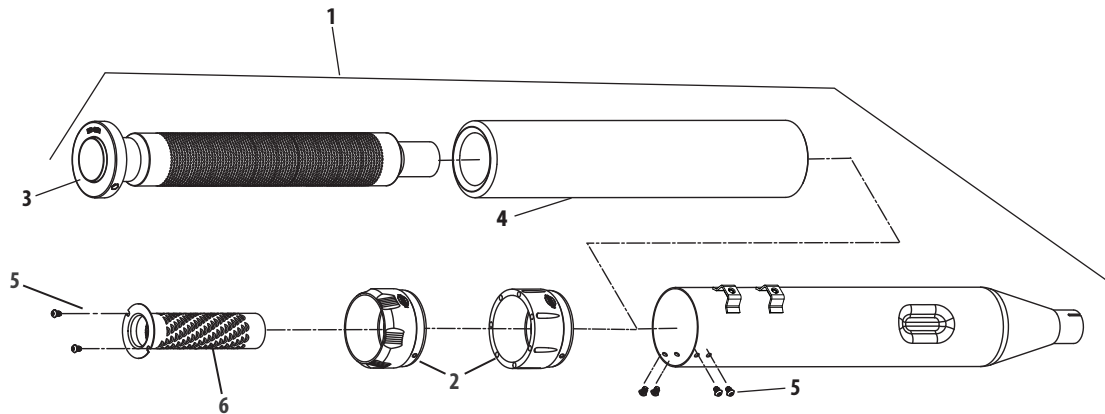
1. Pipe, Header, Super Street, 2 into 1, Weldment, M8 SOFTAIL™ EXCEPT Fat Boy™, and Breakout™ **551-0761**
2. Front Shield,
Black **551-0764**
Chrome **551-0766**
3. Rear Shield
Black **551-0769**
Chrome **551-0771**
4. Collector Shield
Black **551-0774**
Chrome **551-0776**
5. Muffler—Race
Black **551-0750**
Chrome **551-0754**
Muffler—49-State
Black **551-0751**
Chrome **551-0755**
6. Bracket, Muffler, 2 into 1, Powdercoated, Black, M8 SOFTAIL™ EXCEPT Fat Boy™, and Breakout™ **551-0734**

- Hardware kit (includes #7-15 below) **551-0735**
7. Adapter, Oxygen Sensor, 12mm to 18mm, Stainless Steel **550-0375**
 8. Muffler clamp, band style **551-0135**
 9. Screw **500-0877**
 10. Screw **500-0763**
 11. Nut, HSFH, 5/16-24 UNF-2B x .283", Zinc, Steel 7593 **50-5025-S**
 12. Gasket, Exh, Tapered, Stainless Steel 65324-838, 65324-83A **106-5029**
 13. Clamp, Hose, Worm Drive, SAE #20 **551-0527**
 14. Clamp, Hose, Worm Drive, SAE #40 **551-0402**
 15. Clamp, Hose, Worm Drive, SAE #24 **500-0791**
 16. Plate, Nut, 5/16-18 x 2", Clear, Zinc **551-0469**
 17. Screw, BHC, High Temp Lock Patch, 1/4-20 x 3/8", Stainless Steel **500-0441**
 18. Endcap, SuperStreet, Black **551-0929**
- Not Shown:**
dB Reducer **551-0063**
Screw, SHC 10-32 x 3/4 **500-0569**



Mk45 4.5" MUFFLER REPLACEMENT PARTS INCLUDING EC VERSION

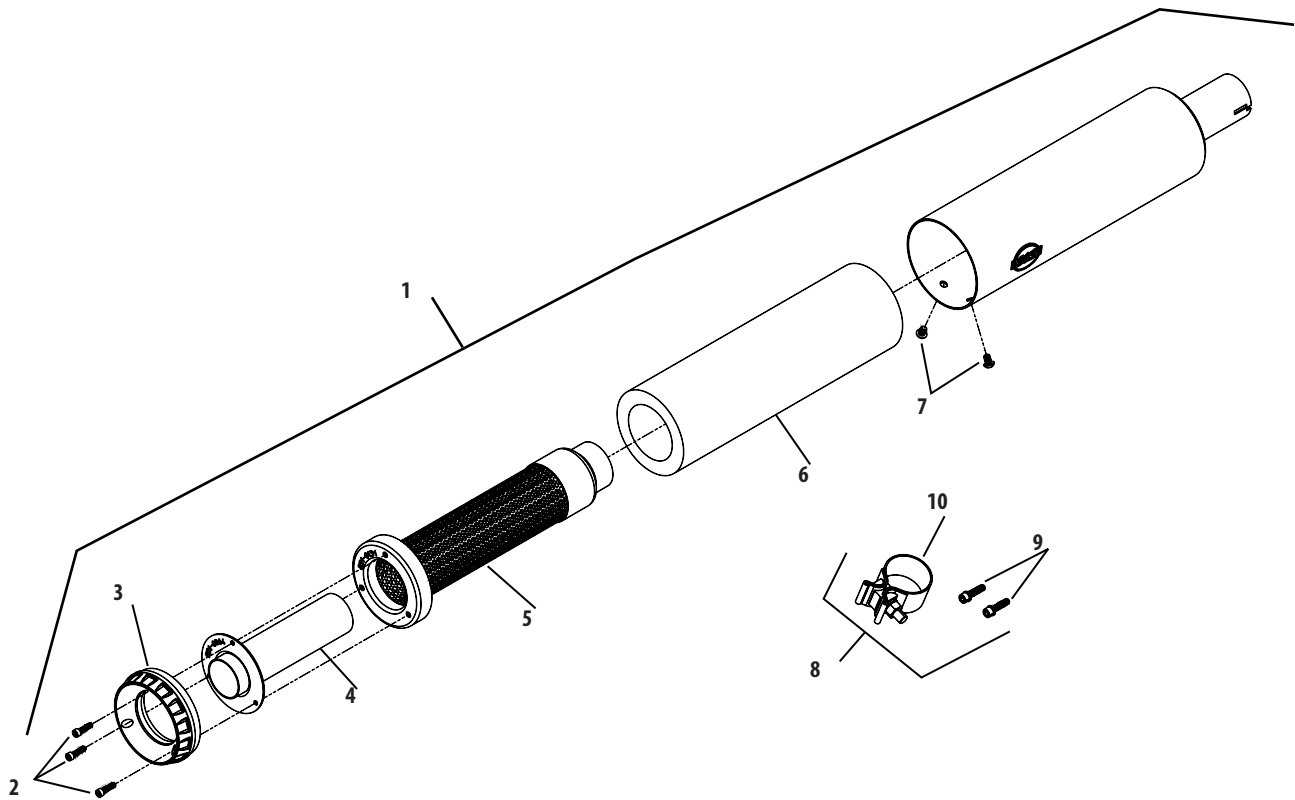
1. 4.5" Muffler assembly for 2017-'18 Models
 - Left, chrome..... **551-0149**±
 - Right chrome..... **551-0150**±
 - Left black..... **551-0151**
 - Right black..... **551-0152**
2. End cap
 - Thruster chrome..... **550-0634A**±
 - Thruster Highlight Machined..... **550-0629A**
 - Tracer chrome..... **550-0636A**±
 - Tracer Highlight Machined..... **550-0632A**
3. Main baffle assembly, 4.5" muffler for 2017-'18 Models
 - Left..... **551-0007**
 - Right..... **551-0138**
4. Insulation, 4.5" muffler..... **551-0003**
5. Button head cap screw, Stainless, ¼"-20 x ¾"..... **500-0441**
6. Baffle, Assembly, Muffler, SAE J2825..... **551-0026**
7. Hardware kit, muffler clamps and screws (N/S) 2017 Models
 - Left..... **551-0027**
 - Right..... **551-0148**



GRAND NATIONAL® MUFFLER REPLACEMENT PARTS

FOR 2018-'19 FAT BOB®

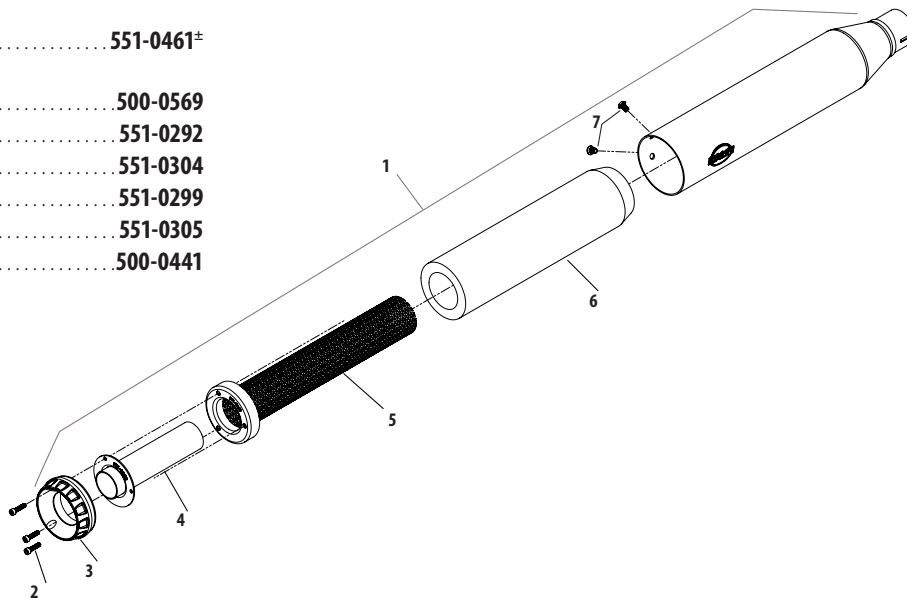
1. Muffler, Grand National, Black, 2018 M8 Fat Bob®
Front/Rear **551-0431**
2. Screw, Shc, High Temp Lock Patch, 10-32 X ¾",
Stainless Steel **500-0569**
3. 4" End Cap, Grand National, Black **551-0291**
4. dB Reducer Baffle Assembly **551-0063**
5. Baffle, Assembly **551-0422**
6. Fiberglass Wrap, Pillow, 12" X 13" **551-0276**
7. Screw, BHC, High Temp Lock Patch, ¼-20 **500-0441**
8. Hardware Kit, Muffler, 2018 M8 Fat Bob® **551-0425**
Screw, Shcs, W/ Flat Washer, ¼-20 X 1"
9. Zinc, Astm A574-92A 4741A **50-0092-S**
10. Clamp, Muffler, Band Style, 1.75" **551-0569**



GRAND NATIONAL® MUFFLER REPLACEMENT PARTS FOR 2018 SOFTAIL® MODELS (EXCEPT FAT BOB® MODELS)

1. Muffler Assembly
M8 Softail® Except Heritage® Classic and Deluxe
Top
Black **551-0440**
Chrome..... **551-0443**±
Bottom
Black **551-0452**
Chrome..... **551-0455**±
M8 Softail® Heritage® Classic and Deluxe
Chrome Front or Rear **551-0461**±
2. Screw, SHC, High Temp Lock Patch,
10-32x¾", Stainless Steel **500-0569**
3. 3.25" End Cap, Grand National, Black **551-0292**
4. dB Reducer Baffle Assembly **551-0304**
5. Baffle Assembly **551-0299**
6. Fiberglass Wrap **551-0305**
7. Screw, BHC, High Temp Lock Patch, ¼-20 **500-0441**

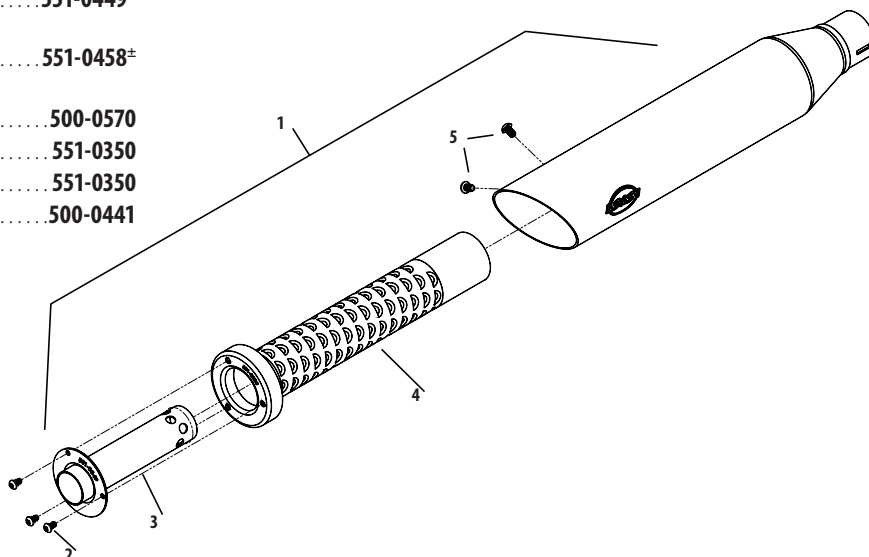
- Parts Not Shown**
8. Hardware Kit, Muffler, 2018 M8 Fat Bob® **551-0425**
 9. Screw, SHCS, w/Flat Washer, ¼-20x1" 4741A **50-0092-S**
 10. Clamp, Muffler, Band Style, 1.75" **551-0028**
 11. Muffler Gasket **551-0360**
 12. Bracket Cover (Exc. Heritage® Classic and Deluxe) **551-0538**



SLASH CUT MUFFLER REPLACEMENT PARTS FOR 2018 SOFTAIL® MODELS (EXCEPT FAT BOB® MODELS)

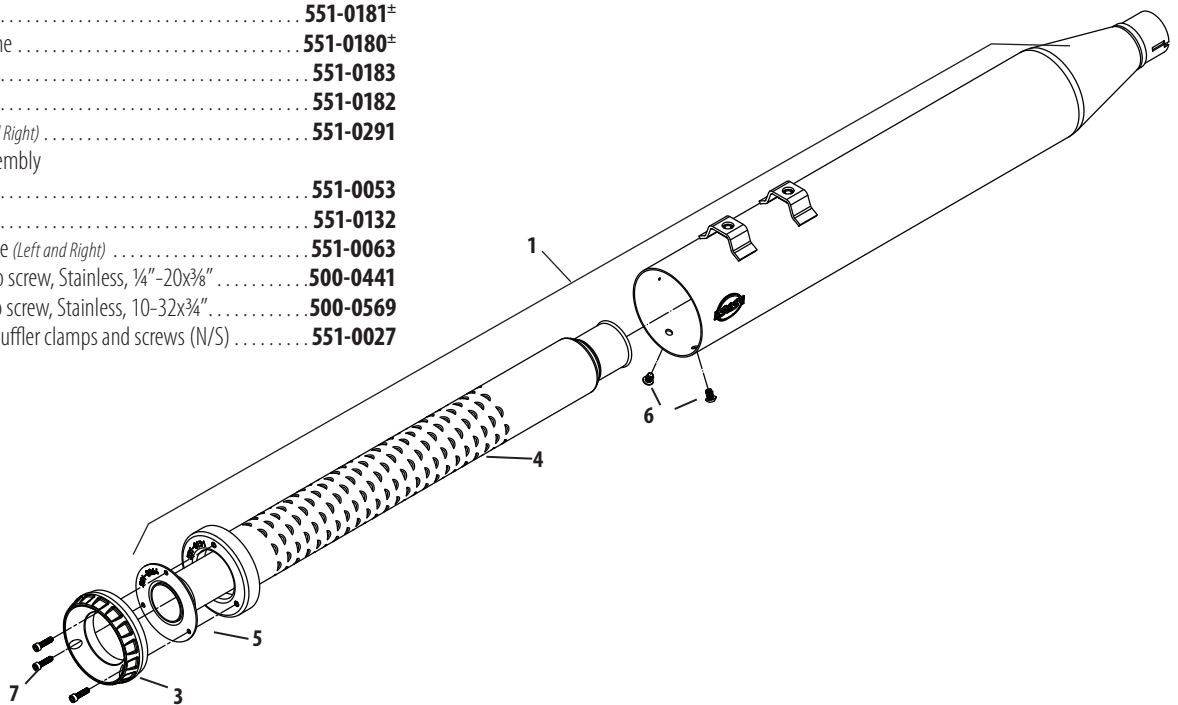
1. Muffler Assembly
M8 Softail® Except Heritage® Classic and Deluxe®
Top
Black **551-0434**
Chrome..... **551-0437**±
Bottom
Black **551-0446**
Chrome..... **551-0449**±
M8 Softail® Heritage® Classic and Deluxe®
Chrome, Front or Rear **551-0458**±
2. Screw, BHC, High Temp Lock Patch,
10-32x¾", Stainless Steel **500-0570**
3. dB Reducer Baffle Assembly **551-0350**
4. Baffle Assembly **551-0350**
5. Screw, BHC, High Temp Lock Patch, ¼-20 **500-0441**

- Parts Not Shown**
6. Hardware Kit, Muffler **551-0425**
 7. Screw, SHCS, w/Flat Washer, ¼-20x1" 4741A **50-0092-S**
 8. Clamp, Muffler, Band Style, 1.75" **551-0028**
 9. Muffler Gasket **551-0360**
 10. Bracket Cover (Exc. Heritage® Classic and Deluxe®) **551-0538**



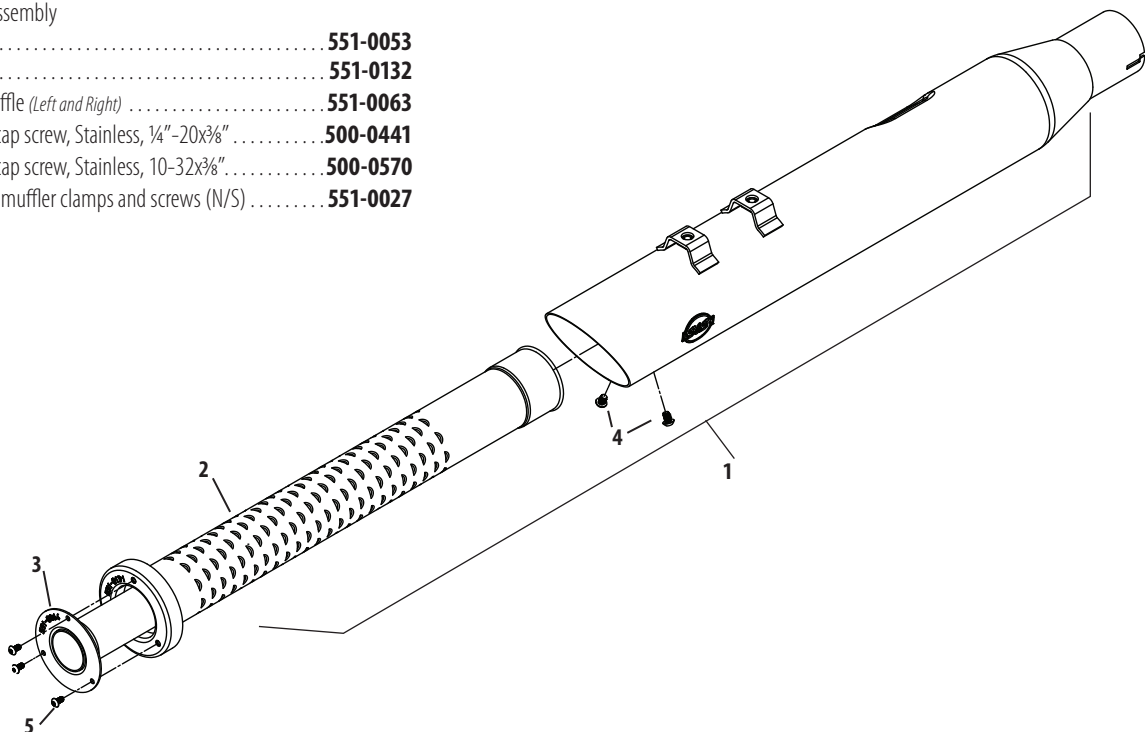
GRAND NATIONAL® 4" MUFFLERS REPLACEMENT PARTS

1. 4" Muffler assembly with Grand National end cap
 - Left, Chrome..... **551-0181**±
 - Right, Chrome..... **551-0180**±
 - Left, Black..... **551-0183**
 - Right, Black..... **551-0182**
3. End Cap (Left and Right)..... **551-0291**
4. Main baffle assembly
 - Left..... **551-0053**
 - Right..... **551-0132**
5. dB reducer baffle (Left and Right)..... **551-0063**
6. Button head cap screw, Stainless, 1/4"-20x3/8"..... **500-0441**
7. Socket head cap screw, Stainless, 10-32x3/4"..... **500-0569**
9. Hardware kit, muffler clamps and screws (N/S)..... **551-0027**



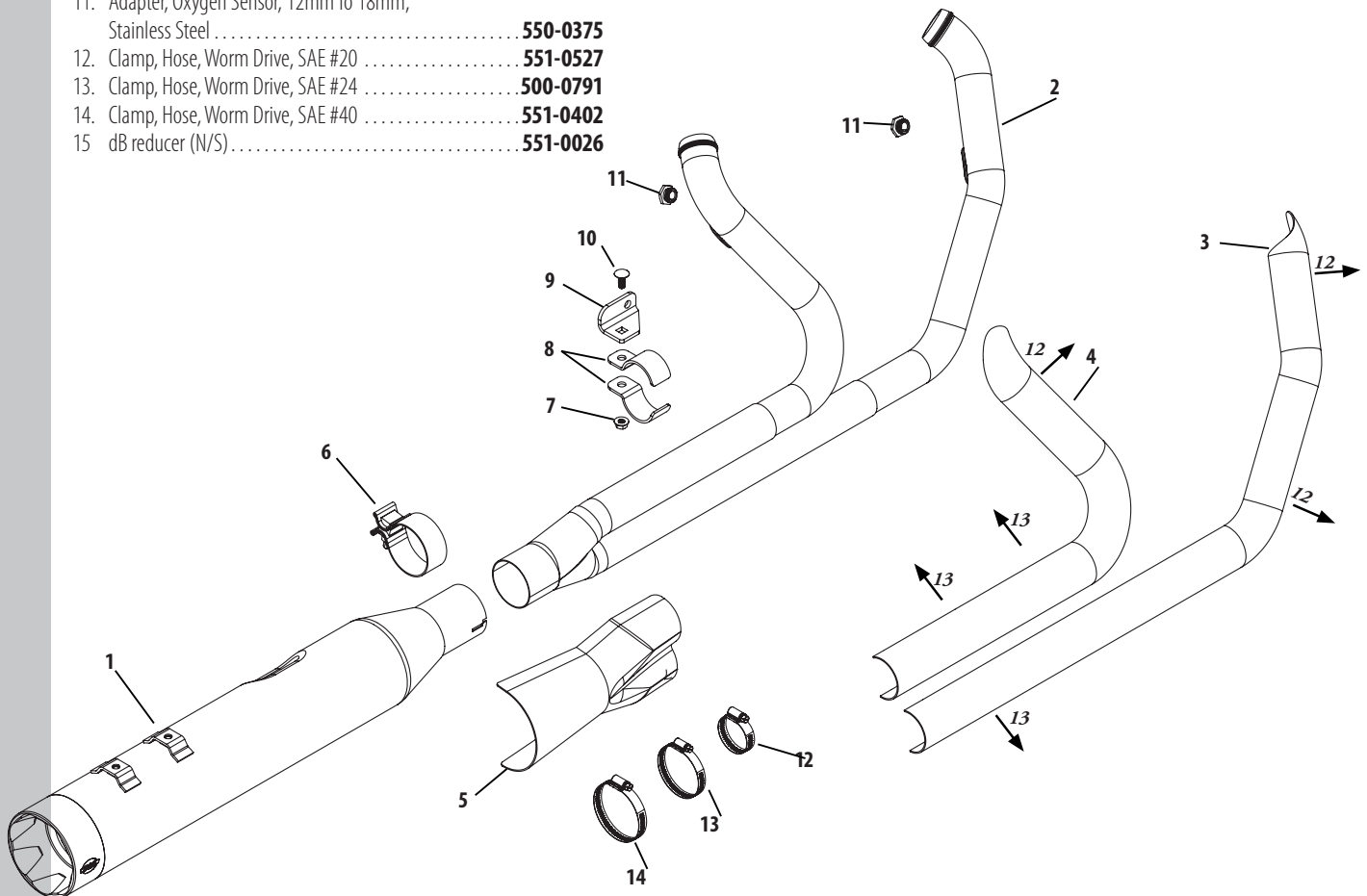
SLASH CUT 4" MUFFLERS REPLACEMENT PARTS

1. 4" Muffler assembly Slash Down
 - Left, Chrome..... **551-0185**±
 - Right, Chrome..... **551-0184**±
 - Left, Black..... **551-0187**
 - Right, Black..... **551-0186**
2. Main baffle assembly
 - Left..... **551-0053**
 - Right..... **551-0132**
3. dB reducer baffle (Left and Right)..... **551-0063**
4. Button head cap screw, Stainless, 1/4"-20x3/8"..... **500-0441**
5. Button head cap screw, Stainless, 10-32x3/8"..... **500-0570**
6. Hardware kit, muffler clamps and screws (N/S)..... **551-0027**



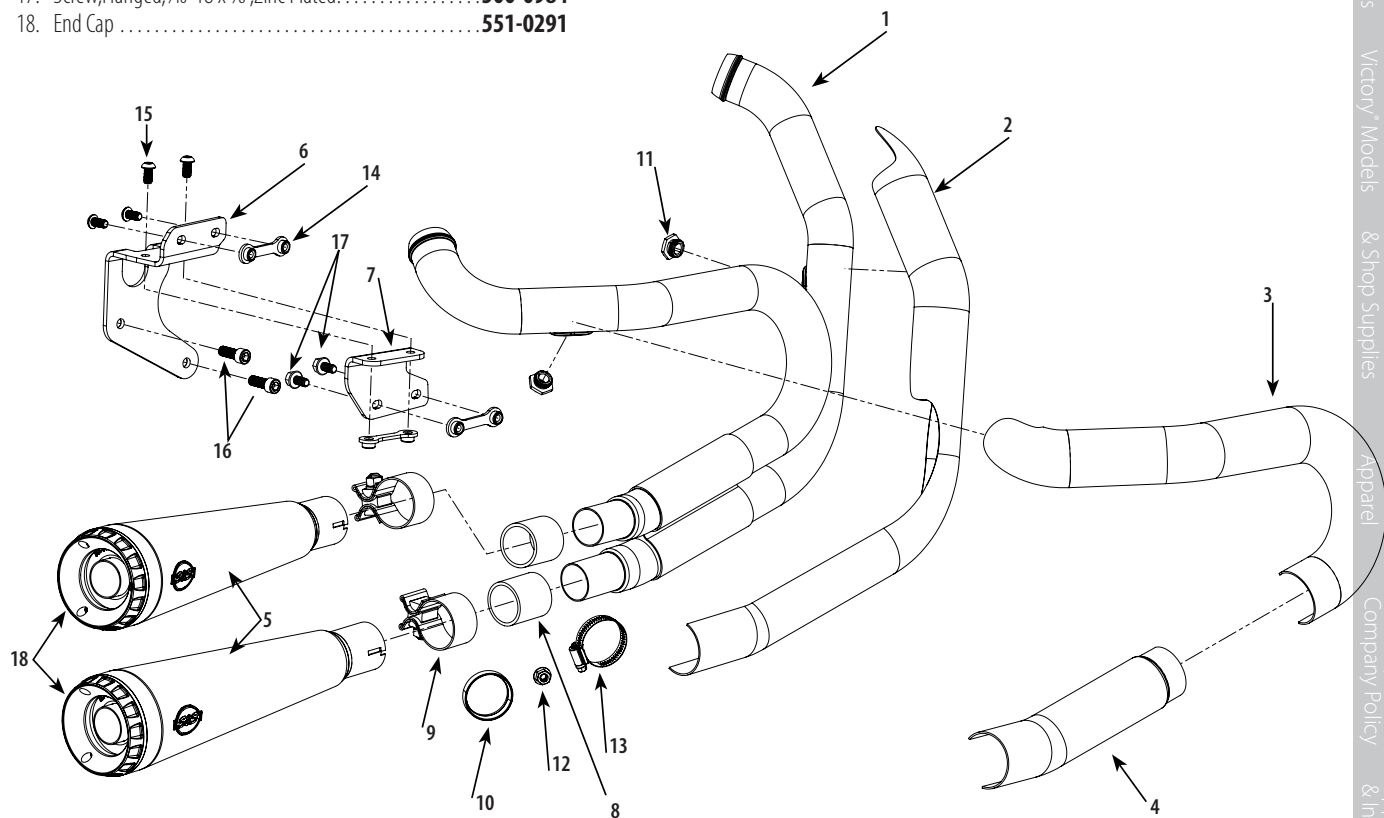
SIDEWINDER 2:1 EXHAUST SYSTEM REPLACEMENT PARTS

1. Muffler, Assembly, 2 Into 1, 2017-'18 M8 Touring
 Chrome..... **551-0529±**
 Black..... **551-0530**
 50-State, Chrome..... **551-0529A±**
 50-State, Black..... **551-0530A**
2. Header, Assembly, Weldment, 2017-'18 M8 Touring..... **551-0367**
3. Shield, Front, Heat, 2017-'18 M8 Touring
 Chrome..... **551-0385±**
 Black..... **551-0387**
4. Shield, Rear, Heat, 2017-'18 M8 Touring
 Chrome..... **551-0391±**
 Black..... **551-0393**
5. Collector, Heat Shield, 2017-'18 M8 Touring
 Chrome..... **551-0379±**
 Black..... **551-0381**
6. Clamp, Muffler, Band Style, 2.5"..... **551-0135**
7. Nut, Flanged, Serrated, 5/16-18..... **50-5053-S**
8. Bracket, Header Mount, 2 Into 1, Powdercoated,
 2017-'18 M8 Touring..... **551-0397**
9. Clamp, Header Mount, 2 Into 1, Chrome Plate,
 Mild Steel, 11 Gauge, 2017-'18 M8 Touring..... **551-0361±**
10. Bolt, Carriage, 5/16-18 X 3/4"..... **500-0555**
11. Adapter, Oxygen Sensor, 12mm To 18mm,
 Stainless Steel..... **550-0375**
12. Clamp, Hose, Worm Drive, SAE #20..... **551-0527**
13. Clamp, Hose, Worm Drive, SAE #24..... **500-0791**
14. Clamp, Hose, Worm Drive, SAE #40..... **551-0402**
15. dB reducer (N/S)..... **551-0026**



GRAND NATIONAL® 2:2 EXHAUST SYSTEM REPLACEMENT PARTS

1. Pipe, Header, 2 Into 2, Weldment, M8 SOFTAIL..... **551-0547**
2. Front Shield,
Black..... **551-0551**
Chrome..... **551-0553[±]**
3. Rear Shield,
Black..... **551-0557**
Chrome..... **551-0559[±]**
4. Lower Rear Shield,
Black..... **551-0661**
Chrome..... **551-0663[±]**
5. Muffler Body,
Race
Black..... **551-0474**
Chrome..... **551-0477[±]**
49-state compliant
Black..... **551-0726**
Chrome..... **551-0727[±]**
6. Bracket, Mounting, 2 Into 2, Black, M8 Softail®..... **551-0562**
7. Bracket, Bottom, Mounting, 2 Into 2, Black..... **551-0563**
8. Gasket, Muffler, 3.25", 2018 M8 Softail®..... **551-0360**
9. Clamp, Muffler, Band Style, 1.75"..... **551-0028**
10. Gasket, Exhaust, Tapered, Stainless Steel,
1984-up bt, 1986-up xl..... **106-5029**
11. Adapter, Oxygen Sensor, 12mm to 18mm, Stainless Steel..... **550-0375**
12. Nut, HSFH, 5/16-18 UNC-2B x .283", Zinc, Steel..... **50-5053-S**
13. Clamp, Hose, Worm Drive, SAE #20..... **551-0527**
14. Plate, Nut, 5/16-18 x 2", Clear, Zinc..... **551-0469**
15. Screw, bhc, 5/16-18 x 5/8", Zinc Plated..... **551-0763**
16. Screw, SHCS, 3/8-16 x 1"..... **50-0161**
17. Screw, Flanged, 5/16-18 x 5/8", Zinc Plated..... **500-0984**
18. End Cap..... **551-0291**



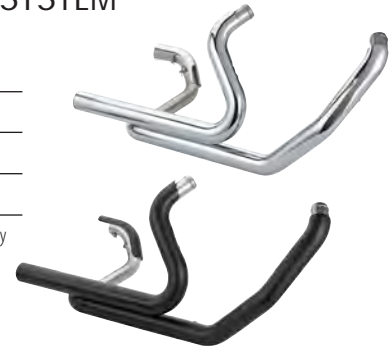
Milwaukee
Eight®
2007-2017
Twin Cam
96"/103"/110"
1999-2006
Twin Cam 88"
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod™
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

POWER TUNE® DUAL REPLACEMENT HEADER SYSTEM FOR EL DORADO 50-STATE M8 HIGH PERFORMANCE EXHAUST SYSTEM

REPLACEMENT HEADER FOR EL DORADO 50-STATE M8 HIGH PERFORMANCE EXHAUST SYSTEM

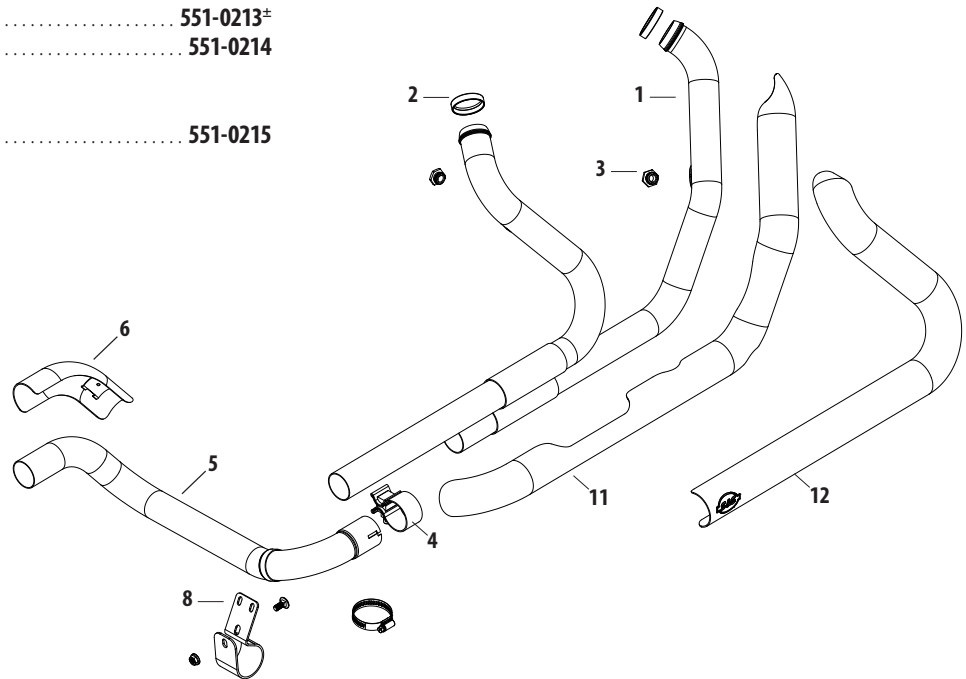
Finish	Part #
Chrome	550-0704±
Black	550-0705

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.
This part is emissions compliant only when used as part of a complete El Dorado exhaust package.



POWER TUNE® DUAL HEADER REPLACEMENT PARTS FOR EL DORADO 50-STATE M8 HIGH PERFORMANCE EXHAUST SYSTEM

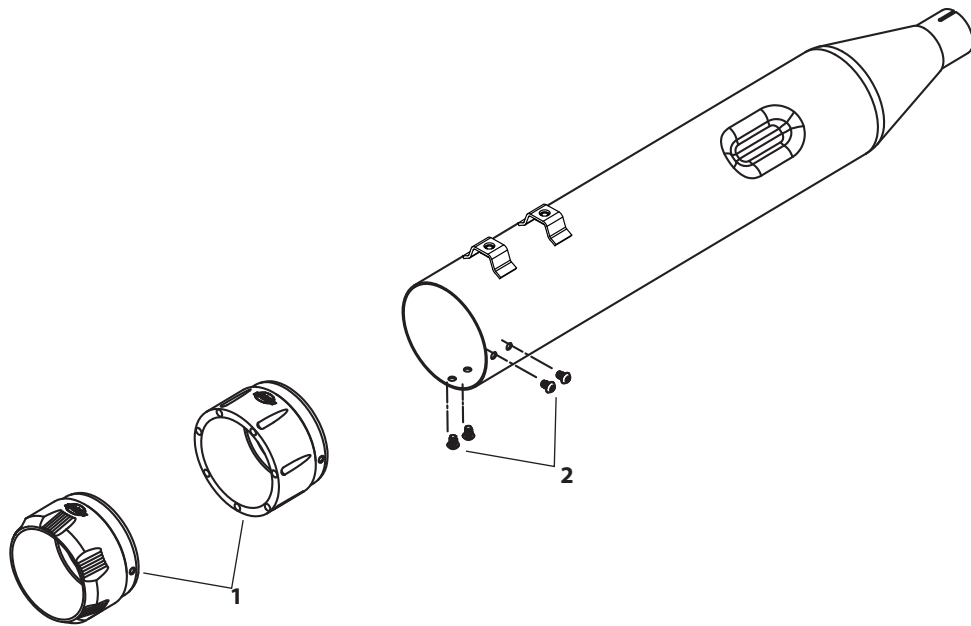
- 1. Pipe, header, power tune dual, header pipe weldment **551-0198**
- 2. Gasket, exhaust, tapered, stainless steel, (2 Req.) **106-5029**
- 3. Adapter, oxygen sensor, 12mm to 18mm, stainless steel (2 Req.) **550-0375**
- 4. Clamp, muffler, band style **551-0028**
- 5. Tube, crossover, power tune dual, formed, **551-0229**
- 6. Shield, left, power tune dual,
 Chrome **551-0115±**
 Black **551-0116**
- 7. Nut, HSFH, 5/16-18 UNC-2b x .283", Zinc steel **50-5053-S**
- 8. Clamp, p-style, crossover, power tune dual header **551-0121**
- 9. Bolt, carriage, 5/16"-18 x 3/4" **500-0555**
- 10. Clamp, hose (8 Req.) **551-0124**
- 11. Shield, front, power tune dual,
 Chrome **551-0206±**
 Black **551-0207**
- 12. Shield, rear, power tune dual,
 Chrome **551-0213±**
 Black **551-0214**
- Not Shown
Hardware kit, power tune dual, header
Includes items 2, 3, 4, 7, 8, and 9 **551-0215**



Mk 45 REPLACEMENT MUFFLER SYSTEM

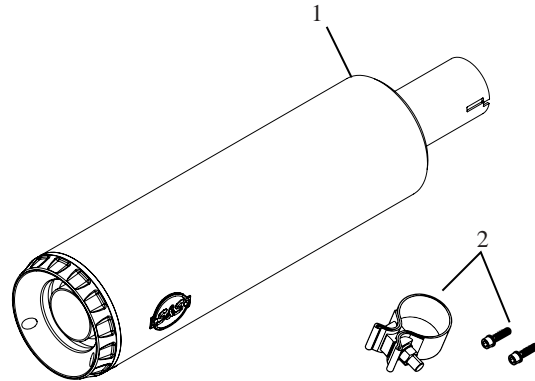
FOR EL DORADO 50-STATE M8 HIGH PERFORMANCE EXHAUST SYSTEM

1. End cap
 Thruster Highlight Machined..... **550-0629A**
 Tracer Highlight Machined..... **550-0632A**
2. Button head cap screw, Stainless, ¼" -20 x ¾" **500-0441**
3. Hardware kit, muffler clamps and screws (N/S) **551-0027**



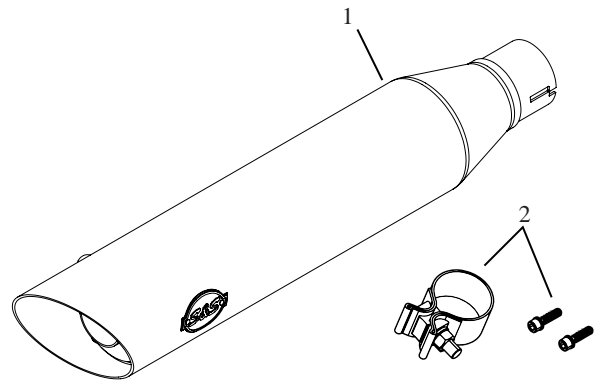
GRAND NARIONAL® EC SLIP-ON MUFFLER REPLACEMENT PARTS

- 1. Muffler
 - Upper, Black,
Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® **551-0946**
 - Lower, Black,
Street Bob, Low Rider, Slim, Fat Boy & Breakout **551-0948**
 - Upper, Chrome,
Street Bob, Low Rider, Slim, Fat Boy & Breakout **551-0947**
 - Lower, Chrome,
Street Bob, Low Rider, Slim, Fat Boy & Breakout **551-0949**
 - Chrome, Heritage® and Deluxe **551-0950**
- 2. Hardware Kit **551-0425**
- 3. Gasket (N/S) **551-0360**



SLASH-CUT EC SLIP-ON MUFFLER REPLACEMENT PARTS

- 1. Muffler
 - Upper, Black,
Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® **551-0941**
 - Lower, Black,
Street Bob, Low Rider, Slim, Fat Boy & Breakout **551-0943**
 - Upper, Chrome,
Street Bob, Low Rider, Slim, Fat Boy & Breakout **551-0942**
 - Lower, Chrome,
Street Bob, Low Rider, Slim, Fat Boy & Breakout **551-0944**
 - Chrome, Heritage and Deluxe **551-0945**
- 2. Hardware Kit **551-0425**
- 3. Gasket (N/S) **551-0360**



2007–2017 BIG TWINS

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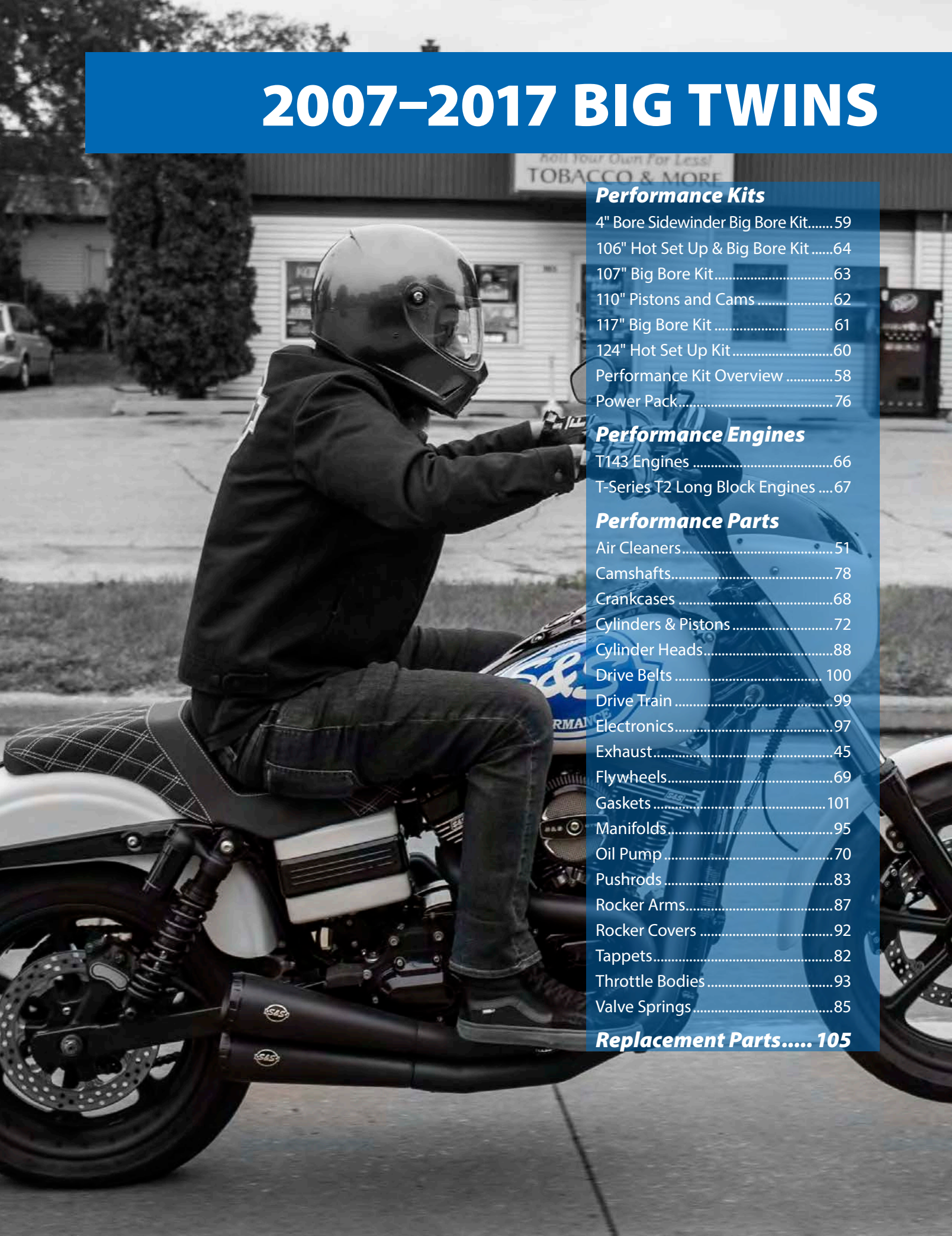
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SIDEWINDER® 2:1 EXHAUST

FOR 1995–'16 TOURING MODELS



- 2-1 styling for high-performance baggers
- High-flow cat (550-0771A & 550-0772A)
- Increased power and torque
- Available in Show Chrome or Ceramic Black Finish
- Machined aluminum endcap
- Includes adapters that allow use of wide band or stock O2 sensors
- Stainless steel header construction
- Some fitments 50-State Legal: CARB EO# K-010-3
- Removable dB reducer included
- Made in the USA!



SIDEWINDER® 2-1 EXHAUST SYSTEM FOR 2007–2016 FL MODELS — 50-STATE COMPLIANT†

Finish	Part #
Chrome with Black Highlighted Machined End Cap	550-0771A‡
Black with Black Highlighted Machined End Cap	550-0772A

SIDEWINDER® 2-1 EXHAUST SYSTEM FOR 1995–'09 FL MODELS — 1995–'03, 2007 FL MODELS — CA EMISSIONS LEGAL††

Chrome with Black Highlighted Machined End Cap	550-0776‡
Black with Black Highlighted Machined End Cap	550-0777

†Exempt from emissions tampering regulations under CARB EO# K-010-3 for all 2007-2016 FL touring models

††DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on EPA pollution controlled vehicles originally equipped with catalyst. Qualified manufacturer declared emissions replacement part on FL touring models listed below.

California Models:

Fuel Injected Non-CVO FL Touring Model Years: 1995-2003 and 2007

CVO FL Touring Model Years: 2000-2003

49 State Models:

Fuel Injected Non-CVO FL Touring Model Years: 1995-2005 and 2007-2009

CVO FL Touring Model Years: 2000-2005



REPLACEMENT PARTS: [SEE PAGE 134](#)

GRAND NATIONAL® 2 INTO 2 EXHAUST SYSTEM FOR DYNA® MODELS

FITMENT

- 2006–2017 Dyna® models

FEATURES AND BENEFITS

- 2:2 Free-flow design equals solid HP gains
- Hidden crossover provides performance benefits of 2:1
- Full heat shields on both front and rear headers
- Stainless steel header construction
- Race inspired Grand National end cap
- Available in chrome or black ceramic finish
- Oxygen sensor ports allow use of wide band or stock O2 sensors.
- SAE J2825 Sound Level Compliant
- Removable dB reducers
- Made in USA!



Removable dB reducer

GRAND NATIONAL® 2:2 EXHAUST SYSTEM FOR 2006–2007 DYNA® MODELS

Finish	Part #
Chrome	550-0743 [±]
Black	550-0742

GRAND NATIONAL® 2:2 EXHAUST SYSTEM FOR 2008–2017 DYNA® MODELS — RACE ONLY

Chrome	550-0743 [±]
Black	550-0742

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED MOTORCYCLES ORIGINALLY EQUIPPED WITH CATALYST.

*QUALIFIED MANUFACTURER DECLARED EMISSIONS REPLACEMENT PART ON THE DYNA MODELS LISTED BELOW.

CALIFORNIA MODELS: MY 2006-2007, EXCEPT CVO MODELS

49 STATE MODELS: MY 2006-2009, EXCEPT CVO MODELS



REPLACEMENT PARTS: SEE PAGE 135

EL DORADO TOURING EXHAUST SYSTEM

MK45 MUFFLER/HEADER PACKAGE

FITMENT

- 2009–'16 Touring Models

FEATURES AND BENEFITS

- Improved power and torque
- Deep bass rumble throughout the RPM range
- Stainless steel header construction
- Includes adapters for OE or wide band O2 sensors
- O2 sensor location same as stock
- 50-state legal CARB EO# K-010
- SAE J2825 Sound Level Compliant
- High Flow Cats increase exhaust flow for optimum torque
- Catalysts located in mufflers moves heat away from rider
- Show chrome or black ceramic finish
- Highlight Machined Thruster or Tracer end caps
- Made in USA!



Black w/Thruster



Chrome w/Thruster



Black w/Tracer



Chrome w/Machined Tracer

EL DORADO 50-STATE COMPLIANT EXHAUST SYSTEM FOR 2009–2016 TOURING MODELS

Description/Finish	End Cap	Part #
Chrome	Highlight Machined Thruster	550-0677A[±]
Chrome	Highlight Machined Tracer	550-0678A[±]
Black	Highlight Machined Thruster	550-0679A
Black	Highlight Machined Tracer	550-0680A

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# K-010 FOR ALL 2007-2016 FL TOURING MODELS

SLASH CUT SLIP-ON MUFFLERS FOR DYNA® MODELS

FITMENT

- 1995–2009 Dyna® models with staggered exhaust
- 2008–17 Dyna® models with 2-1-2 exhaust

FEATURES AND BENEFITS

- Up to 16% more horsepower and 10% more torque (*when used with Stealth Air Cleaner Kit*)
- Wake up your bike without breaking your budget
- Classic slash cut styling
- Show chrome or black ceramic finish
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



SLASH CUT MUFFLERS FOR 1995–2009 DYNA® MODELS WITH STAGGERED EXHAUST*

Finish	Part #
Chrome	550-0718 [‡]
Black	550-0720

SLASH CUT MUFFLERS FOR 2008–2017 DYNA® MODELS WITH 2-1-2 EXHAUST**

Chrome	550-0722 [‡]
Black	550-0724

[‡]DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below. California Models: MY 2006–2007, Except CVO models. 49 State Models: MY 1995–2009, Except CVO models

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below. California Models: Fat Bob MY 2008, 2010–2017; Wide Glide MY 2010–2017; Low Rider S MY 2017. 49 State Models: Fat Bob MY 2008–2017; Wide Glide MY 2010–2017; Low Rider S MY 2017

REPLACEMENT PARTS: SEE PAGE 130

GRAND NATIONAL® SLIP-ON MUFFLERS FOR DYNA® MODELS

FITMENT

- 1995–2009 Dyna® models with staggered exhaust

FEATURES AND BENEFITS

- Up to 17% more horsepower and 9% more torque (when used with Stealth Air Cleaner Kit)
- Race inspired Grand National end caps
- Show chrome or black ceramic finish
- Deep performance rumble
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



GRAND NATIONAL® MUFFLERS FOR 1995–2009 DYNA® MODELS WITH STAGGERED EXHAUST†

Finish	Part #
Chrome	550-0719‡
Black	550-0721

GRAND NATIONAL MUFFLERS FOR 2008–2017 DYNA® MODELS WITH 2-1-2 EXHAUST**

Chrome	550-0723‡
Black	550-0725

†DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below. California Models: MY 2006-2007, Except CVO models. 49 State Models: MY 1995-2009, Except CVO models

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below. California Models: Fat Bob MY 2008, 2010-2017; Wide Glide MY 2010-2017; Low Rider S MY 2017. 49 State Models: Fat Bob MY 2008-2017; Wide Glide MY 2010-2017; Low Rider S MY 2017

REPLACEMENT PARTS: SEE PAGE 131

Mk45 TOURING MUFFLERS

Mk45 4.5" Touring Mufflers are the result of decades of riding, racing and tuning. Combining both a stainless steel baffle and fiberglass packing, they create a deep rumble and improved horsepower and torque, all while adding a unique look with styled aluminum end caps.

FITMENT

- 1995–2016 touring models

FEATURES AND BENEFITS

- 7 horsepower gain*
- Bold 4.5" design — with stainless steel baffle and RaceTEX cartridge packing
- Available in show quality chrome or black ceramic finish
- Choose from S&S® Thruster or Tracer end-cap designs in chrome or black
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!

*Tested with S&S Power Tune® Dual Header and Stealth Air Cleaner Kit



MK45 4.5" TOURING MUFFLERS W/END CAPS

Muffler Body Finish	End Cap Finish & Style	Part #
Chrome	Chrome Thruster	550-0620 [±]
	Black Highlight Machined Thruster	550-0619 [±]
	Chrome Tracer	550-0624 [±]
	Black Highlight Machined Tracer	550-0623 [±]
Black Ceramic	Chrome Thruster	550-0622 [±]
	Black Highlight Machined Thruster	550-0621
	Chrome Tracer	550-0626 [±]
	Black Highlight Machined Tracer	550-0625

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED MOTORCYCLES ORIGINALLY EQUIPPED WITH MUFFLERS CONTAINING CATALYST.

*QUALIFIED MANUFACTURER DECLARED EMISSIONS REPLACEMENT PART ON THE FL TOURING MODELS LISTED BELOW.

CALIFORNIA FL TOURING MODELS: FUEL INJECTED MY 1995-2003, 2007, AND 2009-2016; CVO MY 2000-2003, AND 2009-2016.

49 STATE FL TOURING MODELS: CARBURETED MY 1995-2005; FUEL INJECTED MY 1995-2005, AND 2007-2016; CVO MY 2000-2005, AND 2009-2016



Removable dB reducer



550-0620[±]



550-0619[±]



550-0624[±]



550-0623[±]



550-0622[±]



550-0621



550-0626[±]



550-0625

REPLACEMENT PARTS: SEE PAGE 132

SLASH CUT 4" SLIP-ON MUFFLERS

FITMENT

- 1995–2016 Harley-Davidson® touring models with non-catalyst mufflers
- 2009–'19 Tri Glide® models

FEATURES AND BENEFITS

- Available in show chrome or black ceramic finish
- Show quality chrome or black ceramic finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant w
- Removable dB reducer
- Made in USA!



Removable dB reducer

SLASH CUT 4" TOURING MUFFLERS FOR 1995–2016 BIG TWINS AND 2009–'19 TRI GLIDE® MODELS

Finish	Part #
Chrome	550-0691±
Black	550-0692

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified manufacturer declared emissions replacement part on the FL touring models listed below. California FL Touring Models: Fuel Injected MY 1995–2003, 2007, and 2009–2017; CVO MY 2000–2003, and 2009–2017, 49 State FL touring Models: Carbureted MY 1995–2005; Fuel Injected MY 1995–2005, and 2007–2017; CVO MY 2000–2005, and 2009–2017

REPLACEMENT PARTS: [SEE PAGE 133](#)

GRAND NATIONAL® 4" SLIP-ON MUFFLERS

FITMENT

- 1995–2016 Harley-Davidson® touring models with non-catalyst mufflers (except 2010 Road Glide® and Street Glide® using OEM 2-1 Header)
- 2009–'19 Tri Glide® models

FEATURES AND BENEFITS

- Show quality chrome or black ceramic finish
- Race inspired Grand National end cap
- High flow baffle
- Aggressive sound & excellent HP
- SAE J2825 Sound Level Compliant
- 50-state legal on most models
- Removable dB reducer
- Made in USA!



Removable dB reducer



Grand National

GRAND NATIONAL® 4" MUFFLERS FOR 1995–2016 BIG TWINS AND 2017–'19 TRI GLIDE® MODELS

Finish	Part #
Chrome	550-0689 [±]
Black	550-0690

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified manufacturer declared emissions replacement part on the FL touring models listed below. California FL Touring Models: Fuel Injected MY 1995-2003, 2007, and 2009-2016; CVO MY 2000-2003, and 2009-2016, 49 State FL touring Models: Carbureted MY 1995-2005; Fuel Injected MY 1995-2005, and 2007-2016; CVO MY 2000-2005, and 2009-2016

REPLACEMENT PARTS: [SEE PAGE 133](#)

POWER TUNE® DUAL HEADERS

FITMENT

- Non-catalyst equipped Harley-Davidson® touring models†
- Harley-Davidson® Tri Glide® models††

FEATURES AND BENEFITS

- Adds up to 8 horsepower over stock header pipes
- Independent dual look with hidden crossover
- Exclusive design moves the rear cylinder header away from the passenger to reduce radiated heat
- Full chrome or black ceramic heat shielding with 220° coverage
- Updated styling to give the bike a modern look
- Oxygen sensor bungs†
- Durable 16 gauge construction
- Spherical inlet design for improved sealing and exhaust gasket durability
- Hardware included to mount crossover pipe
- Compatible with all equal size inlet slip-on mufflers
- Exhaust port gaskets included
- All hardware included
- Made in USA!



550-0003A±



550-0142A

NOTES

Fuel injection tuning is not required with this product but is highly recommended for best results.

2010 Road Glide® and Street Glide® using OEM 2-1 Header require 1 of each HD® part 65723-85 mounting bracket and 65724-85A rubber mount for left side muffler mounting.

POWER TUNE® DUAL HEADERS

Fitment	Finish	Part #
1995–'08† big twins	Chrome ±	550-0003A**
	Black	550-0142A**
2009–'16 non-catalyst equipped touring and 2009–'18 Tri Glide†† models	Chrome ±	550-0004B***
	Black	550-0143B***

†Has 18mm sensor fittings in the stock locations for 2007–'08 bikes. If not equipped with oxygen sensors, the ports can be used for tuning. Plugs are included if ports are not used.

††Requires the Trike Adaptor Kit. See chart below.

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED VEHICLES ORIGINALLY EQUIPPED WITH CATALYST.

*QUALIFIED MANUFACTURER DECLARED EMISSIONS REPLACEMENT PART ON FL TOURING MODELS LISTED BELOW.

CALIFORNIA MODELS: FL TOURING FUEL INJECTED MY 1995-2003, AND 2007. CVO FL TOURING MY 2000-2003.

49 STATE MODELS: FL TOURING CARBURETED MY 1995-2005. FL TOURING FUEL INJECTED MY 1995-2005 AND 2007-2008. CVO FL TOURING MY 2000-2005.

***DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED MOTORCYCLES ORIGINALLY EQUIPPED WITH A CATALYST EXHAUST

*QUALIFIED MANUFACTURER DECLARED EMISSIONS COMPLIANT PART FOR 2009 HARLEY-DAVIDSON 49-STATE NON-CVO FL TOURING MODELS ONLY



††TRIKE ADAPTOR KIT±

Fitment	Finish	Part #
2009, 2014–'16 Tri Glide® models	Chrome	550-0799

REPLACEMENT PARTS: SEE PAGE 136

SPECIAL NOTES

It may be necessary to re-jet the carburetor or recalibrate the fuel injection system for best performance when a change is made in the exhaust system.

Dyno results are from tests performed at the S&S® Research and Development facility in Viola, Wisconsin.

Exhaust Noise Disclaimer: Unless noted, S&S exhaust components do not meet U.S. EPA noise standards and may be restricted to closed course competition use. Check local noise ordinances before use.



STEALTH TEARDROP AIR CLEANER KITS



FEATURES AND BENEFITS

- Iconic look
- Same size as the original
- Traditional dimpled cover with S&S stinger on the inside creates smooth path for air
- Gloss black or chrome
- Well-known S&S Cycle Stealth kit for great performance and easy install
- Backplate has air horn style radiused inlet to reduce turbulence
- Slasher style available as cover

STEALTH TEARDROP AIR CLEANER KITS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24

Fitment	Fuel System	Finish	Part #
2001–'17 big twin (except 2017 touring models & Throttle by Wire) Includes Stealth AC Kit 170-0300B	Stock EFI, Delphi® EFI	Chrome	170-0528±
		Gloss Black	170-0529
2008–'16 Touring, '16–'17 ST® (except Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B	Throttle by Wire	Chrome	170-0522±
		Gloss Black	170-0523

STEALTH TEARDROP COVER ONLY

Chrome	170-0530
Gloss Black	170-0531
Slasher – Chrome	170-0532
Slasher – Gloss Black	170-0533

REPLACEMENT PARTS: SEE PAGE 123

CARBON FIBER STEALTH AIR CLEANER KITS



FEATURES & BENEFITS

- Strong and lightweight
- Corrosion resistance
- Simple installation
- Also available as cover only

CARBON FIBER TEARDROP COVER ONLY

170-0501



CARBON FIBER TEARDROP KIT



Fitment	Part #
2001–'17 bt (except Throttle by Wire)	170-0499
2008–'16 touring models and 2016–'17 Softail® models	170-0500

Includes Stealth Air Cleaner 170-0300B which is exempt from emissions tampering regulations under CARB EO# D-355-24 when used on 2001-2017 fuel injected models

STEALTH AIR CLEANER KITS

NEW STEALTH TEARDROP KITS
SEE PAGE 51



- 1999–'17 big twins (except 2017 touring models)
- Air directional stinger cone in the filter
- Pre-filters are available — See page 57
- Use with any of several S&S designed covers — See page 54
- High flow (1" taller) filter kit available — See page 57
- Backplate adaptor for Rushmore covers also available — See page 57



MINI TEARDROP PLUS STEALTH AIR CLEANER KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24

Fitment	Fuel System	Finish	Part #
2001–'17 big twin (except 2017 touring models & Throttle by Wire) Includes Stealth AC Kit 170-0300B	Stock EFI, Delphi® EFI	Chrome	170-0441±
		Gloss Black	170-0442
2008–'16 Touring, '16–'17 ST® (except Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B	Throttle by Wire	Chrome	170-0437±
		Gloss Black	170-0438



AIR 1 COVER PLUS STEALTH AIR CLEANER KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24

Application	Fuel System	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	170-0478
2008–'17 big twin (except 2017 touring models, Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B	Throttle By Wire	170-0485



TRI-SPOKE COVER PLUS STEALTH AIR CLEANER KITS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24

Application	Fuel System	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	170-0476
2008–'17 big twin (except 2017 touring models, Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B	Throttle By Wire	170-0483



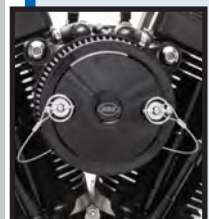
TORKER COVER PLUS STEALTH AIR CLEANER KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24

Application	Fuel System	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	170-0477
2008–'17 big twin (except 2017 touring models, Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B	Throttle By Wire	170-0484



AIRSTREAM COVER PLUS STEALTH AIR CLEANER KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24

Application	Fuel System	Finish	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	Chrome	170-0479±
		Gloss Black	170-0480
2008–'17 big twin (except 2017 touring models, Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B	Throttle By Wire	Chrome	170-0486±
		Gloss Black	170-0487



MUSCLE COVER PLUS STEALTH AIR CLEANER KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24

Application	Fuel System	Finish	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	Chrome	170-0481±
		Gloss Black	170-0482
2008–'17 big twin (except 2017 touring models, Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B	Throttle By Wire	Chrome	170-0488±
		Gloss Black	170-0489



STEALTH AIR CLEANER KITS — NO COVER EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO#

Application	Fuel System	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire)	Stock EFI Delphi®	170-0300B
2008–'17 big twin (except 2017 touring models, Tri-Glide® & CVO® Models)	Throttle By Wire	170-0301B

CON'T STEALTH AIR CLEANER KITS

NOTE

Fuel injection tuning is not required for this product.



STEALTH AIR CLEANER KITS WITH CHROME AIRSTREAM COVER±

Application	Fuel System	Part #
1999–2017 big twins (except '99 Softail® carb & Throttle by Wire)	Stock CV/EFI Delphi®	170-0056
2008–2017 big twins (except 2017 touring models)	Throttle by Wire	170-0054

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.



STEALTH AIR CLEANER KITS WITH CHROME MUSCLE COVER±

Application	Fuel System	Part #
1999–2017 big twins (except '99 Softail® carb & Throttle by Wire)	Stock CV/EFI Delphi®	170-0106
2008–2017 big twins (except 2017 touring models)	Throttle by Wire	170-0099

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STEALTH AIR CLEANER KITS WITH CHROME BOBBER-DISHED COVER±

Application	Fuel System	Part #
1999–2017 big twins (except '99 Softail® carb & Throttle by Wire)	Stock CV/EFI Delphi®	170-0104
2008–2017 big twins (except 2017 touring models)	Throttle by Wire	170-0097

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STEALTH AIR CLEANER KITS WITH CHROME BOBBER-DOMED COVER±

Application	Fuel System	Part #
1999–2017 big twins (except '99 Softail® carb & Throttle by Wire)	Stock CV/EFI Delphi®	170-0105
(except 2017 touring models)	Throttle by Wire	170-0098

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STEALTH AIR CLEANER KITS*

Application	Fuel System	Part #
1999–2017 big twins (except '99 Softail® carb & Throttle by Wire)	Stock CV/EFI Delphi®	170-0060
2008–2017 big twins (except 2017 touring models)	Throttle by Wire	170-0061

*These kits do not contain covers — Choose an S&S cover or use your stock Twin Cam 88°, 96™ or 103™ cover

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REPLACEMENT PARTS: SEE PAGE 123

STEALTH AIR CLEANER KITS FOR S&S ENGINES

STEALTH AIR CLEANER KITS FOR S&S ENGINES

Fitment	Fuel System	Part #
1999-2017 big twin models (except '17 touring models) & S&S T-Series Engines	S&S 66mm Throttle Hog	170-0165
1999-2017 big twin models (except '17 touring models) & S&S T-Series Engines	S&S 58mm Throttle Hog	170-0164
1995-1999 S&S Super Stock Engines	S&S Single Bore VFI 52mm Throttle Bodies	170-0287
1995-1999 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	170-0283
1999-2017 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	170-0284
T124 1999-'06 bt (except '06 Dyna®) (Engines produced after 2013)	S&S E or G Carburetor	170-0058
T124 1999-'06 bt (except '06 Dyna®) (Engines produced after 2013)	Stock CV/EFI Delphi®	170-0060
T111 1999-'06 bt (except '06 Dyna®) (Engines produced after 2013)	S&S E or G Carburetor	170-0058
T111 1999-'06 bt (except '06 Dyna®) (Engines produced after 2013)	Stock CV/EFI Delphi®	170-0060

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STEALTH AIR CLEANER KIT COVERS

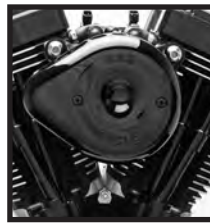
NEW STEALTH TEARDROP COVERS SEE PAGE 51



Carbon Fiber



Mini in Chrome



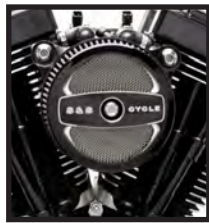
Mini in Gloss Black



Tri-Spoke



Torker



Air 1



Airstream in Chrome



Airstream in Gloss Black



Muscle in Chrome



Muscle in Gloss Black



Bobber-dished



111



124



143

STEALTH COVERS

Carbon Fiber	Mini		Tri-Spoke	Torker	Air 1	Bobber-Dished	
Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights	Chrome	Wrinkle Black
170-0501	170-0367[±]	170-0366	170-0210	170-0206	170-0214	170-0119[±]	170-0123

Airstream		Muscle		Displacement			Bobber-Domed	
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	111	124	143	Chrome	Wrinkle Black
170-0118[±]	170-0396	170-0121[±]	170-0463	170-0319	170-0321	170-0323	170-0120[±]	170-0124

SINGLE BORE TUNED INDUCTION SYSTEM

FITMENT

- Single bore intake big twin models including Harley-Davidson® Tri Glide® models (except 2007-'08 FXDWG & 2009 FXDC/FXDF)

FEATURES AND BENEFITS

- Bolt-on performance—over twice the filtering area over stock intake system
- Increases horsepower and torque across the rpm range using air column inertia and carefully timed gas dynamic pressure waves
- Smooth intake tract of carefully selected tuned lengths increases performance
- High flow washable and reusable cotton media provides performance, protection, and economy
- Available in wrinkle black, chrome, or natural



SINGLE BORE TUNED INDUCTION SYSTEM KITS± EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24



Fitment	Fuel System	Finish	Part #
2001-'17 Harley-Davidson® big twin (except Throttle By Wire and CVO® Models)	Stock EFI Delphi®	Chrome/Red Filters	170-0308B
2008-'17 HD® Touring Stock-Bore and '16 & '17 Softail® (except Tri-Glide® & CVO® Models)	Throttle By Wire	Gloss Black/Red Filters	170-0309B
		Chrome/Red Filters	170-0310B

SINGLE BORE TUNED INDUCTION SYSTEM KITS±

Fitment	Fuel Delivery	Finish	Part #
2007-2017 big twins (except 2017 touring models)	S&S Single Bore EFI	Chrome/Red Filters	170-0085
2007-2017 big twins (except 2017 touring models)	Stock CV & EFI Delphi®	Chrome/Red Filters	170-0087
2008-2017 big twins (except 2017 touring models)	Throttle By Wire	Gloss Black/Red Filters	170-0457
		Chrome/Red Filters	106-2448
CTO	Specify	Specify	106-5337*

Use the Configure to Order (CTO) part number to order different finish and filter color.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



Molded black adaptor bracket for 2008-'16 touring models



Chrome billet adaptor bracket for 2007-'17 big twins, except touring

REPLACEMENT PARTS: SEE PAGE 124 & PAGE 125

NOTES

- Does not fit Screamin' Eagle 58mm or 64mm throttle bodies, or S&S 58mm or 66mm Throttle Hogs.
- Single bore tuned induction will not fit on motorcycles equipped with fairing lower glove boxes.
- Fuel injection tuning is not required with this product but is highly recommended for best results.

CLASSIC TEARDROP AIR CLEANER KIT

FITMENT

- Single bore intake big twin models including Harley-Davidson® Tri Glide® models

FEATURES AND BENEFITS

- Efficient and free flowing intake that can add two to five horsepower
- Uniquely designed back plate has air horn style radiused entryway to reduce turbulence
- Dimpled cover with directional air cone on inside creates smooth path for air
- Great addition to performance exhaust or cams

KIT CONTENTS

- Filter
- Backing plate and cover
- All mounting hardware
- Instructions



CLASSIC TEARDROP AIR CLEANER KITS FOR STOCK EFI EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24



Fitment	Fuel System	Finish	Stock EFI, W/ 96 & 103 Engines
2001-'17 HD® big twin Models <i>(except Throttle By Wire and CVO® Models)</i>	Stock EFI Delphi®	Chrome	170-0303B±
		Gloss Black	170-0304B
2008-'17 HD® Touring Stock-Bore and '16 & '17 Softail® Models <i>(except Tri-Glide® & CVO® Models)</i>	Throttle By Wire	Chrome	170-0305B±
		Gloss Black	170-0312B

CLASSIC TEARDROP AIR CLEANER KITS FOR STOCK CARB/EFI

Fitment	Finish	Stock EFI, With 110 Engines
2008-2017 big twins	Chrome	106-2091±
1993-'06 HD® Carbureted big twins and 2007-'10 Softail® CVO® Models	Chrome	17-0450±
	Gloss Black	170-0181A

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CLASSIC TEARDROP AIR CLEANER KITS FOR S&S SINGLE BORE EFI THROTTLE BODIES±

Fitment	Style/Finish	52mm	58mm
Stock Harley-Davidson® heads, S&S-T-Series Long block engines or S&S Heads for stock breathing system	Teardrop/Chrome	17-0498	106-4669
S&S Heads for 4 1/8" bore engines with vacuum breathing	Teardrop/Chrome	—	106-4668

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS: PAGE 126

NOTE

Fuel injection tuning is not required with this product but is highly recommended for best results.



TEARDROP AIR CLEANER COVERS

Style	Finish	Part #
Mini	Chrome	170-0367±
	Gloss Black	170-0366
Classic Teardrop	Chrome	17-0378±
	Gloss Black	170-0384A
Slasher Teardrop	Chrome	17-0004±
	Gloss Black	170-0419
Nostalgic Teardrop	Polished	17-0071

STEALTH BACKPLATE ADAPTOR FOR RUSHMORE COVER FOR 2014–2016 TOURING MODELS

S&S Stealth air cleaners allow owners of 1999–later big twins to use their stock air cleaner cover to hide a performance air cleaner, the new adaptor kit for Rushmore Models allows late model bagger owners to fly under the radar too.

FITMENT

- 2014–2016 touring models

STEALTH BACKPLATE ADAPTOR FOR RUSHMORE COVER

Fitment	Part #
2014–2016 touring models	170-0261



PRE-FILTERS

FITMENT

- S&S® Stealth Air Filters

FEATURES AND BENEFITS

- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable Nylon
- Promotes longer filter life
- Reduces the risk of water entering air intake system

PRE-FILTERS

Application	Part #
Standard	170-0193
1" Tall	170-0197



170-0197

HIGH FLOW AIR FILTER KITS

FITMENT

- S&S Classic Teardrop air cleaners for Super E & G carbs and S&S EFI throttle bodies

FEATURES AND BENEFITS

- Low restriction filter element comes pre-oiled for true plug and play installation
- 1" wider filtration area provides up to 37% more airflow over standard S&S filters
- Resulting band of exposed filter material imparts a high performance look

KIT CONTENTS

- Wide filter
- Filter spacers



170-0127

HIGH FLOW AIR FILTERS

Description	Fitment	Part #
High Flow Air Filter Kit (includes spacers)	Classic Teardrop	17-0045
	Stealth, 1" Taller	170-0127*
1" Taller Filter Only	Classic Teardrop	106-4724
	Stealth	170-0154
Spacer	Classic Teardrop & Stealth, 1" Taller	50-5009-S

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



17-0045

STANDARD REPLACEMENT FILTERS

STANDARD REPLACEMENT AIR FILTERS

Description	Fitment	Part #
Standard Filter Only	Classic Teardrop	106-4722
	Stealth	170-0126

PERFORMANCE KIT OVERVIEW

FOR HARLEY-DAVIDSON® TWIN CAM 96™ AND 103™



4" BORE BOLT-IN SIDEWINDER® BIG BORE KIT

S&S 4" big bore cylinder and piston kits boost 88 and 96/103" Harley-Davidson® big twin engines to 100" and 110" respectively. These bolt-in kits don't require any machining, rebalancing or engine removal, and include just about everything you'll need to complete the installation. The biggest cylinder bore that can be installed in a stock crankcase without machining! [See page 59](#)



124" HOT SET UP KIT

Ready for the ultimate? The 124" HSU kit will take you to the limit increasing both your bore and stroke. The included flywheel increases the stroke from 4 3/8" to 4 5/8". The kit's cylinders open the stock 3 3/4" bore to 4 1/8". S&S Easy Start 640 gear drive camshafts are included! Kits are available for balanced and unbalanced engines. CTO allows you to select other camshaft and cylinder head options to build the ultimate kit of your dreams. Your crankcase will require machining for these cylinder spigots to fit. Fuel injection tuning required. [See page 60](#)



117" BIG BORE KIT

The S&S 117" big bore top end kit, for 96" and 103" engines, is an economical route to big inches and increased performance. Use the stock crankcases, flywheel assembly, and cylinder heads for a stock look and a smaller price tag. Crankcase boring is required to accommodate the larger 4 3/8" bore cylinders. Finish the conversion off with your choice of performance cams, fuel system upgrade, and tuning. Available in dished dome or flat topped pistons and in wrinkle black or silver powder coat finish that matches the stock heads and cases. [See page 61.](#)



107" & 106" BIG BORE KIT

A low cost bolt-on kit provides big displacement! Just like the 97" kit, the 107" and 106" Big Bore Kits offer the simplicity of a bolt-on cylinder kit. Satisfy your thirst for speed with the largest bolt-on cylinders available. Bore is increased from 3.750" to 3.927", taking your displacement from 96" or 103" to 106"! The kit contains cylinders, pistons, rings and all gaskets needed. Fuel injection tuning required. [See page 63](#)

PERFORMANCE KIT SPECIFICATIONS FOR HARLEY-DAVIDSON® TWIN CAM 96™/103™/110™

KIT DESCRIPTION	BORE	STROKE	COMPRESSION RATIO							CAMSHAFT	HORSEPOWER	TORQUE	
			Stock Heads	79cc	89cc	91cc	CNC Heads				(CNC Heads)		
							83cc	85cc	87cc				90cc
Power Pack	4"									585			
124" Hot Set Up Kit (Flat Top Piston)	4 1/8"	4 5/8"	11.4:1	*	11:1	10.8:1	11.6:1	11.4:1	11.2:1	10.9:1	640	127	130
106" Big Bore Kit	3.927"	4 3/8"	10.0:1	10.7:1	9.7:1	9.5:1	10.2:1	10.1:1	9.9:1	9.6:1	–	106	108

**Not Recommended*

PERFORMANCE KIT CONTENTS, OPTIONS AND REQUIREMENTS FOR HARLEY-DAVIDSON® TWIN CAM 96™/103™/110™

KIT DESCRIPTION	PACKAGE CONTENTS										MACHINING REQUIRED	CTO OPTIONS*	REJETTING OR CALIBRATION CHANGE
	Flywheels	Cylinders	Pistons w/rings	Rocker Arms	Pushrods w/covers	Lifters	Camshafts	Valve Springs	Heads w/springs	Gaskets			
Power Pack		●	●			●	●						
124" Hot Set Up Kit	●	●	●	●	●	●	●		0	●	3 4	5 6 7	●
117" Big Bore Kit		●	●						0	●	3 4	5 6 7	●
106" Big Bore Kit		●	●							●			●

0 = Optional 3 = Crankcase machining for center stud 6 = CNC heads
 1 = Order separately 4 = Crankcase machining for cylinder spigots 7 = Combustion chamber size selection
 2 = Bore & hone cylinders 5 = Camshaft selection 8 = Cylinder & piston set available

**The CTO option column lists only the major items offered. Virtually any option can be selected from our product offerings through the Configure To Order (CTO) program.*

FUEL INJECTION TUNING REQUIRED. S&S OFFERS FUEL INJECTION TUNING SOLUTIONS: [SEE PAGE 98.](#)

4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS



S&S 4" big bore cylinder and piston kits boost 96/103" HD® big twin engines to 110" respectively. These bolt-in kits don't require any machining, rebalancing or engine removal, and include just about everything you'll need to complete the installation. The biggest cylinder bore that can be installed in a stock crankcase without machining!

FEATURES & BENEFITS

- Bolts in. No machining, balancing, or splitting the crankcases
- 96" and 103" engines end up at 110"
- Complete kits include cylinders, pistons, gaskets, and instructions
- Choose from wrinkle black or silver powder coat cylinders – matches stock finish

FITMENT

- 2007-17 big twins (except 2017 Touring)

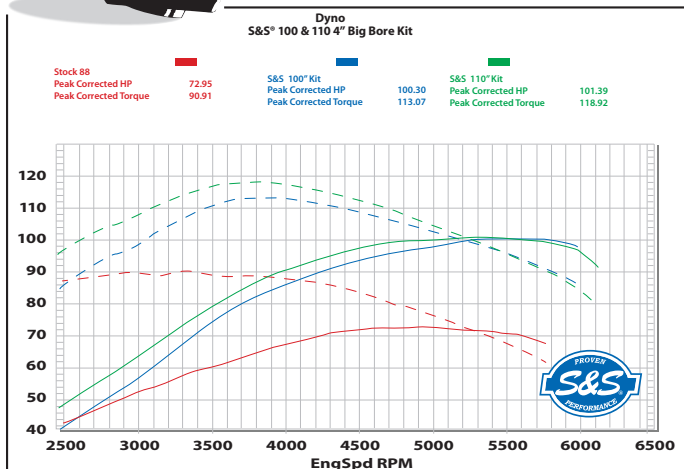
SPECS FOR S&S 4" BORE BOLT-IN CYLINDER & PISTON KITS								
Year	Stroke	Bore	Cylinder Length	Piston Type	Dome Volume	Compression Ratio		
						83cc CNC Heads	85cc Stock Heads	89cc S&S Heads
2007-2017	4 3/8"	4.00"	4.937"	Forged	.75 pop up	10.7:1	10.5:1	10.2:1



4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS

Displacement	Year	Stroke	Finish	Part #
110	2007-'17 big twin (except 2017 Touring)	4 3/8"	Silver	910-0650
	2007-'17 big twin (except 2017 Touring)	4 3/8"	WBlack	910-0651

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These dyno results from our DynoJet® 250i chassis dynamometer clearly show the performance increases available with the S&S bolt-in 4 inch bore kits. The lowest (red) set of curves represents a stock 88 cid engine in a 2004 Harley-Davidson® FLHR Road King®. The next curves above the stock baseline (blue) shows the performance of the S&S 100" bolt-in big bore kit. The highest set of curves show the results from an S&S 110" big bore kit installed in a 96 cid engine. The engines with the S&S 100" and 110" kits were also set up with S&S 585 cams, Power Tune® headers, MK45 muffler, and the stock EFI throttle body with an S&S Stealth air cleaner.

NOTE

Not for use with S&S 79cc Cylinder Heads

124" HOT SET UP KIT®

FITMENT

- All 2007–'17 big twin models and 2006 Dyna® models, except 2017 touring models (2016 Twin-Cooled™ models not compatible with kits containing heads)

FEATURES AND BENEFITS

- Huge displacement increase means huge power increase
- Stock crankcases, cylinder heads, oil pump, and cam cover can be reused
- Original engine serial numbers are retained
- Gear drive S&S 640 Easy Start Cams included!
- Wrinkle Black (WBlack) Powder coat finish heads match factory finish
- .045" MLS (multi-layered steel) head gaskets
- Adds .096" to engine height –still fits in stock frames
- Kits with S&S heads use stock length manifolds (S&S size 405)
- Cylinder w/piston kits include fitted pistons ready to install



OPTIONS

The following three options are examples of the most commonly ordered kits. Option 1 (10.8:1 compression ratio) includes:

- S&S 91cc high flow Super Stock® heads
- Flat topped pistons

Option 2 (without heads) Available only through CTO. Includes:


- Flat topped pistons

Option 3 (without heads, 10.4:1 compression ratio intended for stock 85cc chamber cylinder heads) includes:

- 10.9cc Dished pistons


Silver finish available through CTO.

S&S® 124" HOT SET UP KIT® SPECIFICATIONS							
Year	Stroke	Bore	Cylinder Length	Piston Type/Compression Ratio			
				91cc S&S Heads	89cc S&S Heads	85cc Stock Heads	95cc Stock 110 CVO Heads
2007–'16	4 3/8"	4 1/8"	5.004"	Flat top forged/10.8:1	Flat top forged/11:1	Forged, 10.9cc dish/10.4:1	10.5:1



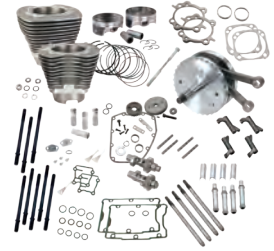
124" HOT SET UP KITS® FOR HARLEY-DAVIDSON® TWIN CAM 96™/96B™ /103™/110™ ENGINES

(Kits include S&S® Super Stock® 91cc Cylinder Heads 10.8:1 Compression)

Model or Engine Type	Cam	Finish	Part #
2006 Dyna® & 2007–'17 Twin Cam 96™/103™ & 2008–up Touring Models	640GE	WBlack	900-0568
2007–'17 big twins w/Balancer			900-0569
 Other Finishes and Combinations Available Here	Specify	Specify	106-5752

Does not fit Twin-Cooled™ models
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900-0569



124" HOT SET UP KIT® WITHOUT HEADS FOR HARLEY-DAVIDSON® CVO 110 ENGINES

(KITS INCLUDE FLAT TOP PISTONS 10.5:1 COMPRESSION WHEN USED WITH 95CC STOCK 110 CVO HEADS)

Year	Cam	Finish	Part #
2007-'17 CVO 110 engines	640	Stone Gray	900-0690

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NOTES

S&S Easy Start Cams save you money – no need to buy compression releases or S&S rocker covers.

Twin-Cooled applications will require separate purchase of 900-0609 head gaskets.

For engines with cable controlled throttle bodies we recommend the S&S 58mm single bore throttle bodies and manifolds. (See page 95) For 2008-up touring models with electronic throttle control S&S recommends a S&S Throttle Hog 58mm or 66mm Throttle body (See page 94).

This kit will require that the case be bored to accept the larger cylinders.

Main Bearing Note: S&S flywheel assemblies included in a 124" S&S Hot Set Up Kit® for 1999-'16 big twin engines are designed for use with Timken® sprocket shaft bearings. They will fit directly in stock 1999-'02 Harley-Davidson® crankcases and in all S&S crankcases for 1999-'16 big twin engines, with no modifications. However, stock 2003 and later engines use a roller type bearing for the sprocket shaft, and will require modification.

Due to the amount of power these engines produce with an S&S Hot Set Up Kit, S&S strongly recommends retrofitting 2003-'16 model crankcases to accept a Timken sprocket shaft bearing. A Timken conversion sleeve such as Screamin' Eagle® #34822-08 or Jim's® #956 may be used. A charging system spacer for 1999-'02 model year is also required.

If you choose not to convert your crankcases to a Timken sprocket shaft bearing, S&S flywheels may be used in 2003 and later engines with the installation of the Harley-Davidson® bearing kit #24004-03B. This bearing kit adapts the S&S sprocket shaft to be compatible with stock roller type bearings. Verify that the bearing kit contains the 24604-00D or 24607-07 or sprocket shaft bearing or S&S p/n 310-0761 for touring models. Do not use a 24604-00, 24604-00A, 24604-00B or 24604-00C bearing. Please be advised that if this type of bearing is used, sprocket shaft bearing failure WILL NOT be covered under warranty.

Fuel injection tuning is required. S&S offers fuel injection tuning solutions: See page 98

Kits with S&S heads are machined special to compensate for engine height change to accommodate a stock length manifold. When using a kit with stock cylinder heads, S&S recommends using the appropriate length manifold. For a 124" with stock OEM cylinder heads, the standard manifold length is 417.

Center case bolt between cylinders will use waisted bolt kit 900-0807

117" BIG BORE KITS

FITMENT

- 2007–'17 big twins, except 2017 touring models (Twin-Cooled™ models require 900-0609 head gaskets)

FEATURES AND BENEFITS

- Large displacement increase with a small price
- Your original crankcase, flywheel, cylinder heads, oil pump, and cam cover are reused
- Silver or wrinkle black (WBlack) Powder coat cylinders and heads match factory finish
- .060" shorter than stock engine - no frame clearance issues
- Piston weight is the same as stock Twin Cam 96™/103™—no balancing required
- Piston is plated for extreme durability and skirts feature low friction Wiseco ArmorGlide® coating

SPECIAL ORDER OPTIONS

- CNC heads—Available in 83, 85, 87, 90cc chambers
- Camshafts—Gear or Chain Drive: 570, 585, 625, or 640



910-0221

117" BIG BORE KITS

Model or Engine Type	Piston	Finish	Part #
117" Standard Compression	Flat Top	Silver	910-0213
		WBlack	910-0221
117" Low Compression	Dished	Silver	910-0321
		WBlack	910-0318
Special Order*		Specify	91-7506*

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S&S® 117" BIG BORE KIT SPECIFICATIONS

Year	Stroke	Displacement	Bore	Cylinder Length	Piston Type	Compression Ratio			
						91cc Super Stock Heads	89cc Super Stock Heads	85cc Stock Heads	83cc CNC Ported Stock Heads
2007–'17	4 3/8"	117"	4 1/8"	4.878"	Flat Top 106-3491A	10.4:1	10.5:1	10.9:1	11.2:1
2007–'17	4 3/8"	117" LC	4 1/8"	4.878"	Dished, 10cc 920-0046	9.5:1	9.7:1	10.0:1	10.3:1

NOTES

Twin-Cooled applications will require separate purchase of 900-0609 head gaskets.

The 117" cylinder kit will reduce the engine height ~.060", this may require the stock manifold be shortened by sanding some material off each side of the intake runner.

Cylinder w/piston kits included in this Hot Set Up Kit are pre-fit and ready to install.

2008-up touring models with electronic throttle control recommends S&S Throttle Hog 58mm or 66mm Throttle body (See page 94) and Harley-Davidson® race tuner.

This kit will require that the case be bored to accept the larger cylinders.

.030" MLS head gaskets optional: Part #900-0217

S&S recommends retrofitting a Timken bearing (31-4013) into 2003-'16 model crankcases with the use of a Timken sleeve, Screamin' Eagle #34822-08 or Jim's #956. A charging system spacer for 1999-'02 model year is also required. S&S p/n 310-0761.

Requires recalibration.

110" PISTONS AND CAMS

MAKE THAT BIG HOG REALLY RUN! S&S CAMS AND PISTONS FOR CVO™ 110

Not satisfied with 86 horsepower from your CVO™ 110 engine? Neither were we! Fortunately, we can show you how to make that big hog really run. Here's how.

1. Install an S&S performance exhaust and air cleaner — *a must for any performance upgrade*
2. Install a set of S&S 585 bolt-in cams and tune the EFI system — *produces over 107 horsepower*
3. Increase the compression ratio from the stock 9.3:1 to 10.6:1 with S&S high compression pistons — *brings the horsepower up to 114*

FITMENT

- 2007–Up Harley-Davidson® CVO™ 110 engines

FEATURES AND BENEFITS

- Significant performance increase — *See the dyno chart*
- Don't trade torque for horsepower — *get more of both! See the dyno chart*
- Easy installation! All parts bolt in without splitting the cases or even removing engine from the frame
- S&S Easy Start Cams ensure reliable starting even with high compression pistons
- Easy EFI tuning with free calibration downloads for S&S EZ Loader — *no expensive dyno time required*



10.6:1 HIGH COMPRESSION PISTONS FOR HARLEY-DAVIDSON® CVO™ 110 ENGINES

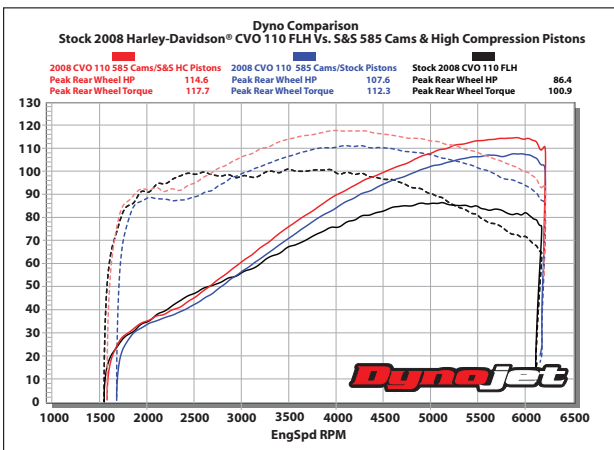
Fitment	Deck Height	Wristpin Diameter	Standard	+ .010"
2007–'17 bt CVO™ 110" engines	1.0895"	.927"	920-0114	920-0115

585 CAMSHAFTS FOR HARLEY-DAVIDSON® CVO™ 110 ENGINES

Cam Style	Easy Start*	Standard
Chain Drive 585 cams (includes installation kit)	106-5233	106-4382
Gear Drive 585 cam kits (includes inner and outer gears and installation kit)	106-5225	33-5268

*S&S Easy Start cams feature a built-in automatic compression release for reliable starting.

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The Dynojet® 250i chassis dynamometer shows how this 2008 Harley-Davidson® CVO™ FLH revealed its true potential with the addition of S&S performance exhaust, intake and 585 cams. The top set of curves show that bumping the compression with S&S 10.6:1 pistons really wakes up the engine and makes over 114 horsepower. That's a total increase of over 28 horsepower or nearly 33%! All tests were done with the stock 50mm throttle body. Make even more power with an S&S 58mm Throttle Hog or cable controlled throttle body.

107" BIG BORE KITS

FITMENT

- 2007–2017 big twins, *except 2017 touring models*
- 2014–2017 Twin Cooled models, *except 2017 touring models*

FEATURES AND BENEFITS

- 3.937" bore
- Cylinder and piston kits make going to the maximum bores size easy – *no machining required*
- Stock engine height is maintained
- 11 fin cylinder design closely resembles OEM shape and come prefinished – *ready to install*
- Increased fin area for better heat dissipation
- Centrifugal cast, gray iron liner features 40,000 psi tensile strength – *superior wear and performance*
- CP Pistons are recognized as industry leaders, and provide exceptional wear, performance and noise characteristics

KIT CONTENTS

- S&S cylinders with gaskets
- Piston set with rings, wristpins, and wristpin clips

CTO OPTIONS

- Hot Set Up Kit—options for heads, cams, pushrods, tappets, and gaskets



S&S® 107" BIG BORE KIT AND HOT SET UP KIT SPECIFICATION CHART							
Year	Stroke	Bore	Cylinder Length	Piston Type	COMPRESSION RATIO (with provided .045" head gasket)		
					83cc CNC Ported Stock Heads	85cc Stock Heads	89cc S&S Heads
2007–2017	4 3/8"	3.937"	4.937"	Forged, 3cc Dome	10.7:1	10.5:1	10.1:1

Cylinder w/piston kits include pistons and cylinders that require no boring or honing.

107" BIG BORE KITS

Fitment	Cylinder Finish	Part #
2007–'17 big twin, <i>except 2017 touring models</i>	Silver Powder coat	910-0480
	WBlack Powder coat	910-0500

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NOTES

- Not for use with 79cc heads
- S&S® highly recommends installing a performance cam for easier starting and better engine performance.
- S&S high flow cylinder heads or CNC ported stock heads will provide further horsepower gains.
- These kits require tuning.

106" BIG BORE KITS

FITMENT

- 2007–2017 big twins, *except 2017 touring models*
- 2014–2016 Twin Cooled models

FEATURES AND BENEFITS

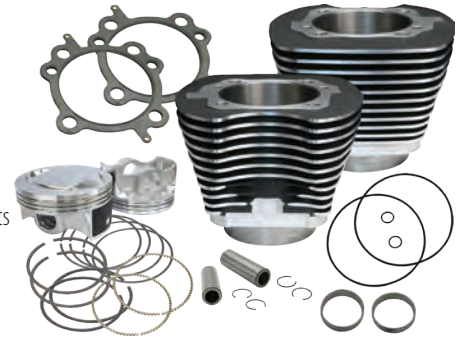
- Increased fin area for better heat dissipation—be cool!
- Increase bore size from 3.750" to 3.927"—bigger is better!
- Easy installation – no machining or rebalancing required—economical!
- Forged coated pistons are compatible with stock or S&S Super Stock® 79cc & 89cc heads
- Valve pocket recessed in S&S pistons are enlarged for oversize valves and higher lift cams
- Maintains stock engine height and stock piston weight
- Cosmetic improvements—hard to tell from stock cylinders
 - 11 fins and full fin pattern on cam side closely resembles OEM shape
 - S&S logo and part numbers are less conspicuous
 - Better overall appearance

OPTIONS

- Oversize pistons available
– See page 74

KIT CONTENTS

- S&S cylinders with gaskets
- Piston set with rings
- Top end gasket kit
- Instructions



910-0206

S&S® 106" BIG BORE KIT SPECIFICATION CHART								
Year	Stroke	Bore	Cylinder Length	Piston Type	COMPRESSION RATIO			
					85cc Stock Heads	79cc S&S Heads	89cc S&S Heads	83cc CNC Ported Stock Heads
2007–'17	4 3/8"	3.927"	4.937"	Forged Flat Top	10.0:1	10.7:1	9.7:1	10.2:1

Cylinder w/piston kits include fitted pistons and cylinders that require no boring or honing.

106" BIG BORE KITS

Fitment	Finish	Part #
2007–'17 big twin and 2014–'16 Twin-Cooled™ Models	WBlack	910-0206
	Silver	910-0202

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106" HOT SET UP KITS® WITH CYLINDERS & PISTONS WITHOUT HEADS

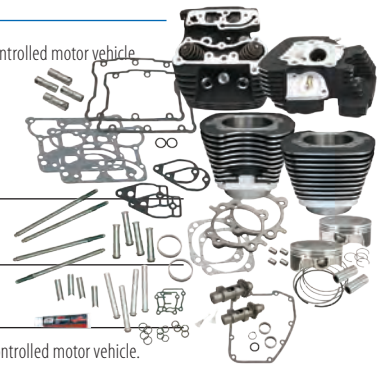
Model Year	Cam	Compression Ratio	Piston Type	Valve Springs	Finish	Part #
2007–'17 big twin and 2014–'16 Twin-Cooled™ Models	585CE	10.0:1	Flat top	–	WBlack	900-0354
					Silver	900-0355

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106" HOT SET UP KITS® WITH 83CC CNC PORTED HEADS, CYLINDERS & PISTONS

Model Year	Cam	Compression Ratio	Piston Type	Valve Springs	Finish	Part #
2007–'17 big twin <i>(except Twin-Cooled™ models)</i>	585CE	10.2:1	Flat top	.585"	WBlack	900-0352

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NOTES

S&S® highly recommends installing a performance cam for easier starting and better engine performance. S&S high flow cylinder heads or CNC ported stock heads will provide further horsepower gains. These kits require tuning.

ENGINE OVERVIEW

S&S performance engines for 2007–'17 Harley-Davidson® big twins are available as long blocks which do not include fuel or ignition systems. Engines are protected by super tough powder coat finishes. Available in silver and chrome, wrinkle black and chrome, Stone Grey and chrome, and Black Edition color schemes. Stone Grey matches the engine finish on CVO models, and Black Edition is a wrinkle black engine with gloss black covers.

BLACK EDITION

S&S Cycle's new Black Edition engines combine classic wrinkle black with high gloss black powder coated covers for a subtle contrast and elegant look while still producing the power and reliability you've come to expect.

T143 (143 cid)

The T143 T2 long block engine is the largest (143 cid) S&S engine that will fit in a stock chassis. Long blocks come without fuel or ignition systems (available separately) and an oil line installation kit is required. Available in silver, wrinkle black, Stone Grey, or black edition finishes. The 160 rear wheel horsepower also requires performance drive train upgrades. Not for the faint of heart!

T124 (124 cid)

The S&S T124 T2 long block engine has been our daily rider hot rod since 2004. The combination of day in and day out reliability and brutal power make it the perfect choice. Available in silver, wrinkle black, Stone Grey, or black edition finishes. Long blocks come without fuel or ignition systems. Our Throttle Hog EFI throttle bodies are highly recommended.

T111 (111 cid)

The S&S T111 T2 long block is the ultimate sport touring engine. The shorter stroke provides a perfect combination of performance, engine life, quiet operation, and reduced vibration. Available in silver, wrinkle black, Stone Grey, or black edition finishes. Long blocks come without fuel or ignition systems. Our Throttle Hog EFI throttle bodies are available to complete the package.



T143 ENGINES

If Bigger is Better, the T143 is the Best...
The BIGGEST, BADDEST, BOLT-IN for a Stock Frame.

All joking about size aside, it does matter. The S&S T143 Long Block engine for Harley-Davidson® models is the largest S&S engine that will fit in a stock Harley-Davidson® chassis. It's big, 143 cubic inches. 'Nuff said.

At double the HP of a stock motor the power of the T143 requires technical expertise for the installation and tuning along with an experienced rider. This is an ultra performance/ race engine. Longevity, engine noise, vibration and throttle sensitivity have all been compromised to reach this level of performance while fitting in a stock chassis and as such is not suitable for every situation. It is the purchaser's responsibility to consider the suitability for their application. Engine noise and damage from abuse is not covered under warranty.

FITMENT

- 2007–'16 Harley-Davidson® touring models
- 2006–'17 Dyna® models

FEATURES AND BENEFITS

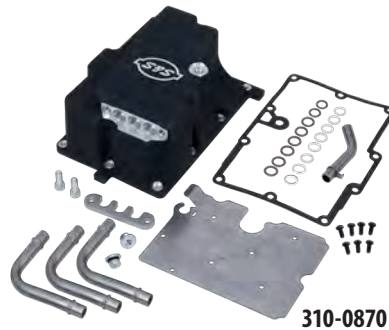
- Fits in stock chassis—no cutting or frame modifications
- S&S B3 cylinder heads CNC machined with 2 bolt exhaust flanges
- S&S Super Stock T2 Crankcases with reed breather valve
- 3 Piece Flywheels
- S&S high flow oil pump and cam cover
- S&S 635 Easy Start Gear Drive Cams and S&S 1.725:1 rocker arms for .674" total lift.
- S&S Premium High Performance Tappets
- 1 year warranty

OPTIONS

- Wrinkle Black, Stone Gray, or Black Edition powder coat finish

SUGGESTED ACCESSORIES

- Stealth Air Cleaner Kit 143 Cover: [See page 54](#)



T143 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	CR	Warranty	Finish	Part #
2007–'16 Touring Models	143"	4.425"	4 5/8"	635	S&S Forged Flat Top	10.5:1	1 year	WBlack & Chrome	310-0548
								Stone Gray	310-0549
								Black Edition	310-0837
2006–'17 Dyna® Models	143"	4.425"	4 5/8"	635	S&S Forged Flat Top	10.5:1	1 year	Black Edition	310-0901
								WBlack & Chrome	310-0883

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REQUIRES OIL LINE INSTALLATION KIT. See chart.

INSTALLATION PARTS

Description	Part #	
Oil Line Install Kit for 2006–'17 Dyna® Models	WBlack	310-0870
	Silver	310-0871
Oil Line Kit for 2007–'16 touring models	310-0435±	
Transmission Drilling Fixture Kit for 2007–'16 touring models	530-0006	
Head Mount Bracket	2009–'16 Touring	900-0798
	2008 Touring	900-0797
Fuel Injector 2 pack	550-0603	

Description	Part #
70mm Induction Kit* 2008–'16 Touring (includes injectors)	170-0253±
70mm Induction Kit Cable operated 2007–'17 Dyna® models & 2007 Touring (includes injectors)	170-0288
Exhaust Flange Starter Kit	550-0216

*Includes a 70mm S&S Throttle Hog specially designed for the T143 engine in which a functional, stock, throttle by wire throttle body must be supplied to build. See page 94 for more details.

T-SERIES T2 LONG BLOCK ENGINES

FITMENT

- 2007–'16 Touring Models (except Twin-Cooled™ models)
- 2006–'17 Dyna® Models

FEATURES AND BENEFITS

- No fuel system or ignition systems included – Use what you already have
- Special Head machining—Fits stock length intake manifolds (S&S manifold size 405)
- Stock style breathing system—stock breather spacing and function is compatible with stock and most performance air cleaners
- Super Stock™ T2 Crankcase
- 3 Piece Flywheels
- S&S high flow oil pump and cam cover
- S&S Easy Start gear drive cams
- Stock Twin Cam 96™ bolt pattern

OPTIONS

- T111 – 111 cubic inches, perfect sport-touring engine
- T124 – 124 cubic inches, high rod performance, 640 Easy Start gear drive cams
- T124LC – 124 cubic inches with slightly lower compression, 585 Easy Start gear drive cams
- Stone Gray powder coat finish that matches the Granite color of a "stock" CVO engine

SUGGESTED ACCESSORIES

- Stealth Air Cleaner Kits. See page 52



T124 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	Compression Ratio	Warranty	Finish	Part #
2007–up Touring Models	124"	4 1/8"	4 5/8"	640	S&S Forged Flat Top	10.8:1	2 Year	Black Edition	310-0835
								WBlack & Chrome	310-0400
								Stone Gray	310-0511
2006–'17 Dyna® Models	124"	4 1/8"	4 5/8"	585	S&S Forged Dished, 11cc	10.2:1	2 Year	Black Edition	310-0836
								WBlack & Chrome	310-0401
								Stone Gray	310-0512
CTO				Specify		Specify	Varies	Specify	319-0010

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T111 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	Compression Ratio	Warranty	Finish	Part #
2007–up Touring Models	111"	4 1/8"	4 5/8"	585	S&S Forged	9.8:1	2 Year	WBlack & Chrome	310-0402
2007–up Touring Models				585				Black Edition	310-0834
CTO				Specify		Specify	Varies	Specify	319-0010

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REQUIRES OIL LINE INSTALLATION KIT. See chart.

INSTALLATION PARTS FOR S&S T-SERIES T2 LONG BLOCK ENGINES

Description	Part #	
Oil Line Kit for 2007–'16 Touring Models	310-0435[±]	
Transmission Drilling Fixture Kit	530-0006	
Oil Line Install Kit for 2006–'17 Dyna® Models*	WBlack	310-0870
	Silver	310-0871

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COMPLETE ENGINE REBUILD GASKET KITS

S&S Engine Family	Bore Size	Part #
T-Series	4 1/8"	310-0335



NOTES ENGINE MANAGEMENT AND FUEL SYSTEMS

Cylinder heads on these engines are specially machined to compensate for the non-stock cylinder length. As a result, they are compatible with manifolds and throttle bodies with stock length intake runners. In addition, the breather vent bolt locations have been adjusted so they are in the stock location, so stock style air cleaner back plates will bolt up to these engines.

Will require early style sprocket shaft spacer for charging system us S&S pn 310-0761 for touring models.

For best performance, S&S Throttle Hog Throttle Body is recommended. See page 94.

Milwaukee
Eight
2007-2017
Twin Cam 96™
1999-2006
Twin Cam 88™
1986-2019
Sportster® & Buell®
2014-2019
Street & Street Rod™
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® & Victory® Models
Tools & Shop Supplies
Apparel
Warranty & Company Policy
Appendix & Index

SUPER STOCK™ T2 CRANKCASE

FITMENT

- 2007–'16 Harley-Davidson® touring model big twins
- 2006–'17 Dyna® models

FEATURES AND BENEFITS

- Stock looking, but stronger—Thicker wall sections and superior 356-T6 aircraft grade aluminum
- Tough powder coat finish
- Reinforced front motor mount for extra strength
- Timken® sprocket shaft bearing—Strong enough for the most demanding applications
- Clearanced for strokes up to 4¹³/₁₆" and cams up to .720" lift
- Includes pinion and Timken® bearing
- Manufacturer's Statement of Origin (MSO) included
- Includes studs and cam bearings installed

KIT CONTENTS

- S&S crankcase
- Bearings and hardware
- Instructions

INSTALLATION PARTS

- S&S oil line kit (required)
- S&S transmission drilling fixture kit (recommended for easy installation)



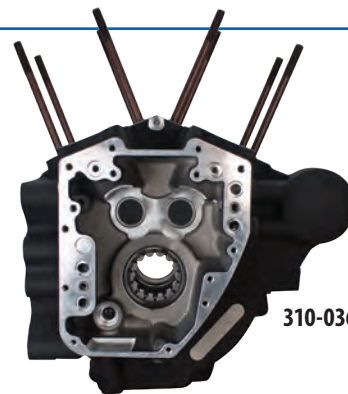
310-0435±



530-0006

NOTE

Will require early style sprocket shaft spacer for charging system use S&S pn 310-0761 for touring models.



310-0367

INSTALLATION PARTS

Description	Part #	
Oil Line Kit for 2007–'16 Touring	310-0435±	
Transmission Drilling Fixture Kit	530-0006	
Oil Line Install Kit for 2006–'17 Dyna® Models	WBlack	310-0870
	Silver	310-0871

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SUPER STOCK™ T2 CRANKCASES FOR 2007–'16 HARLEY-DAVIDSON® FL BIG TWIN ENGINES

Bore Size	Stone Gray	WBlack	Silver
Stock Bore (Stock Bolt Pattern) 2007–'16 Touring Models	–	310-0367A [†] ±	310-0366A [†] ±
Stock Bore (Dyna® models)	–	310-0878*	310-0881*
CVO 110 Stock Bore	310-0543A [±]	–	–
4 ¹ / ₈ " Bore (Stock Bolt Pattern) 2007–'16 Touring Models	310-0503 ^{**} ±	310-0369 [±]	310-0368 [±]
4 ¹ / ₈ " Bore (Dyna models with Stock Bolt Pattern)	–	310-0856 ^{**}	–
4 ³ / ₈ " Bore (S&S Bolt Pattern) ^{††} 2007–'16 Touring Models	–	310-0371 [±]	310-0370 [±]
4.425" Bore 2007–'16 Touring Models	310-0691 [±]	310-0690 [±]	–
4.425" Bore (Dyna models)	–	310-0859	–
Special Order	319-0025	319-0025	319-0025

^{††}Requires separate purchase of tappet covers sets #330-0281

[†]Exempt from emissions tampering regulations under CARB EO# D-355-18 when used with stock bore cylinders

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.

**DISCLAIMER: FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE. LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY.

REPLACEMENT PARTS: SEE PAGE 108

CRANKCASE BREATHER REED VALVES

FITMENT

- Twin Cam 96™/103™ (except "B" engines)
- S&S T-Series engines

FEATURES AND BENEFITS

- Improved oil scavenging and reduced oil carryover



310-0742

CRANKCASE BREATHER REED VALVES

Oil Pump Fitment	Year Application	Part #
For Engines with S&S Gear Oil Pump	2007–up S&S crankcases	310-0742

REPLACEMENT SPRING

Spring, Wave, 1.6" x 2" x 2", 2.8mm	31-2078
-------------------------------------	---------

NOTES

The crankcases breather valve for Twin Cam 96™/103™ engines was designed and developed for use with S&S Gear Oil Pumps and tappets, and may not be compatible with some aftermarket components.

Not available for Twin Cam 96™/103™ "B" engines with internal balancers.

Does not fit with aftermarket oil pumps.

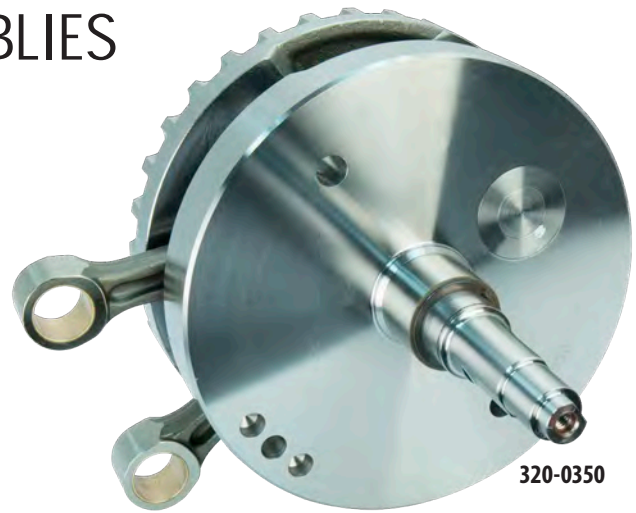
3 PIECE FLYWHEEL ASSEMBLIES

FITMENT

- 2007–'17 Harley-Davidson® big twins (except 2017 touring models)—Balanced and unbalanced models
- S&S T-Series Engine and Hot Set Up Kit® replacement flywheels

FEATURES AND BENEFITS

- Heat-treated 4140 material is harder and 114% stronger than stock
- New light weight connecting rod forgings
- Available with full width wristpin connecting rods
- Larger 1.671" diameter crankpin - increased contact area and tighter press fit for a stronger joint.
- No welding required!
- Integral mainshafts - eliminates two potential points of weakness
- Consistent balance and precision machining – Truer flywheels and less vibration
- Reduced mainshaft deflection at high rpm – less vibration, reduced piston and rod side thrusting, prevents oil pump damage, fully compatible with gear drive cams
- Capable of higher rpm – More available power!



320-0350

FLYWHEEL ASSEMBLIES FOR 2007–2017 HARLEY-DAVIDSON® BIG TWIN MODELS (EXCEPT 2017 TOURING MODELS)

Engine Displacement	Stroke	Balanced to Total Piston Weight (gms)	Rod WP End Style	Sprocket Bearing Race	Harley-Davidson® Twin Cam 96°/103°™	Harley-Davidson® Twin Cam 96B™/103B™
96, 103, 106 big bore, 110, 117 w/S&S Pistons	4 3/8"	1035	Straight	Yes**	320-0350	320-0356
				No	320-0351	320-0357
96, 103, 110 w/Stock Pistons*	4 3/8"	1035	Tapered*	Yes**	320-0352	320-0358
				No	320-0353	320-0359
S&S 106 Stroker***	4 1/2"	1108	Straight	No	320-0450	320-0544
S&S 111	4 1/8"	1035	Straight	No	320-0407	320-0413
SE 120R (uses 7.575" length rods)	4 5/8"	1035	Straight	No	320-0523	320-0529
S&S 124	4 5/8"	1035	Straight	No	320-0464	320-0471
S&S 143	4 5/8"	1290	Straight	No	320-0545	–
Special Order	Specify	Specify	Specify	Specify	329-0002	329-0002

*Stock pistons in 2007 and later engines require rods with tapered wristpin ends.

Note - All S&S Flywheels for 2007 and later engines have 7.659" length connecting rods.

**Note - Flywheel assemblies supplied with sprocket shaft bearing race installed are compatible with stock roller style sprocket shaft bearings. Assemblies with no race require a Timken® sprocket shaft bearing.

***4 1/2" stroke flywheels include 7.667" long connecting rods.

NOTES

Strokes longer than stock will require S&S Piston Oiler Set, part #31-2026.

2007-up stock rod length is 7.659".

Main Bearing Note: Most S&S flywheel assemblies for 1999-'17 big twin engines are designed for use with Timken® sprocket shaft bearings. They will fit directly in stock 1999-'02 Harley-Davidson® crankcases and in all S&S crankcases for 1999-'17 big twin engines, with no modifications. However, stock 2003 and later engines use a roller type bearing for the sprocket shaft. S&S does offer flywheel assemblies that are compatible with late roller style stock sprocket shaft bearings, but they are not recommended for very large, high performance engines.

S&S strongly recommends retrofitting 2003-'16 model crankcases to accept a Timken sprocket shaft bearing. A Timken conversion sleeve such as Screamin' Eagle® #34822-08 or Jim's® #956 may be used. A charging system spacer for 1999-'02 model year is also required.

If you choose not to convert your crankcases to a Timken sprocket shaft bearing, S&S flywheels may be used in 2003 and later engines by either purchasing the stock compatible flywheels or by installing Harley-Davidson® bearing kit #24004-03B when using S&S flywheels designed for Timken bearings. This bearing kit adapts the S&S sprocket shaft so it is compatible with stock roller type bearings. Verify that the bearing kit contains the 24604-00D or 24607-07 sprocket shaft bearing. Do not use a 24604-00, 24604-00A, 24604-00B or 24604-00C bearing. Please be advised that if this type of bearing is used, sprocket shaft bearing failure WILL NOT be covered under warranty.

TRYING TO IDENTIFY AN S&S® FLYWHEEL?
SEE FLYWHEEL I.D. CHART: **PAGE 538**

REPLACEMENT PARTS: PAGE 111

TC3 CAM PLATE

S&S cam support plates are just what the doctor ordered when repairing a damaged engine or installing new camshafts. CNC machined from forged aluminum for excellent strength and dimensional accuracy. S&S cam support plates are available to fit 1999–2006 and 2007–'17 Harley-Davidson® big twin engines. We don't want to encourage bad habits so plates for 1999–2006 are not compatible with stock spring-loaded chain tensioners, and require late style hydraulic tensioners and oil pump. We suggest the S&S TC3 oil pumps be installed with S&S TC3 Cam Plate.

FITMENT

- 2007–'17 big twins and 2006 Dyna models, *except 2017 touring models*

FEATURES AND BENEFITS

- Precision CNC machined forged aluminum
- Adjustable oil pressure regulator—adjust without removing plate from engine
- Passage plugs are removable for service
- Made In The USA

*Not compatible with stock spring-loaded chain tensioners or stock 1999–2006 oil pumps. Hydraulic tensioners (Unless running gear drive cams) and 2007–later style oil pump is required.



TC3 CAM PLATE

Fitment	Part #
2006 Dyna® models & 2007–'17 bt, <i>except 2017 touring models</i>	310-0625

TC3 OIL PUMP

If motor oil is the lifeblood of an engine, then the oil pump is its heart. If your engine needs a transplant, the S&S TC3 Oil Pumps are a great solution for worn out or destroyed stock units. Common causes of stock pump failure are debris and excessive pinion shaft run out. The new S&S oil pumps are much less likely to be damaged by either. Oh, and by the way, the S&S TC3 Oil Pumps pump and scavenge way more oil than stock. While you've got that motor apart, it would be a good time to install a forged S&S TC3 Cam Plate.

FITMENT

- 2007–'17 big twins and 2006 Dyna models, *except 2017 touring models*

FEATURES AND BENEFITS

- Consistent pressure and reliable scavenging
- Separate scavenge sections for flywheel cavity and cam chest—no interference
- Screens and magnetic traps help protect the scavenge rotors from debris
- Special design allows S&S pumps to tolerate more pinion shaft run out without damage
- Made in the USA!



TC3 OIL PUMP

Fitment	Part #
2006 Dyna® models & 2007–'17 bt, <i>except 2017 touring models</i>	310-0641

TC3 OIL PUMP & CAM PLATE KITS



TC3 OIL PUMP AND CAM PLATE KITS

Fitment	Part #
2006 Dyna® models & 2007–'17 bt, <i>except 2017 touring models</i>	310-0732

REPLACEMENT PARTS: SEE PAGE 112 & PAGE 113

OIL PUMPS

FITMENT

- 2007–'17 big twins and 2006 Dyna® models
- Fits all engines built with S&S T-Series crankcases, *except 2017 touring models*

FEATURES AND BENEFITS

- Replaces stock oil pump, cams, cam support plate, bearing plate, bearings and decorative gearcover
- Uses drive gears of special S&S gear drive cams to pump oil
- Oil pressure is regulated after the—*more consistent pressure to the engine*
- Increased scavenging capacity results in:
 - Less oil in the crankcase
 - Less power loss
 - Less heat build up
 - Less oil carryover
- Excess oil from pressure control valve is filtered—longer pump life



OIL PUMP KIT WITHOUT CAMS[±]

Finish	Part #
Chrome	106-3887

Requires installation of gear drive cams, see chart. below

REPLACEMENT PARTS: PAGE 114

GEAR DRIVE EASY START CAM SETS FOR USE WITH S&S GEAR OIL PUMPS FOR 2007–'17 (EXCEPT 2017 TOURING MODELS) BIG TWIN AND 2006 DYNA® MODELS



330-0145

Cam*	Part #
585GPE	330-0145
635GPE	330-0369
640GPE	330-0144

*See Camshafts starting page 78 of this catalog for further information on cam recommendations for different applications.

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BILLET GEARCOVER

FITMENT

- 1999–'17 Twin Cam 88°/96™/103™, *except 2017 touring models*

BILLET GEARCOVER*

Finish	Part #
Polished	31-6516
Chrome [±]	106-3774

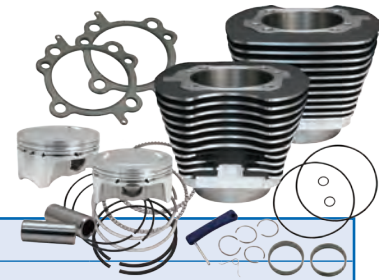
*The S&S gearcover is not compatible with 1999-'01 engines with stock fuel injection or ignition systems which require a cam position sensor in the gearcover. May be used in 1999-'01 engines if an aftermarket ignition or fuel injection system, that does not require a cam position sensor, is installed.



31-6516

CYLINDERS WITH PISTONS KIT

- Cylinder w/piston kits include fitted pistons and cylinders, head gaskets, base, and exhaust gaskets
- Cylinder kits with pistons are honed to fit the pistons included.



S&S® 4" BORE BOLT-IN SIDEWINDER® KITS SPECIFICATION CHART

Displacement	Stroke	Bore	Cylinder Length	Piston Type	Dome Volume	83cc CNC Heads	85cc Stock Heads	89cc S&S Heads
						10.7:1	10.5:1	10.2:1
110"	4 3/8"	4.00"	4.937"	Forged	.75 pop up			

4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS

Displacement	Silver	WBlack
110	910-0650	910-0651

PISTON REPLACEMENT PARTS: PAGE 74

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S&S® 4 1/8" BORE CYLINDERS WITH PISTONS SPECIFICATION CHART FOR 124" AND 117" KITS

Displacement	Stroke	Cylinder Length	Forged Piston Type	Compression Ratio			
				85cc stock heads	89cc S&S heads	91cc S&S heads	SE 95cc heads
124"	4.625	5.004	Flat Top	11.4:1	11.0:1	10.8:1	10.5:1
124" Dish	4.625	5.004	10.9 cc dish	10.5:1	10.2:1	10.0:1	9.7:1
117"	4.375	4.878	Flat Top	10.9:1	10.5:1	10.3:1	10.0:1
117" Dish	4.375	4.878	10.9 cc dish	10.0:1	9.7:1	9.6:1	9.3:1
111"	4.125	4.754	Flat Top	10.3:1	9.9:1	9.8:1	9.4:1

4 1/8" BORE CYLINDERS WITH PISTONS FOR 124" AND 117" KITS

Displacement	STOCK HEADS OR S&S HEADS WITH STOCK BOLT PATTERN		
	Stone Gray	Silver	WBlack
124"	910-0469	910-0341	910-0338
124" dish	910-0490	910-0327	910-0324
117"	910-0474	910-0213	910-0221
117" dish	—	910-0321	910-0318

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S&S® BIG BORE KIT SPECIFICATION CHART FOR 106" & 107" KITS

Displacement	Bore	Stroke	Cylinder Length	Forged Piston Type	Compression Ratio (with provided .045" head gasket)			
					79cc S&S Heads	83cc CNC Ported Stock Heads	85cc Stock Heads	89cc S&S Heads
107"	3.937"	4 3/8"	4.937"	3cc Dome	11.2:1	10.7:1	10.5:1	10.1:1
106"	3.927"	4 3/8"	4.937"	Flat Top	10.6:1	10.2:1	10.0:1	9.7:1

Cylinder w/piston kits include pistons and cylinders that require no boring or honing.

BOLT-IN BIG BORE KITS

Displacement	Silver	WBlack
107"	910-0480	910-0500
106"	910-0202	910-0206

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91-7506* Call for Pricing

CYLINDERS

- Individual cylinders and cylinder sets without pistons are bored slightly under nominal size and are not honed.

4.425" BORE CYLINDERS WITHOUT PISTONS FOR T143

Displacement		Stone Gray	WBlack
143"	Set	910-0562	910-0565

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4 1/8" BORE CYLINDERS WITHOUT PISTONS FOR 124" AND 117" HOT SET UP KITS (STOCK BOLT PATTERN)

Displacement		Stone Gray	Silver	WBlack
124" & 124" dish	Set	910-0494	910-0392	910-0401
117" & 117" dish	Set	910-0497	910-0231	910-0252

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



NOTE

S&S 4 1/8" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt of early production pistons with out micrometer window makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance. Current production pistons have micrometer windows in the coating on the piston skirts that allow accurate measurements to be taken. These pistons may be installed by honing cylinder to nominal diameter +/- 0.0001" or by measuring piston and honing cylinder to achieve .002"–.0025" close clearance for street applications or .0032"–.0045" loose clearance for immediate competition use.

3.937" BORE CYLINDER

Displacement		Silver	WBlack
107"	Front or Rear	910-0478	910-0477

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3.927" BORE CYLINDERS

Displacement		Silver	WBlack
106"	Front or Rear	910-0210	910-0212

NOTE

S&S 3.927" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt of early production pistons with out micrometer window makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance. Current production pistons have micrometer windows in the coating on the piston skirts that allow accurate measurements to be taken. These pistons may be installed by honing cylinder to nominal diameter +/- 0.0001" or by measuring piston and honing cylinder to achieve .002"–.0025" close clearance for street applications or .0032"–.0045" loose clearance for immediate competition use.

3 7/8" BORE CYLINDERS

Displacement		Silver	WBlack
103" 	Set	910-0207	910-0208

NOTE

S&S 3 7/8" pistons for 103" kits are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance.

91-7506*

PISTON KITS

- Piston kits include set of pistons, rings, wristpins, and clips

4" BORE FORGED PISTON KITS FOR 110

Displacement	Deck Height	Stroke	Standard
110	1.090"	4 $\frac{3}{8}$ "	920-0127

4.425" BORE FORGED PISTON KITS FOR T143

Displacement	Deck Height	Stroke	Standard	+ .020"
T143	1.167"	4 $\frac{3}{8}$ "	920-0106	920-0111

4 $\frac{1}{8}$ " BORE FORGED PISTON KITS FOR HOT SET UP KITS®

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"	+ .030"
124" & 117" Stock Heads 10cc Dished	1.050"	Up To 4 $\frac{3}{8}$ "	920-0046	920-0047	920-0050	920-0053
124", 117" & 111" -Stock or S&S Heads Flat Top	1.050"	Up To 4 $\frac{3}{8}$ "	106-3491A	106-3872A	106-3964A	920-0094

10.6:1 HIGH COMPRESSION PISTONS FOR HARLEY-DAVIDSON® CVO™ 110 ENGINES

Fitment	Deck Height	Wristpin Diameter	Standard	+ .010"
2007–'17 bt CVO™ 110" engines	1.0895"	.927"	920-0114	920-0115

3.937" BORE FORGED PISTON KIT

Displacement	Deck Height	Stroke	Standard
107"	1.085"	4 $\frac{3}{8}$ "	920-0100

3.927" BORE FORGED PISTON KITS FOR 106" TOP END KITS

Displacement	Deck Height	Stroke	Standard	+ .010"
106" Flat top	1.090"	4 $\frac{3}{8}$ "	106-3690	106-4416

3 $\frac{3}{8}$ " BORE FORGED PISTON KITS FOR 103" ENGINES

Displacement	Deck Height	Stroke	Standard	+ .005"	+ .010"
103" Forged, 5.2cc pop-up dome	1.083"	4 $\frac{3}{8}$ "	106-0432	106-0433	106-0434



NOTE

S&S' 4 $\frac{1}{8}$ " and 3.927" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt of early production pistons with out micrometer window makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance. Current production pistons have micrometer windows in the coating on the piston skirts that allow accurate measurements to be taken. These pistons may be installed by honing cylinder to nominal diameter +/- 0.0001" or by measuring piston and honing cylinder to achieve .002" - .0025" close clearance for street applications or .0032" - .0045" loose clearance for immediate competition use.

S&S 3 $\frac{3}{8}$ " pistons for 103" kits are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance.

REPLACEMENT PARTS FOR PISTONS

REPLACEMENT CHROMOLY FACED PISTON RINGS

Bore	Standard	+ .005"	+ .010"	+ .020"	+ .030"
4.425"	940-0043	–	–	940-0044	–
4 1/8"	940-0014	–	940-0012	940-0013	940-0017
3 7/8"	94-1290X	94-1294X	94-1291X	–	–
3.927"	106-3709A	–	106-4422A	–	–
3.937"	940-0032*	–	–	–	–
4"	940-0056	–	–	–	–

*Only includes one set of rings.

REPLACEMENT PISTON WRISTPINS

Description	Part #	
Wristpin	For 4.425" Pistons	940-0037
	For 4 1/8", 3 7/8", 3.927" Pistons	106-1052
	For 3.937" Pistons	940-0033
	For 4" Pistons	940-0057

REPLACEMENT PISTON KEEPERS

Description	Part #	
Keeper	<i>each</i>	94-9278-5
	<i>2 pack</i>	94-9278-2
	<i>4 pack</i>	106-2304
Keeper for 4.425"	<i>each</i>	94-9278-5
Keeper for 3.937" & 4"	<i>2 pack</i>	940-0034



POWER PACK

LIMITED TIME PRICING, GOOD ONLY
FROM OCTOBER 1ST THROUGH JANUARY 31ST 2019

Bump 1999–'06 engines from 88ci to 100ci and 2007–'17 engines from 96ci or 103ci to 110ci with the new S&S 4" big bore kit. The kit also includes matched cams, cam plate, oil pump and everything else a high performance big inch engine needs to reliably make serious power.

FITMENT

- All 2007–'17 big twin models and 2006 Dyna® models, *except 2017 touring models*

FEATURES AND BENEFITS

- Largest big bore kit available without doing crankcase mods
- Upgrade Twin Cam 88 to 100 cu inches
- Upgrade Twin Cam 96 and Twin Cam 103 to 110 cu inches
- Cylinders fit to pistons—No machining required
- All parts required to upgrade to gear drive cam or hydraulic tensioners
- Engineered package to deliver the best bolt-in performance available



POWER PACKAGE KIT

Fitment	Finish	Cam	Drive	Part #
2007–'17 <i>except '17 touring</i>	Silver	585CE	Chain	330-0666
2007–'17 <i>except '17 touring</i>	Silver	585GE	Gear	330-0667
2007–'17 <i>except '17 touring</i>	Black	585CE	Chain	330-0668
2007–'17 <i>except '17 touring</i>	Black	585GE	Gear	330-0669

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NOTES

- 1999–'04 engines will require the additional purchase of valve springs pn 900-0593
- Pinion shaft runout must be less than .003" to use gear drive cams
- Kit not available to fit '06 Dyna® models but parts may be purchased separately.
- Not for use with S&S 79cc Cylinder Heads



CAMSHAFT OVERVIEW

OES: Original Equipment Specification (OES) A bolt-in replacement cam with stock cam timing is designed for riders with stock engines. Does not require tuning. Bolt-in stock. Equivalent to HD® A-Grind

MR103: Designed as bolt-in cams for 103 CID engines with stock 9.7:1 compression ratio up to 10.5:1. Works well with stock, un-ported heads, but is great for S&S CNC ported heads. More power across the rpm range best results form 2500–5500 rpm. Bolt-in.

HP103: Designed as bolt in cams for engines with 103 and stock 9.7:1 compression up to 10.5:1. Works well with stock, un-ported heads, but is great for S&S CNC ported heads. Best power in the higher rpm range, 3000–6000 rpm. Bolt-in.

635 H.O.: High lift cam for modified engines with 106" or greater displacement and compression ratios between 10.0:1 and 11.0:1. Works well with stock, un-ported heads, but S&S CNC ported heads are recommended. Best power from 3000–6000 rpm. This is not a bolt-in cam set. High-lift springs and clearance checks are required.

510: Designed as a bolt-in cam for 88, 95, and 96 CID engines with compression ratios below 9.7:1, it is primarily intended for use with stock, un-ported heads. 3000–5500 rpm. Bolt-in.

551: Designed for engines with 96 to 106 CID and 9:1 to 9:9 compression, this is a bolt-in cam set designed for stock or mildly modified touring bikes. 551 cams are not recommended for compression ratios of 10:1 or greater. Greatly improves low-end and midrange torque, strongest from idle–4000rpm. Bolt-in torque.

557: Designed for Tri Glide® models, this bolt-in cam, with its short duration, produces lots of usable torque. The camshaft's stock base circle permits the use of stock pushrods. However, we recommend S&S Quickee Adjustable pushrods for easy installation. Fits all 2009–2012 Harley-Davidson® Tri Glide® models. Bolt-in.

570: Designed for 88 to 103 CID engines with compression ratios between 9:1 and 10:1, this bolt-in cam will provide a nice power increase across the entire power band. 3200–5700 rpm. Excellent bolt-in for overall power on 103". Bolt-in overall.

583: Optimized for use in the Softail®/Dyna® lines, this bolt-in cam makes horsepower and torque that you can feel all the way through the rpm range, making the most power right where you need it: 1500–5000rpm. Bolt-in. 583 cams are not recommended for engines having compression ratios greater than 10.1:1.

585: Designed for 88 to 106 CID engines with compression ratios from 9.7:1 to 10.5:1 and 106 to 124 CID engines from 9:1 to 10:1 compression. This bolt-in cam provides massive horsepower and torque increases starting at 3000rpm and holds steady all the way to redline. 3500–6000 rpm for 88"–103" engines and 2500–5500 for larger engines.

625: Cam set designed for 95" or larger engines with compression ratios between 10.0 and 10.75:1. 3000–6000 rpm.

640: Used in S&S T124 engines, this cam makes horsepower! Intended for engines of 95 CID or more w/compression ratios between 10.5:1 and 11.5:1. 3000–6000 rpm.

675: A high lift monster, this cam set is designed for 120" or larger engines with at least 11:1 compression ratio. 4500–6500 rpm.



S&S EASY START CAMS

Start any engine regardless of displacement or compression ratio, with a stock starter. Easy Start Cams from S&S® Cycle make hard starting obsolete for 1999-'16 big twins. Available in economical chain drive and rock-solid gear drive versions. Don't get caught "dead" without them!

FEATURES AND BENEFITS

- Start any engine with a stock starter
- Save your starter and battery!
- Reliable—tested for 100,000 accumulative starts and over 150,000 road miles without breakage or compression release failure!
- Automatic—no buttons to push

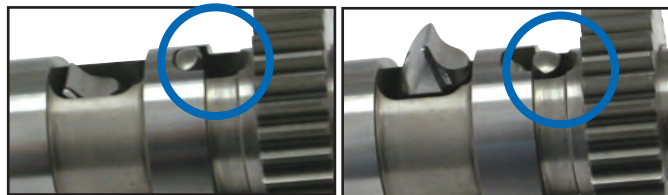
OPTIONS

- Chain drive or gear drive (See the following pages for part numbers)

HERE'S HOW IT WORKS

Each of the two exhaust cam lobes are equipped with a spring loaded compression release lobe on the "heel" of the cam at the point where the valve would normally be fully closed.

The lobe holds the exhaust valve open slightly at cranking speed. This releases some of the compression, making the engine much easier to crank. Once the engine starts, and rpm increases, the compression release lobe is centrifugally retracted and the engine runs normally, with full compression, and without any loss in performance. This allows a stock starter and battery to start nearly any engine.



The compression release lobe reduces compression until the engine starts.

Increased rpm causes the compression release lobe to be centrifugally retracted so the engine runs normally.

CAMSHAFT OVERVIEW

CON'T

SPECIFICATIONS OF S&S® CHAIN DRIVE AND GEAR DRIVE CAMSHAFTS FOR 2007-17 BIG TWIN (EXCEPT 2017 TOURING MODELS)

Cam Name	Bolt-In	Valve Timing (open/close)		Valve Duration		Valve Lift	Centerline		Lift @ TDC		APPLICATION CROSS REFERENCE CHART		
		Intake	Exhaust	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust	HD® Screamin' Eagle®	Andrews®	Most Fitting Application
		Open BTDC/ Close ABDC	Open BBDC/ Close ATDC	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust			
510	●	20°/38°	52°/20°	238°	252°	.510"	99°	106°	.187"	.178"			
551**	●	17°/19°	41°/17°	216°	238°	.550"	91°	102°	.178"	.170"	SE-203/255	21H/26H	Touring
557	●	6°/27°	39°/12°	212°	231°	.557"	100°	103°	.113"	.146"			Tri-Glide®
570	●	20°/40°	55°/20°	240°	255°	.570"	100°	107.5°	.187"	.179"	–	54H	All big twin
583	●	5°/18°	58°/24°	203°	262°	.583"	96.5°	107°	.113"	.206"	SE-203/255	21H/26H	Softail®/Dyna®
585	●	20°/45°	60°/20°	245°	260°	.585"	102.5°	110°	.186"	.179"	SE-211/251/257	31H/32H/50H 55H/67H	All big twin
625		20°/55°	60°/20°	255°	260°	.625"	107.5°	110°	.189"	.184"	SE-258/260	60H	All big twin
640		25°/60°	65°/25°	265°	270°	.640"	107.5°	110°	.228"	.214"	SE-264	59H	All big twin
675		25°/64°	70°/25°	269°	275°	.675"	109.5°	112.5°	.235"	.205"	–	64H	All big twin

**551 cams are not recommended with compression ratio of 10:1 or higher.

S&S® CAMSHAFT SPECIFICATIONS

Cam Name	Valve Timing		Valve Duration		Valve Lift		Lobe Center Line		Valve Lift @ TDC	
	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
	Open BTDC/ Close ABDC	Open BBDC/ Close ATDC								
OES	-9°/25°	42°/-3°	196°	219°	.474"	.474"	107°	112.5°	.087"	.110"
MR103	13°/33°	50°/22°	226°	252°	.585"	.585"	100°	104°	.172"	.177"
HP103	20°/49°	45°/26°	249°	251°	.575"	.575"	102.7°	101.5°	.199"	.206"
635 H.O.	19.5°/43.5°	58.5°/37.5°	243°	276°	.635"	.635"	102°	100.5°	.186"	.284"

NOTE

Stock valve springs in 2005-up engines can accommodate valve lifts up to .590".

GEAR DRIVE CAM KITS

FITMENT

- 2006 Dyna® and 2007–'17 big twins, *except 2017 touring models*

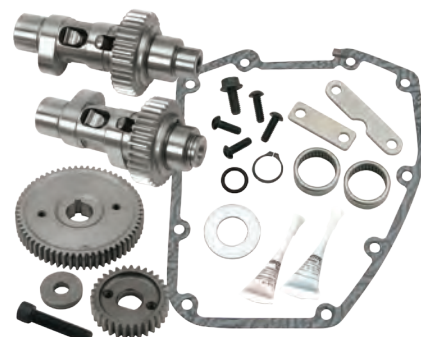
FEATURES AND BENEFITS

- Improves valve timing accuracy by eliminating timing chain lash
- Easy Start cams allow stock starter to start any engine
- No tensioner shoes to wear out or fail

OPTIONS

Which S&S Gear Drive Cam Kit to Order?

- If updating a stock chain drive system, it's easiest to order a complete kit. Includes:
 - Camshafts with inner gears
 - Outer cam drive gear kit
 - Camshaft installation kit
- If replacing cams in an engine already equipped with S&S gear drive cams, order cams with inner gears and reuse the existing outer gears. Camshaft installation kit for the appropriate model year is recommended.
- If installing a set of gear drive cams from another manufacturer, order S&S cam gear kits for the appropriate model year. Each kit provides the inner cam gear as well as an outer cam gear. Camshaft installation kit for the appropriate model year is recommended.



106-5737

GEAR DRIVE CAMS FOR 2007–'17 BIG TWIN MODELS (EXCEPT 2017 TOURING MODELS)

Cam Name	Easy Start Cams			Standard cams	
	Complete Kit**	Cams w/Inner Gears†		Complete Kit**	Cams w/Inner Gears†
	Stock Oil Pump	Stock Oil Pump	S&S Gear Oil Pump	Stock Oil Pump	Stock Oil Pump
510	–	–	–	33-5266	33-5246
551	106-5737	106-5736	–	106-4868	106-4870
557*	330-0057	330-0056	–	330-0109	–
570	106-5221	106-5220	–	33-5267	–
583	106-5811	106-5810	–	330-0111	–
585	106-5225	106-5224	330-0145	33-5268	33-5248
625	106-5229	106-5228	–	33-5269	33-5249
640	106-4850	106-4849	330-0144	33-5270	33-5250
675	106-5741	106-5740	–	330-0113	–
MR103	330-0303	330-0302	–	–	–
HP103	330-0354	330-0353	–	330-0350	330-0349
635 H.O.	330-0339	330-0338	330-0369	330-0335	330-0334

2006 Dyna® uses 2007–up style cams.

*For Harley-Davidson® Tri Glide® models.

**Complete kits include inner and outer gears, and installation kit.

† Installation kit not included but recommended.



106-6068

INSTALLATION KIT FOR S&S GEAR DRIVE CAM*

Models	Part #
2006 Dyna® and 2007–'17 big twins, <i>except 2017 touring models</i>	106-6068

Includes a gearcover gasket, bearings, oil passage block-off kit, retaining ring, o-ring, thread lock and instructions. *This kit is included with all Complete Gear Drive Cam Kits.



106-5723

Oil passage block-off kit

Use this kit to block oil passages in cam plate when hydraulic cam chain tensioners are removed to install gear drive cams. Fits any cam plate designed for hydraulic tensioners. This oil passage block-off kit is included in the cam installation kit, part #106-6068.

NOTES

Fuel injection tuning required.

Pinion shaft run-out must be checked before installing S&S® gear drive cams.

A hydraulic press and other professional tools are required to install S&S gear drive cams. Additionally, material must be removed from the inner surface of the stock gearcover. The stock crankcase may require clearancing for S&S .625", .640", and .675" lift cams. S&S recommends that gear drive cams be installed by a professional mechanic.

Due to the inherent characteristics of gear drives, you may experience more valve train noise with gear driven cams. Oversized and undersized gears are available to help achieve correct gear lash. We have found that with 160 lb. of valve seat force, the S&S gear drive cams will perform well up to 6200 rpm. If higher rpm is anticipated, valve springs that provide higher seat force should be used.

S&S can do a special order cam. Contact your S&S Customer Service Representative for more information.

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CHAIN DRIVE CAM KITS

FITMENT

- 2006 Dyna® and 2007–2017 big twins, *except 2017 touring models*



FEATURES AND BENEFITS

- Great way to increase performance at an affordable price
- Quick installation—reuse many stock components
- Easy Start cams allow stock starter to start any engine

KIT CONTENTS

- Cams
- Installation Kit: gearcover gasket, bearings, retaining ring, o-ring, thread lock
- Instructions



106-4947

S&S CHAIN DRIVE CAM KITS FOR 2007–'17 BIG TWIN MODELS

(EXCEPT 2017 TOURING MODELS)

Cam Name	Standard	Easy Start
OES	330-0293	–
510	106-4380	–
551	106-4858	106-4947
557*	330-0105	330-0053
570	106-4381	106-5234
583	330-0106	106-5807
585	106-4382	106-5233
625	106-4383	106-5239
640	106-4399	106-5235
MR103	330-0470	330-0299
HP103	330-0343	330-0346
635 H.O.	330-0328	330-0331

Note: 2006 Dyna® uses 2007-up style cams. *For Harley-Davidson® Tri Glide® models.

REPLACEMENT INSTALLATION KIT FOR S&S CHAIN DRIVE CAM*

Models	Part #
2006 Dyna® and 2007–'17, <i>except 2017 touring models</i>	106-5929

Includes a gearcover gasket, cam bearings, retaining ring, o-ring, thread lock and instructions.

*This kit is included with all S&S Chain Drive Cam Kits.

NOTES

Fuel injection tuning required.

551 & 583 cams are not recommended with compression ratio of 10:1 or higher.

S&S can do a special order cam. Contact your S&S Customer Service Representative for more information.

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CAM RELATED REPAIR PARTS



REPLACEMENT GEARS* FOR 2006 DYNA® AND 2007–'17 MODELS

(EXCEPT 2017 TOURING MODELS)

Description	Part #	
Outer cam drive gear only	330-0621	
Front inner cam gear	330-0593	
Rear inner cam gear	Standard	330-0593
	Undersized	330-0594
	Oversized	330-0595
Pinion Gears	Standard	330-0622
	Undersized	330-0626
	Oversized	330-0627

*Due to machining variations in the stock cam plate, oversized or undersized gears may be needed to achieve correct gear lash.

CAM GEAR DRIVE KIT

Fitment	Part #
2006 Dyna® and all 2007–'17 models, <i>except 2017 touring models</i>	33-4285

Includes front and rear inner cam gears, pinion gear, and outer cam gear

OUTER CAM GEAR DRIVE KIT

Fitment	Part #
2006 Dyna® and all 2007–'17 models, <i>except 2017 touring models</i>	33-4268

Includes 2 outer gears and hardware

REPLACEMENT HARDWARE FOR OUTER CAM GEAR DRIVE

Description	Part #
Hardware Kit for 2006 Dyna® and all 2007–'17 models, <i>except 2017 touring models</i>	33-4271P
Replacement Key for 2006 Dyna® and all 2007–'17 models, <i>except 2017 touring models</i>	106-1348

CAM NEEDLE BEARINGS ASSEMBLIES

Description	Part #	
Inner Cam Bearing	each	31-4199-S 9215
	2 pack	31-4499 9215

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CAM CHEST UPGRADE GEAR OR CHAIN DRIVE

FITMENT

- 2007–'17 Harley-Davidson® big twins (except 2017 touring) & 2006 Dyna® models

FEATURES

- Upgrade to S&S bolt-in performance chain drive or gear drive camshafts
- Improved engine performance—higher lift and optimized cam timing
- S&S Quickee pushrods—easy installation, without removing rocker covers
- Replace stock oil pump, cam support plate, cams, chain tensioners, and tappets with all new premium U.S. made S&S components
- Better, more consistent oil pressure



CHAIN DRIVE CAM CHEST UPGRADE KIT FOR 2007–'17 BIG TWIN (EXCEPT 2017 TOURING) & DYNA® MODELS

Fitment	Cam	Part #
2007–up bt and 2006 Dyna models	551CE Easy Start	330-0544
	583CE Easy Start	330-0545
	585CE Easy Start	330-0546
	585C Standard	330-0553

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GEAR DRIVE CAM CHEST UPGRADE KIT FOR 2007–'17 BIG TWIN (EXCEPT 2017 TOURING) & DYNA® MODELS

Fitment	Cam	Part #
2007–up bt and 2006 Dyna Models	510G Standard	310-0814
	551GE Easy Start	310-0815
	585GE Easy Start	310-0816

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HYDRAULIC CAM CHAIN TENSIONER KIT

FITMENT

- 2007–'17 except 2017 Touring & 2006 Dyna® models
- 1999–'06 models with hydraulic cam plate upgrade

FEATURES

- Thicker shoe for longer wear
- Direct chain oiling
- Larger piston
- Tighter tolerance for improved stability
- Made in USA

HYDRAULIC CAM CHAIN TENSIONER KIT

Fitment	Part #
2007–'17 except 2017 Touring	330-0518



REPLACEMENT PARTS

Description	Part #
Tensioner, Asm, Inner, Body, Cam Chain	330-0519
Tensioner, Assembly, Outer, Body, Cam Chain	330-0520
Tensioner Shoe, Chain, Camshaft	330-0521

PREMIUM HIGH PERFORMANCE TAPPETS

FITMENT

- 1999–2017 big twins
- S&S T-Series engines

FEATURES

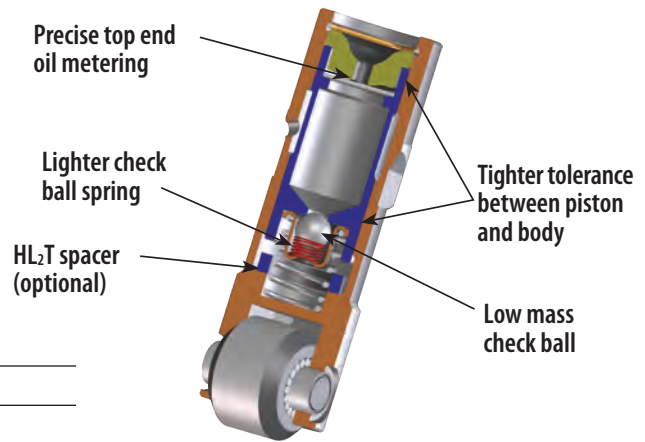
- Reduced valve train noise from start up to shut down
- Close tolerances for low leak down rates – *fast pump up and superior high rpm performance*
- Low mass, bearing grade, silicon nitride check ball and lighter check ball spring – *enhances fast pump up and quiet operation*
- 100% tested to ensure that leak down and top end oil flow are within specification



330-0174

PREMIUM HIGH PERFORMANCE TAPPETS

Tappet Sets	Part #
Set of 4 tappets with HL ₂ T kit	330-0174
Set of 4 tappets without HL ₂ T kit	330-0175



HIGH PERFORMANCE HYDRAULIC TAPPETS

FITMENT

- 1999–'17 big twins
- S&S T-Series engines



HIGH PERFORMANCE HYDRAULIC TAPPET SETS

Description		Part #
Standard Tappet Set (4)	Without HL ₂ T Kit	33-5350 18538-99A, 18538-99B, 18538-99C

*S&S tappets with HL₂T Kit require the use of adjustable pushrods.

HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL₂T)

FITMENT

- Stock 1999–'17 big twin
- All S&S tappets

FEATURES AND BENEFITS

- Designed to limit the range of travel of the hydraulic tappet plunger – *Easier starting*
- More horsepower at higher RPMs



HYDRAULIC LIFTER LIMITED TRAVEL SPACER

Description	Part #
Set of four spacers (fits tappets with .612" I.D.)	33-5338 18526-89A

Adjustable pushrods must be used with HL₂T kit in order to obtain proper plunger position. If replacing lifters in a 1999–02 with HD® #18538-99B, order S&S part #33-5338.

TAPPET COVERS

FITMENT

- 1999–'17 big twins, except 2017 touring models
- S&S crankcases

KIT CONTENTS

- Covers
- Gaskets
- Installation hardware

FEATURES AND BENEFITS

- CNC billet aluminum provides extra strength and dimensional stability over a wide temperature range
- Simple to install upgrade that looks great

TAPPET COVER KITS

Finish	Part #
Polished	33-5601
Chrome	106-3883 [±]
Chrome 4 3/8" style	330-0281 [±]



33-5601

REPLACEMENT PARTS FOR TAPPET COVERS

Descriptions	Part #
Gasket	each 33-5303-S 18635-99B
	2 pack 33-5303-2 18635-99B
Tappet Cover Gasket 4 3/8" style	each 330-0282
Screw w/flat washer, Zinc	each 50-0092-S 4741A
	4 pack 50-0092P 4741A
Screw, Chrome	each 50-0482 [±]
Washer, Flat, Chrome	each 50-7017 [±]

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycles products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

TIME-SAVER ADJUSTABLE PUSHRODS

FITMENT

- 1999–'17 big twins, *except 2017 touring models*

FEATURES AND BENEFITS

- No need to remove rocker covers to install
- Speeds up installation of cams and rockers arms
- Makes upper-engine work easy!
- Can be installed with stock pushrod tubes



TIME-SAVER ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Set	930-0053

QUICKEE ADJUSTABLE PUSHRODS

FITMENT

- 1999–'17 big twins (*except 2017 touring models*) w/stock engine height +/- .050"

FEATURES AND BENEFITS

- Adjustable to accommodate all tappets and cam base circle diameters and engine heights
- Easy to install—removal of rocker box not needed
- Perfect for S&S HL₂T
- No threads on wrench flats

KIT CONTENTS

- Pushrods, chrome pushrod covers, o-rings, and cover keepers



When a Quickee adjustable pushrod is collapsed, it can easily be installed or removed from an assembled engine.

QUICKEE ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Kit <i>(includes chrome pushrod covers, o-rings & cover keepers)</i>	106-6051
Pushrods Only*	93-5122

Longer keepers are required for taller than stock engines. [page 84](#) of this catalog for pushrod cover keepers.

*1984-'99 style pushrod covers are required for access to the Quickee Adjustable Pushrod adjusters in 2007-'12 big twins. [page 84](#) for pushrod covers.



STANDARD ADJUSTABLE PUSHRODS

FITMENT

- 1999–'17 big twins, *except 2017 touring models*
- Lengths available for various displacements

FEATURES AND BENEFITS

- Adjustable to accommodate all tappets & cam base circle diameters
- Perfect for HL₂T kits

KIT CONTENTS

- Pushrods, chrome pushrod covers, tappet cover gaskets, o-rings, cover keepers



STANDARD ADJUSTABLE PUSHRODS FOR HARLEY-DAVIDSON® TWIN CAM 96™/103™

Displacement	Engine Height	Cylinder Length	Pushrod Kit	Pushrods Only	Pushrod Covers	Cover Keepers
96", 103", 106"	Stock	4.937"	93-5095±	93-5096	106-1340±	93-4100
124"	+ .096"	5.013"	—	93-5098	106-1340±	93-4115
143"	+ .2875"	5.057"	—	930-0103	106-1340±	93-4102
Special Order	Specify	Specify	—	93-5102**	—	93-4109*

*Custom, extra long stainless steel 4.250", customer to cut to required length

NON-ADJUSTABLE PUSHRODS



FITMENT

- 2007–'17 Harley-Davidson® Twin Cam 96™ and 103™ big twin engines, *except 2017 touring models*

FEATURES AND BENEFITS

- Replaces stock pushrods perfectly
- 7/16" high strength chromoly steel tubing for increased strength
- Pushrods are marked with stock color code and valve position for easy installation

NON-ADJUSTABLE PUSHRODS

Description	Part #
Pushrods Only	930-0046

PUSHROD COVERS & RELATED PARTS

PUSHROD REPLACEMENT PARTS

Description	Part #
Pushrod Cover Kit (includes top and bottom covers, cover cap, cover spring, spring washer, and o-rings for four pushrods)	106-1340
Top Cover	93-4016 17935-66T, 17935-79B
Bottom Cover	93-4015 17938-83
Cover Cap	93-4017 17945-36B
Cover Spring	93-4018 17947-36
Cover Cap Washer	50-7131 6762B
Pushrod O-ring Kit (includes top, middle, and bottom o-rings for four pushrods)	93-4022 11293, 11157, 11101, 11190
Top O-ring	50-8039
Middle O-ring	50-8038 11132A
Bottom O-ring	50-8037 11145A



93-4016

93-4015



93-4017



93-4018



50-7131



50-8037



50-8039



50-8038

PUSHROD COVER KEEPER SETS FOR 2007-'17 BIG TWINS

Length	S&S Tubes	Part #
2.400"	All stock height TC 96/103	93-4070 ± 17950-48
2.500"	96", 100", 117", 103", 106" HSU	93-4100 ±
2.600"	124"	93-4101 ±
2.800"		93-4115 ± 17950-86
2.900"	143"	93-4102 ±
3.000"		93-4103 ±
3.100"		93-4104 ±
3.200"		93-4105 ±
3.330"		93-4106 ± 17949-40, 17950-66
3.500"		93-4107 ±
3.625"		93-4108 ±
4.250"*		93-4109



93-4101±

All S&S pushrod keepers are chromed steel, except part #93-4109. Keeper part #93-4109 is intended for unusually tall engines. It is manufactured of unchromed stainless steel to prevent rust or peeling after it is trimmed to the required length.

*Custom, extra long stainless steel 4.250", customer to cut to required length

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660" & 720" VALVE SPRINGS KITS FOR B3 HEADS

FITMENT

- Modified Harley-Davidson® 1984-up big twin and 1986-'03 Sportster® Models For S&S® Super Stock®, Special Application, or other heads which can accept a larger than stock O.D. outer spring. Stock spring O.D. is approximately 1.400". See descriptions below for outer spring O.D. of specific spring kits. S&S racing valve springs are designed to be used with "no shoulder" style valve guides. Special keepers fit stock 3/16" diameter stemmed valves and S&S collars only. Pro Stock spring kits include keepers for valves with 1/2" or 5/16" stems.

KIT CONTENTS

4 titanium top collars, 4 bottom collars, 4 outer, 4 middle, and 4 inner valve springs, 8 valve keepers, 4 each .015" shims and .030" shims.

.660" LIFT TRIPLE VALVE SPRING KIT WITH TITANIUM TOP COLLARS

- These springs can be set up for use with S&S 675 cams
- Typically used with cast iron guides
- 1.900" installed height
- 1.550" O.D. outer spring, middle spring is flat style and serves as a harmonic dampener
- Valve spring seat pressure equals 210 lbs
- Open pressure @ .660" is about 520 lbs
- Coil bind @ 1.175"

.720" LIFT TRIPLE VALVE SPRING KIT WITH TITANIUM TOP COLLARS

- Typically used with bronze guides
- 1.975" installed height
- 1.570" O.D. outer spring
- Valve spring seat pressure 216 lbs
- Valve spring open pressure @ .720" is 540 lbs
- Coil bind @ 1.130"



90-2079

.660" & 720" LIFT VALVE SPRING KIT FOR B3 HEADS

Description	Part #
.660" Lift Triple Valve Spring	90-2079
.720" Lift Triple Valve Spring	90-2080

REPLACEMENT PARTS

Description	Part #
Top collar - titanium .660"/.720" lift	90-2155A
Bottom collar - .660"/.720" lift	each 90-2090
Valve keeper 3/16" valve stem SA	each 90-2153A
Shim - .015"	each 90-2086
	5 pack 50-7161
Shim - .030"	each 90-2087
	5 pack 90-2198

NOTE

The .660" lift kit (90-2079) can be used to replace the S&S spring combination installed in early .630" lift S&S heads. Requires the use of S&S .085" longer intake valve 90-2004 and exhaust valve 90-2005.

**VALVE SPRING REPLACEMENT PARTS:
SEE PAGE 120**

650" VALVE SPRINGS KITS FOR B2 HEADS

FITMENT

- S&S® B2 heads

FEATURES AND BENEFITS

- Works well with cams up to .650" lift
- Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided
- High performance conical single wire spring
- Chromoly forged retainers

KIT CONTENTS

- Valve keepers, Top & Bottom collars, Springs, Shims



S&S® .650" LIFT VALVE SPRING KIT FOR B2 HEADS				
Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.650"	1.860"	178 lb.	376 lb.	6500

.650" LIFT VALVE SPRING KIT FOR B2 HEADS

Description	Part #
Spring, Kit, Valve, .650, 84-04bt/xl	900-0050

SIDEWINDER® .650" VALVE SPRINGS

FITMENT

- Stock 2005–'17 Twin Cam 96™/103™ big twins (except 2017 touring models) with 7mm valve stems
- All S&S CNC ported heads

FEATURES AND BENEFITS

- Works well with cams up to .650" lift
- Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided
- CNC machined 9° locks
- High performance conical single wire spring
- Chromoly forged retainers

KIT CONTENTS

- Valve keepers, Top & Bottom collars, Springs, Shims

S&S® .650" LIFT VALVE SPRINGS SPECIFICATIONS				
Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.650"	1.860"	178 lb.	376 lb.	6500



.650" LIFT VALVE SPRING KIT

Description	Part #
2005–'17 big twins (7mm stems) <i>except 2017 touring models</i>	106-5909

NOTE

S&S recommends roller rocker arms be used with lifts over .585"

STREET PERFORMANCE .585" VALVE SPRINGS

FITMENT

- 2005–'17 big twins with 7mm valve stemmed stock heads (*except 2017 touring models*)
- All S&S Super Stock Heads
- S&S CNC Ported Heads

FEATURES AND BENEFITS

- Springs reduce the risk of valve float
- Suitable for high performance applications
- Accommodates camshaft lift to 0.585"

KIT CONTENTS

- Valve Guide Seals, Springs, Top & Bottom Collars, Keepers, Shims

S&S® STREET PERFORMANCE .585" VALVE SPRINGS SPECIFICATIONS			
Lift	Installed Height	Seat Force	Force @ Max Lift
.585"	1.850"	135 lb.	325 lb.



900-0594

STREET PERFORMANCE .585" VALVE SPRING KIT

Description	Part #
2005–'17 big twins (7mm stems) <i>except 2017 touring models</i>	900-0594
All S&S Super Stock Heads	900-0595
S&S CNC Ported Heads	900-0596

**VALVE SPRING REPLACEMENT PARTS:
SEE PAGE 120**

FORGED ROCKER ARMS

FITMENT

- 1999–2017 big twins, except 2017 touring models

FEATURES AND BENEFITS

- **Roller Rocker Arms:**
 - Extremely durable rollers reduce valve stem side thrusting with high lift cams
 - Superior wear and fatigue resistance even in the most demanding applications
 - ¾" long bushings provide 50% more bushing support area than ½" long bushings
 - Available in stock 1.625:1 ratio or performance 1.725:1 ratio
- **Standard Rocker Arms:**
 - ¾" long bronze bushings provide 50% more load bearing area than the ½" long bushings used in stock and other aftermarket rocker arms
 - Case carburized hard surface for longer life
 - Stock 1.625:1 ratio

KIT CONTENTS

- 2 front and 2 rear rocker arms



900-4065A

FORGED ROLLER ROCKER ARM KIT

Description		Part #
2 front and 2 rear rocker arms	1.625:1	900-4065A
	1.725:1	900-4098A

Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
New rocker arm shafts are recommended for maximum performance and rocker life.

STANDARD FORGED ROCKER ARM KIT

Description		Part #
2 front and 2 rear rocker arms	1.625:1	900-4119A

New rocker arm shafts are recommended for maximum performance and rocker life.



900-4119A

ROCKER ARM SHAFTS

Description		Part #
Set of 4		90-4036 17611-83B
Individual		90-4006 1,2,3 17611-83B

New rocker arm shafts are recommended for maximum performance and rocker life.



90-4036

REPLACEMENT PARTS FOR FORGED ROCKER ARMS

Rocker Arm Type	Description	Part #
Roller	Front exhaust or rear intake rocker arm	900-4065FA 1,2,3
	Rear exhaust or front intake rocker arm	900-4065RA 1,2,3
Standard	Front exhaust or rear intake rocker arm	900-4119FA 17375-83A
	Rear exhaust or front intake rocker arm	900-4119RA 17360-83A
Roller	Rebuild kits (rebuilds 4 rocker arms)	90-4104
Roller & Standard	Rocker arm bushing (¾" long)	90-4014



90-4104

NOTES

- S&S roller rocker arms are recommended for use with cams having more than 0.585" of lift.
- Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
- New rocker arm shafts are recommended for maximum performance and rocker life.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

B2 HEADS WITH STOCK BOLT PATTERN

Kits do not include gaskets, hardware, or intake and exhaust flanges. These parts must be purchased separately.

FITMENT

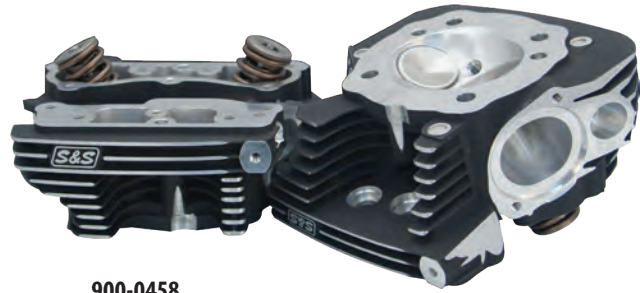
- 1999–'17 big twin engines (except 2017 touring models) 4½" bore, stock bolt pattern (in stock, off-the-shelf*)
 - *S&S only stocks the late model 4½" bore versions as off-the-shelf items, but heads for other applications and individual front or rear replacement heads are available by special order.
- 1999–'17 big twin engines (except 2017 touring models) 4½" bore and larger with S&S or other bolt pattern (special order only)
- 1984–'99 big twin engines 4½" bore and larger (special order only)
- S&S SB-Series 4½" bore and larger engines for 1986–'03 Sportster® models (special order only)
- Old style B2 replacement heads still available by special order
- Not compatible with Twin-Cooled™ models

FEATURES AND BENEFITS

- 106cc combustion chambers
- Oval intake ports bolt up to S&S Throttle Hog 70mm throttle bodies (2008–up touring applications only)
- Stock style breather system—compatible with stock and aftermarket air cleaners
- Large 2.200" intake and 1.800" exhaust valves
- .660" lift S&S valve springs with titanium top collars
- Machined for stock sensors—EFI ready
- Available in Wrinkle Black (WBlack) or Silver Powder coat

OPTIONS BY SPECIAL ORDER

- CNC ported intake and exhaust ports—more air, more power!
- wo-bolt exhaust flanges—Can accommodate stock exhaust headers, existing 2" headers, or build your own 2" exhaust system
- Machined for 2008-later bagger front motor mount
- Select heads for 1984–'99 or 1999–'17 big twin style, or 1986–'03 XL
- 4½" to 4¾" bore sizes
- Stock 1999–'17, S&S, or other cylinder stud patterns—other patterns subject to approval
- Machined with or without S&S electric compression release
- Choose from a variety of pushrod geometry machining styles
- Choose from a variety of different chamber sizes
- Individual front of rear heads available by special order



900-0458

B2 HEADS WITH STOCK BOLT PATTERN

Finish	Part #
Silver Powder Coat	900-0450
WBlack Powder Coat	900-0458
<i>*Head Kits include valves and valve springs. Head sets w/o valves or springs individual front or rear heads are available by special order.</i>	
Special Order B2 Cylinder Heads	106-6385*

! ADDITIONAL PARTS REQUIRED

Product Description		Part #
Special 4½" Bore Pistons & Ring Set	Standard	92-1580
	+ .010"	92-1581
Special Length Pushrods (+ .250")	For 124" engines	93-5106
	Stock height engines	93-5098
Intake Manifold	Carbureted engines	16-3629*
Intake Manifold Flange Kits	All B2 heads	16-0250
Exhaust Adaptor Kit	B2 to stock header	550-0217
	B2 to existing 2" header	550-0216
	Stock & 2" header	550-0218

REPLACEMENT PARTS: PAGE 116

NOTES

Heads are .230" taller than stock—requires special pushrods and/or frame clearancing or motor mount modifications

Exhaust pipe adaptor kits and other parts must be purchased separately. See "Additional Parts Required" chart, above.

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SUPER STOCK® CYLINDER HEADS WITH STOCK BOLT PATTERN

FITMENT

- 2006–2017 big twins, *except 2017 touring models*
- Not compatible with Twin-Cooled™ models

FEATURES AND BENEFITS

- Heads can be decked up to .060" to increase compression
- 79cc heads 1.940" intake and 1.575" exhaust valves
- 89cc heads have 2.000" intake and 1.605" exhaust valves
- 91cc heads have 2.000" intake and 1.605" exhaust valves
- S&S 89cc heads have a whopping 264cfm flow rate (*compared to 182cfm for stock HD® heads*)
- S&S .585" or .650" lift valve springs
- Must use the included S&S valve cover gasket kit part #90-4120 with stock rocker covers
- 2006–'17 heads are machined for 2008–'17 FL top motor mount

- Includes 4 long headbolts for installation
- Compatible with stock rocker boxes, exhaust and intake manifolds
-

OPTIONS

- Compression release machining or without compression release machining (*Compression release machining for S&S compression releases*)
- Silver, wrinkle black (WBlack), or Stone Gray powder coat finish

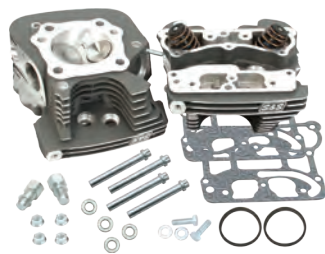
COMPRESSION RATIOS FOR S&S® SUPER STOCK® CYLINDER HEADS FOR 2006–'17 BIG TWINS (EXCEPT 2017 TOURING MODELS)

Configuration	96"	103"	106" Big Bore	110"	111"	117"	124"
79cc	9.8	10.2/11.1*	10.6	10.8	–	–	–
89cc	8.9	9.3/10.1*	9.7	9.8	–	–	–
91cc	–	–	–	9.6	9.75	10.3	10.8

* S&S pop-up piston



106-3233



900-0666

SUPER STOCK® CYLINDER HEAD KITS FOR 2006–'17 BIG TWINS

Description	Chamber Volume	Mani-fold** Surface	Compression Release Machining	Springs	Finish	Part #
2006–'17 big twins <i>except 2017 touring models</i>	79cc		●	.650" lift	Silver	106-3227
			●	.650" lift	WBlack	106-3233
2006–'17 big twins <i>except 2017 touring models</i>	89cc		●	.650" lift	Silver	106-3255
			●	.650" lift	WBlack	106-3240
2006–'17 big twins, 2008–'16 touring models	91cc		+	.650" lift	Silver	106-4278
			Stock	.650" lift		900-0344
			+.032"	.650" lift		900-4278
S&S 124" Hot Set Up Kits	91cc		+	.650" lift	WBlack	106-3249
			Stock	.650" lift		900-0349
			+	.650" lift		900-3249
			+.032"	.650" lift		Stone Gray	900-0666

**In order to accommodate the change in engine height on S&S 124" engines and still use a stock length manifold, S&S added material to the surface for proper sealing of manifold to cylinder head.

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TOP END GASKET KITS FOR 1999–'17 BIG TWINS (EXCEPT 2017 TOURING MODELS)

3 7/8" & 3.927" Bore	4" Bore	S&S 4 1/8" Bore (Graphite)	Stock 4 1/8" Bore (Layered Steel)
910-0465	90-1913	90-1910	90-1914

Includes a set of head and base gaskets, exhaust gaskets, and o-rings.

79cc heads

When 79cc stock compatible heads are used with stock HD® pistons, TDC lifts of up to .186" for intake and .179" for exhaust and can be used without additional valve pocket clearancing. This allows the use of S&S® 510, 570, and 585 camshafts. If cams with higher TDC lifts are used, or if the heads are decked, piston valve pocket machining will be required.

79cc heads may be decked as much as .060" to increase compression. If heads are decked, piston valve pockets must be re-machined.

Moderate valve spring force in S&S Super Stock® cylinder heads allows the use of camshafts designed for the stock style chain cam drive system. However, for maximum reliability and performance we recommend the S&S gear drive cams.

Must use S&S rocker base gasket kit part #90-4120 with stock rocker covers.

79cc Heads should not be used with any piston having a pop up dome.

89cc heads

If 89cc heads are used with stock pistons, valve reliefs must be machined in the pistons due to larger valve size.

89cc heads may be decked as much as .060" to increase compression. If heads are decked, valve-to-piston clearance must be checked. If stock pistons are used, valve pockets must be re-machined.

Moderate valve spring force in S&S® Super Stock® cylinder heads allows the use of camshafts designed for the stock style chain cam drive system. However, for maximum reliability and performance we recommend the S&S gear drive cams.

A larger intake manifold is recommended to supplement the heads in order to let them flow to their full potential.

Must use S&S rocker base gasket kit part #90-4120 with stock rocker covers.

91cc heads

By changing the profile and shape of the cooling fins on our heads for 4½" bore engines, a large reduction in the transmission of mechanical noise was found. This not only benefits our TÜV certified engines and our EPA approved engines, but our performance engines as well!

Since April 1, 2007, these redesigned heads have been installed on all S&S 4½" bore engines and Hot Set Up Kits.

Replacement heads of the old style are available by special order.

Must use S&S valve cover gasket kit part #90-4120 with stock rocker covers.

MANIFOLD RECOMMENDATIONS

S&S single bore throttle body and manifold are recommended for engines with Magneti Marelli® and Delphi® fuel injection.

S&S single bore throttle body and manifold are recommended for 2006–'15, except 2008–'15 touring models. Due to the change in manifold flange mounting bolt pattern, stock flanges and S&S seal part #16-0235 must be used. The Screamin' Eagle® 58mm throttle body/manifold may also be used on 2006–'09 engines.

We recommend the stock 50 mm throttle body or S&S Throttle Hog 58mm throttle body/manifold for 2008–up touring models with Electronic Throttle Control (ETC).

IMPORTANT MANIFOLD INFORMATION

In 2006, Harley-Davidson® changed the bolt pattern of the flanges that connect the manifold to the cylinder heads for all big twin engines. The pattern was changed from an offset bolt pattern to a symmetrical bolt pattern, so flanges can fit either the front or rear cylinder head. In addition, the intake port was moved slightly toward the drive side of the engine, making the port-to-port distance of the intake manifold slightly shorter. S&S® heads for 2006–up big twins are machined with the symmetrical bolt pattern and relocated port to allow for the fitment of stock manifolds. In 2008, Harley-Davidson touring models were equipped with electronic throttle control (ETC). The throttle body and manifold used on these engines is a one-piece unit that contains a servomechanism to control the position of the throttle plate. S&S recommends the S&S Throttle Hog throttle body for this application, see page 94. This limits the cylinder length of engines using an ETC manifold/throttle body to stock length because the ETC manifold/throttle body units are only available in stock length. However, S&S does supply specially machined cylinder heads for our 124" Hot Set Up Kit® for 2008 and later baggers, which allows the use of a stock length manifold on these longer-than-stock engines.

REPLACEMENT PARTS: SEE PAGE 118

CNC PORTED CYLINDER HEAD SERVICES

FITMENT

- Available for 1999–2017 big twin engines, except 2017 touring models
- Ideal for 88"–124" engines (must use Screamin' Eagle® high flow injectors, HD #27796-08, with kits over 107")
- Not compatible with Twin-Cooled™ models

FEATURES AND BENEFITS

- CNC machined ports for a consistent performance increase from stock heads
- Great throttle response, high velocity port without losing low RPM torque
- Assembled with performance valves and springs ready to bolt-on
- Choice of .585" or .650" lift valve springs
- Combustion chambers are available in the following volumes:
 - 83cc—Generally used for stock 88" up to 106" engine displacements
 - 85cc—Same as stock Twin Cam 88® and 96™ engine displacements
 - 87cc—Recommended for up to 117" engine displacements
 - 90cc—Generally used for 124" and up engine displacements
- Available in factory black or silver



S&S CNC PORTING SERVICE OPTIONS

REWORK SERVICE

- Send your stock heads to S&S
- Get the same set of heads back with CNC machined ports
- The best option for heads with a special cosmetic treatment
- Allow 1 week turn-around (does not include shipping)

CUSTOM CNC PORT DUPLICATION

- S&S can digitize your port design and machine it in your heads, ask an S&S customer service rep for details

CNC PORTING SERVICE

Fitment	Part #
1999–2017 big twins (except Twin-Cooled™ & 2017 touring models)	106-5880

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S&S® CNC PORTING SERVICE SPECIFICATION COMPARISON								
Heads	VALVE SIZE		Max Valve Lift	MAX TDC LIFT		PORT FLOW		Chamber Volume
	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust	
Stock	1.805"	1.575"	.585"	–	–	216.2 cfm	191.8 cfm	85cc
CNC Ported by S&S	1.900"	1.610"	.650"	.230"	.215"	248.6 cfm	209.7 cfm	83cc**

*Flow testing performed on a SuperFlow® 1020 flow bench at 28" of water test pressure at .600" lift. Heads tested are 2006-'12 style.

Heads	COMPRESSION RATIO								
	88"	95"	96"	97"	103"	106" Stroker	106" Big Bore	117" DD Piston	124" DD Piston
Stock	9.0:1	9.2:1	9.2:1	9.7:1	10.1:1	10.1:1	10.0:1	10.0:1	10.7:1
CNC Ported by S&S	9.2:1	9.4:1	9.4:1	9.9:1	10.3:1	10.3:1	10.2:1	10.2:1	10.9:1

**As a general rule of thumb, for every 1cc decrease in chamber volume equals a .1 increase in compression ratio.

NOTES

CNC porting is not available for previously ported heads, heads that have been structurally damaged, or heads that are determined to be unserviceable during initial inspection. These heads will be returned to the customer without modification. In these cases, the customer will be notified and options will be reviewed. New, CNC ported stock heads or S&S heads are available for purchase.

Due to variations in stock cylinder head castings, all inside surfaces of the ports may not "clean up" during machining. As a result, the inside of one or more ports may not appear to be completely machined. This does not effect performance and is not considered a defect.

Fuel injection tuning required.


CNC porting is not currently available for Harley-Davidson® CVO engines or Screamin' Eagle® cylinder heads.

Must use Screamin' Eagle® high flow injectors, H-D #27796-08, with kits over 106"

S&S recommends using a S&S Throttle Hog throttle body when installing S&S CNC ported heads to achieve full horsepower performance potential. See [page 94](#).

HEAD BOLTS WITH WASHERS





HEAD BOLTS

Bolt Length w/Washer	Washer Thickness	Head Bolt w/Washer	Washer Only
1.690"	.250"	93-3028	50-7091
1.840"	.150"	93-3027	50-0418-S
1.920"	.250"	93-3036	50-7091
2.070"	.150"	93-3031 	50-0418-S
2.220"	.250"	93-3038	50-7091
2.370"	.150"	93-3032	50-0418-S
3.134"	.250"	93-3029	50-7091
3.284"	.150"	93-3030	50-0418-S
3.501"	.250"	93-3037*	50-7091
3.651"	.150"	93-3033*	50-0418-S
–	.150"	–	50-0418-S

* Drilled & tapped deeper to allow shortening for custom lengths.



HEAD BOLTS FOR HARLEY-DAVIDSON® TWIN CAM 96™ ENGINES

Engine Displacement	Stroke	Cylinder Length	Cylinder Head Type	Short Bolt w/Washer	Long Bolt w/Washer	Head Bolt Kit
Stock 96 and 103	4 3/8"	4.937"	Stock HD®	93-3031 	93-3030 	93-3014 
117" Big Bore	4 3/8"	4.878"	S&S®	–	93-3030 	93-3070
124" Big Bore Stroker	4 5/8"	5.013" or 5.004"	Stock HD®	93-3038	93-3037	93-3016
			S&S®	–	93-3037	93-3071

CALCULATING CUSTOM HEAD BOLT LENGTH SEE INSTRUCTIONS IN THE APPENDIX: PAGE 541

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown



S&S® CHROME HEAD BOLT COVERS

Dress up your engine with these magnetic chrome head bolt covers. Easy installation, no tools, no messy adhesives. A powerful magnet holds cover in place, yet allows easy removal. Chrome plated steel looks great on any engine, but is a must for polished engines. For S&S head bolts only.



CHROME HEAD BOLT COVERS±

Description	Part #
Set of 4, for S&S Head Bolts only	50-0333 

DIE-CAST ROCKER COVERS

FITMENT

- 2007–'17 model big twins, except 2017 touring models


FEATURES AND BENEFITS

- Special rocker arm supports are included
- S&S rocker covers are finished with show-quality chrome
- Installation on stock and most comparable sized engines can be performed without removing the engine from the frame
- Clearanced to permit valve lifts up to .640" using S&S valve spring packages and stock rocker arms or S&S roller rocker arms
- S&S rocker covers accept valve springs up to 1.660" O.D. without modification
- Exclusive one way valve built into the rocker cover gasket to control oil carry over

KIT CONTENTS

- Front and rear covers
- All necessary gaskets and o-rings
- Mounting hardware

DIE-CAST ROCKER COVER KIT±

Description	Part #
Chrome	90-4110 



NOTES

If using valve spring packages with taller than stock installed height, some minor clearancing may be required.

Cylinder heads must be set up correctly for high lift cams, and it remains the builder's responsibility to confirm all clearances.

In most instances, only minor clearancing is required to use S&S rocker covers with valve springs larger than 1.660" O.D.

S&S® rocker covers are required if S&S cylinder heads are used with S&S electric compression releases.

REPLACEMENT PARTS: SEE PAGE 121

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S ROCKER COVER WRENCH SET, PAGE 513

THROTTLE HOG CABLE-OPERATED THROTTLE BODIES

S&S cable operated Throttle Hog Throttle bodies are available for 2002–'17 Harley-Davidson® big twins using cable operated throttles. Choose from 58mm, for stock or mildly built engines, or the whopping 66mm Throttle Hog for big inch engines. More Air, More Power!

FITMENT

- 2006-'17 Harley-Davidson EFI big twins with cable controlled throttles
- S&S EFI Hot Set Up Kit® installations and T-Series Long Block engines with cable controlled throttles

FEATURES & BENEFITS

- More air flow for improved performance
- S&S Stealth air cleaners kit, with the proper bore sizes, are available
- Works with all air cleaner kits designed for throttle by wire engines with stock breather system
- One-piece design for easy installation and stock appearance
- Compatible with stock sensors, fuel rail, and throttle cables
- Black powder coat finish matches stock
- Sealed, stainless steel throttle shaft with dual roller bearings for smooth operation and no air leaks
- Kit includes hardened steel flanges and seals
- No stock throttle body exchange required!

THROTTLE HOG CABLE OPERATED THROTTLE BODIES FOR 2006-2017 BT

Year	Size (mm)	Engine Fitment	Manifold Size	Part Number
2006–2017 bt	58	96", 103", 106", 107", 110", S&S 117" Hot Set Up Kit®, and 124" Hot Set Up Kit® <i>(w/S&S +.032" heads only)**</i> S&S T-Series Engines** <i>(Engines produced after 2013)</i>	405	170-0346
		S&S T-Series 111" Long Block Engines**	398	170-0347
		S&S T-Series 124" Engines with S&S bolt pattern, and 124" Hot Set Up Kit® <i>(w/stock or standard S&S heads)**</i>	417	170-0345
	66	96", 103", 106", 107", 110", S&S 117" Hot Set Up Kit®, and 124" Hot Set Up Kit® <i>(w/S&S +.032" heads only)**</i> S&S T-Series Engines** <i>(Engines produced after 2013)</i>	405	170-0349
		S&S T-Series 111" Long Block Engines**	398	170-0350
		S&S T-Series 124" Engines with S&S bolt pattern, and 124" Hot Set Up Kit® <i>(w/stock or standard S&S heads)**</i> S&S T-Series Engines** <i>(Engines produced after 2013)</i>	417	170-0348

**Some S&S heads have additional material on the manifold surface to allow the use of a stock length manifold (405) on a 124" engine.

If you are not sure which manifold should be ordered, check fitment with the stock manifold first.

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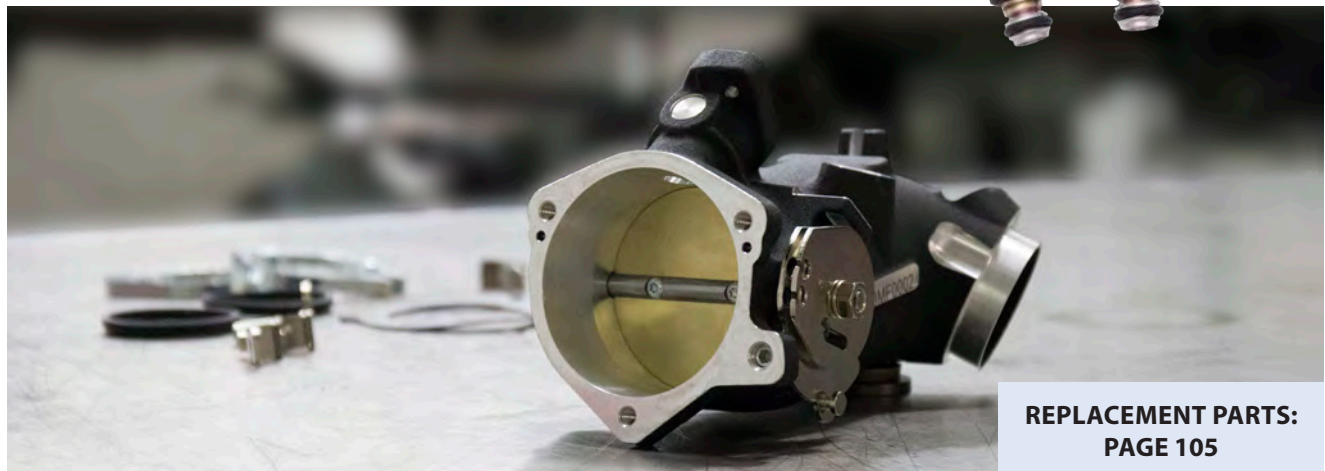
MAKE MORE POWER!

S&S Air Cleaner Kits
See page 52

REPLACEMENT FLANGE KITS
2006-2017 bt 160-0168



6.2 g/s FUEL INJECTORS for
2006-2017 Cable-operated Throttle Hogs 550-0749



REPLACEMENT PARTS:
PAGE 105

THROTTLE HOG THROTTLE BODIES

FITMENT

- 2008–2016 big twins w/throttle-by-wire (Except models equipped with the Twin-Cooled™ system)

FEATURES AND BENEFITS

- Increase in airflow for additional performance gains
- Meets the breathing needs of even the largest of engines — choose from 58mm, 66mm, or 70mm
- Increased manifold port I.D. 1.780"
- Economically priced compared to competitors
- Utilizes stock sensors and fuel rail
- Kit includes hardened steel flanges and seals

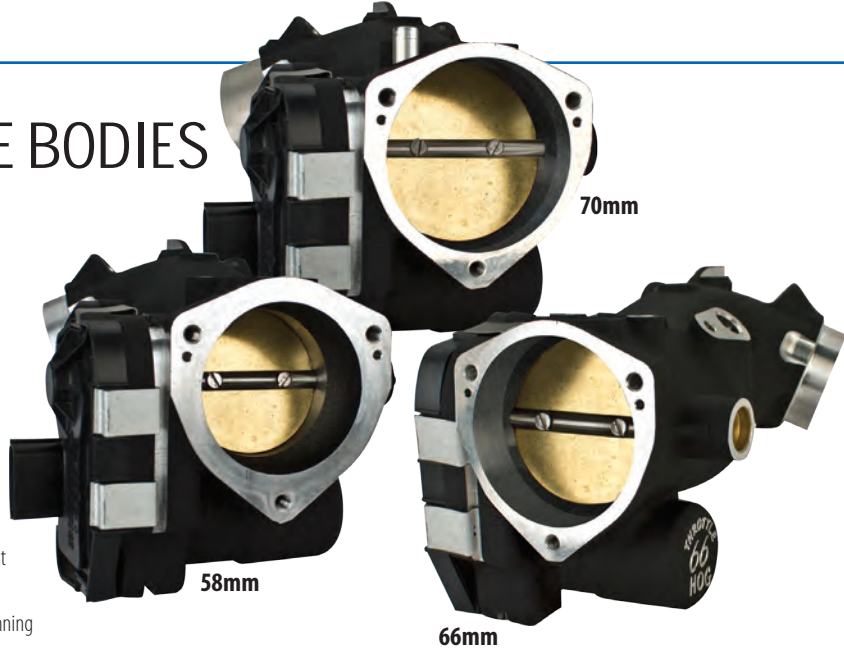
58MM Recommended for engines up to 110". Perfect with a S&S® 106" Big Bore kit

66MM Perfect pairing with a S&S 124" Hot Set Up Kit® or a 124" engine (when running cylinder heads with stock style round intake ports)

70MM Recommended for engines up to 145" displacement. S&S B2 and B3 cylinder heads are required to match the oval port configuration

ADDITIONAL PARTS REQUIRED

- Air cleaner (see chart for recommended air cleaner kits)
- High flow injectors P/N 550-0747
- A performance motorcycle tuning module.



SOLD ON EXCHANGE ONLY—HERE'S HOW IT WORKS

1. Your S&S® dealer sends your stock throttle body to S&S Cycle, Inc
2. S&S tests your incoming throttle body and its electrical components —a non-functional unit cannot be used and will be returned
3. S&S transfers your functional electrical components to your new S&S Throttle Hog
4. The complete Throttle Hog is tested and shipped to your S&S dealer (along with your original throttle body)
5. Your new Throttle Hog will typically be shipped within 2–3 days of receipt at S&S.

THROTTLE HOG THROTTLE BODIES AND AIR CLEANER KITS

Size	Throttle Hog Throttle Body ±	Stealth Air Cleaner Kits***	Backplate only*
58mm	160-0034	170-0164	170-0167
66mm	160-0010	170-0165	170-0168
70mm B2	160-0112	170-0263	170-0247**

*If you already have a Stealth air cleaner for a stock throttle body, all you need is the backplate.

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**70mm B2 backplates do not have mounts to the cylinder head. A bracket must be fabricated to support the throttle body separately. Engine height determines if stock bracket can be used.

*** These kits do not include an air cleaner cover. See page 52 for S&S Stealth covers.

**6.2 g/s FUEL INJECTORS for
2008–2017 Throttle-by-Wire Throttle Hogs 550-0747**



**B3 APPLICATIONS FOUND ON
PAGE 66**

WARRANTY: S&S THROTTLE HOG THROTTLE BODIES

S&S® Cycle, Incorporated warrants the S&S components of your S&S Throttle Hog throttle body to be free from defects in material and workmanship for a period of one year from the date of purchase by the original consumer customer. If parts become defective during the warranty coverage period, S&S will, at its option, repair or replace any, or all, defective parts. Repair or replacement of defective parts is the sole and exclusive remedy.

In the event that any OEM component re-utilized in the assembly of the throttle body fails, S&S may service the unit provided the OEM components are supplied to S&S at the time of service.

MANIFOLDS FOR SINGLE BORE EFI BIG TWIN ENGINES

FITMENT

- Stock height or taller than stock 2006–'15 bt, except 2008–2015 touring models
- S&S 52mm or 58mm throttle bodies
- Stock or S&S heads
- S&S T-Series Long Block engines

KIT CONTENTS

- Manifold
- O-ring intake seals
- VOES fitting cap



16-5139

MANIFOLDS FOR SINGLE BORE EFI 2007–'15 BIG TWIN ENGINES

Engine Displacement	Cylinder Length	Manifold Size	Part #
96", 103" & 106" (S&S engines with stock bolt pattern)	4.937"	405	16-5134
124" Hot Set Up Kit® (w/stock or standard S&S heads) **	5.004"	417	16-5139
124" Hot Set Up Kit® (w/S&S +.032" heads only)**	5.004"	405	16-5134
111" S&S T-Series Long Block Engines	4.754"	398	16-5136
117" Hot Set Up Kit®	4.878"	405	16-5134
124" S&S T-Series Engines, S&S bolt pattern	5.013"	417	16-5139

***Some S&S heads have additional material on the manifold surface to allow the use of a stock length manifold (405) on a 124" engine. If you are not sure which manifold should be ordered, check fitment with the stock manifold first.*

NOTES

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may cause damage.

2006-up models require separate purchase of HD® intake manifold flanges pn 26993-06 (1 pack).

SINGLE BORE EFI THROTTLE BODIES

52MM: Offering a 30% larger cross sectional area than stock throttle bodies, the S&S 52mm bore throttle body flows more than enough air for all but the most demanding street engines.

58MM: In response to constant requests for something bigger, S&S also offers a huge 58mm bore throttle body! Strictly for large displacement competition engines, this throttle body allows your engine to breathe easily and make more power! Recommended for S&S 106" big bore kit.

FITMENT

- 2006–'16 EFI big twins
(except 2008-up touring models with electronic throttle control)

FEATURES AND BENEFITS

- Excellent performance
- Recommended tuning products:
 - S&S VFI
- Cruise control compatible with no extra bracket

OPTIONS

- 52mm
- 58mm

KIT CONTENTS

- Throttle body assembly
- Fuel injectors
- Fuel rail
- Harness adaptors
- All necessary hardware, gaskets, and hoses

SINGLE BORE EFI THROTTLE BODY KIT

Description	Part #
52mm Kit including Fuel Rail Kit	17-5070
58mm Kit including Fuel Rail Kit	106-4408

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MAKE MORE POWER!

S&S® Stealth Air Cleaners on [page 52](#)
S&S Air Cleaner Kits for on [page 56](#)

NEW & IMPROVED!

CABLE-OPERATED THROTTLE HOGS
[PAGE 93](#)

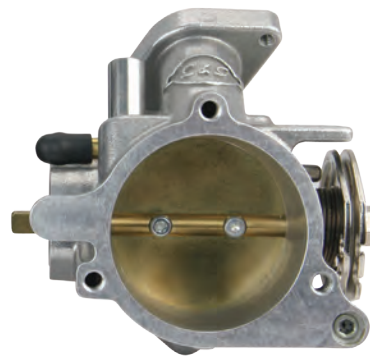
NOTES

If you plan to use another programmable fuel injection module, it is best to consult the manufacturer to be certain that it is compatible with the S&S single bore system and has enough tuning capability for your engine configuration.

Requires S&S manifold and air cleaner assembly (order separately)



Stock



S&S 52mm



S&S 58mm

REPLACEMENT PARTS: [SEE PAGE 106](#)

COMPRESSION RELEASES

FITMENT

- S&S cylinder heads and rocker boxes for big twin with compression release machining
- Will not fit OEM heads

OPTIONS

MANUAL RELEASE:

Activated by a cable similar to a choke control, this slick system can be used with any style rocker cover.

ELECTRIC RELEASE:

Solenoid operated, this system automatically opens and closes when the starter button is pressed and released. Convenient and simple, this is the best setup for big displacement high compression bikes. Requires S&S die cast rocker covers, [page 92](#)



90-4915



55-1009



53-0045



90-4916

COMPRESSION RELEASE KITS

Description	Part #
Electric	90-4915

TOOLS AND ACCESSORIES

Description	Part #
S&S Two-Piece Socket Kit: <i>Allows in-frame installation of S&S compression releases and protects wiring from damage during installation.</i>	53-0045
S&S Compression Release Hole Plug	<i>each</i> 90-4916
	<i>2 pack</i> 90-4916-2

REPLACEMENT PARTS

Description	Part #
Silicone Solenoid Caps	55-1009
Wiring Harness	55-1010
Electric Compression Release Assembly	90-4914

NOTES

S&S rocker covers must be used with electric compression releases due to clearance requirements for the solenoids.

Rocker covers must be removed when installing S&S® compression releases. If lack of frame clearance prevents removal of rocker covers, engine must be removed from frame for compression release installation.

In most cases, S&S compression releases can be installed while the engine is in the frame with the special S&S two-piece socket kit, part #53-0045.

If cylinder heads are machined for S&S compression releases, but compression releases are not used, special plug part #90-4916 (two required) must be installed to seal the machined hole.

Stock cylinder heads cannot be machined for S&S compression releases because there is not enough material in critical areas.

VARIABLE FUEL INJECTION MODULES (VFI)

DELPHI® STYLE S&S® VFI MODULE

FITMENT

- 2007–'10 Harley-Davidson® Softail®
- 2007–'11 big twins, except 2008–up touring with electronic throttle control, 2011–up Softail® or 2012–up Dyna®

FEATURES AND BENEFITS

- Replaces stock Harley-Davidson® fuel injection modules—*plugs directly into stock wiring harness*
- Includes ProTune II software and can be updated
- Three stage engine overheat protection helps prevent possible engine damage caused by improper modifications to fuel maps
- Altitude compensation automatically adjusts for altitude variations
- Live tuning allows manual changes to maps while the engine is running
- Self diagnostics and actuator test functions help tuning and verify proper installation/operation
- Engine light can be programmed to function as a shift light
- Closed loop capable
- Knock sensing ignition control (*USB Delphi® style unit only*)
- Optional closed loop sensor kit and knock sensor kit extend module capabilities
- Speedometer calibration function for 2004–up Harley-Davidson® models (*does not require installation of separate speedometer calibrator*)

CLOSED LOOP CAPABILITY

When equipped with a dual closed loop sensor kit and running in closed loop mode, VFI tuning becomes a breeze! S&S supplies base maps for several displacement groups, creating a starting point to get bikes up and running. Utilizing dual oxygen sensors (*sold separately*) placed in the exhaust, the S&S closed loop system modifies the base fuel map to meet the specific requirements of your engine!

- Automatic tuning on the street or on the dyno
- Each cylinder is tuned individually
- Fuel map changes are saved in the module & can be merged with the pre-loaded base map
- Works with stock oxygen sensors used on late model Harley-Davidson® motorcycles

Closed loop VFI can also automatically compensate fuel delivery for modifications creating up to a 20 hp gain, such as changes in:

- Displacement
- Cams
- Exhaust
- Head porting or installation of aftermarket heads

KIT CONTENTS

- Delphi® style S&S VFI module
- ProTune II software
- USB port cover kit
- Installation instructions



55-5090



106-2066

DELPHI® STYLE S&S VFI MODULE

Fitment/Description	Part #
VFI Module for 2001–'11 bt (<i>except 2008–up touring and 2011 Softail®</i>)**	55-5090*
S&S Delphi Style VFI Closed Loop Sensor Kit	106-2066
Knock Sensor Kit (<i>55-5090 module only</i>)	106-0810

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS FOR VFI MODULES

Description	Part #
Service Kit, O2 Sensor	106-2061
Service Kit, DTM Pin	55-1521
Service Kit, Oxygen Sensor Boss	55-6071-S
Service Kit, Subharness (<i>Delphi Style</i>)	55-1595
Hardware Kit (<i>USB Cover</i>)	55-5091

NOTES

Please note that maps created for older versions of the VFI software are not compatible with the new closed loop software, however they can be converted to closed loop if desired.

Optional Delphi® style knock sensor adjusts timing to eliminate spark knock, prolonging engine life (55-5090 module only).

S&S VFI systems installed on 2004–up Harley-Davidson® models incorporate a speedometer calibration feature.

Due to the extreme range of control offered by the S&S VFI modules, we recommend that they be installed and tuned by S&S Certified VFI Tuning Centers.

VARIABLE PRESSURE CLUTCH

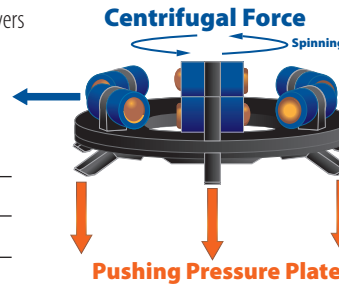
The VP clutch is the most cost effective kit for upgrading your HD® stock clutch without any modifications. Up to 40% more pressure for stronger clutch engagement.

FEATURES AND BENEFITS

- Works like a lock up clutch
- Increased torque capacity: strength of engagement increases with RPM
- 10 minute installation
- Fits behind a stock derby cover and primary cover - *No modification required*
- Can be used with cable and hydraulic clutch controls

Does not fit: 2013 and later CVO™ and Tri-Glide™, 2015 and later Ultra Limited Low and Electra Glide Classic Low Models with new HD® Assist and Slipper Clutch: 3 Stud Clutch Hub

Non-stock derby cover (including any special or 2003 anniversary cover) and 3 hole derby covers may require a derby



Centrifugal force makes more clamping force. Regular clutches have static pressure only with clutch springs. The Lock up clutch has two different types of pressure. One is a Static Pressure, and another is a Centrifugal Force by Lock-up as an additional pressure.

VARIABLE PRESSURE CLUTCH

Description	Part #
1998–2016 big twins with 6 Stud Clutch Hub	560-0242

INNER PRIMARY BEARING RACE

FEATURES AND BENEFITS

- Will not “walk” on transmission mainshaft
- Prevents costly damage to mainshaft seal, output gear & output gear bearing
- Simple to install

The tendency of the stock inner primary bearing race on late model big twins to shift on the transmission mainshaft under high torque loads, also known as “walking” of the race, can cause destruction of the transmission mainshaft seal, and ultimately the mainshaft seal, output gear and output gear bearing. The S&S inner primary bearing race features an extra step on the inside diameter that acts as a stop on the transmission mainshaft. When the race is pressed on to the shaft, the step will not allow the race to move inward toward the mainshaft seal. The improved S&S bearing race is a must for any high performance application.



INNER PRIMARY BEARING RACE

Description	Part #
2006 Dyna, 2008, 2010–2017 big twins, except 2017 touring	560-0241

HEAVY DUTY DIAPHRAGM SPRING

FITMENT

- 1998–2017 big twin models, except 2017 touring models

FEATURES AND BENEFITS

- 380 lbs pressure, 25% stronger than stock
- Same pressure as Screamin’ Eagle® heavy-duty spring
- Compatible with S&SVP and stock clutches

HEAVY DUTY DIAPHRAGM SPRING

Description	Part #
1998- up big twins	560-0244



GATES® HIGH STRENGTH FINAL DRIVE BELTS

S&S final drive belts by Gates are available with 14mm pitch in 1½" and 1⅞" widths. See the chart and match the width and number of teeth required for your vehicle. You can find this information in the vehicle service manual.



ATTENTION CUSTOM BIKE MANUFACTURERS! SPECIAL ORDER BELTS FROM S&S® AND GATES®

Special belt sizes, private brand labeling, and assistance with belt drive design, are available to custom performance OEM's and aftermarket bike builders, through S&S. These products and services are available for licensed motorcycle manufacturers only, and a minimum order quantity may be required.

Drive belts with your company name imprinted on them are a perfect way to show off your brand. Any belt size currently available in the S&S catalog, as well as the special ordered sizes, can be specially branded. Minimum order quantities would apply.

Whether you're designing a completely new chassis, or simply need a replacement belt, S&S can help you find the belt you're looking for. Through the combined efforts of Gates and S&S, S&S can now provide customers with the technical assistance they need for designing new secondary belt drive systems. In addition, S&S can help you determine required tooth count for your existing chassis design, based on the pulley center-to-center distances and pulley tooth counts.

All belts have a 14mm tooth pitch, and are made of the super strong Gates Carbon X3N material. Belts are available in three standard widths of 1.125", 1.5" and 1.181" (30mm), but can be special ordered in nearly any width for a nominal charge. If you want a belt with a special tooth count, they are also available (see the special order chart for availability).

Contact your S&S Customer Support Representative for more information.

SECONDARY DRIVE BELTS (14MM PITCH)

Teeth	1⅞" Wide	1½" Wide
125	106-0357	—
126	—	106-0348
127	—	106-0349
128	106-0358	106-0350
130	106-0359	106-0351
132	106-0360	106-0352
133	106-0361	106-0353
135	106-0362	106-0354
136	—	106-0355
139	106-0363	106-0356
149	106-1338	106-2695
156	—	106-2827

BELTS AVAILABLE BY SPECIAL ORDER (14MM PITCH)

Tooth Count	1.181" (30mm) Width*	1.25" Width*
125	●	
126	●	●
127	●	●
128	●	
130	●	
131	●	●
132	●	
133	●	
135	●	
136	●	●
137	●	●
139	●	
140	●	●
149	●	
150	●	●
151	●	●
152	●	●
156	●	

*Minimum order required: 1.181" (30mm) – 16 belts; 1.25" – 17 belts.

GASKETS

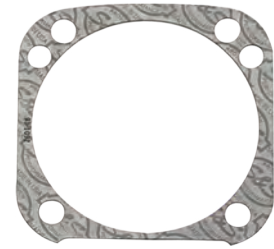
REBUILD GASKET KITS FOR S&S T-SERIES 1999–UP ENGINES AND HOT SET UP KIT®

1999–up 4 7/8" S&S base bolt pattern	106-0976
1999–up, 4 1/8", Stock base bolt pattern	310-0335
1999–up T143 4.425" bore	310-0751

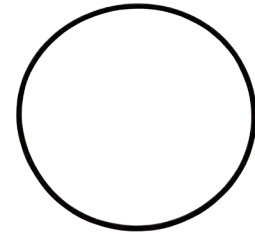
TOP END GASKET KIT FOR TWIN CAM 96°/103° AND S&S ENGINES

Bore	Part #
4 3/8"	90-9511
4 1/8" Stock Cases	90-9510
4" Stock Bolt Pattern	90-9505
3 7/8" Stock Bolt Pattern	90-9504

Kits include all gaskets and seals required to rebuild the top end of an S&S engine with S&S cylinders and cylinder heads. Rocker cover gaskets are not included in kits. See "S&S Rocker Cover Gasket Kit" chart to order separately.



Micropore



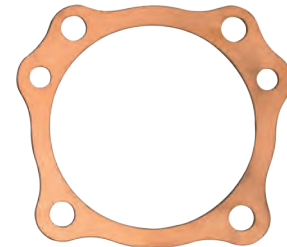
Viton® O-ring

CYLINDER HEAD GASKET KITS FOR T-SERIES 1999-UP

Bore	Part #
4 1/8" Stock Bolt Pattern	90-1914
4 3/8" bore	900-0800
4" Stock Bolt Pattern	90-1913
3 7/8" & 3.937" Stock Bolt Pattern	910-0465*

Kits contain head gaskets, base gaskets or o-rings, and exhaust pipe gaskets for two cylinder heads. Rocker cover gaskets are not included in kits. See "S&S Rocker Cover Gasket Kit" chart to order separately.

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON ANY EPA POLLUTION CONTROLLED MOTOR VEHICLE.



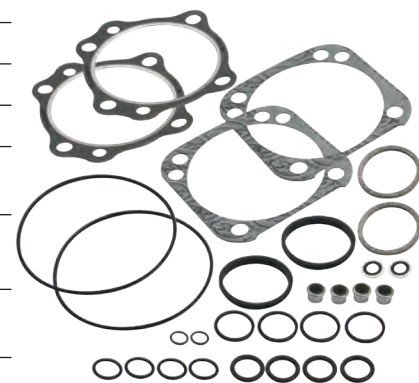
Copper

HEAD GASKETS FOR S&S® ENGINES

Description	Bore Size	Thickness	QTY	Part #
Copper	4 3/8"	.045"	2 pack	93-1081
			each	93-1091-S
Layered Steel	4 1/8" Stock Bolt Pattern	.043"	2 pack	930-0102
			10 pack	93-1920
			2 pack	900-0217
Layered Steel	4 1/8" Stock Bolt Pattern with Twin Cooled™ Heads	.030"	2 pack	900-0609
Graphite	4" Stock Bolt Pattern	.043"	each	93-1043-S
			10 pack	93-1058
Layered Steel	4" Stock Bolt Pattern	.045"	2 pack	900-0822
Layered Steel	4" Stock Bolt Pattern	.030"	2 pack	900-0821
Layered Steel	3.937" Stock Bolt Pattern with Twin Cooled Heads	.030"	2 pack	900-0605
Graphite	3 3/4" Stock Bolt Pattern	.043"	each	93-1045-S 16775-99B
Layered Steel	3 7/8" & 3.937" including Twin-Cooled Heads	.045"	2 pack	900-0862
Layered Steel	4 7/16"	.045"	2 pack	900-0762
Layered Steel	4.125" Stock Bolt Pattern with Twin Cooled™ Heads	.045"	each	900-0608



Layered Steel



90-9505

CONTINUED- GASKETS

BASE GASKETS AND O-RINGS S&S® T-SERIES 1999–UP

Description	Bore Size	Thickness	QTY	Part #
Graphite	4"	.018"	each	93-1050-S
	4 1/8"	.018"	each	93-1048-S
			2 pack	930-0101
			10 pack	93-1074
Micropore	4 3/8"	.018"	2 pack	93-1082
	4 1/2" Stock Bolt Pattern	.018"	each	93-1092-S
			2 pack	930-0101
			10 pack	93-1921
4.425"	.018"	2 pack	900-0783	
Viton O-ring	4"	.103"	each	50-8049
	3 3/4", 3 7/8", 3.927"	.103"	each	50-8048 11256



106-5029



106-5688

EXHAUST GASKETS

1984–'12 big twins	each	106-5029 65324-83B, 65324-83A
	10 pack	93-1072


ROCKER COVER GASKET KITS

Rocker Cover Style	Head Type	Part #
S&S Die-cast	S&S Heads	90-4111
Stock 1999–2017, except 2017 touring models	Stock or S&S Heads	90-4097*
Stock 1999–2017, except 2017 touring models	Stock heads	900-0534

All kits include gaskets for two rocker covers.

*Kit contains bottom rocker gaskets for stock heads and S&S 79cc heads.

VALVE GUIDE SEALS

Valve Stem Oil Seal, Hat Style	each	900-0590 18094-02
Valve Guide Seal	each	106-5688
Valve, Umbrella	each	900-0495 26858-99
Filter, Breather 	each	900-0496 63815-99

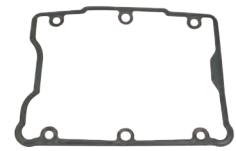
DIE CAST ROCKER BOXES

Gasket, bottom rocker cover, 4 1/8", 1984–up	each	90-4071-S
	2 pack	90-4071
	10 pack	90-4099

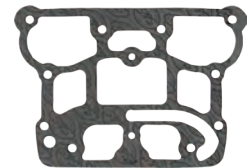
CONTINUED- GASKETS

STOCK ROCKER BOXES

O-ring, (-114), .625" ID x .812" OD, Black, Viton®		50-8033 11270
Gasket, bottom rocker cover, 4 1/8", 1984-up	each	90-4071-S 16719-99B
	2 pack	90-4071
	10 pack	90-4099
Gasket, Breather Cover, Stock Pattern	1999-'10	each 90-4077 17591-99, 17162-03, 17592-99
	2011-'17	each 900-0415
Gasket, Breather Baffle, Stock Pattern	1999-'10	each 90-4078 17162-03, 17592-99
	2011-'17	each 900-0416
Gasket, Rocker Cover, Steel, 1999—up bt		each 90-4096-S 17386-99A
Gasket, Rocker Cover, w/Stock Rocker Box, 1999—up bt	each	90-4124
	2 pack	90-4120



90-4096-S



90-4124



90-4071-S


LOWER END GASKETS AND SEALS

Gear Cover gasket	each	31-2032-S 25244-99A
Tappet Cover gasket	each	33-5303-S 18635-99B
	2 pack	33-5303-2 18635-99B

PUSHROD O-RINGS

O-ring, Kit, Pushrod Cover, 1984-'99 bt		93-4022
Top O-ring	each	50-8039 11293, 11157, 11101, 11190
Middle O-ring	each	50-8038 11132A
Bottom O-ring	each	50-8037 11145A
Sprocket Shaft seal		31-4035 12068
S&S Oil pump seal kit		31-2097
Oil Pump Scavenge o-ring	each	50-8039 11293, 11157, 11101, 11190
Case alignment dowel o-ring	each	50-8034-S 26432-76A
	2 pack	50-8034 26432-76A
Oil jet o-ring	each	50-8270
	5 pack	50-8275
Cam plate and oil line plate o-ring	each	50-8066-S 11301

MANIFOLD SEALS

S&S Manifold O-Ring	<i>each</i>	16-0235
	<i>10 pack</i>	16-0243
Stock Manifold O-ring 	<i>each</i>	16-0236 26995-86B, 26995-86A, 26992-99
	<i>10 pack</i>	16-0244 26995-86A, 26992-99, 26995-86B
Cap, rubber, manifold, fitting	<i>each</i>	50-8372

CLASSIC TEARDROP AIR CLEANER

Backplate gasket	<i>each</i>	106-1724	
	<i>10 pack</i>	106-2328	
Vent seal washers silicone coated steel	1/2"	<i>each</i>	50-7055
		<i>10 pack</i>	50-7057
	3/8"	<i>each</i>	50-7054
		<i>10 pack</i>	50-7059

STEALTH AIR CLEANER

Backplate gasket

Stock CV Carb & EFI Throttle Body, 1991-up xl/bt (except Throttle by Wire)		106-6022 29062-95B
Super E/G	<i>each</i>	106-1724
	<i>10 pack</i>	106-2328
For Muscle air cleaner (includes lanyards)		170-0137
Vent seal washers Nitrile Rubber Coated, .380" x .880" x .024"	<i>each</i>	50-7054
	<i>10 pack</i>	50-7059

SINGLE BORE TUNED INDUCTION

Backplate gasket

Gasket, Backplate - E/G/SBEFI	<i>each</i>	106-1724
	<i>10 pack</i>	106-2328
Gasket, S&S SBEFI 58mm		106-4662
Gasket, Stock carb/Throttle Body		106-6022 29062-95B
Adaptor plate gasket		17-1022
Adaptor plate bracket o-ring	<i>each</i>	50-0446

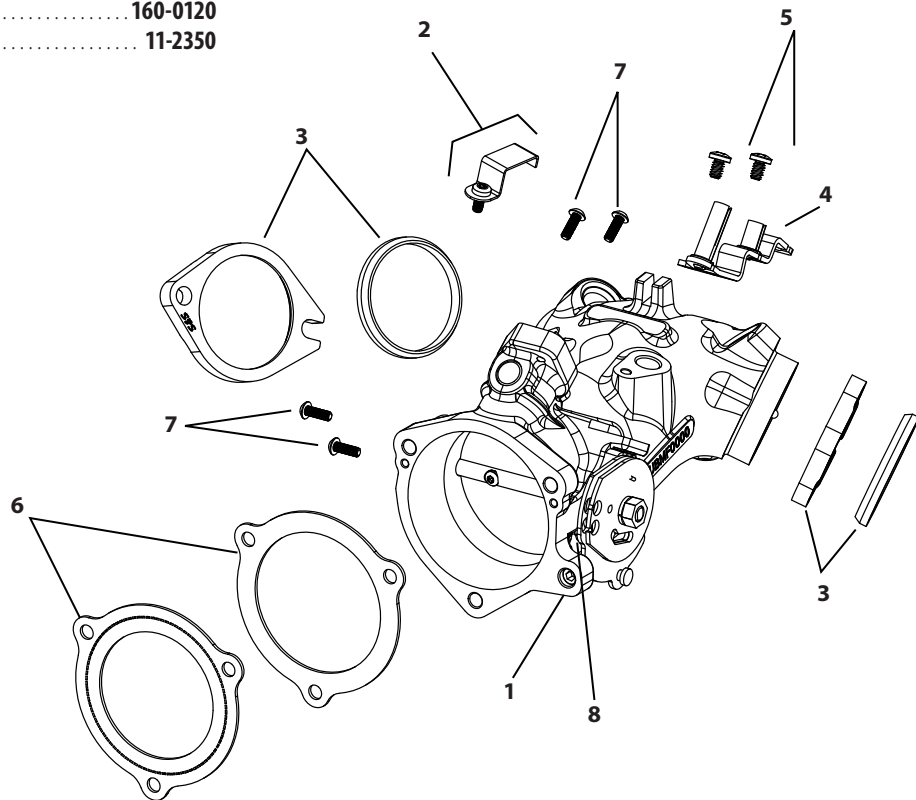
SINGLE BORE EFI THROTTLE BODY

Backplate gasket

52mm	<i>each</i>	106-1724
	<i>10 pack</i>	106-2328
58mm	<i>each</i>	106-4662
O-ring, throttle body to manifold		50-7967-S
Air Temp Sensor gasket		16-5009-S
IAC o-ring		50-8149-S
Fuel injector o-ring top		50-8264-S
Fuel injector o-ring bottom		50-8265-S
Fuel rail inlet o-ring	<i>each</i>	50-8137-S 27237-95

THROTTLE HOG CABLE-OPERATED THROTTLE BODIES REPLACEMENT PARTS




- 1. Throttle Body, Assembly, Cable Operated **N/A**
- 2. Clamp, Kit, Hold-Down, MAP Sensor **160-0169**
- 3. Flange, Set, Packaged, 2006-Up bt. **160-0168**
- 4. Guide, Assembly, Throttle Cable **160-0113**
- 5. Screw, PH Panhead, 10-24 x 5/16", Zinc, Steel **50-0093-S**
- 6. Gasket, Throttle Body,
58mm **160-0050**
66mm **160-0035**
- 7. Screw, Torx, M4 x 12mm, Zinc, Steel **50-0358-S**
- 8. Throttle Return Spring **160-0119**
- 9. Throttle Cable Spool **160-0120**
- 10. Throttle Shaft Nut **11-2350**



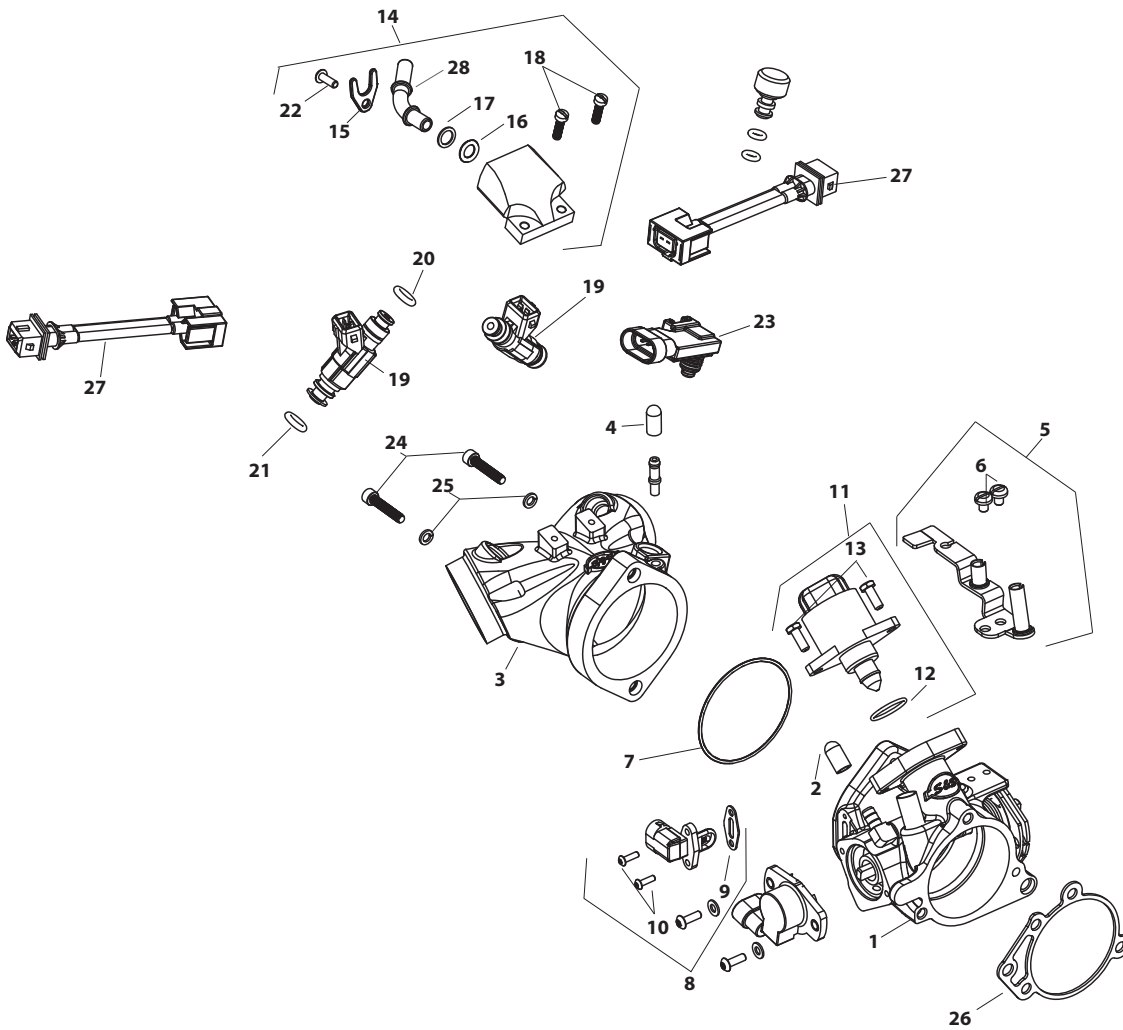
**6.2 g/s FUEL INJECTORS for
2006-2017 Cable-operated Throttle Hogs 550-0749**














SINGLE BORE EFI THROTTLE BODY AND RELATED REPLACEMENT PARTS

1. Throttle body		
52mm, 2006-'16 bt (N/S)	.....	16-5153
58mm, 2006-'16 bt (N/S)	.....	106-3957
2. Cap, canister purge (each)	.....	50-8266-S
3. Manifold (See page 95)		
4. Cap, rubber, manifold, fitting	.....	50-8372
5. Throttle cable guide packet with hardware	.....	55-5084
6. Screw, cable guide & air cleaner backplate (each)	.....	50-0041
10 pack	.....	50-0062
7. O-ring, throttle body to manifold 27270-95	.....	50-7967-S
8. Intake air temperature sensor with hardware 27270-95	.....	55-5041±
9. Gasket, IAT	.....	16-5009-S
10. Screw, M3, IAT	.....	50-0357-S
11. Idle air control motor SS EFI with hardware	.....	N/A
12. O-ring, IAC	.....	N/A
13. Screw, Idle air control motor		
2006-'16 (each)	.....	50-0358-S
14. Fuel rail kit		
2006-'16 (Fuel inlet tube not included.)	.....	16-5202
15. Tube clip, fuel rail inlet 2001-'16 (each)	.....	50-0391-S
16. O-ring, fuel rail inlet, 2001-'16 27237-95 (each)	.....	50-8137-S
17. Backing washer, fuel rail inlet, 2001-'15	.....	50-0349-S
18. Screw, rail, 1995-'16 (each)	.....	50-0039
10 Pack	.....	50-0146
19. Fuel injector (each)	.....	55-5052A
2 Pack	.....	55-5052
20. O-ring, injector top, black	.....	50-8264-S
21. O-ring, injector bottom, orange	.....	50-8265-S
22. Screw, fuel rail (each)	.....	50-0358-S
23. MAP sensor 32424-98, 32416-10, 32417-10	.....	55-5057
24. Screw, throttle body to manifold (each)	.....	50-0359-S
25. Washer, lock, #10, throttle body to manifold	.....	50-7000
26. Gasket, backplate		
52mm (each)	.....	106-1724
10 pack	.....	106-2328
58mm (each)	.....	106-4662
27. Harness, injector adapter kit		
1995-'05	.....	55-5074
2006-'16 (N/S)	.....	55-5209
28. Fuel inlet tube 45°, 2002-'16 27221-95	.....	50-0485
29. Spacer, throttle position – 2002-'16 (N/S)	.....	55-5201

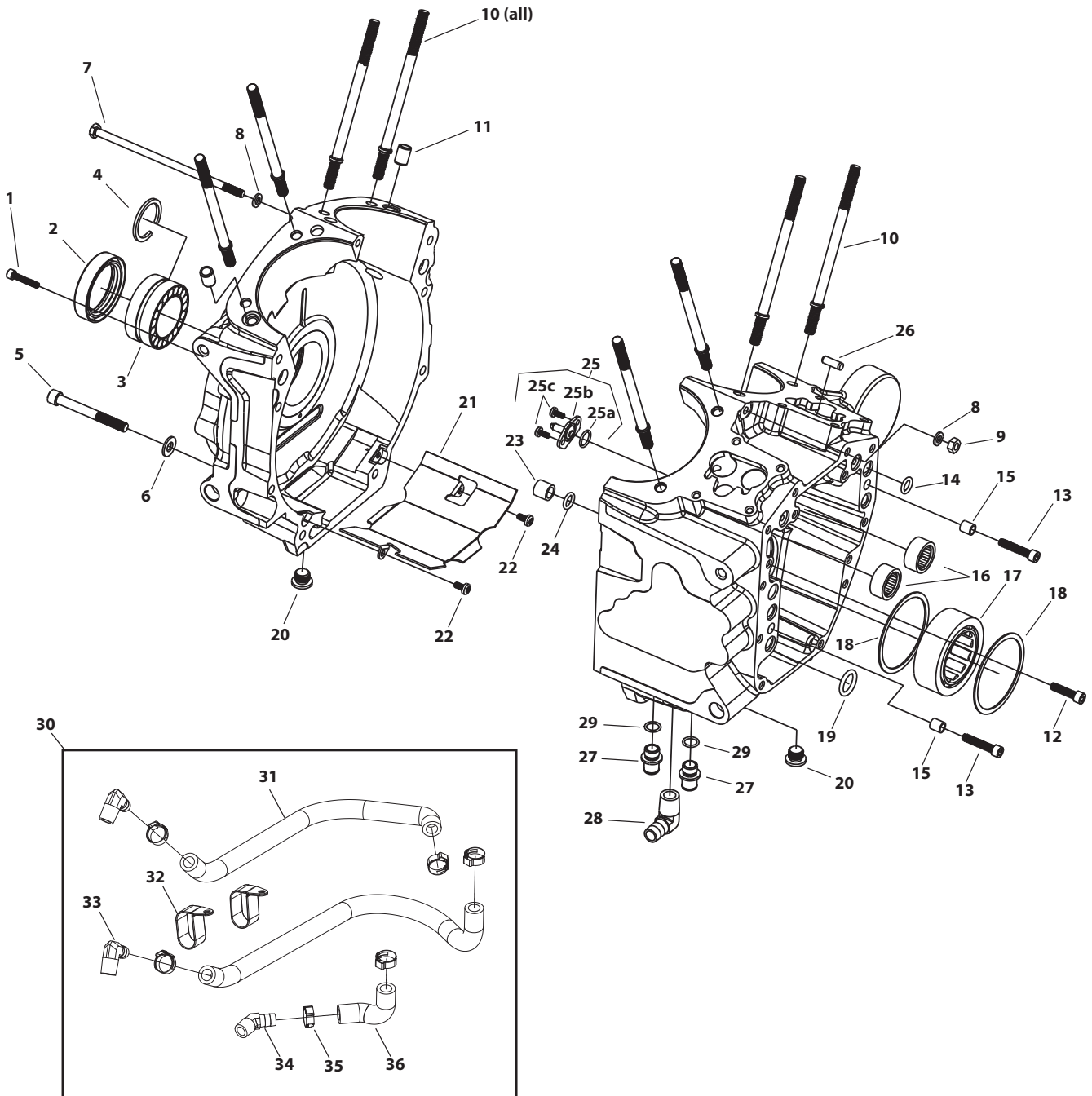
(N/S) = Not Shown
N/A = Not Available



SUPER STOCK T2 CRANKCASE REPLACEMENT PARTS

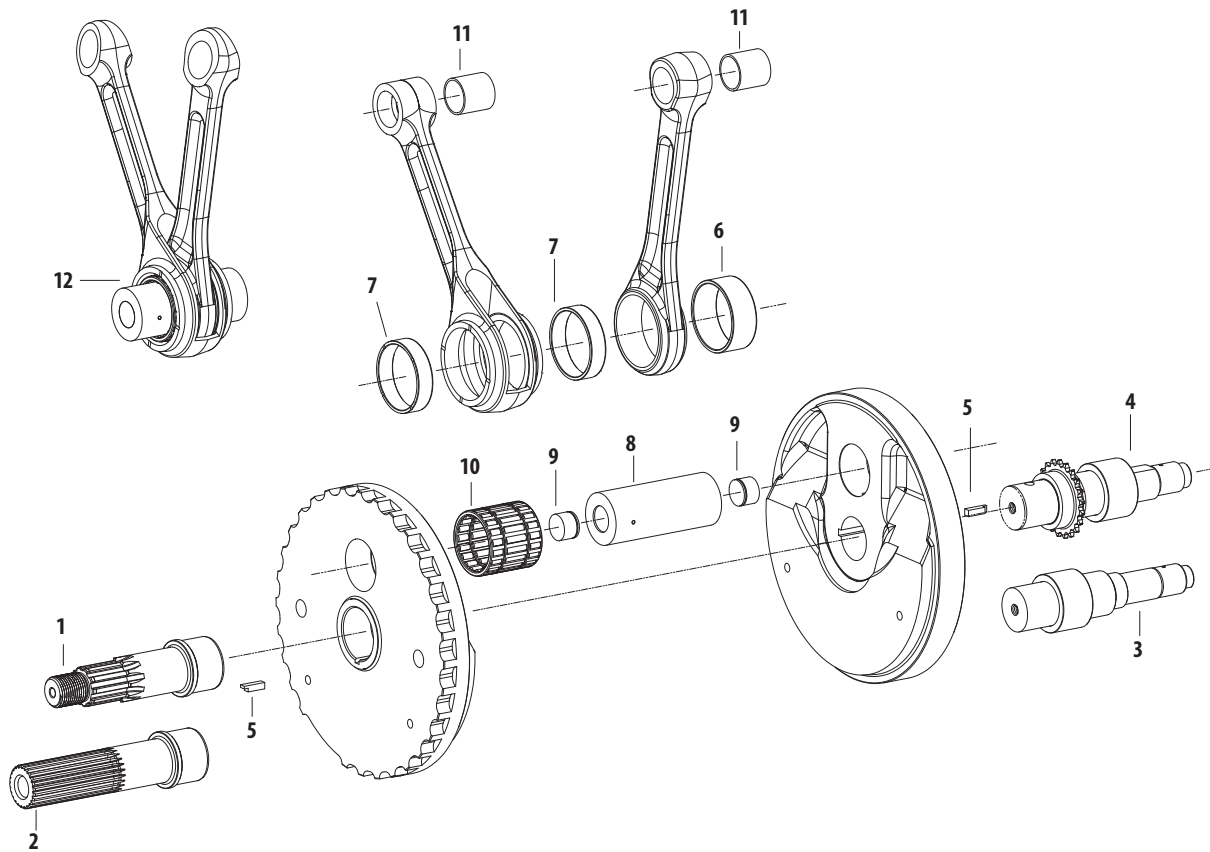
1. Bolt, stator 10-24 x 1" SHC - 4 required 2720 **50-0044**
2. Seal, sprocket shaft 12068 **31-4035**
3. Bearing, Timken® sprocket shaft 9028  **31-4013**
4. Timken Main Bearing Spacers
Fits 1 1/4" stock diameter shaft.
 - .0995" - .1005" 9124  **31-4071**
 - .1015" - .1025" 9125  **31-4072**
 - .1035" - .1045" 9126  **31-4073**
 - .1055" - .1065" 9127  **31-4074**
 - .1075" - .1085" 9128  **31-4075**
 - .1195" - .1205" 9134  **31-4076**
5. Bolt, case 5/16" - 18 x 3/2" HHC - 8 required
Chrome (each) **50-0254-S**
Zinc 3427 (each) **50-0117**
6. Washer, flat 5/16" x 1 1/16" x 1/16" - 8 required 6320, 70907-07, 6016, 6702
each **50-7034**
7. Bolt center case Screw, HHC, Gr8, 1/4-28 x 5-1/2", Zinc, Steel
each **50-0090**
8. Washer, flat, 1/4" x .474" x .050"
each **50-7020**
9. Nut 1/4"-28 Grade 8 - 1 required 7683 **50-5011**
10. Cylinder stud, S&S® Bolt Pattern - 8 required (each)  **31-2325-S**
8 pack  **31-2340**
Cylinder stud, Stock Bolt Pattern - 8 required (each) **310-0437**
11. Pin, Dowel, .4377" x .500", Steel, 4 Pack **500-0219**
12. Bolt, cam plate 1/4" - 20 x 1" SHC - 4 required 852
each **50-0084**
13. Bolt, cam plate 1/4" - 20 x 1 1/4" SHC - 2 required 4740A, 3482A
each **50-0008**
14. O-ring, cam plate - 9 required 11301 (each) **50-8066-S**
15. Dowel, cam plate - 2 required 16589-99A **50-8148-S**
16. Bearing, Inner, Needle, Cam, 1.0" x 1.25" x .50" 9215
each  **31-4199-S**
17. Bearing, pinion shaft - Fits all S&S and OEM 2000-'02
(Balanced models only) & all OEM 2003-up
24604-00D **31-4085**
18. Retaining Ring, Internal, 25/8", Black, Carbon Steel 2 required
each **310-0730**
19. O-ring, oil pump 1 1/16" I.D. x 15/16" O.D. x 1/8" CS 11293, 11157, 11101, 11190
each **50-8039**
20. Plug, magnetic drain **50-8335**
21. Baffle plate **31-0119-S**
22. Screw 10-24 x 3/8" pan head - 2 required
each **50-0050**
23. Dowel, case alignment - 2 required 16574-99A, 16573-83, 16573-83A
each **50-8023**
10 pack **50-8109**
24. O-ring, case alignment, - 2 required 26432-76A
9/16" I.D. x 1 1/16" O.D. x 1/6" CS (each) **50-8034-S**
2 pack **50-8034**
25. Jet, Assembly, Piston Cooling, Low Profile, for T143
Piston Oiler Jet Kit.  **310-0647**
Piston Oiler Jet Kit includes:
 - a. O-ring, (-014), .500" ID x .625" OD 11140, 11273
each **50-8270**
10 pack **50-8130**
 - b. Jet, Assembly, Piston Cooling
each **310-0646**
 - c. Screw, Torx Panhead, 8-32 x 3/8", Zinc, Steel 68042-99
each **50-0054-S**
26. Pin Dowel, 2 pack **50-8195**
27. Fitting, crankcase vent, 2 pack **50-0451**
28. Fitting Pipe, 90°, Bared Male Pipe 3/8 **50-8288**
29. O-ring, -13, .437 ID, X .565 OD, Viton 11105, 11273 **50-8008**
30. Installation Kit, Oil Line, 2007-'16 FL **310-0435±**
Installation Kit Includes:
 31. Hose, Oil Line, .500" x .750" x 24" **500-0223**
 32. Clamp, Hose, Pinch Style, .812" OD Hose **500-0241**
 33. Fitting Pipe, 90°, Bared Male Pipe 3/8 **50-8288**
 34. Fitting, Pipe, 45°, Male, 3/8 NPT x .500", Brass **500-0226±**
 35. Clamp, Hose, Pinch Style, 45/64" - 53/64" **50-0378-S**
36. Hose, Oil Line, Feed, Formed, .500" ID, 2007-up Touring **310-0350**

(N/S) = Not shown



5-PIECE FLYWHEEL REPLACEMENT PARTS

- | | | |
|--|--------------------|--|
| 1. Sprocket Shaft, 1999–2006 bt (includes key #5)..... | 33-2009 | |
| 2. Sprocket Shaft, 2006 Dyna®, 2007–2012 bt | 33-2011 | |
| 3. Pinion Shaft, 1999–2012 bt (includes key #5) | N/A | |
| 4. Pinion Shaft, 2000–2012 w/balancer (includes key #5) | N/A | |
| 5. Key (each) | 50-8227 | |
| 6. Front Rod Race, 1999–2012..... | USA 34-4008 | |
| 7. Rear Rod Race | USA 34-4013 | |
| 8. Crankpin
Standard | 106-6239 | |
| + .001..... | 340-0017 | |
| + .002..... | 340-0018 | |
| 9. Crankpin Plug (each) | 106-5256 | |
| 2 pack | 50-8329-2 | |
| 10. Bearing Assembly..... | 340-0028 | |
| 11. Wristpin Bushing,
1999–2012* bt, straight bushing..... | USA 34-4012 | |
| 12. Connecting Rod Set,
T143, full width wristpin, 7.800" | 340-0128 | |

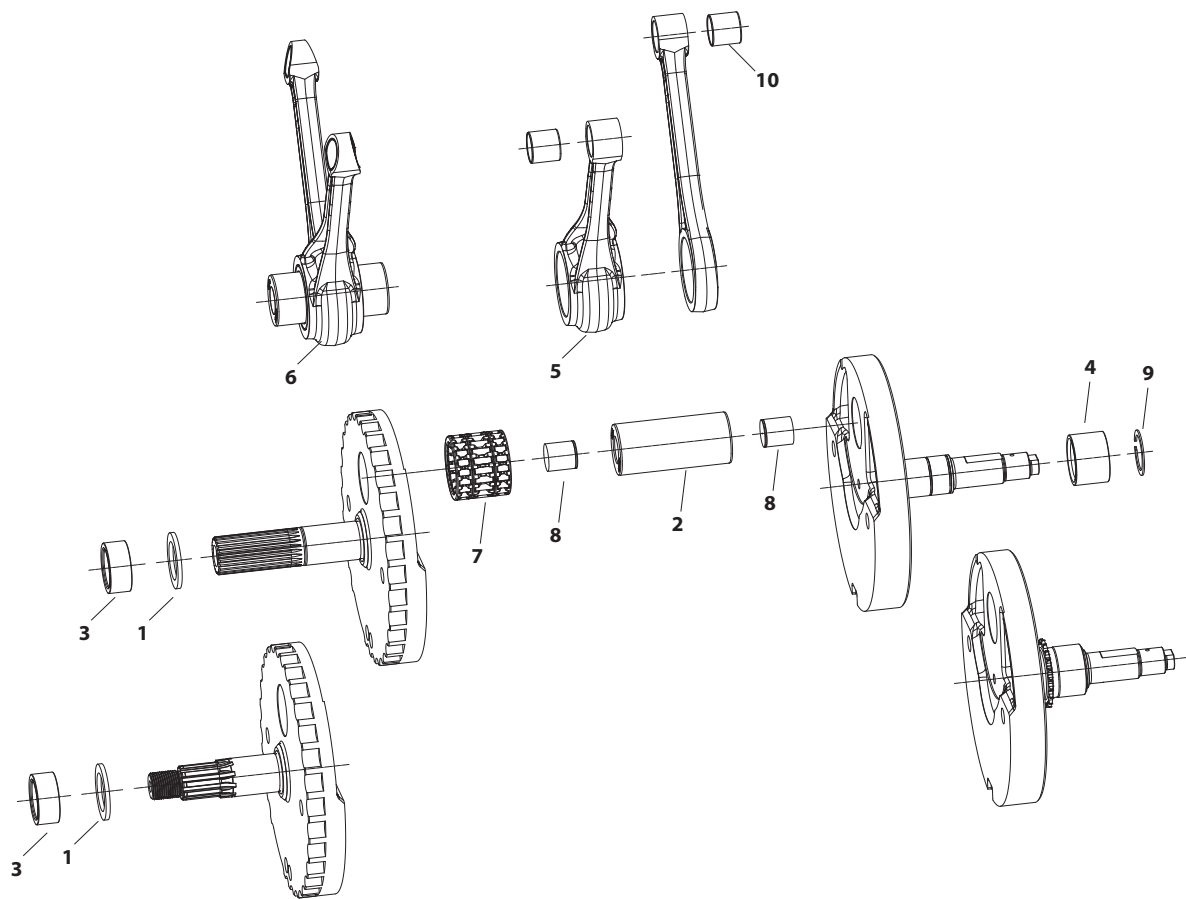


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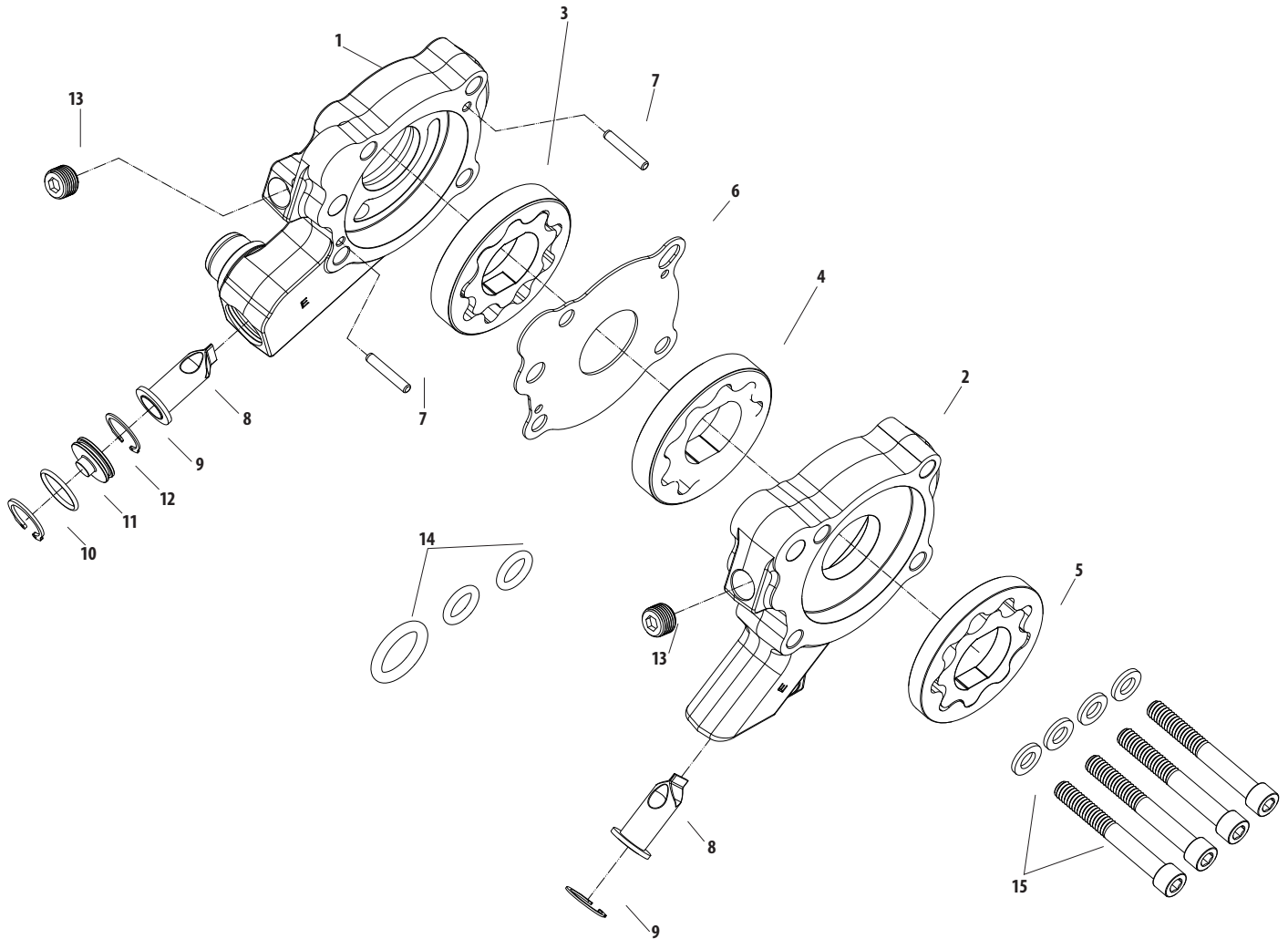
Due to different crankpin diameters, S&S® connecting rod assemblies cannot be used with stock Harley-Davidson® flywheels. S&S flywheels for Harley-Davidson® Twin Cam 88® and Twin Cam 96™ engines are pressed together as opposed to using the traditional tapered shafts and crankpin. Assembly and truing requires special equipment.

3-PIECE FLYWHEEL REPLACEMENT PARTS

- | | | | |
|---|-----------------|---|-----------------|
| 1. Washer, Flywheel, Thrust, 1.25" x 1.83" x .136", Hardened Steel
..... | 320-0198 | 6. Connecting Rod, Set, Tapered Wristpin, 7.659" | 340-0061 |
| 2. Crankpin, Press-In, Straight, 1.671", 1999-Up bt (includes plugs)
Standard..... | 340-0069 | 7. Bearing, Set, Rod, Standard..... | 340-0072 |
| + .001..... | 340-0070 | Bearing Set, Rod, Standard, T143..... | 340-0127 |
| + .002..... | 340-0071 | 8. Plug, Drive, .8965" x .850", Steel, Fatigue Proof
2 pack..... | 500-0187 |
| 3. Race, Inner, Left Main Bearing,
1.25" x 1.65" x .713", Hardened Steel | 340-0076 | 9. Retaining Ring, External, Pinion Bearing, 1.160" x 1.480" x .046"
Carbon Steel, SAE 1060-1090 11177A..... | 50-8057 |
| 4. Race, Inner, Right Main Bearing,
1.25" x 1.65" x 1.120", Hardened Steel | 340-0077 | 10. Bushing, Wristpin, .928", Bronze each..... | 340-0024 |
| 5. Connecting Rod, Set, Full Width Wristpin, 7.575", 120R... .. | 340-0062 | | |
| Connecting Rod, Set, Full Width Wristpin, 7.659"..... | 340-0074 | | |
| Connecting Rod Set, Full Wristpin, 7.800", T143..... | 340-0128 | | |



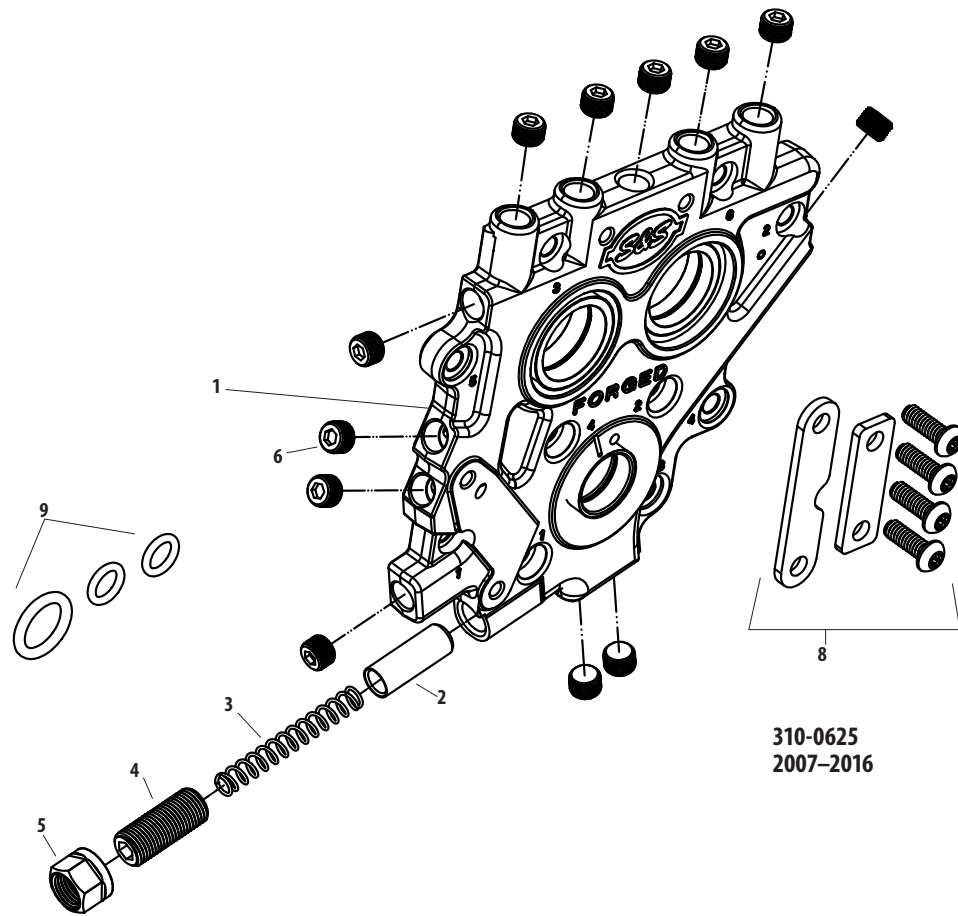
TC3 OIL PUMP REPLACEMENT PARTS



- 1. Oil pump body case return section **NA**
- 2. Oil pump body cam chest return / pressure feed **NA**
- 3. Oil pump rotor set, flywheel cavity return **310-0644**
- 4. Oil pump rotor set, cam chest cavity return **36-7021-S**
- 5. Oil pump rotor set, supply **310-0561**
- 6. Plate, divider **310-0516**
- 7. Dowel Pin, .125 x .750 Hardened Steel **500-0858**
- 8. Debris screen **310-0546**
- 9. Internal Retaining Ring, .625 **500-0860**
- 10. Internal Retaining Ring, 17mm **500-0859**
- 11. O-ring, 1.5mm x 14mm, Viton (5 Pack) **500-0861**
- 12. Oil pump return plug **310-0564**
- 13. Plug, Pipe 1/8" 27 **50-8331A**
- 14. O-ring kit **500-0326**
- 15. Screw, Kit, Oil Pump, 1999-Up BT
(1/4" 20 x 2" SHCS w/washers) **500-0327**

TC3 CAM PLATE REPLACEMENT PARTS



- 1. Cam support plate N/A
- 2. Pressure relief valve **31-6082-S**
- 3. Pressure relief spring **31-6018**
- 4. Pressure relief adjusting screw **170-0252**
- 5. Pressure relief adjusting screw lock nut **170-0251**
- 6. 1/8" 27 taper pipe plug **50-8331A**
- 7. Bearing retention plate kit **330-0015**
- 8. Hydraulic tensioner block off kit **106-5723**
- 9. O-ring kit **500-0326**





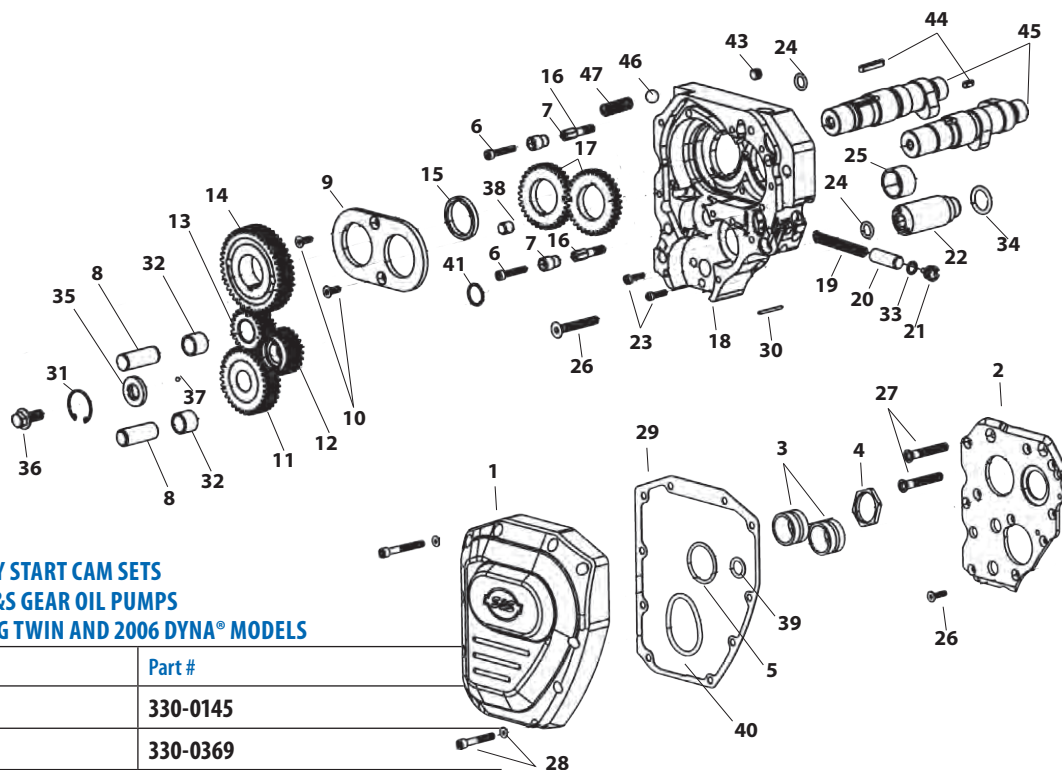
310-0625
2007-2016

OIL PUMP REPLACEMENT PARTS

FOR 2007-'16 HARLEY-DAVIDSON® BIG TWINS

1. Cover, assembly, camchest
Chrome..... **106-3890**‡
2. Cover plate..... **31-6507**
3. Bushing, cam support (each)..... **31-4087-S**
4. Nut, gear retainer, rear cam..... **31-6511**
5. O-ring, Viton (-220) (each)..... **50-8245-S**
6. Screw, SHC - 10-24 x 1" (each)..... **50-0044**
7. Alignment dowel (each)..... **50-8182-S**
8. Idler gear shaft (each)..... **31-2079-S**
9. Divider plate..... **31-6508**
10. Screw FHSC 10-24 x 1/2" (5 pack)..... **50-0312**
11. Gear, cam chest return..... **33-4291**
12. Gear assembly, pinion shaft..... **33-4170**
13. Gear, idler - Includes item PN 33-4214 bushing..... **33-4172**
14. Gear, cam drive..... **33-4292**
15. Gear, spacer..... **33-4171**
16. Thread adapter..... **31-2089-S**
17. Cam drive gear..... **33-4293**
(For reference only, not included in pump kit.)
18. Body assembly.....  **31-6505**
19. Spring, pressure control (each)..... **31-6018**
10 pack.....  **31-6084**
20. Plunger, pressure control valve 26400-82, 26400-82B..... **31-6082**
21. Pressure control plug w/o-ring..... **50-8326**
22. Fitting, flywheel cavity return..... **50-8183**
23. Screw, SHC 8-32 x 5/8" (5 pack)..... **50-0293**
24. O-ring, Viton 11301 (each)..... **50-8066-S**

25. Bushing, pinion shaft..... **31-4088**
26. Screw FHSC 10-24 x 3/4" (5 pack)..... **50-8328**
27. Screw FHSC 1/4"-20 x 2" (5 pack)..... **50-8163**
28. Kit, cover screw..... **50-1035**
29. Gasket (each)..... **31-2032-S**
30. Dowel pin, 3/32" diameter x 1" (each)..... **50-8193-S**
31. Retaining ring (5 pack)..... **N/A**
32. Bushing..... **33-4214**
33. O-ring 5/16" O.D. x 1/16" Viton (-011)..... **50-8138-S**
34. O-ring (-209) Viton (each)..... **50-8039**
35. Washer, pinion gear..... **50-0331-S**
36. Screw, FHSC - 5/16"-18 x 3/4" G8 25566-06..... **50-0100**
37. Steel ball, 1/8" (each)..... **50-8092-S**
38. Pin dowel - .275" I.D. x .3745" O.D. x .397"..... **50-8148-S**
39. Viton o-ring (-207) (5 pack)..... **50-8244**
40. Viton o-ring (-225) (5 pack)..... **50-8243**
41. Viton o-ring (-16) (5 pack)..... **50-8242**
42. Screw, FLC 1/4"-20 x 13/4" 905 (each)..... **50-0334-S**
43. Pipe plug 1/8"-27 (each)..... **50-8331A**
10 pack..... **50-1015**
44. Key kit - cams..... **50-1038**
45. Camshafts - See Cam Selection Chart below.
46. Ball, pressure relief valve 3/8" diameter
8866, 8873.....   **50-8091**
47. Spring, pressure relief valve..... **50-8408**
48. Seal rebuild kit (N/S) (Includes #5, 24, 29, 34, 39, 40, 41). **31-2097**
N/S = Not Shown



**GEAR DRIVE EASY START CAM SETS
FOR USE WITH S&S GEAR OIL PUMPS
FOR 2007-'15 BIG TWIN AND 2006 DYNA® MODELS**

Cam*	Part #
585GPE	330-0145
635GPE	330-0369
640GPE	330-0144

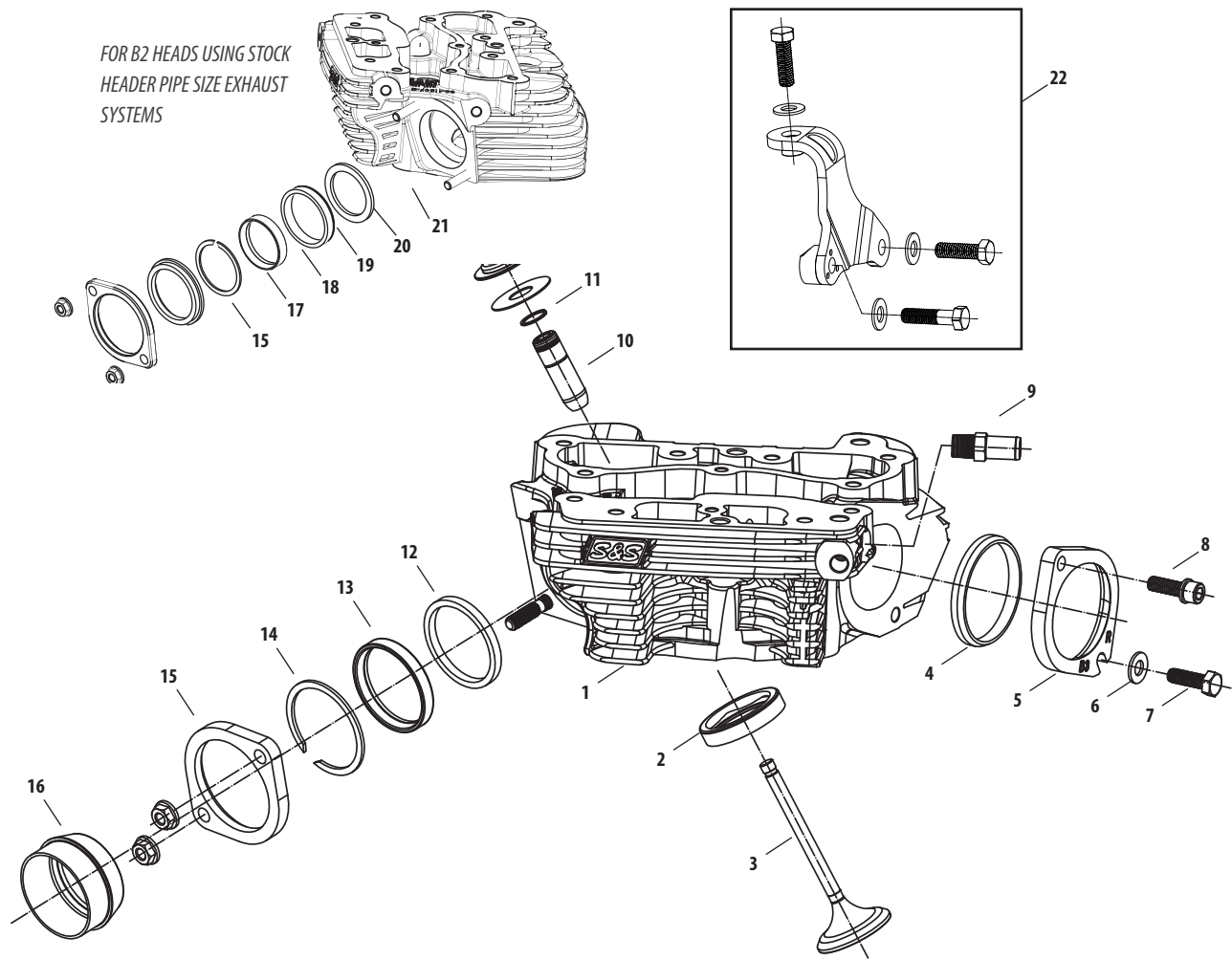
*See page 78 of this catalog for further information on cam recommendations for different applications.
DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown

B3 CYLINDER HEADS REPLACEMENT PARTS FOR S&S T143 ENGINES

- | | | | |
|--|------------------|--|------------------|
| 1. Cylinder Heads Set, B3
Black..... | 900-0803 | 11. Retaining Ring, External, Spiral, Heavy Duty, .525" x .035" x .050",
Carbon Steel | 106-2164 |
| Stone Gray..... | 900-0806 | 12. Exhaust Gasket Backing Washer,
2.18" x 1.885" x .200"..... | 550-0219 |
| 2. Seat, Blank, B3 Heads, 2.300"
Intake..... | 900-0677 | 13. Exhaust Gasket, Tapered, Stainless Steel..... | 550-0221 |
| Exhaust..... | | 14. Exhaust Flange Retaining Ring, 2.125" x .078"..... | 50-8159-S |
| 3. Valve
Intake..... | 900-0678 | 15. Exhaust Flange..... | 550-0223 |
| Exhaust..... | 900-0679 | 16. Weld-On Exhaust Header Pipe..... | 550-0222 |
| 4. Seal, Manifold, B2 Heads, 2.250" x 2.520" x .290"..... | 16-0246-S | 17. Exhaust Adapter Flange for Stock Header Pipe..... | 550-0224 |
| 5. Flange, Set..... | 160-0091 | 18. Exhaust Flange Retaining Ring, 1.759" x .062"..... | 550-0226 |
| Front..... | 160-0087 | 19. Exhaust Gasket, Tapered Stainless Steel..... | 106-5029 |
| Rear..... | 160-0088 | 20. Press-in Aluminum Retaining Ring, 1984-up..... | 550-0225 |
| 6. Washer, Flat, .344" x .688" x .065", Zinc, Steel..... | 50-7034 | 21. Exhaust Gasket Backing Washer,
2.18" x 1.690" x .125"..... | 550-0220 |
| 7. Bolt, Hex Head, Gr5, 5/16-18 x 1", Zinc..... | 50-0108 | 22. Head Mount Bracket Kit
2008 T143..... | 900-0797 |
| 8. Screw, SHCS, w/Flat Washer, 5/16-18 x 1", Zinc..... | 50-0125-S | 2009-up T143..... | 900-0798 |
| 9. Fitting, Pipe, Straight, 1/4-18 NPTF x 1.510" X .500", Zinc, Steel
..... | 50-8158-S | | |
| 10. Valve Guide, Intake, Powder Metal..... | 900-0780 | | |

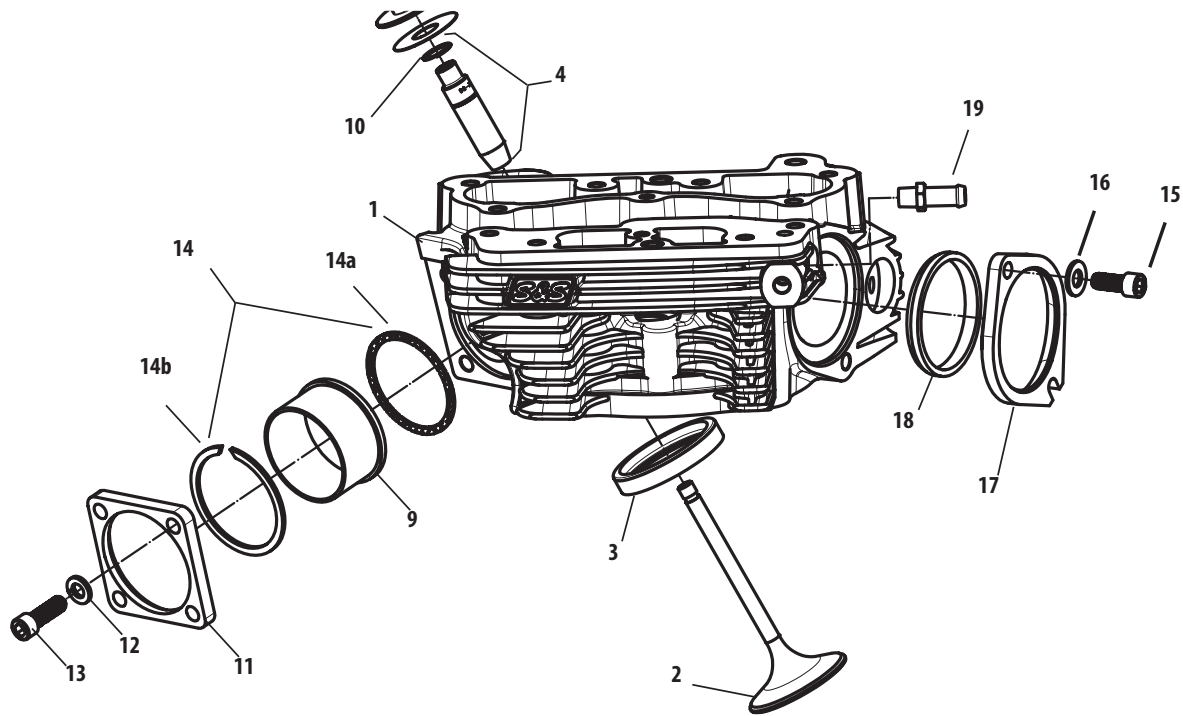
**VALVE SPRING REPLACEMENT PARTS:
SEE PAGE 120**



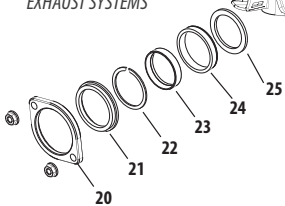
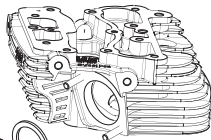
All reference to HD® Part # is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® Part # shown.

B2 CYLINDER HEADS REPLACEMENT PARTS

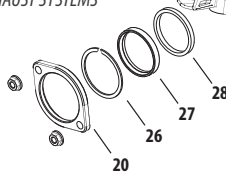
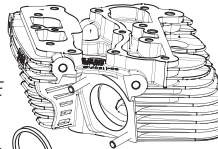
1. Cylinder head – (See page 88)	
2. Valve	
Intake, 2.200" Dia.	90-2127
Exhaust, 1.800" Dia.	90-2128
3. Valve Seat	
Exhaust, 1.800" Dia.	90-2126
Intake, 2.200" Dia.	90-2125
4. Valve guide, intake/exhaust, cast	
STD.	106-2166
+.030"	106-2170
9. Adaptor, Exhaust Flange.	55-6022
10. Snap ring (each)	106-2164
11. Flange, exhaust, front/rear.	55-6021
12. Washer, Lock, .332" x .583" x .078"	50-7032
13. Screw, SH, 5/16" - 18 x 1" ^{3201WA, 2708}	50-0101
14. Gasket, Kit, Exhaust, B2 Heads, SA.	90-1900
Kit includes two each:	
a. Gasket, exhaust pipe (each)	93-1083-S
6 pack.	93-1083
b. Retaining Ring.	N/A
15. Screw, SH, 5/16-18 x 3/4" ³²⁷⁵ each	50-0302-S
16. Washer, 5/16" ^{6320, 70907-07, 6016, 6702}	50-7034
17. Manifold mounting flange	
Front.	16-0247
Rear.	16-0248
18. O-ring, manifold (each)	16-0246-S
6 pack.	16-0246
19. Fitting, vent hose, 1/8"-27 pipe	50-8115
20. Exhaust Flange, 1984-up S&S® B2 Heads	550-0223
21. Exhaust Adapter Flange for Stock Header Pipe, 1984-up S&S® B2 Heads	550-0224
22. Exhaust Flange Retaining Ring, 1.759" x .062"	550-0226
23. Exhaust Gasket, Tapered Stainless Steel, 1984-up bt, 1986-up xl ^{65324-83B, 65324-83A}	106-5029
24. Press-in Aluminum Retaining Ring, 1984-up S&S® B2 Heads	550-0225
25. Exhaust Gasket Backing Washer 2.18" x 1.690" x .125"	550-0220
26. Exhaust Flange Retaining Ring, 2.125" x .078"	50-8159-S
27. Exhaust Gasket, Tapered, Stainless Steel, 1984-up S&S® B2 Heads	550-0221
28. Exhaust Gasket Backing Washer 2.18" x 1.885" x .200"	550-0219
29. Weld-On Exhaust Header Pipe	550-0222



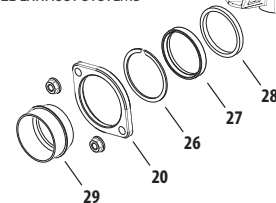
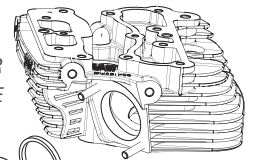
FOR B2 HEADS USING
STOCK HEADER PIPE SIZE
EXHAUST SYSTEMS



FOR B2 HEADS USING A
PRE-MADE 2" OD HEADER PIPE
SIZE EXHAUST SYSTEMS





















FOR B2 HEADS MODIFYING OR
MAKING A 2" OD HEADER PIPE
SIZE EXHAUST SYSTEMS



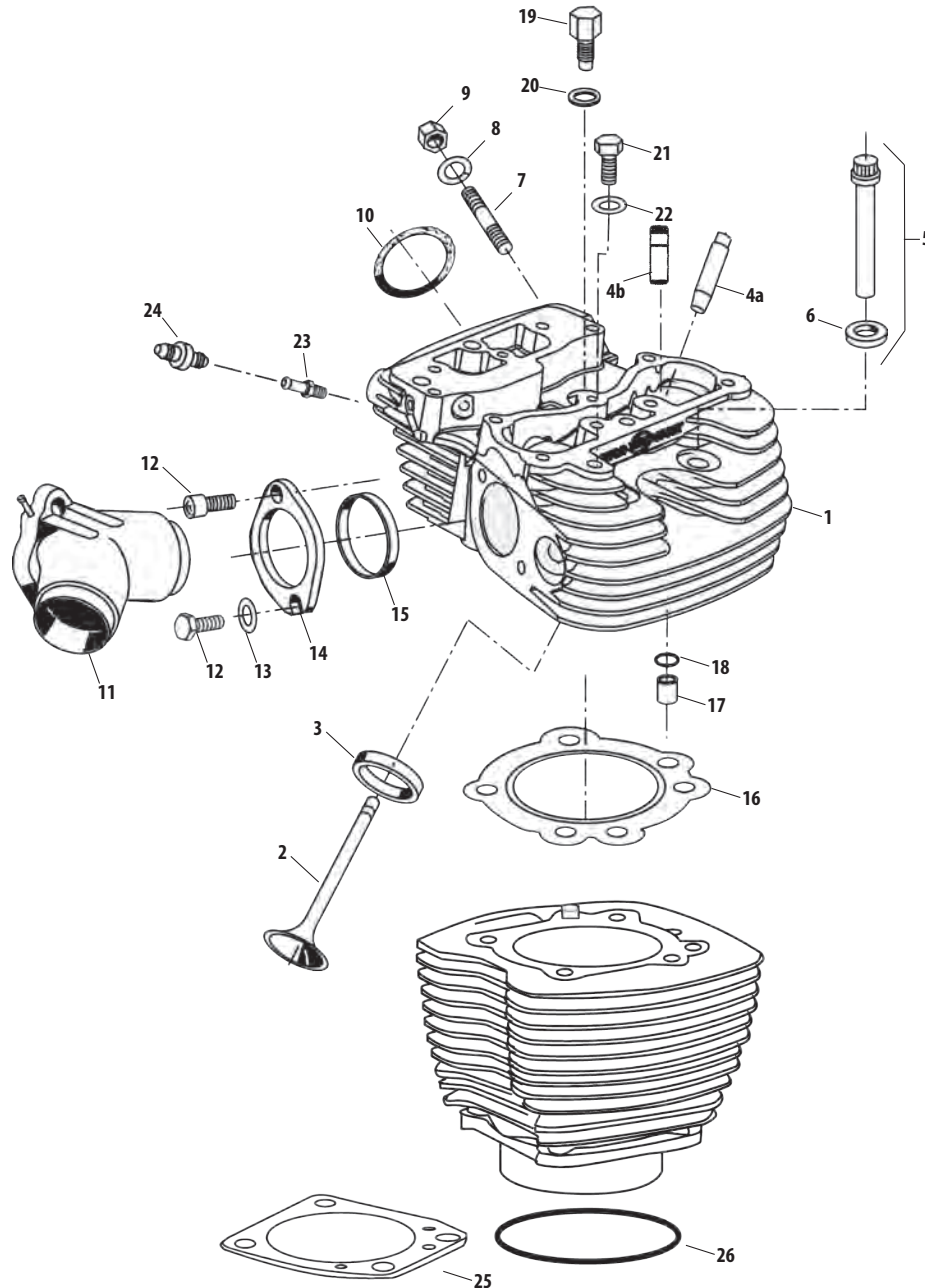
VALVE SPRING REPLACEMENT PARTS: [SEE PAGE 120](#)

SUPER STOCK® CYLINDER HEADS REPLACEMENT PARTS FOR 2007–2016 BIG TWIN ENGINES

1. Cylinder head (Starting page 89)
2. Valve
 - All S&S heads with 89cc or 91cc chamber
 - Intake
 - 2.000" diameter  **90-2000**
 - 2.000" diameter + .085" stem length **90-2004**
 - Exhaust
 - 1.605" diameter  **90-2001**
 - All S&S heads with 79cc chamber
 - Intake — 1.940" diameter **90-2025**
 - Exhaust — 1.575" diameter **90-2026**
3. Valve seat
 - All S&S heads with 89cc or 91cc chamber
 - Intake - 2.000" diameter  **90-2002**
 - Exhaust - 1.605" diameter  **90-2003**
 - All S&S heads with 79cc chamber
 - Intake - 1.940" diameter **90-2027**
 - Exhaust - 1.575" diameter **90-2028**
4.
 - a. Valve guide - Intake or Exhaust Cast
 - Standard 18112-92   **90-2210**
 - + .001" 18130-83C  **90-2211**
 - + .002" 18133-83A, 18133-83D  **90-2212**
 - + .003" 18131-83C  **90-2213**
 - + .030"  **90-2219**
 - b. Valve Guide - Intake or Exhaust Powder Metal (PM)
 - Standard **900-0553**
 - + .001 **900-0554**
 - + .002 **900-0555**
 - + .003 **900-0556**
5. Head bolt assembly — (8 Required) (Includes head bolt washer)
 - each **93-3037**
 - 4 pack **93-3037-4**
6. Head bolt washer, .250" (each) **50-7091**
7. Exhaust port stud 16715-83 (each)  **50-0493**
 - 5 pack  **50-1028**
8. Lock washer - 5/16" **50-7032**
9. Nut, flanged - 5/16" - 24 7593
 - Zinc (each) **50-5025-S**
 - 2 pack **50-5025-2**
 - 5 pack **50-1001**
 - Chrome (each) **50-5030-S***
10. Exhaust pipe gasket, tapered 65324-83B, 65324-83A
 - each **106-5029**
 - 10 pack **93-1072**
11. Intake manifold (see page 95)
12. Manifold mounting screw
 - SH - 5/16" - 18 x 3/4" 3275 (each) **50-0302-S**
 - SH - 5/16" - 18 x 1" 3201WA, 2708 **50-0101**
 - HH - 5/16" - 18 x 1" 3987 (each)  **50-0108**
13. Flat washer - 5/16" 6320, 70907-07, 6016, 6702. **50-7034**
14. Manifold mounting flange
 - Front 27009-86A (each)  **16-0232**
 - 5 pack  **16-0600**
 - Rear 27010-86A (each)  **16-0233**
- 5 pack  **16-0601**
- Set (Front & Rear) **106-3516**
15. Manifold o-ring
 - For S&S manifold (each) **16-0235**
 - 10 pack **16-0243**
 - For Stock manifold 26995-86B, 26995-86A, 26992-99
 - each  **16-0236**
 - 10 pack **16-0244**
16. Head gasket
 - For Stock Bolt Pattern
 - 3 3/4" x .043" Graphite (each) **93-1045-S**
 - 3 7/8" / 3.927" x .030" Layered Steel (2 pack) **900-0605**
 - 3 7/8" / 3.927" x .045" Layered Steel (each) **900-0606**
 - 4" x .043" Graphite (each) **93-1043-S**
 - 10 pack **93-1058**
 - 4 1/8" x .043" Layered Steel (each) **93-1091-S**
 - 10 pack **93-1920**
 - 4 1/8" x .030" Layered Steel (2 pack) **900-0217**
 - For S&S Bores
 - 4 1/8" x .043" Graphite (each) **93-1047-S**
 - 10 pack **93-1073**
 - 4 3/8" x .045" Copper (2 pack) **93-1081**
17. Alignment dowel, base and head 16595-99A (each) **50-8177**
 - 4 pack **50-8177-4**
18. Alignment dowel o-ring — Base (all bore sizes)
 - S&S heads 3 3/4" bore only 11105, 11273
 - each **50-8008**
 - 10 pack **50-8078**
19. Plug, HH - 14mm (each) **90-4916**
 - 2 pack **90-4916-2**
20. Washer, compression - 14mm
 - 507" x .705" x .047" (each) **50-7094**
21. Head mount bolt - 3/8" - 16 x 1 1/4" 4716W
 - each **50-0168**
22. Flat washer - 3/8" (each) **50-7051**
23. Vent hose fitting, (For 4 1/8" Bore Only)
 - Front, 1/16" - 27 pipe **50-8117**
 - Rear, 1/8" - 27 pipe **50-8115**
24. Check Valve (For 4 1/8" Bore Only) **50-8122**
25. Base Gaskets
 - For S&S Bores
 - 4 3/8" x .018" Graphite (2 pack) **93-1082**
 - 4 1/8" x .018" Graphite (each) **93-1048-S**
 - 10 pack **93-1074**
 - 4" x .018" Graphite (each) **93-1050-S**
 - For Stock Bolt Pattern
 - 4 1/8" x .018" Graphite (each) **93-1092-S**
 - 10 pack **93-1921**
26. Base O-ring (Used for early S&S bores)
 - 4" x .103" (each) **50-8049**
 - 3 5/8" or 3 1/2" x .103" (each) 11256. **50-8048**

**VALVE SPRING REPLACEMENT PARTS:
SEE PAGE 120**

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.



TOP END GASKET KIT FOR S&S ENGINES

Bore	Part #
4 $\frac{3}{8}$ "	90-9511
4 $\frac{1}{8}$ " Stock Cases	90-9510
4" Stock Bolt Pattern	90-9505
3 $\frac{7}{8}$ " Stock Bolt Pattern	90-9504



Kits include all gaskets and seals required to rebuild the top end of an S&S engine with S&S cylinders and cylinder heads. Rocker cover gaskets are not included in kits. See "Rocker cover gasket kits" on page 102 to order separately.

VALVE GUIDE DIAMETERS FOR S&S® T-SERIES ENGINES

Oversize	Diameter	Part Number
Std.	.5625/.5620	90-2210 USA ^{1,2,3}
+ .001	.5635/.5630	90-2211
+ .002	.5645/.5640	90-2212
+ .003	.5655/.5650	90-2213
+ .030	.5925/.5920	90-2219

VALVE SPRING REPLACEMENT PARTS

.720" & .660" Lift Valve Springs (B3 Cylinder Heads)

1. Seal, valve guide, intake/exhaust 18001-83B (each)  **90-2008**
8 pack  **90-2158**
2. Keeper, valve spring, SA **90-2153A**
3. Valve spring shim
.015" (each) **90-2086**
5 pack **50-7161**
.030" (each) **90-2087**
5 pack **90-2198**

.650" Lift Valve Springs (B2 Cylinder Heads)

1. Seal, Valve Guide, fits .315" x .554" OD, Viton® **900-0737**
2. Keeper, valve spring, Standard, 9° Degree **90-2094-S**

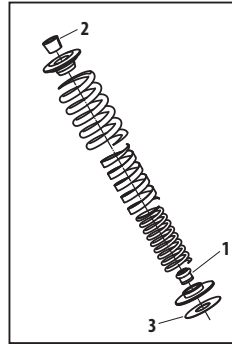
.650" Lift Sidewinder® Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. Spring, Valve .650" **106-5689**
2. Collar, Top, Steel **106-5690**
3. Collar, Bottom, Steel **106-5691**
4. Seal, Valve
S&S CNC Ported Heads & 2005-up bt w/7mm valve stem **106-5688**
S&S Super Stock Heads
.420" Cast **900-0338**
.562" Powder Metal **900-0737**
5. Keeper, valve spring **106-5692**
6. Valve Spring Shim
.015" (each) **500-0013**
.030" (each) **500-0014**

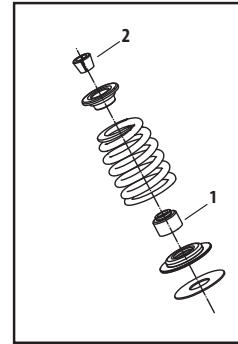
.585" Lift Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. Spring, Valve .585" **900-0444**
2. Collar, Top **900-0550**
3. Collar, Bottom
For Stock Heads w/7mm valve stem (includes seal) **900-0590**
For CNC Ported Heads w/7mm valve stem **900-0549**
For Super Stock Heads **900-0600**
4. Seal, valve guide
For Stock Heads w/7mm valve stem
(includes bottom collar) **900-0590**
For CNC Ported Heads w/7mm valve stem **106-5688**
For Super Stock Heads
.420" Cast **900-0338**
.562" Powder Metal **900-0737**
5. Keeper, valve spring
For Stock and CNC Ported Heads **106-5692**
For Super Stock Heads **90-2094-S**
6. Valve spring shim
For Stock and CNC Ported Heads
.015" **500-0013**
.030" **500-0014**
For Super Stock Heads
015" **90-2086**
.030" **90-2087**

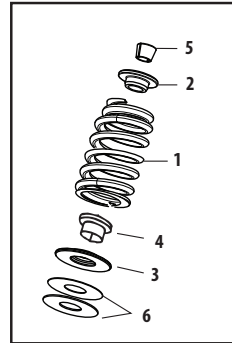
.720" & .660" Lift Valve Springs



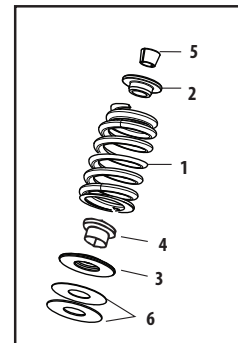
.650" Lift Valve Springs



.650" Lift Sidewinder® Valve Springs



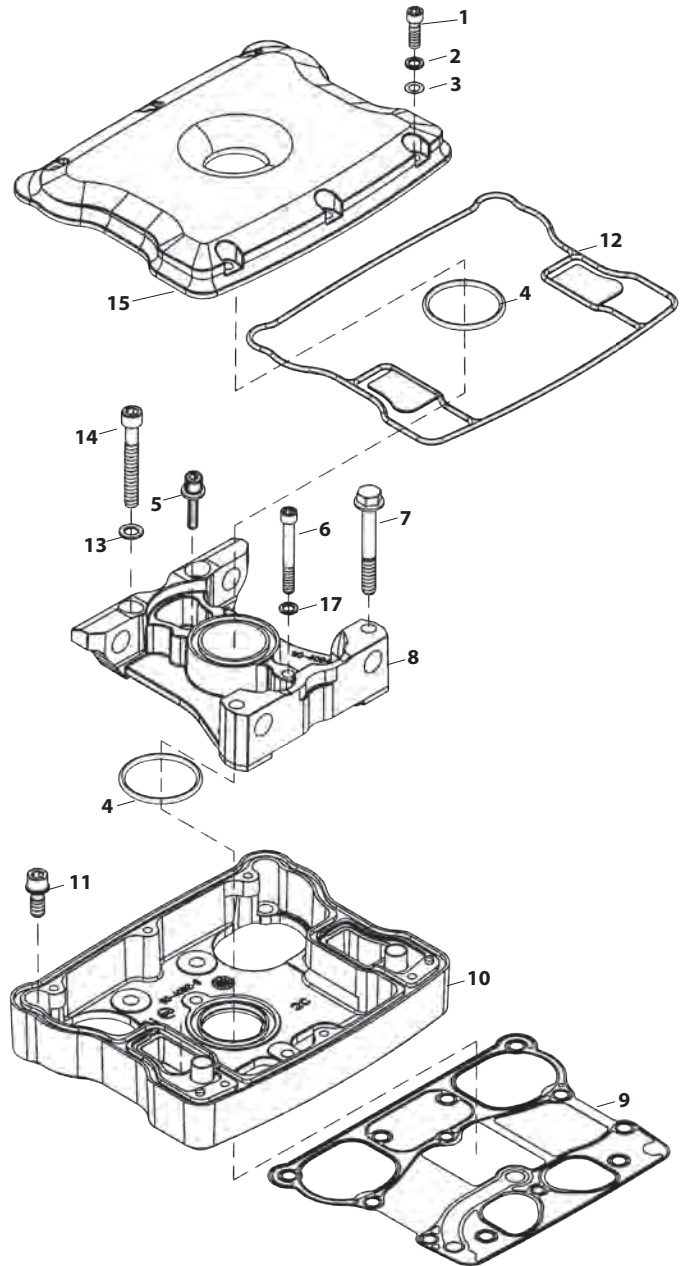
.585" Lift Valve Springs



DIE-CAST ROCKER COVER REPLACEMENT PARTS

FOR 2007-2015 BIG TWIN ENGINES

1. Screw, socket head ¼"-20 x ¾" 4069A (each) **50-0067**
2. Washer, flat ¼" (each) **50-7017**
12 pack **50-7013**
3. Washer, silicone coated ¼" (each) **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
4. Seal, o-ring
(Included in gasket kit see #16 below.)
5. Screw, socket head, ¼"-20 x 1" 4741A
each **50-0092-S**
4 pack **50-0092P**
6. Screw, socket head, ¼"-20 x 2" 25794-36 **50-0013**
7. Screw, hex flange head, ⅝"-18 x 2½" 3501 **50-0123**
8. Support, rocker arm **90-4140**
9. Gasket, rocker cover, Graphite
For Stock or S&S rocker covers on stock heads 16719-99B
each **90-4071-S**
2 pack **90-4071**
10 pack **90-4099**
For Stock rocker covers on S&S heads (each) **90-4124**
2 pack **90-4120**
10. Housing, rocker, Chrome **USA 900-4283±**
11. Screw, socket head, ⅝"-18 x 1" **50-0125-S**
12. Seal, rocker cover
(Included in gasket kit see #16 below.)
13. Washer, flat ⅝" (each) **50-7026**
14. Screw, socket head ⅝"-18 x 2¼"
each **50-0115-S**
15. Cover, rocker, chrome **USA 900-0706±**
16. Gasket set - rocker cover, cast (Not Shown) **90-4111**
17. Washer, .261" x .474" x .050", Annealed, Stainless Steel
each **50-7020**



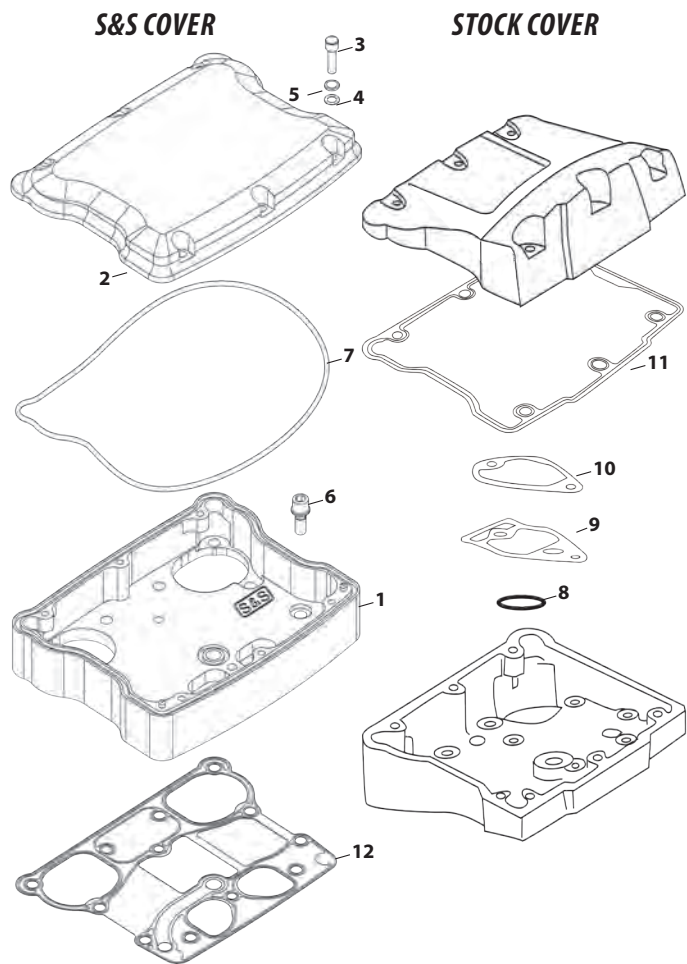
All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

BILLET ROCKER COVER REPLACEMENT PARTS

FOR 1999-2017 BIG TWIN ENGINES (DISCONTINUED) EXCEPT 2017 TOURING MODELS

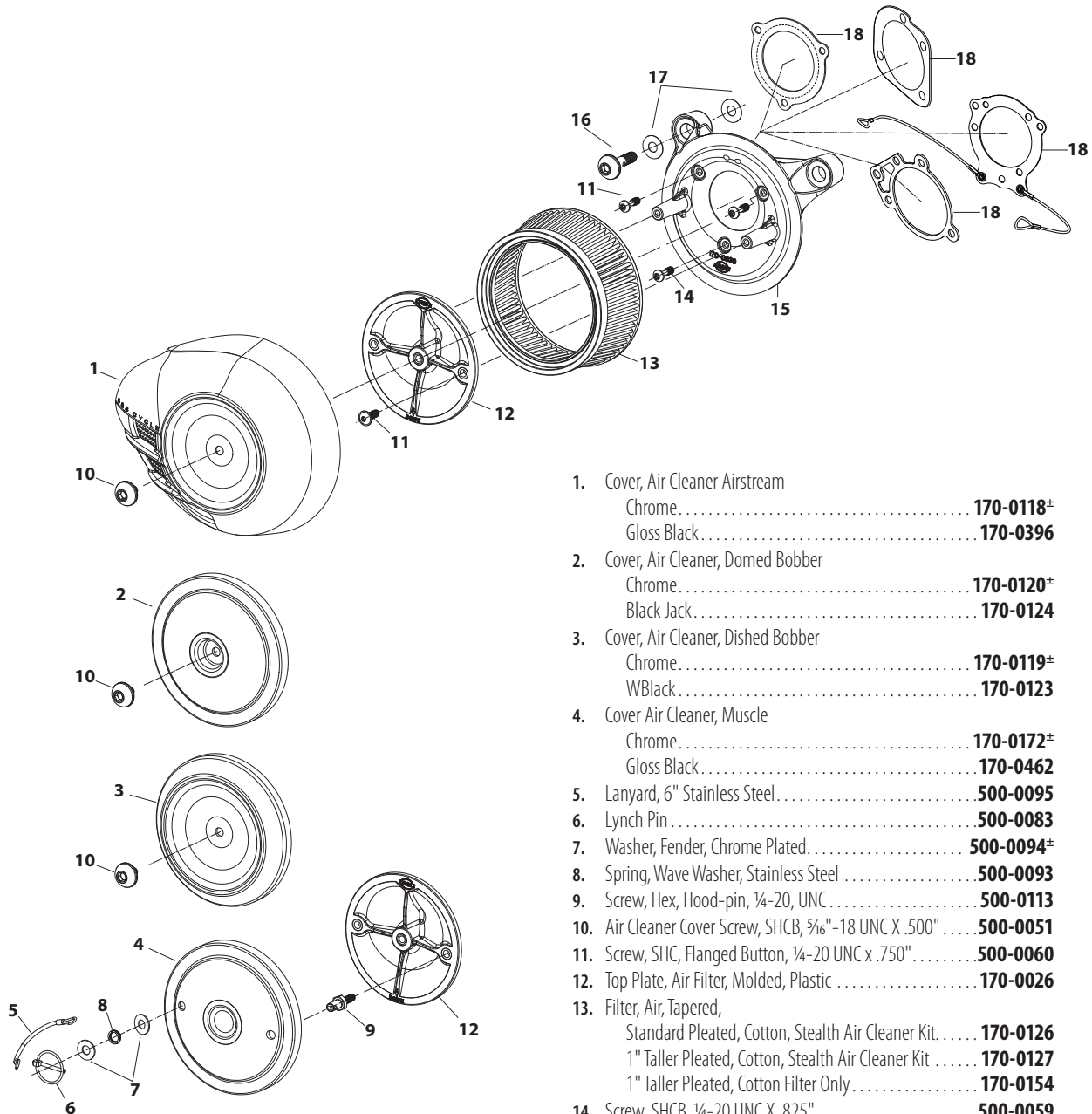
1. Base assembly, rocker **N/A**
2. Top, rocker cover **N/A**
3. SHCS, 1/4"-20 x 3/4" 4069A (each) **50-0067**
4. Washer, flat, chrome, 260" x .425" x .060"
each **50-7017±**
12 pack **50-7013±**
5. Washer, flat, rubber coated, 1/4" x 7/16" x .020"
each **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
6. SHCS, 5/16"-18 x 1" with flatwasher **50-0125-S**
7. O-ring, rocker cover seal, Viton®
(Included in gasket kit #90-4073. See below)
8. O-ring, (-114), .625" ID x .937" OD 11270 **50-8033**
9. Gasket, Breather Baffle, Stock Pattern, Paper, 1999-'10 bt
17162-03, 17592-99 each **90-4078**
10. Gasket, Breather Cover, Stock Pattern, Paper, 1999-'10 bt
17591-99, 17162-03, 17592-99 each **90-4077**
11. Gasket, Rocker Cover, Steel, 1999-up bt 17386-99A **90-4096-S**
12. Gasket, bottom rocker cover
2 pack **90-4071**
10 pack **90-4099**
13. Gasket kit, rocker cover (includes gaskets for 2 rocker covers) (Not Shown)
For S&S billet rocker covers
(includes #5,7,8,9,10,12) **90-4073**
For 1999-'10 bt
(includes #8,9,10,11,12) **90-4097**

N/A = No longer available



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STEALTH REPLACEMENT PARTS

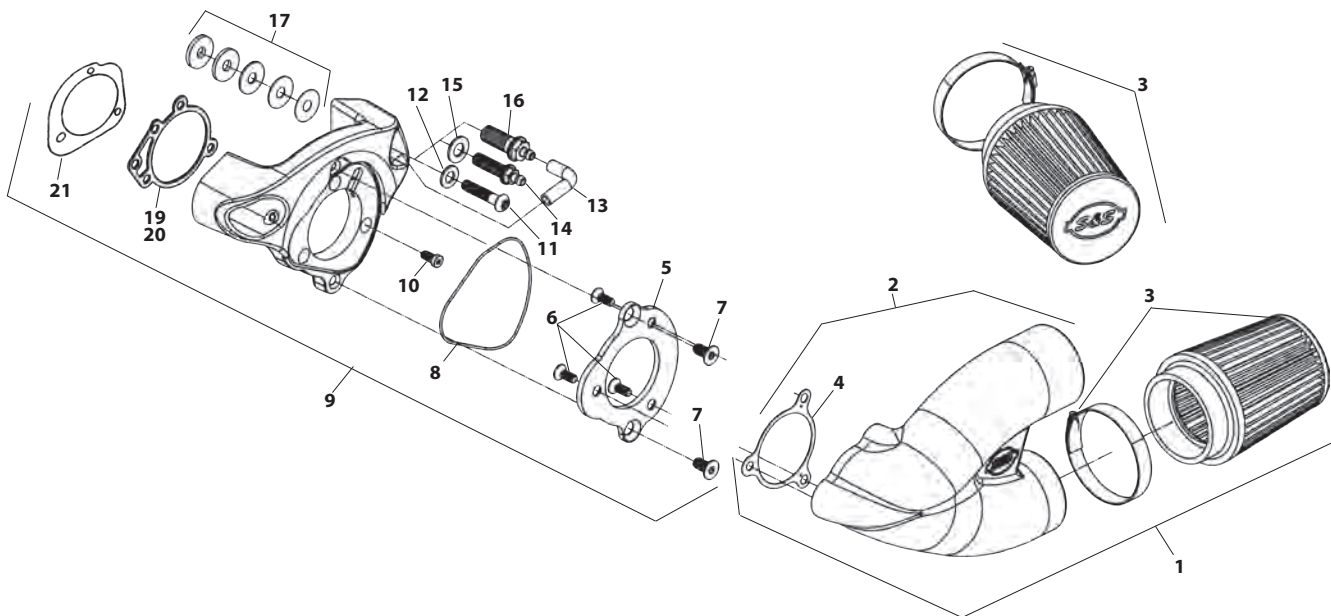


1. Cover, Air Cleaner Airstream
 Chrome..... **170-0118[±]**
 Gloss Black..... **170-0396**
2. Cover, Air Cleaner, Domed Bobber
 Chrome..... **170-0120[±]**
 Black Jack..... **170-0124**
3. Cover, Air Cleaner, Dished Bobber
 Chrome..... **170-0119[±]**
 WBlack..... **170-0123**
4. Cover Air Cleaner, Muscle
 Chrome..... **170-0172[±]**
 Gloss Black..... **170-0462**
5. Lanyard, 6" Stainless Steel..... **500-0095**
6. Lynch Pin..... **500-0083**
7. Washer, Fender, Chrome Plated..... **500-0094[±]**
8. Spring, Wave Washer, Stainless Steel..... **500-0093**
9. Screw, Hex, Hood-pin, ¼-20, UNC..... **500-0113**
10. Air Cleaner Cover Screw, SHCB, ¾"-18 UNC X .500"..... **500-0051**
11. Screw, SHC, Flanged Button, ¼-20 UNC x .750"..... **500-0060**
12. Top Plate, Air Filter, Molded, Plastic..... **170-0026**
13. Filter, Air, Tapered,
 Standard Pleated, Cotton, Stealth Air Cleaner Kit..... **170-0126**
 1" Taller Pleated, Cotton, Stealth Air Cleaner Kit..... **170-0127**
 1" Taller Pleated, Cotton Filter Only..... **170-0154**
14. Screw, SHCB, ¼-20 UNC X .825"..... **500-0059**
15. Backplate
 1993-up Stock CV Carb; 2001-up Delphi® EFI
 (except Throttle by Wire)..... **170-0021**
 2008-up bt, Delphi® EFI w/Throttle by Wire..... **170-0065**
16. Screw, Backplate Vent, SHCB, ¾-16 x 1½", Polished Stainless
 **170-0045**
17. Washer, Flat, Nitrile Rubber Coated, .380" x .880" x .024"
 each..... **50-7054**
 10 pack..... **50-7059**
18. Gasket, Backplate
 Stock CV Carb & EFI Throttle Body, 1991-up bt
 (except Throttle by Wire) 29062-958..... **106-6022**
 2008-up bt, Throttle by Wire..... **160-0035**
 Super E/G, CV Adapter..... **106-1724**
 w/lanyards for use with Muscle Cover..... **170-0137**

SINGLE BORE TUNED INDUCTION SYSTEM REPLACEMENT PARTS

FOR S&S T-SERIES ENGINES AND 2007-'16 BIG TWINS, EXCEPT 2008-'16 TOURING MODELS

1. Tuned Intake Kit, 2.19" Single Bore with Red Filters
 - Gloss Black **170-0454**
 - Chrome Plated **106-4967[±]**
2. Tuned Intake Assembly, 2.19" Single Bore
 - Natural **106-4968**
 - Gloss Black **170-0453**
 - Chrome Plated **106-4970[±]**
3. Air Filter, w/clamp, Stainless Cap – Conical – 2¹/₁₆" I.D. x 4"
 - Red (each) **17-1020**
 - Blue (each) **17-1023**
4. Gasket, Intake – Adapter Plate **17-1022**
5. Plate, Adapter, 2.19" Single Bore Tuned Intake
 - Chrome Steel **17-1014[±]**
6. FHSC 1/4–20 x 5/8" (each) **50-0433**
7. FHSC 5/16–18 x 5/8" (each) **50-0432**
8. O-Ring, Adapter Plate Bracket 3/8" O.D. x 3 1/2" I.D. 1/16 CS, Viton
 - each **50-0446**
9. Bracket Kit, 2.19" Single Bore Tuned Intake, Chrome
 - Single VFI, S&S T124 **106-4976[±]**
 - Single VFI, 1984–up BT **106-4977[±]**
 - Stock Carb, Delphi® EFI, 1984–up BT **106-4978[±]**
10. Backplate Screw, SHC, w/Threadlock, 1/4–20 x 1/2" (each) **106-2084**
 - 10 pack **106-2105**
11. Screw, 5/16–18 x 1 1/4, BHC, Chrome (each) **50-0309-5[±]**
12. Flat Washer 5/16" x 1/16" 6320, 70907-07, 6016, 6702 **50-7034**
13. Hose, Breather, 1/4" I.D., 90° **19-0178A**
14. Screw, Breather Fitting, 3/8–16 x 1 1/4" **50-0436**
15. Washer, Flat, 3/8" x 13/16" x 1/16", Chrome **50-7106-5[±]**
16. Screw, Breather Fitting, 1/2–13 x 1.25 **50-0435**
17. Shim Kit
 - (a) 5/16" I.D. S&S 4 1/8" engines **17-0314**
 - Includes:
 - .325" x 1" x .018", Stainless Steel (each) **50-7038**
 - .325" x 1" x .030", Stainless Steel (each) **50-7039**
 - .325" x 1" x .048", Stainless Steel (each) **50-7040**
 - .325" x 1" x .105", Stainless Steel (each) **50-7041**
 - .325" x 1" x .125", Stainless Steel (each) **50-7042**
 - (b) 1/2" I.D. 1993–up BT **17-0464**
 - Includes:
 - .515" x 1" x .018", Stainless Steel (each) **50-7085**
 - .515" x 1" x .030", Stainless Steel (each) **50-7086**
 - .515" x 1" x .048", Stainless Steel (each) **50-7087**
 - .515" x 1" x .105", Stainless Steel (each) **50-7089**
 - .515" x 1" x .125", Stainless Steel (each) **50-7090**
19. Gasket, Backplate – E/G/SBEFI (each) **106-1724**
 - 10 pack **106-2328**
20. Gasket, Backplate, S&S SBEFI 58mm **106-4662**
21. Gasket, Backplate, Stock carb/Throttle Body 29062-95B **106-6022**
22. Hardware Kit
 - 2007–'12 bt, except 2008–'12 Touring
(includes #7, 8, 10, 11, 12, 13, 14, 15, 16, 17a, 17b, 19, 21) **17-5098**
 - S&S 4 1/8" Bore Heads (includes #7, 8, 10, 11, 12, 13, 17a, 19) .. **500-0016**
23. Oil, Air Filter, 8 oz. (Not shown)
 - Red **106-1163**
 - Blue **106-1164**



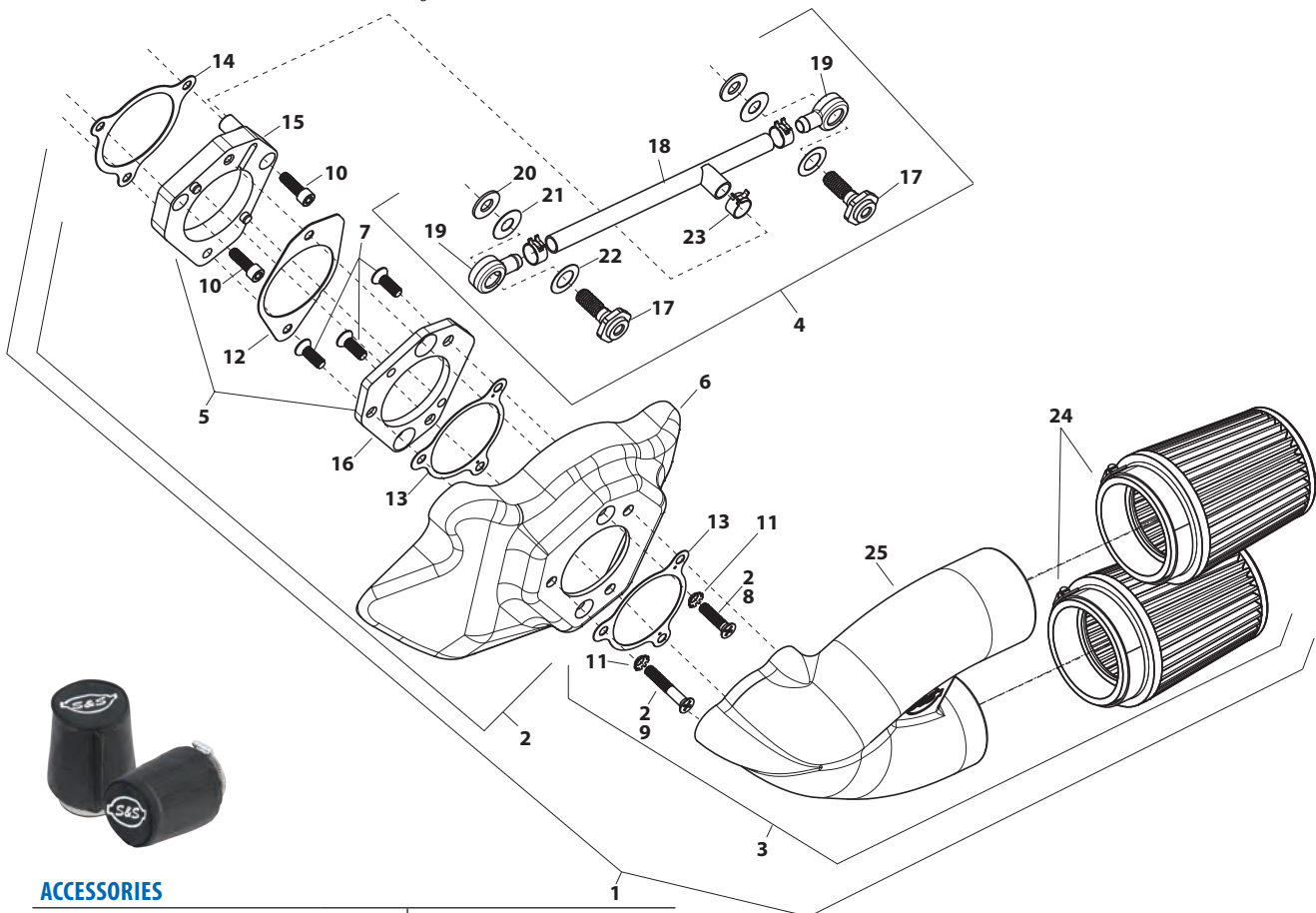
ACCESSORIES

Description	Part #	
Nylon Air Filter Cover	each	106-0247
	2 pack	106-0248



THROTTLE BY WIRE SINGLE BORE TUNED INDUCTION REPLACEMENT PARTS FOR 2008-2016 TOURING MODELS

1. Intake Runner, Kit, Single Bore, 2.19", 2008-Up Touring (See page 55)
2. Installation Kit, Throttle by Wire, 2008-up bt. **106-4851**
3. Intake Runner, Single Bore, w/Gasket & Air Filter, 2.19"
Gloss Black **170-0454**
Chrome Plated **106-4967[±]**
4. Breather, Kit, Throttle by Wire, 2008-up bt. **106-4827**
5. Mount, Kit, Spacer/Adapter, Throttle by Wire, 2008-up bt. **106-4824**
6. Cover, Induction Module, Throttle by Wire, Plastic, 2008-up **106-3612**
7. Screw, FHSC, ¼-20 x ¾", Zinc Plated **50-0491**
8. Screw, FHSC, ¼-20 x 1", Black Chrome **106-4828[±]**
9. Screw, FHSC, ¼-20 x 1½", Black Chrome **106-4829[±]**
10. Screw, SHC, ¼-20 x ¾", Chrome, ASTM A574-92A 4069A **50-0067[±]**
11. Washer, countersunk, external tooth, ¼" x ½", parkerized steel
106-4980
12. Gasket, Intake Adapter, Throttle by Wire, 2008-up bt. **106-4428**
13. Gasket, Intake Adapter, .020", 2.19", Gray, Paper **17-1022**
14. Gasket, Throttle Body, Throttle by Wire, 2008-up bt 29645-08
each **106-2643**
Gasket, S&S Throttle Hog, 58mm **160-0050**
Gasket, S&S Throttle Hog, 66mm & 70mm **160-0035**
15. Spacer, Plate, Throttle By Wire, Intake Runner, 2008-up bt **106-4826**
16. Adapter, Plate, Throttle by Wire, Intake Runner **106-3607**
17. Screw, Breather, ⅜-16 UNC, +.250, 2008 Touring (each) **106-2667**
18. Hose, Vent, Breather **USA 1,2 17-0339**
19. Fitting, Vent, Aluminum Alloy (each) **17-0350**
2 pack **17-0355**
20. Washer, Flat, .375" x .813" x .063", Zinc, Steel
each **50-7051**
21. Washer, Flat, .380" x .880" x .024", Nitrile Rubber Coated, Cold Rolled Steel
each **50-7054**
10 pack **50-7059**
22. Washer, Flat, .520" x .880" x .024", Nitrile Rubber Coated, Cold Rolled Steel
each **50-7055**
10 pack **50-7057**
23. Clamp, Spring, 9/16" **50-8001**
24. Air Filter, with Clamp, Stainless Cap, Conical, 2⅞" I.D. x 4"
Red (each) **17-1020**
Blue (each) **17-1023**
25. Intake Runner, Single Bore, 2.19" + Gasket
Natural **106-4968**
Gloss Black **170-0453**
Chrome Plated **106-4970[±]**
26. Oil, Air Filter, 8 oz. (Not shown)
Red **106-1163**
Blue **106-1164**



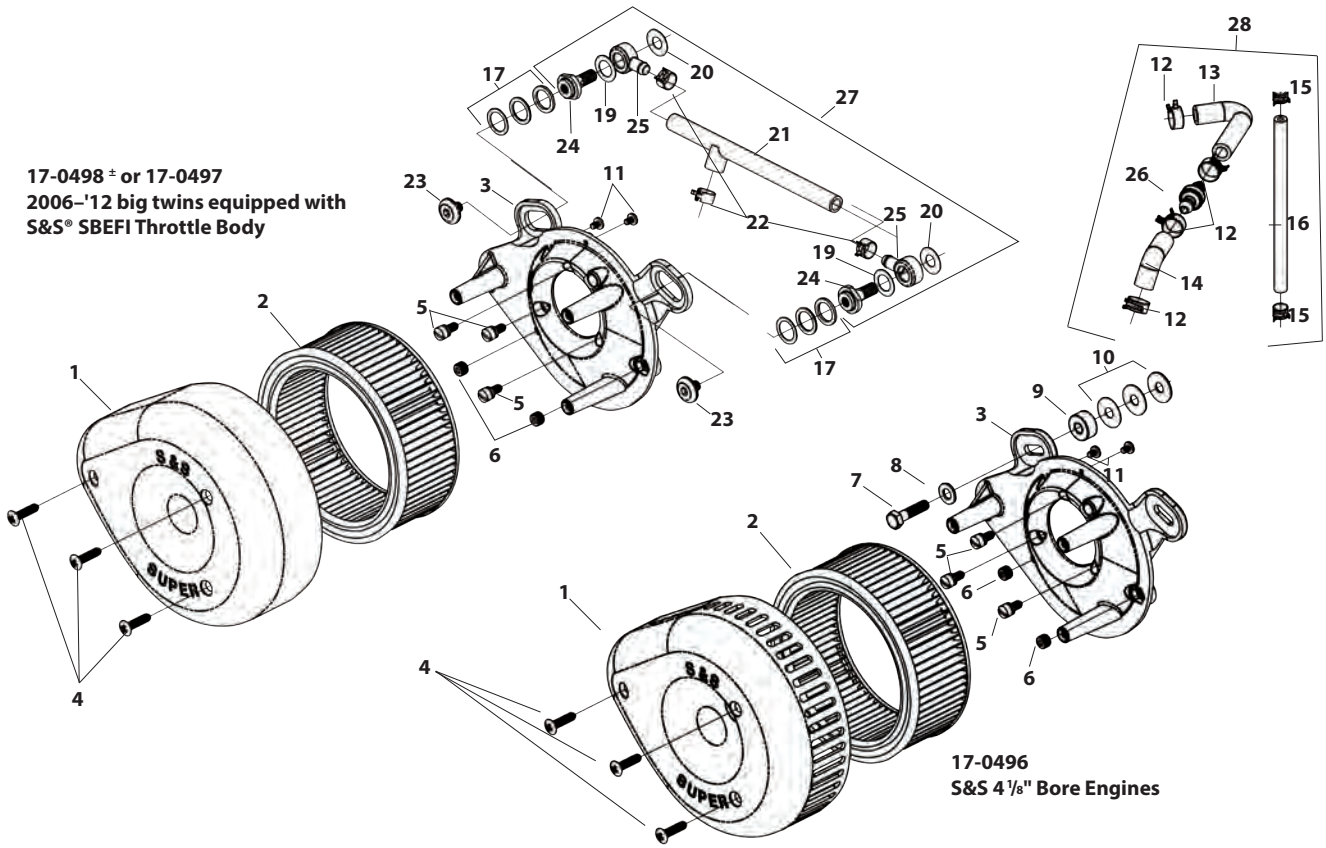
ACCESSORIES

Description	Part #
Nylon Air Filter Cover	each 106-0247
	2 pack 106-0248

CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS FOR S&S® SINGLE BORE EFI

1. Air Cleaner Cover		
Slasher (slotted chrome)	17-0004 ±	
Chrome	17-0378 ±	
Gloss Black (includes black screws)	170-0384A	
2. Element, pleated	106-4722	
3. Backplate SBEFI		
2006- ¹ 16 bt	17-0120	
S&S 4 ¹ / ₈ " bore engines	17-0380	
4. Screw, Cover, oval 1/4-20 x 1		
Chrome 1305 (each)	50-0072 ±	
3 pack	50-1052 ±	
10 pack	50-0094 ±	
Black 902 (each)	50-0310-S	
3 pack	50-0310	
5. Backplate screw		
Zinc Plated (each)	106-2084	
10 pack	106-2105	
6. Pipe plug, 1/8, air cleaner backplate (each)	50-8331A	
10 pack	50-1015	
7. Mounting bracket bolt, hex 5/16-18 x 1 1/4	50-0110	
8. Flat washer, 5/16" x 1/16" 6320, 70907-07, 6016, 6702	50-7034	
9. Shim, .850" x .325" x .400"	50-7027	
10. Shim kit for 4 1/8" bore	17-0314	
Individual shims:		
5/16" x .018" (each)	50-7038	
5/16" x .030" (each)	50-7039	
5/16" x .048" (each)	50-7040	
5/16" x .105" (each)	50-7041	
11. Screw, PH, 10-24 x 1/4", Zinc, Steel (each)	50-0041	
10 pack	50-0062	
12. Clamp, Spring, .660"	50-8076-S	
13. Hose, Rear, Vent, Breather, Formed, Section 1, SAE J30 ..	50-8262-S	
14. Hose, Rear, Vent, Breather, Formed, Section 2, SAE J30 ..	50-8263-S	
15. Clamp, Spring, .440"	50-8143-S	
16. Hose, Cut To Size, .1875" x 6", Black, Rubber	50-8142AS	
17. Shims, individual		
5/8 x 7/8 x .025 (each)	50-7113	
10 pack	50-7110	
5/8 x 7/8 x .050 (each)	50-7114	
10 pack	50-7111	
5/8 x 7/8 x .075 (each)	50-7115	
10 pack	50-7112	
18. Air cleaner hardware kit		
2006- ¹ 16 bt (includes #4, 5, 6, 11, 17, 23)	17-0482	
S&S 4 1/8" bore (includes #4, 5, 6, 7, 8, 9, 10, 11)	17-0481	
19. Silicone washer, 1/2" ID (each)	50-7055	
10 pack	50-7057	
20. Silicone washer, 3/8" ID (each)	50-7054	
10 pack	50-7059	
21. Hose, Vent, Breather, Epichlorohydrin Polymer	USA 1,2 17-0339	
22. Clamp, Spring, 9/16"	50-8001	
23. Screw, wide head, 5/16-24 x 36	17-0346	
24. Breather vent fitting		
2006- ¹ 16 bt	17-0345	
25. Breather fitting (each)	17-0350	
2 pack	17-0355	
26. Check Valve	50-8122	
27. Breather hardware for 2006- ¹ 16 bt*	17-0455	
28. Breather hardware for 4 1/8" bore*	31-2104	

(*Not included in air cleaner kit)



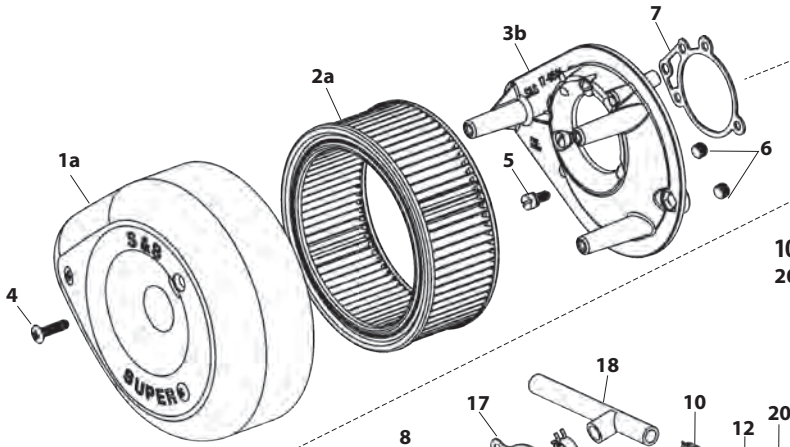
NOTE

Breather hardware not included in these air cleaner kits.

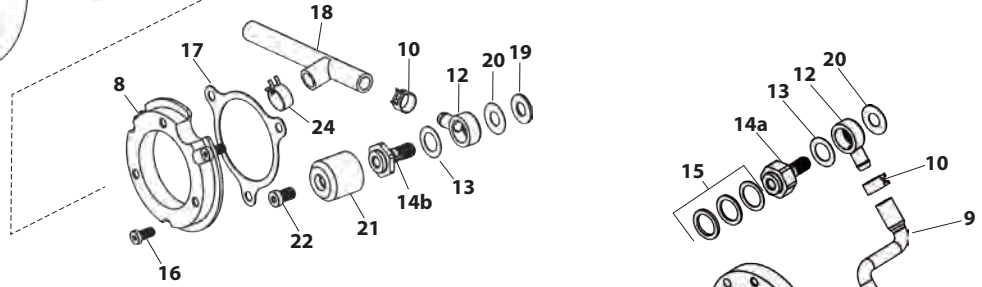
CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS FOR STOCK FUEL SYSTEMS

- | | |
|--|-----------------------------|
| 1. Air cleaner cover | |
| Chrome..... | 17-0378[±] |
| Gloss Black (includes black screws) | 170-0384A |
| Slasher..... | 17-0004[±] |
| 2. Filter Element | |
| a. Pleated | 106-4722 |
| b. Foam (for 17-0444 kit only) | 17-0079 |
| 3. Backplate | |
| a. 2006–'16 bt (except 2008–'16 touring models) | 106-0907 |
| b. 2008–'16 touring models..... | 106-2092 |
| c. 2006-up Dyna® models & all 2007 bt with stock EFI | 17-0003 |
| 4. Cover screw, 1305 | |
| Chrome (each) | 50-0072[±] |
| 3 pack | 50-1052[±] |
| 10 pack..... | 50-0094[±] |
| Black (each) | 50-0310-S |
| 3 pack..... | 50-0310 |
| 5. Backplate screw, Zinc Plated (each) | 106-2084 |
| 10 pack | 106-2105 |
| 6. Backplate plug 1/8"–27 (each) | 50-8331A |
| 10 pack | 50-1015 |
| Backplate plug .285" x .170"..... | 50-8306 |
| 7. Gasket, backplate | |
| CV Adaptor, .0625" (each) | 106-1724 |
| 10 pack | 106-2328 |
| 2006–'12 bt 29062-958..... | 106-6022 |
| 8. Adaptor assembly | |
| 2006–'12 bt (except 2008–'12 touring models) | 106-0881[±] |
| 2008–'12 touring models..... | 106-1716 |
| 9. Hose, vent, breather, .250" x .375" x 1.825" (each) | 17-0364A |
| 10. Clamp, spring, 3/16" | 50-8001 |
| 11. Screw, w/lockwasher SLTD FH, 1/4–20 x 3/4", Zinc, Steel | 50-0073 |
| 12. Banjo fitting (each)..... | 17-0350 |
| 2 pack | 17-0355 |
| 13. Washer, silicone coated steel, 3/8" (each) | 50-7054 |
| 10 pack | 50-7059 |
| 14. Breather screw | |
| a. +.250", 2006–'12 bt (except 2008–'12 touring models) | 17-0348 |
| b. 3/8–16 UNC, +.250, 2008–'12 Touring (each)..... | 106-2667 |
| c. 3/8–16 NC, 2006-up Dyna models & all 2007 bt..... | 17-0345 |
| 15. Replacement shims | |
| 5/8" x .025" (each) | 50-7113 |
| 10 pack..... | 50-7110 |
| 5/8" x .050" (each) | 50-7114 |
| 10 pack..... | 50-7111 |
| 5/8" x .075" (each) | 50-7115 |
| 10 pack..... | 50-7112 |
| 16. Screw, LSHC, 1/4–20 x 1/2", zinc plated (each) | 106-2037 |
| 10 pack | 106-2125 |
| 17. Gasket, throttle body, throttle by wire, 2008-up BT 29645-08 | |
| each | 106-2643 |
| 18. Hose, vent, breather | USA 1,2 17-0339 |
| 19. Washer, flat, .375" x .813" x .063", zinc, steel | |
| each | 50-7051 |
| 20. Washer, silicone coated steel 1/2" (each) | 50-7055 |
| 10 pack | 50-7057 |
| 21. Cover, breather screw, chrome, aluminum..... | 106-2022[±] |
| 22. Screw, LSHC, 5/16–24 x 1/2", stainless steel | 106-2023 |
| 23. Screw; Backplate Vent; Special Socket Panh | 17-0346 |
| 24. Clamp, Spring, .660" | 50-8076-S |
| 25. Nut, HH, 1/4–28 UNC–2B x .328", Zinc, Steel | 50-5010 |
| 26. Vent hose, with angle cut | 17-0365 |
| 27. Hose fitting | 17-0336C-S |
| 28. Flatwasher, 1/4" 6194, 6245, 6703, 6736, 6228W, 6192 (each) | 50-7021 |
| 29. Carb support bracket | N/A |
| 30. Shim – 1/4" x 3/4" x .200" | 50-7024 |
| 31. Mounting Hardware Kit | |
| 2006–'12 bt (except 2008–'12 touring models) | 106-0838 |
| (includes 7,5,25,11,9,19,14,12,10,26,33) | |
| 2008–'12 touring models..... | 106-2102 |
| (includes 7,23,24,15,5,16,22,17,11,18,12,19,10,27,33) | |
| 32. Cable Tie (N/S) | 50-8003 |
| 33. Screw, PH, 1/4–20 x 1", Nickel, Stainless Steel 1305 (N/S) | 50-0072 |

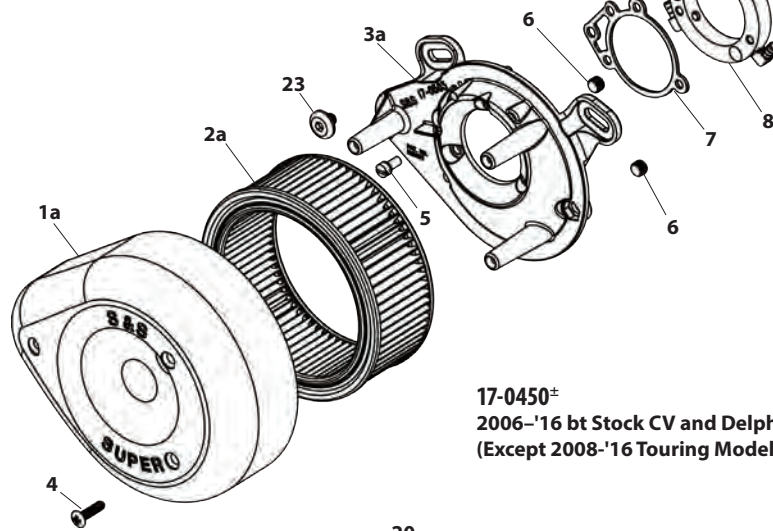
(N/S) = Not Shown



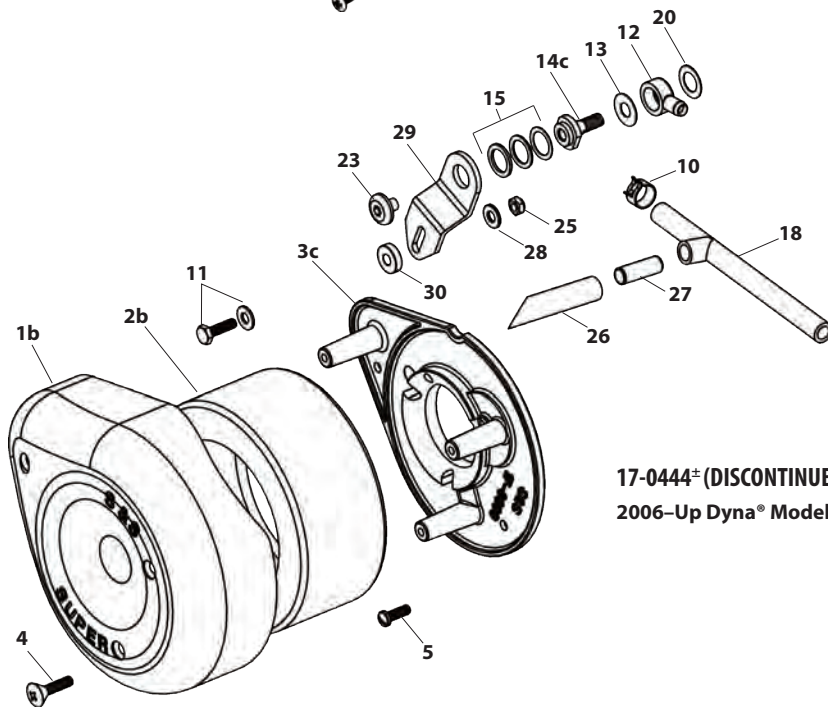
106-2091±
2008–'16 Touring Models with Stock EFI Throttle Body



17-0450±
2006–'16 bt Stock CV and Delphi® Single Bore EFI
(Except 2008-'16 Touring Models)



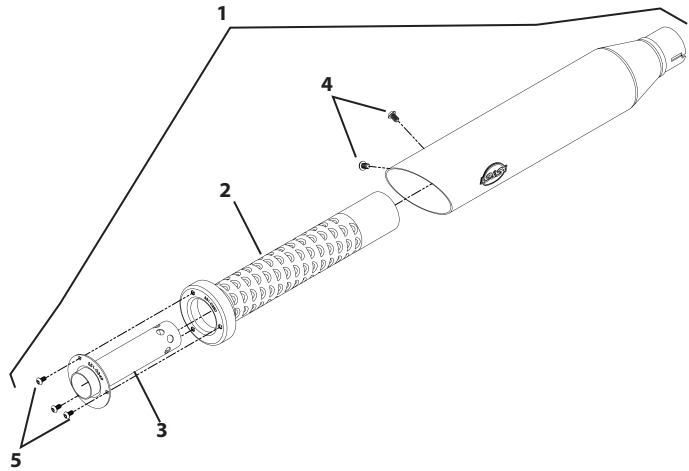
17-0444± (DISCONTINUED)
2006–Up Dyna® Models & All 2007 big twin Models with Stock EFI



SLASH CUT SLIP-ONS FOR DYNA® MODELS REPLACEMENT PARTS

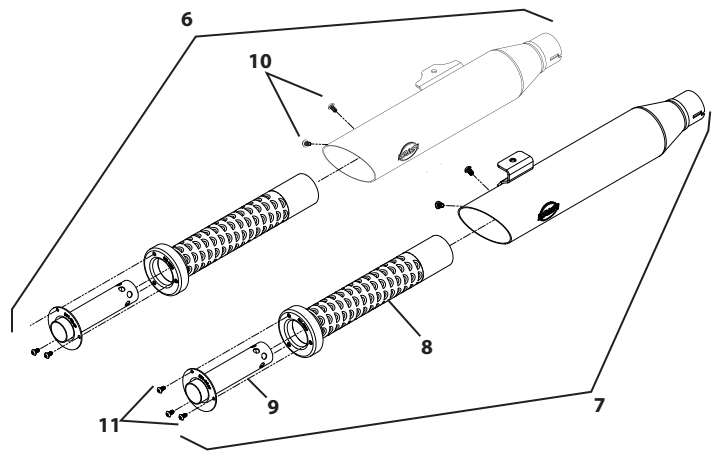
Kit Part #s: 550-0718[±] and 550-0720

- 1. Slash Cut Muffler Assembly, Front or Rear
 Chrome **551-0308[±]**
 Black **551-0311**
- 2. Main Baffle Assembly **551-0301**
- 3. dB Reducerr Baffle **551-0350**
- 4. Button head cap screw, Stainless, 1/4"-20x3/8"1
 (Hold Main baffle assy to muffler shell) **500-0441**
- 5. Socket head cap screw, Stainless, 10-32x3/8"
 (Hold db reducer baffle to main baffle assy) **500-0570**



Kit Part #s: 550-0722[±] and 550-0724

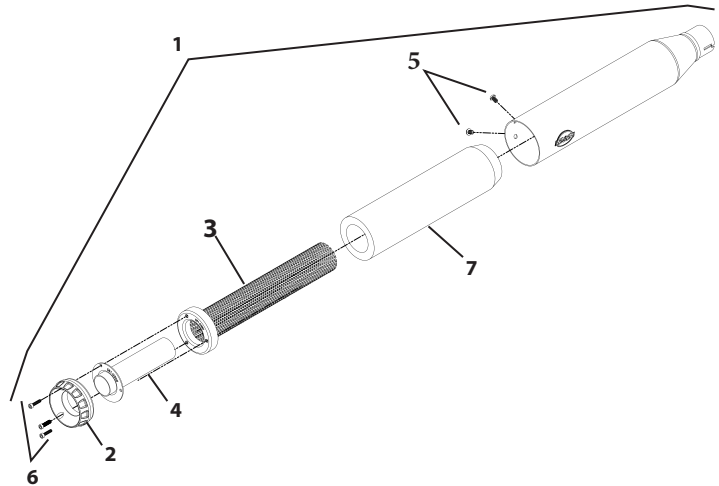
- 6. Top Muffler Assembly Slash Cut
 Chrome **551-0320[±]**
 Black **551-0323**
- 7. Bottom Muffler Assembly, Slash Cut
 Chrome **551-0326[±]**
 Black **551-0329**
- 8. Main Baffle Assembly **551-0301**
- 9. dB Reducer Baffle **551-0350**
- 10. Button head cap screw, Stainless, 1/4"-20x3/8"
 (Hold Main baffle assy to muffler shell) **500-0441**
- 11. Socket head cap screw, Stainless, 10-32x3/8"
 (Hold db reducer baffle to main baffle assy) **500-0570**



GRAND NATIONAL® SLIP-ONS FOR DYNA® MODELS REPLACEMENT PARTS

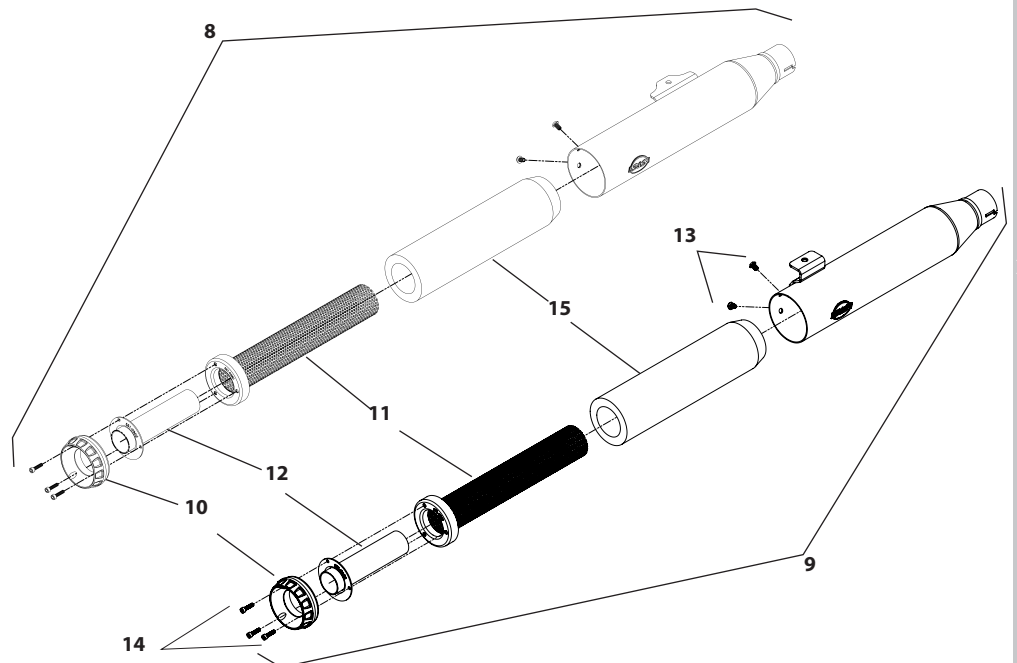
Kit Part #s: 550-0719 and 550-0721

1. Grand National Muffler Assembly Front or Rear
 Chrome **551-0314**±
 Black **551-0317**
2. End Cap **551-0294**
3. Main Baffle Assembly **551-0299**
4. dB Reducer Baffle **551-0304**
5. Button head cap screw, Stainless, 1/4"-20x3/8"
 (Hold Main baffle assy to muffler shell) **500-0441**
6. Socket head cap screw, Stainless, 10-32x3/4"
 (Hold End Cap to main baffle assy) **500-0569**
7. Insulation, Muffler, Pillow Pack **551-0305**



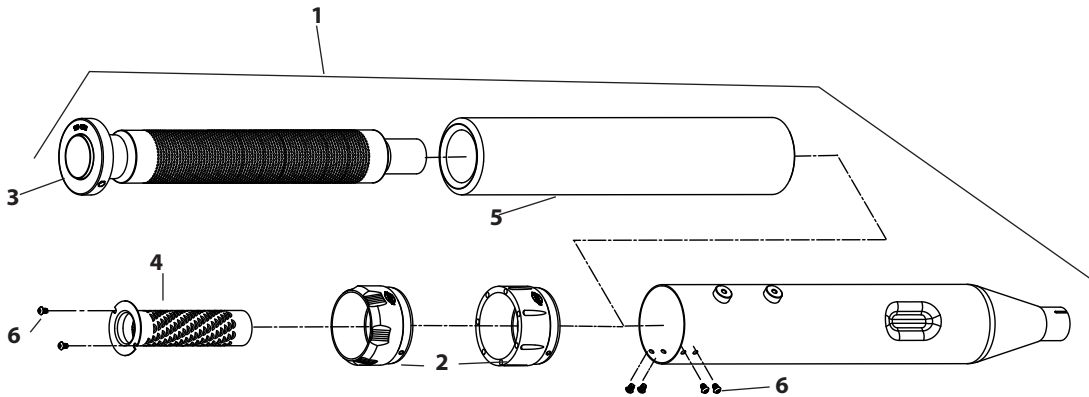
Kit Part #s: 550-0723 and 550-0725

8. Muffler Assembly, Grand National, Top
 Chrome **551-0332**±
 Black **551-0335**
9. Muffler Assembly, Grand National, Bottom
 Chrome **551-0338**±
 Black **551-0341**
10. End Cap **551-0294**
11. Main Baffle Assembly **551-0299**
12. dB Reducer Baffle **551-0304**
13. Button head cap screw, Stainless, 1/4"-20x3/8"
 (Hold Main baffle assy to muffler shell) **500-0441**
14. Socket head cap screw, Stainless, 10-32x3/4"
 (Hold End Cap to main baffle assy) **500-0569**
15. Insulation, Muffler, Pillow Pack **551-0305**



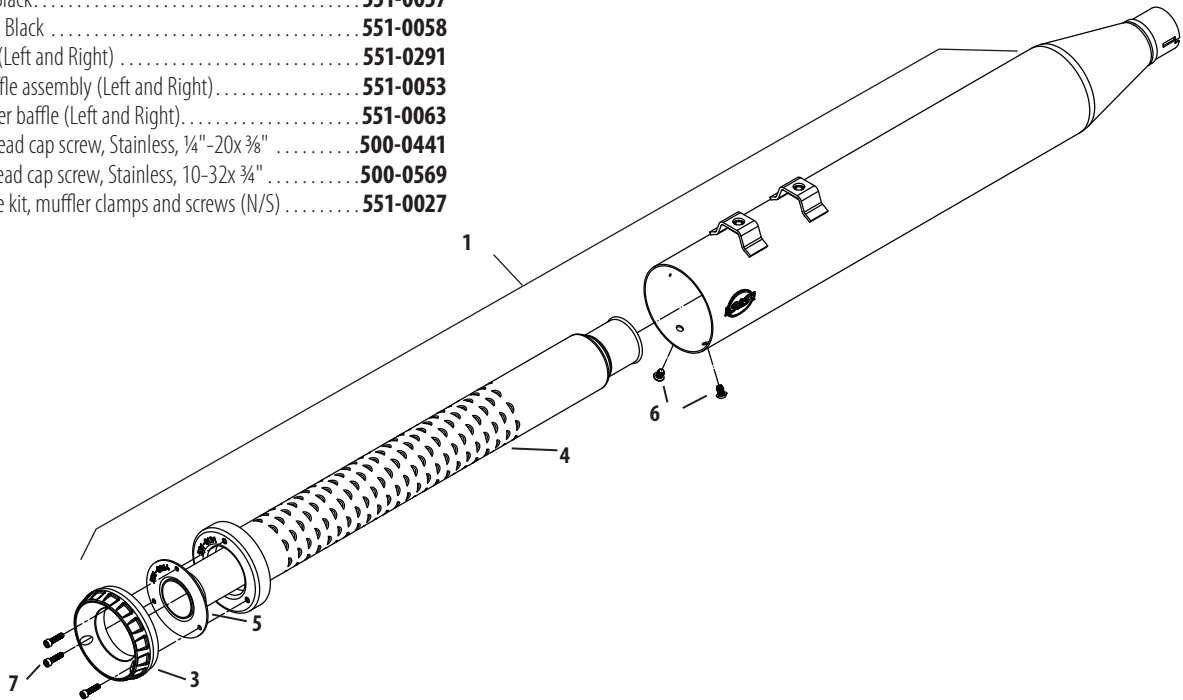
Mk45 4.5" MUFFLER REPLACEMENT PARTS

- 1. 4.5" Muffler Assembly
 - Left, Chrome **551-0020**[±]
 - Right, Chrome **551-0021**[±]
 - Left, Black **551-0022**
 - Right, Black **551-0023**
- 2. End Cap
 - Thruster, Chrome **550-0634A**[±]
 - Thruster, Highlighted Machined **550-0629A**
 - Tracer, Chrome **550-0636A**[±]
 - Tracer, Highlighted Machined **550-0632A**
- 3. Main Baffle Assembly, 4.5" Muffler **551-0007**
- 4. dB reducer **551-0026**
- 5. Insulation, 4.5" Muffler **551-0003**
- 6. Button Head Cap Screw, Stainless, 1/4"-20 X 3/8" **500-0441**
- 7. Hardware Kit, Muffler Clamps And Screws (N/S) **551-0027**



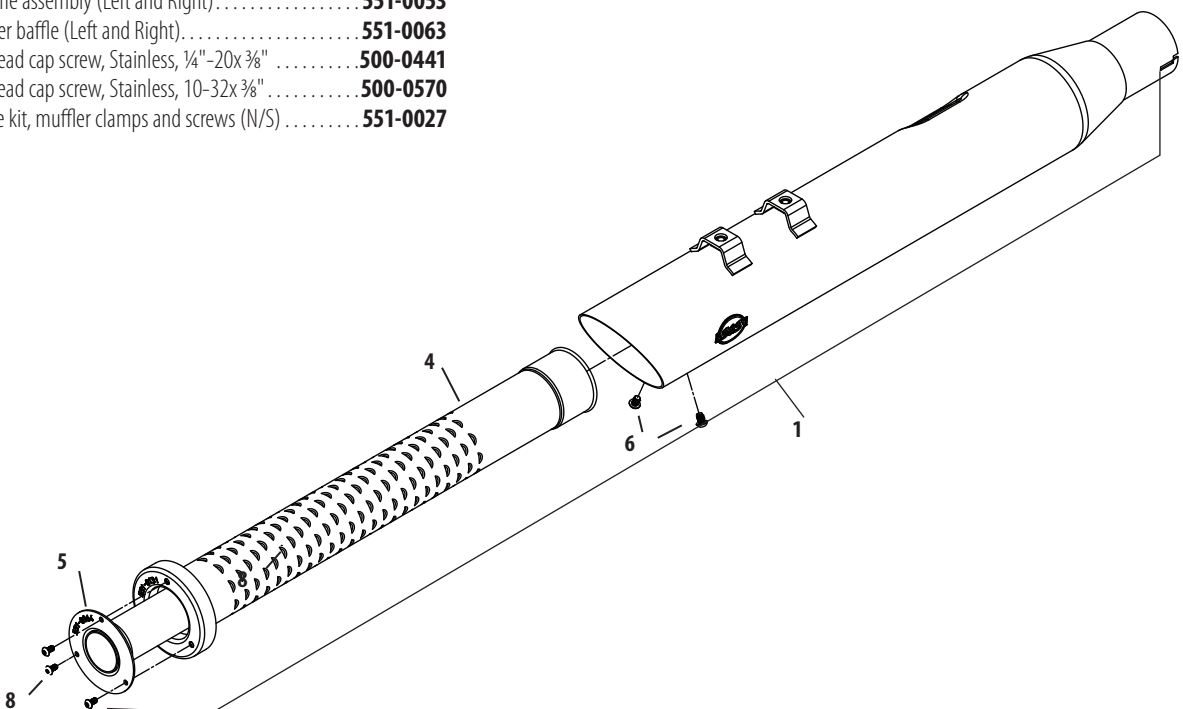
GRAND NATIONAL® 4" REPLACEMENT PARTS

- 1. 4" Muffler assembly with Grand National end cap
 - Left, Chrome..... **551-0055±**
 - Right, Chrome..... **551-0056±**
 - Left, Black..... **551-0057**
 - Right, Black..... **551-0058**
- 3. End Cap (Left and Right)..... **551-0291**
- 4. Main baffle assembly (Left and Right)..... **551-0053**
- 5. dB reducer baffle (Left and Right)..... **551-0063**
- 6. Button head cap screw, Stainless, ¼"-20x ⅜"..... **500-0441**
- 7. Socket head cap screw, Stainless, 10-32x ¾"..... **500-0569**
- 9. Hardware kit, muffler clamps and screws (N/S)..... **551-0027**



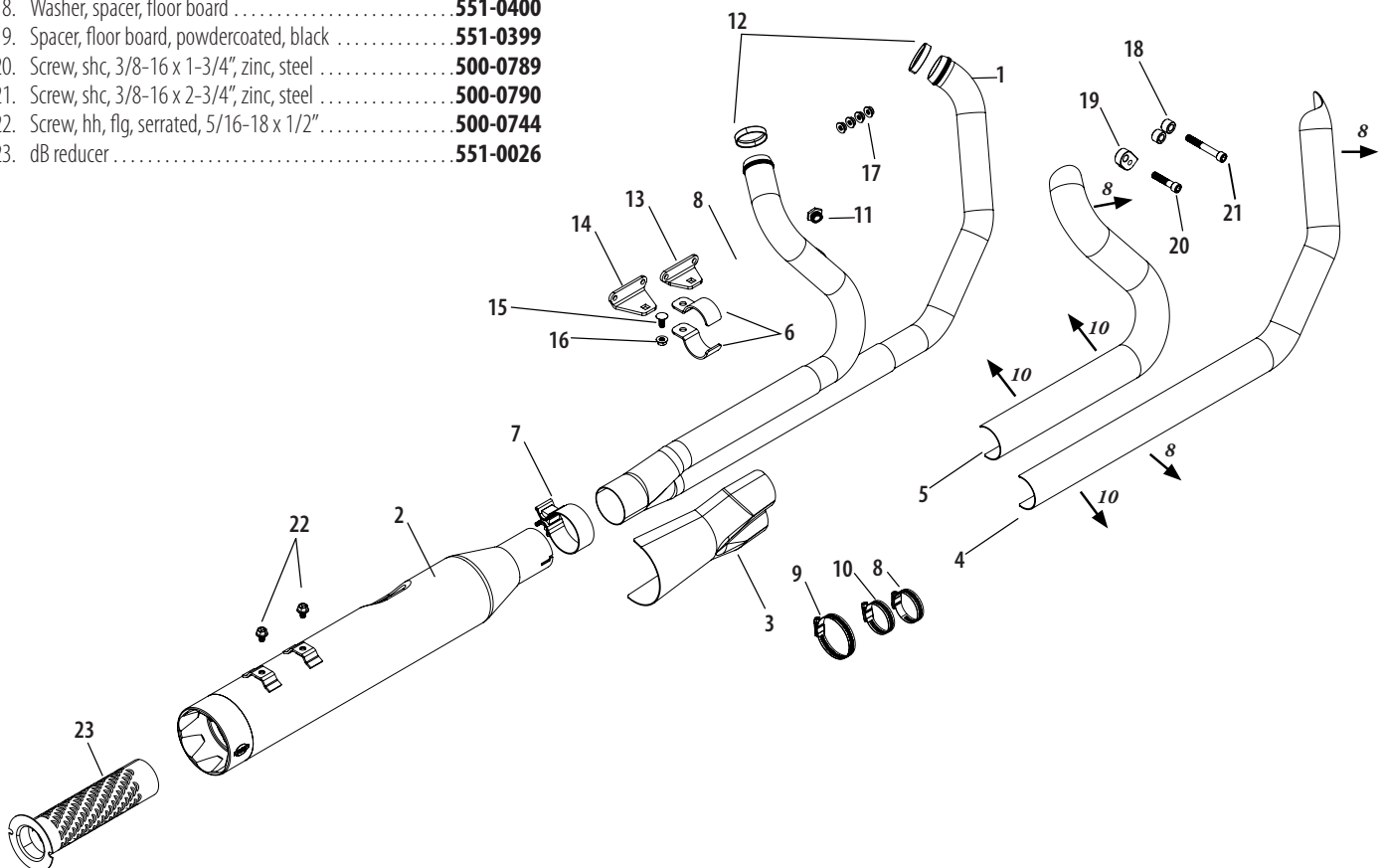
SLASH CUT 4" REPLACEMENT PARTS

- 1. 4" Muffler assembly Slash Down
 - Left, Chrome..... **551-0059±**
 - Right, Chrome..... **551-0060±**
 - Left, Black..... **551-0061**
 - Right, Black..... **551-0062**
- 4. Main baffle assembly (Left and Right)..... **551-0053**
- 5. dB reducer baffle (Left and Right)..... **551-0063**
- 6. Button head cap screw, Stainless, ¼"-20x ⅜"..... **500-0441**
- 8. Button head cap screw, Stainless, 10-32x ⅜"..... **500-0570**
- 9. Hardware kit, muffler clamps and screws (N/S)..... **551-0027**



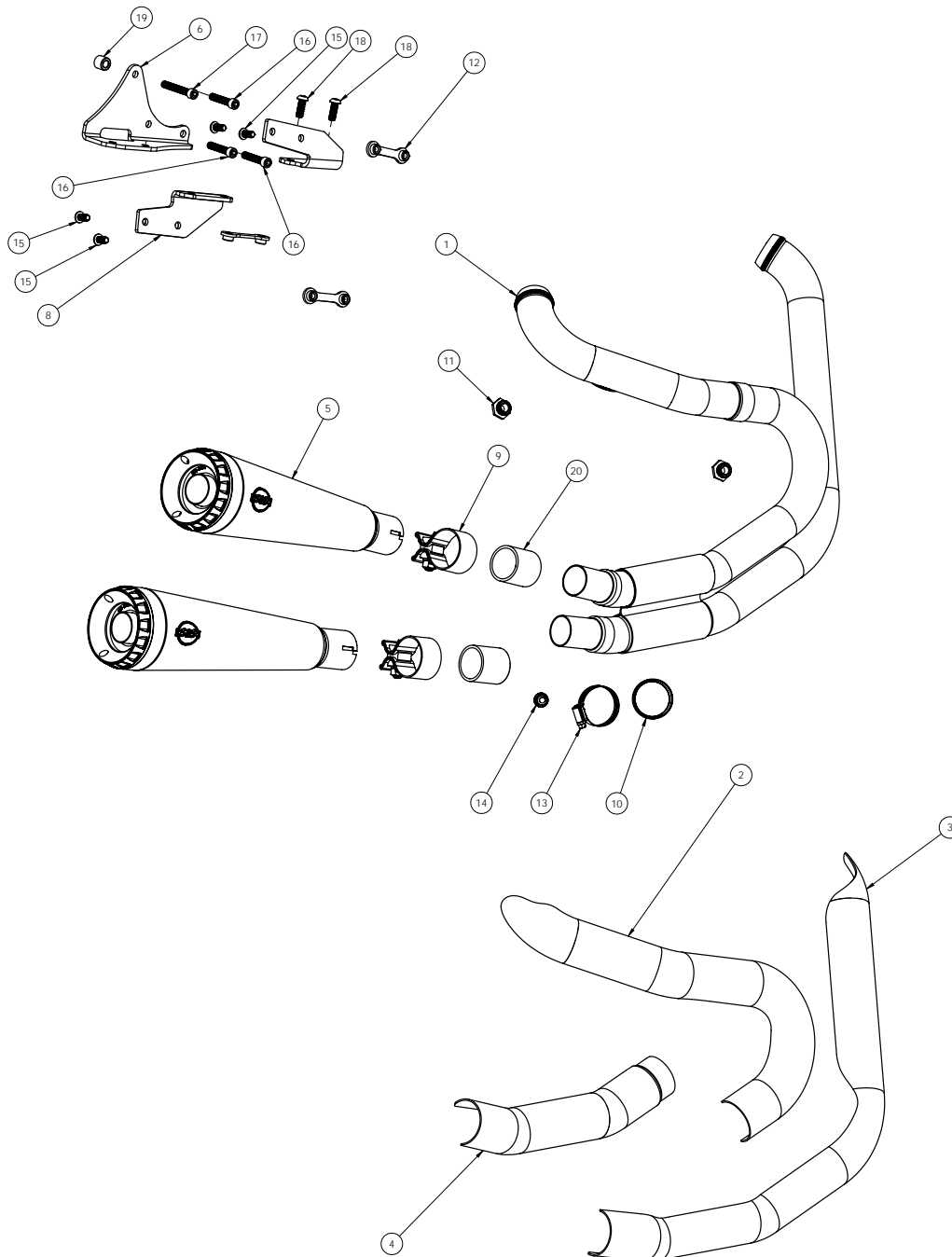
SIDEWINDER® 2:1 EXHAUST REPLACEMENT PARTS

1. Header, Assembly, 2 into 1, Sidewinder®, Weldment, 1995-'16 Touring Models **551-0705**
2. Muffler, 49 state, end cap compatible, 2:1, 4.5", Chrome shell, 2017-'18 M8 touring
 Chrome **551-0529**
 Black **551-0530**
3. Collector, heat shield, chrome, 2017-'18 M8 touring
 Chrome **551-0379**
 Black **551-0381**
4. Heat shield, front, 2:1, Sidewinder®, chrome, 1995-'16 touring models
 Chrome **551-0709**
 Black **551-0715**
5. Heat shield, rear, 2:1, Sidewinder®, chrome, 1995–2016 touring models
 Chrome **551-0712**
 Black **551-0717**
6. Clamp, header mount, 2:1, chrome plate, mild steel, 11 gauge, M8 2017 touring **551-0361**
7. Clamp, muffler, band style, 2.5" **551-0135**
8. Clamp, hose, worm drive, SAE #20 (qty. 3) **551-0527**
9. Clamp, hose, worm drive, SAE #40 **551-0402**
10. Clamp, hose, worm drive, SAE #24 (qty. 3) **500-0791**
11. Adapter, oxygen sensor, 12mm to 18mm, stainless steel **550-0375**
12. Gasket, exhaust, tapered, stainless steel, 1984-up bt, 1986-up xl 65324-838, 65324-83A **106-5029**
13. Bracket, header mount, 2:1, powdercoated, black, 2007-'16 touring models **551-0719**
14. Bracket, header mount, 2:1, powdercoated, black, 1995-'06 touring **551-0786**
15. Bolt, carriage, 5/16-18 x 3/4" **500-0555**
16. Nut, HSFH, 5/16-18 unc-2b x .283", Zinc, steel **50-5053-S**
17. Nut, HSFH, 5/16-24 unf-2b x .283", Zinc, steel z593 **50-5025-S**
18. Washer, spacer, floor board **551-0400**
19. Spacer, floor board, powdercoated, black **551-0399**
20. Screw, shc, 3/8-16 x 1-3/4", zinc, steel **500-0789**
21. Screw, shc, 3/8-16 x 2-3/4", zinc, steel **500-0790**
22. Screw, hh, flg, serrated, 5/16-18 x 1/2" **500-0744**
23. dB reducer **551-0026**



GRAND NATIONAL® 2:2 EXHAUST REPLACEMENT PARTS

- | | | | |
|---|-----------------|--|------------------|
| 1. Pipe, Header, 2 Into 2, Weldment, 2006-'17 Dyna® | 551-0496 | 9. Clamp, Muffler, Band Style, 1.75" Diameter,
3/8-16 X 1.57" Bolt | 551-0569 |
| 2. Shield, Rear, Upper, 2 Into 2, Outside Process, Black,
2006-'17 Dyna® | 551-0506 | 10. Gasket, Exhaust, Tapered, Stainless Steel, 1984-up bt,
1986-up xl65324-83B, 65324-83A. | 106-5029 |
| 3. Shield, Front, 2 Into 2, Outside Process, Black,
2006-'17 Dyna® | 551-0500 | 11. Adapter, Oxygen Sensor, 12mm To 18mm, Stainless Steel | 550-0375 |
| 4. Shield, Rear, Lower, 2 Into 2, Outside Process, Black,
2006-'17 Dyna® | 551-0512 | 12. Plate, Nut, 5/16-18 X 2", Zinc Clear | 551-0469 |
| 5. Muffler, Assembly, Grand National, 2 Into 2, Cone Body,
Black | 551-0474 | 13. Clamp, Hose, Worm Drive, SAE #20 | 551-0527 |
| 6. Bracket, Mounting, 2 Into 2, Black, 2006-'17 Dyna® | 551-0482 | 14. Nut, hsfh, 5/16-24 Unf-2B X .283", Zinc, Steel z593. | 50-5025-S |
| 7. Bracket, Top, Mounting, Muffler, 2 Into 2, Powdercoated, Black,
2006-'17 Dyna® | 551-0571 | 15. Screw, bhc, 5/16-18 X 5/8", Zinc Plated | 500-0763 |
| 8. Bracket, Bottom, Mounting, Muffler, 2 Into 2, Powdercoated, Black,
2006-'17 Dyna® | 551-0572 | 16. Screw, shcs, 5/16-18 X 1-1/2", Zinc Plated | 106-4401 |
| | | 17. Screw, shcs, 5/16-18 X 2", Zinc Plated | 500-0781 |
| | | 18. Screw, bhc, 5/16-18 X 7/8", Zinc Plated | 500-0801 |
| | | 19. Spacer, Powdercoated, .625" X .332" X .55", Black | 551-0570 |
| | | 20. Gasket, Muffler, 3.25", 2018 M8 Softail® | 551-0360 |



POWER TUNE® DUAL HEADER REPLACEMENTS

POWER TUNE® DUAL HEADERS

Fitment	Finish	Part #
1995–'08† big twins	Chrome ±	550-0003A**
	Black	550-0142A**
2009–'16 non-catalyst equipped touring and 2009–'18 Tri Glide†† models	Chrome ±	550-0004B***
	Black	550-0143B***

†Has 18mm sensor fittings in the stock locations for 2007-'08 bikes. If not equipped with oxygen sensors, the ports can be used for tuning. Plugs are included if ports are not used.

††Requires the Trike Adaptor Kit part # 550-0799. See page 50

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED VEHICLES ORIGINALLY EQUIPPED WITH CATALYST.

*QUALIFIED MANUFACTURER DECLARED EMISSIONS REPLACEMENT PART ON FL TOURING MODELS LISTED BELOW.

CALIFORNIA MODELS: FL TOURING FUEL INJECTED MY 1995-2003, AND 2007. CVO FL TOURING MY 2000-2003.

49 STATE MODELS: FL TOURING CARBURETED MY 1995-2005. FL TOURING FUEL INJECTED MY 1995-2005 AND 2007-2008. CVO FL TOURING MY 2000-2005.

***DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED MOTORCYCLES ORIGINALLY EQUIPPED WITH A CATALYST EXHAUST

*QUALIFIED MANUFACTURER DECLARED EMISSIONS COMPLIANT PART FOR 2009 HARLEY-DAVIDSON 49-STATE NON-CVO FL TOURING MODELS ONLY

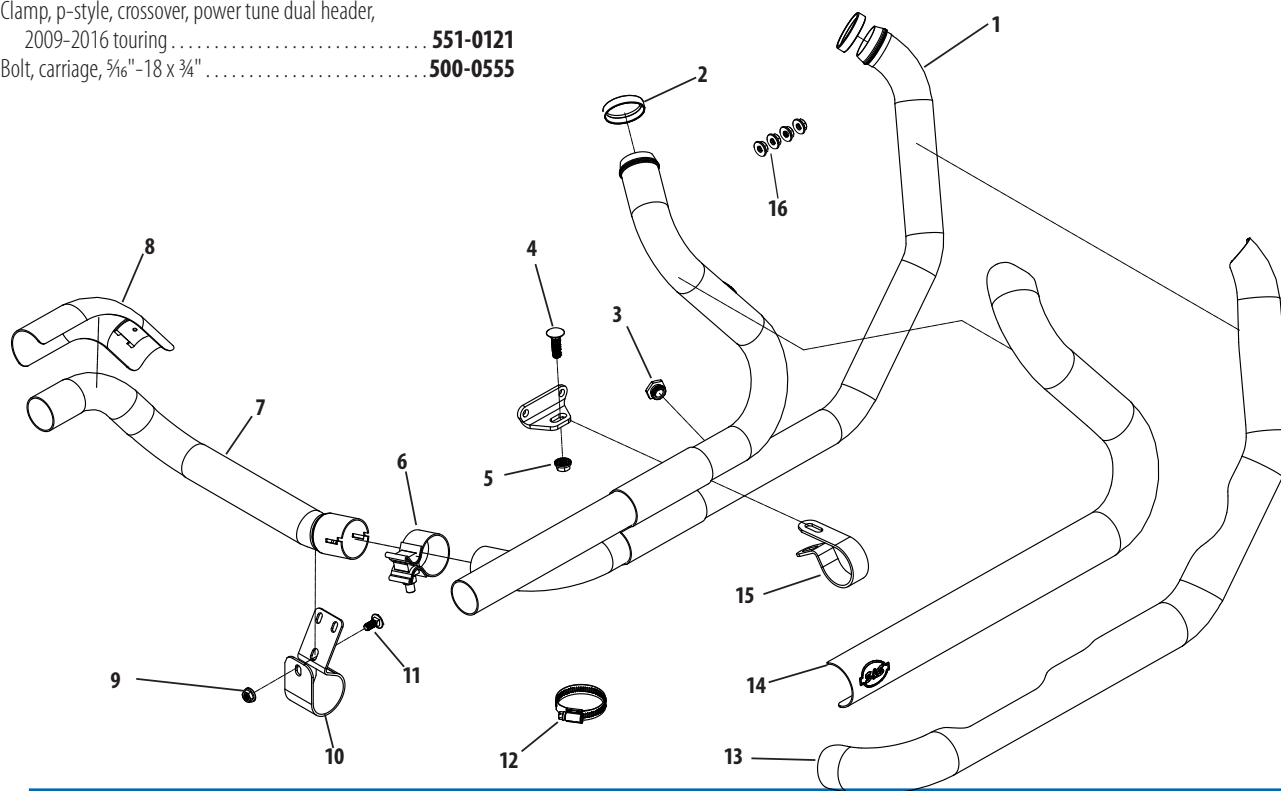
POWER TUNE® DUAL HEADER REPLACEMENT PARTS

- | | | | |
|---|------------------|---|------------------|
| 1. Pipe, header, power tune dual, weldment, 2009-2016 touring | 551-0084 | 12. Clamp, hose (8 Req) | 551-0527 |
| 2. Gasket, exhaust, tapered, stainless steel, 1984-up bt, 1986-up xl (2 Req) 65324-83B, 65324-83A | 106-5029 | 13. Shield, front, power tune dual, Chrome, 2009-2016 touring | 551-0097± |
| 3. Adapter, oxygen sensor, 12mm to 18mm, stainless steel (2 Req) | 550-0375 | Black, 2009-2016 touring | 551-0098 |
| 4. Bolt, carriage, 3/8"-16 x 1-1/4" | 500-0553 | 14. Shield, rear, power tune dual, Chrome, 2009-2016 touring | 551-0103 |
| 5. Nut, flanged, serrated, 3/8"-16 | 500-0554 | Black, 2009-2016 touring | 551-0104 |
| 6. Clamp, muffler, band style | 551-0569 | 15. Clamp, p-style, power tune dual, side, 1995-2016 touring | 551-0119 |
| 7. Tube, crossover, power tune dual, formed, 2009-2016 touring | 551-0080 | 16. Nut, HSFH, 5/16-24 | 50-5025-S |
| 8. Shield, left, power tune dual, Chrome, 2009-2016 touring | 551-0115± | | |
| Black, 2009-2016 touring | 551-0116 | | |
| 9. Nut, HSFH, 5/16-18 UNC-2b x .283", Zinc, steel | 50-5053-S | | |
| 10. Clamp, p-style, crossover, power tune dual header, 2009-2016 touring | 551-0121 | | |
| 11. Bolt, carriage, 3/8"-18 x 3/4" | 500-0555 | | |

Not Shown

Hardware kit, power tune dual, header, 2009-2016 touring

Includes items 2–6, 9–12, 15, and 16 **551-0155**



1999–2006 BIG TWINS

Performance Kits

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1999–2006 Big Twins



SIDEWINDER® 2:1 EXHAUST FOR 1995–'16 TOURING MODELS

- 2-1 styling for high-performance baggers
- High-flow cat (550-0771A & 550-0772A)
- Increased power and torque
- Available in Show Chrome or Ceramic Black Finish
- Machined aluminum endcap
- Includes adapters that allow use of wide band or stock O2 sensors
- Stainless steel header construction
- Some fitments 50-State Legal: CARB EO# K-010-3
- Removable dB reducer included
- Made in the USA!



SIDEWINDER® 2-1 EXHAUST SYSTEM FOR 1995–'09 FL MODELS — 1995–'03, 2007 FL MODELS — CA EMISSIONS LEGAL**

Finish	Part #
Chrome with Black Highlighted Machined End Cap	550-0776 [±]
Black with Black Highlighted Machined End Cap	550-0777

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on EPA pollution controlled vehicles originally equipped with catalyst. Qualified manufacturer declared emissions replacement part on FL touring models listed below.

California Models:

Fuel Injected Non-CVO FL Touring Model Years: 1995-2003 and 2007

CVO FL Touring Model Years: 2000-2003

49 State Models:

Fuel Injected Non-CVO FL Touring Model Years: 1995-2005 and 2007-2009

CVO FL Touring Model Years: 2000-2005



REPLACEMENT PARTS: [SEE 236](#)

SLASH CUT SLIP-ON MUFFLERS FOR DYNA[®] MODELS

FITMENT

- 1995–2009 Dyna[®] models with staggered exhaust

FEATURES AND BENEFITS

- Up to 16% more horsepower and 10% more torque (when used with Stealth Air Cleaner Kit)
- Wake up your bike without breaking your budget
- Classic slash cut styling
- Show chrome or black ceramic finish
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



SLASH CUT MUFFLERS FOR 1995–2009 DYNA[®] MODELS WITH STAGGERED EXHAUST

Finish	Part #
Chrome	550-0718 [±]
Black	550-0720

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

*Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below.

California Models: MY 2006-2007, Except CVO models

49 State Models: MY 1995-2009, Except CVO models[‡]

REPLACEMENT PARTS: SEE PAGE 234

GRAND NATIONAL® SLIP-ON MUFFLERS FOR DYNA® MODELS

FITMENT

- 1995–2009 Dyna® models with staggered exhaust

FEATURES AND BENEFITS

- Up to 17% more horsepower and 9% more torque (when used with Stealth Air Cleaner Kit)
- Race inspired Grand National end caps
- Show chrome or black ceramic finish
- Deep performance rumble
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



GRAND NATIONAL® MUFFLERS FOR 1995–2009 DYNA® MODELS WITH STAGGERED EXHAUST

Finish	Part #
Chrome	550-0719 [±]
Black	550-0721

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

*Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below.

California Models: MY 2006–2007, Except CVO models

49 State Models: MY 1995–2009, Except CVO models

REPLACEMENT PARTS: [SEE PAGE 235](#)

SLASH CUT 4" SLIP-ON MUFFLERS

FITMENT

- 1995–2016 Harley-Davidson® touring models with non-catalyst mufflers

FEATURES AND BENEFITS

- Available in show chrome or black ceramic finish
- Show quality chrome or black ceramic finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant
- Removable dB reducer
- Made in USA!



Removable dB reducer



SLASH CUT 4" TOURING MUFFLERS FOR 1995–2016 BIG TWINS

Finish	Part #
Chrome	550-0691 [±]
Black	550-0692

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

*Qualified Manufacturer Declared Emissions Replacement Part on the FL Touring Models Listed Below.

California FL Touring Models:

Fuel Injected MY 1995–2003, 2007, and 2009–2016;

CVO MY 2000–2003, and 2009–2016

49 State FL touring Models:

Carbureted MY 1995–2005;

Fuel Injected MY 1995–2005, and 2007–2016;

CVO MY 2000–2005, and 2009–2016

REPLACEMENT PARTS: SEE PAGE 233

1999–2006 Big Twins

GRAND NATIONAL® 4" SLIP-ON MUFFLERS

FITMENT

- 1995–2016 Harley-Davidson® touring models with non-catalyst mufflers

FEATURES AND BENEFITS

- Available in show chrome or black ceramic finish
- Show quality chrome or black ceramic finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant w
- Removable dB reducer
- Made in USA!



Removable dB reducer



GRAND NATIONAL® 4" MUFFLERS FOR 1995–2016 BIG TWINS

Finish	Part #
Chrome	550-0689 [±]
Black	550-0690

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

*Qualified Manufacturer Declared Emissions Replacement Part on the FL Touring Models Listed Below.

California FL Touring Models:

Fuel Injected MY 1995-2003, 2007, and 2009-2016;

CVO MY 2000-2003, and 2009-2016

49 State FL touring Models:

Carbureted MY 1995-2005;

Fuel Injected MY 1995-2005, and 2007-2016;

CVO MY 2000-2005, and 2009-2016

Grand National

REPLACEMENT PARTS: [SEE PAGE 233](#)

Mk45 TOURING MUFFLERS

Mk45 4.5" Touring Mufflers are the result of decades of riding, racing and tuning. Combining both a stainless steel baffle and fiberglass packing, they create a deep rumble and improved horsepower and torque, all while adding a unique look with styled aluminum end caps.

FITMENT

- 1995–2016 touring models

FEATURES AND BENEFITS

- 7 horsepower gain*
- Bold 4.5" design — with stainless steel baffle and RaceTEX cartridge packing
- Available in show quality chrome or black ceramic finish
- Choose from S&S® Thruster or Tracer end-cap designs in chrome or black
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!

*Tested with S&S Power Tune® Dual Header and Stealth Air Cleaner Kit



Removable dB reducer

MK45 4.5" TOURING MUFFLERS W/END CAPS

Muffler Body Finish	End Cap Finish & Style	Part #
Chrome	Chrome Thruster	550-0620 [±]
	Black Highlight Machined Thruster	550-0619 [±]
	Chrome Tracer	550-0624 [±]
	Black Highlight Machined Tracer	550-0623 [±]
Black Ceramic	Chrome Thruster	550-0622 [±]
	Black Highlight Machined Thruster	550-0621
	Chrome Tracer	550-0626 [±]
	Black Highlight Machined Tracer	550-0625

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

*Qualified Manufacturer Declared Emissions Replacement Part on the FL Touring Models Listed Below.

California FL Touring Models:

Fuel Injected MY 1995–2003, 2007, and 2009–2016;

CVO MY 2000–2003, and 2009–2016

49 State FL touring Models:

Carbureted MY 1995–2005;

Fuel Injected MY 1995–2005, and 2007–2016;

CVO MY 2000–2005, and 2009–2016



550-0620[±]



550-0619[±]



550-0624[±]



550-0623[±]



550-0622[±]



550-0621



550-0626[±]



550-0625

NOTES

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products: see page 196.

SEE SPECIAL NOTES ON PAGE 144 FOR NOISE DISCLAIMERS

REPLACEMENT PARTS: SEE PAGE 232

POWER TUNE® DUAL HEADERS

FITMENT

- Non-catalyst equipped Harley-Davidson® touring models†
- 1995–'08 touring big twins

FEATURES AND BENEFITS

- Adds 8 horsepower over stock header pipes
- Independent dual look with hidden crossover
- Exclusive design moves the rear cylinder header away from the passenger to reduce radiated heat
- Full chrome or black ceramic heat shielding with 220° coverage
- Updated styling to give the bike a modern look
- Oxygen sensor bungs*
- Durable 16 gauge construction
- Spherical inlet design for improved sealing and exhaust gasket durability
- Hardware included to mount crossover pipe
- Compatible with all equal size inlet slip-on mufflers
- Exhaust port gaskets included
- Made in the U.S.A.



550-0003A±



550-0142A

POWER TUNE® DUAL HEADERS

Fitment	Finish	Part #
1995–'08* big twins	Chrome	550-0003A±
	Black	550-0142A

*Has 18mm sensor fittings in the stock locations for 2007–'08 bikes. If not equipped with oxygen sensors, the ports can be used for tuning. Plugs are included if ports are not used.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on EPA pollution controlled vehicles originally equipped with catalyst.

*Qualified manufacturer declared emissions replacement part on FL touring models listed below.

California Models:

FL Touring Fuel Injected MY 1995-2003, and 2007

CVO FL Touring MY 2000-2003

49 State Models:

FL Touring Carbureted MY 1995-2005

FL Touring Fuel Injected MY 1995-2005 and 2007-2008

CVO FL Touring MY 2000-2005

NOTES

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products: see page 196

REPLACEMENT PARTS: SEE PAGE 238

SPECIAL NOTES

It may be necessary to re-jet the carburetor or recalibrate the fuel injection system for best performance when a change is made in the exhaust system.

Dyno results are from tests performed at the S&S® Research and Development facility in Viola, Wisconsin.

Exhaust Noise Disclaimer: Unless noted, S&S exhaust components do not meet U.S. EPA noise standards and may be restricted to closed course competition use. Check local noise ordinances before use.



STEALTH TEARDROP AIR CLEANER KITS



FEATURES AND BENEFITS

- Iconic look
- Same size as the original
- Traditional dimpled cover with S&S stinger on the inside creates smooth path for air
- Gloss black or chrome
- Well-known S&S Cycle Stealth kit for great performance and easy install
- Backplate has air horn style radiused inlet to reduce turbulence
- Slasher style available as cover



STEALTH TEARDROP AIR CLEANER KITS Exempt from emissions tampering regulations under CARB EO# D-355-24

Fitment	Fuel System	Finish	Part #
2001–'17 big twin (except 2017 touring models & Throttle by Wire) Includes Stealth AC Kit 170-0300B	Stock EFI, Delphi® EFI	Chrome	170-0528 [±]
		Gloss Black	170-0529

STEALTH TEARDROP COVER ONLY

Chrome	170-0530
Gloss Black	170-0531
Slasher – Chrome	170-0532
Slasher – Gloss Black	170-0533

REPLACEMENT PARTS: SEE PAGE 217

CARBON FIBER STEALTH AIR CLEANER KITS



FEATURES & BENEFITS

- Strong and lightweight
- Corrosion resistance
- Simple installation
- Also available as cover only

CARBON FIBER TEARDROP COVER ONLY | 170-0501



CARBON FIBER TEARDROP KIT



Fitment	Part #
2001–'17 bt (except Throttle by Wire)	170-0499

Includes Stealth Air Cleaner 170-0300B which is exempt from emissions tampering regulations under CARB EO# D-355-24 when used on 2001-2017 fuel injected models

STEALTH AIR CLEANER KITS

NEW STEALTH TEARDROPT KITS
SEE PAGE 145



FITMENT

- 1999–2006 big twins

FEATURES AND BENEFITS

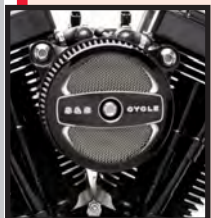
- Air directional stinger cone in the filter
- Use with any of several S&S designed covers. See page 148
- High flow (1" taller) filter kit available



MINI TEARDROP PLUS STEALTH AIR CLEANER KITS

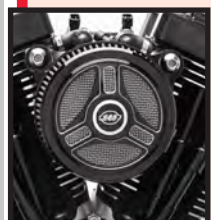
Kit includes Stealth Air Cleaner 170-0300B which is exempt from emissions tampering regulations under CARB EO# D-355-24.

Fitment	Fuel System	Finish	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300	Stock EFI, Delphi® EFI	Chrome	170-0441±
		Gloss Black	170-0442



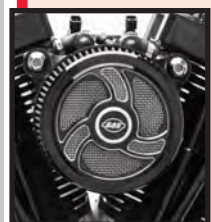
AIR 1 COVER PLUS STEALTH AIR CLEANER KIT Exempt from emissions tampering regulations under CARB EO# D-355-24

Application	Fuel System	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	170-0478



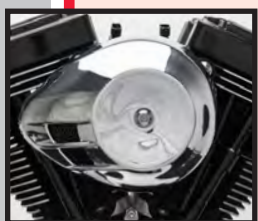
TRI-SPOKE COVER PLUS STEALTH AIR CLEANER KIT Exempt from emissions tampering regulations under CARB EO# D-355-24

Application	Fuel System	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	170-0476



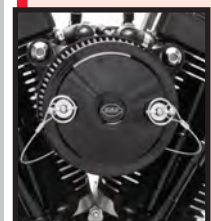
TORKER COVER PLUS STEALTH AIR CLEANER KIT Exempt from emissions tampering regulations under CARB EO# D-355-24

Application	Fuel System	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	170-0477



AIRSTREAM COVER PLUS STEALTH AIR CLEANER KIT Exempt from emissions tampering regulations under CARB EO# D-355-24

Application	Fuel System	Finish	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	Chrome	170-0479±
		Gloss Black	170-0480



MUSCLE COVER PLUS STEALTH AIR CLEANER KIT Exempt from emissions tampering regulations under CARB EO# D-355-24

Application	Fuel System	Finish	Part #
2001–'17 big twin (except 2017 touring models & Throttle By Wire) Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	Chrome	170-0481±
		Gloss Black	170-0482



STEALTH AIR CLEANER KITS* — NO COVER Exempt from emissions tampering regulations under CARB EO# D-355-24

Application	Fuel System	Part #
2001–'17 big twin (except 2017 touring models, Throttle By Wire, & CVO® Models)	Stock EFI Delphi®	170-0300B

Choose an S&S Cover (see page 148)

CONT STEALTH AIR CLEANER KITS

NOTES

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products starting on [page 196](#)

SEE PAGE 314 FOR '99 SOFTTAIL CARB & THROTTLE BY WIRE OPTIONS



AIRSTREAM COVER IN CHROME PLUS STEALTH AIR CLEANER KIT[±]

Application	Fuel System	Part #
1999–'06 big twins (except '99 Softail [®] carb & Throttle by Wire)	Stock CV/EFI Delphi [®]	170-0056
1999–'06 big twins	S&S Super E & G Carbs	170-0063

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



MUSCLE COVER IN CHROME PLUS STEALTH AIR CLEANER KIT[±]

Application	Fuel System	Part #
1999–'06 big twins (except '99 Softail [®] carb & Throttle by Wire)	Stock CV/EFI Delphi [®]	170-0106
1999–'06 big twins	S&S Super E & G Carbs	170-0112

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



BOBBER-DISHED COVER PLUS STEALTH AIR CLEANER KIT[±]

Application	Fuel System	Part #
1999–'06 big twins (except '99 Softail [®] carb & Throttle by Wire)	Stock CV/EFI Delphi [®]	170-0104
1999–'06 big twins	S&S Super E & G Carbs	170-0110

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



BOBBER-DOMED COVER PLUS STEALTH AIR CLEANER KIT[±]

Application	Fuel System	Part #
1999–'06 big twins (except '99 Softail [®] carb & Throttle by Wire)	Stock CV/EFI Delphi [®]	170-0105
1999–'06 big twins	S&S Super E & G Carbs	170-0111

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STEALTH AIR CLEANER KITS* — NO COVER

Application	Fuel System	Part #
1999–'06 big twins (except '99 Softail [®] carb & Throttle by Wire)	Stock CV/EFI Delphi [®]	170-0060
1999–'06 big twins	S&S Super E & G Carbs	170-0058

*These kits do not contain covers —Choose an S&S Cover (see [page 148](#))

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



REPLACEMENT PARTS: SEE PAGE 217

STEALTH AIR CLEANER KITS FOR S&S ENGINES

STEALTH AIR CLEANER KITS FOR S&S ENGINES

Fitment	Fuel System	Part #
2008–'16 big twins with T-Series engines	S&S 66mm Throttle Hog	170-0165
2008–'16 big twins with T-Series engines	S&S 58mm Throttle Hog	170-0164
1995–1999 S&S Super Stock Engines	S&S Single Bore VFI 52mm Throttle Bodies	170-0287
1995–1999 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	170-0283
1999–2017 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	170-0284
T124 1999–'06 bt (except '06 Dyna®) (Engines produced after 2013)	S&S E or G Carburetor	170-0058
T124 1999–'06 bt (except '06 Dyna®) (Engines produced after 2013)	Stock CV/EFI Delphi®	170-0060
T111 1999–'06 bt (except '06 Dyna®) (Engines produced after 2013)	S&S E or G Carburetor	170-0058
T111 1999–'06 bt (except '06 Dyna®) (Engines produced after 2013)	Stock CV/EFI Delphi®	170-0060

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

STEALTH AIR CLEANER KIT COVERS

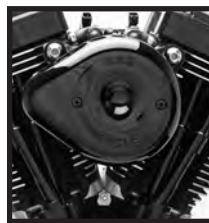
NEW STEALTH TEARDROP COVERS SEE PAGE 145



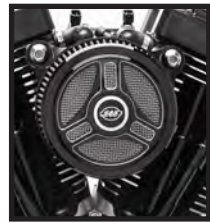
Carbon Fiber



Mini in Chrome



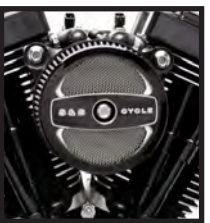
Mini in Gloss Black



Tri-Spoke



Torker



Air 1



Airstream in Chrome



Airstream in Gloss Black



Muscle in Chrome



Muscle in Gloss Black



Bobber-dished



111



124



143

STEALTH COVERS

Carbon Fiber	Mini		Tri-Spoke	Torker	Air 1	Bobber-Dished	
Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights	Chrome	Wrinkle Black
170-0501	170-0367[±]	170-0366	170-0210	170-0206	170-0214	170-0119[±]	170-0123

Airstream		Muscle		Displacement			Bobber-Domed	
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	111	124	143	Chrome	Wrinkle Black
170-0118[±]	170-0396	170-0121[±]	170-0463	170-0319	170-0321	170-0323	170-0120[±]	170-0124

SINGLE BORE TUNED INDUCTION SYSTEM


FITMENT

- 1999–'06 stock CV carbureted big twins (except 1999–'06 FXDWG/FXD35)
- 2001–'06 Delphi® EFI big twins

FEATURES AND BENEFITS

- Bolt-on performance—over twice the filtering area over stock intake system
- Increases horsepower and torque across the rpm range using air column inertia and carefully timed gas dynamic pressure waves
- Smooth intake tract of carefully selected tuned lengths increases performance
- High flow washable and reusable cotton media provides performance, protection, and economy
- Available in wrinkle black, chrome, or natural





SINGLE BORE TUNED INDUCTION SYSTEM KITS[±] Exempt from emissions tampering regulations under CARB EO# D-355-24

Fitment	Fuel System	Finish	Part #
2001–'17 big twin <i>(except 2017 touring models, Throttle By Wire, & CVO® Models)</i>	Stock EFI Delphi®	Chrome/Red Filters	170-0308B

SINGLE BORE TUNED INDUCTION SYSTEM KITS[±]

Fitment	Fuel Delivery	Finish	Part #
1999–'06 big twins <i>(except 1999–'06 FXDWG/FXD35) and S&S engines w/stock head breathing</i>	S&S Single Bore EFI	Chrome Runner and Red Filters	170-0085
	S&S Super E/G		170-0086
1984–'06 Carbureted Big Twins Models	Stock	Chrome Runner and Red Filters	170-0087
4 1/8" bore S&S T-Series (S&S bolt pattern w/vacuum breathing)	S&S Single Bore EFI	Chrome Runner and Red Filters	170-0083
	S&S Super E/G		170-0084
CTO	Specify	Specify	106-5337

Use the Configure to Order (CTO) part number to order different finish and filter color.

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTES

Single bore tuned induction will not fit on motorcycles equipped with fairing lower glove boxes.

Fuel injection tuning is not required with this product but is highly recommended for best results. S&S offers fuel injection tuning products: see page 196.

REPLACEMENT PARTS: SEE PAGE 218

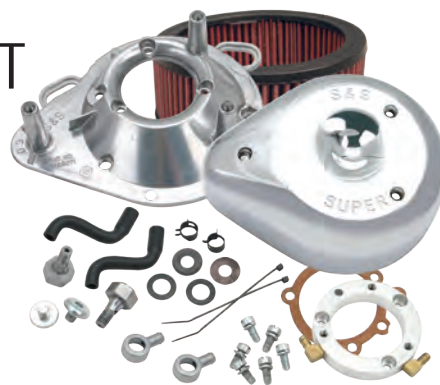
CLASSIC TEARDROP AIR CLEANER KIT

FEATURES AND BENEFITS

- Efficient and free flowing intake that can add two to five horsepower
- Uniquely designed Backplate has air horn style radiused entryway to reduce turbulence
- Dimpled cover with directional air cone on inside creates smooth path for air
- Great addition to performance exhaust or cams

KIT CONTENTS

- Filter
- Backing plate and cover
- All mounting hardware
- Instructions



CLASSIC TEARDROP AIR CLEANER KITS FOR STOCK EFI Exempt from emissions tampering regulations under CARB EO# D-355-24



Fitment	Fuel System	Finish	Stock EFI, With 96 & 103 Engines
2001–'17 big twin (except 2017 touring models, Throttle By Wire, & CVO® Models)	Stock EFI Delphi®	Chrome	170-0303B±
		Gloss Black	170-0304B

CLASSIC TEARDROP AIR CLEANER KITS

Fitment	Finish	Stock Carb	S&S® Super E/G
S&S 4 1/8" Bore Engines w/vaccum breathing	Slasher/Chrome	–	17-0416±
1993–'06 carbureted big twins	Chrome	17-0450±	17-0403±
	Gloss Black	170-0181A	–

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CLASSIC TEARDROP AIR CLEANER KITS FOR S&S SINGLE BORE EFI THROTTLE BODIES±

Fitment	Style/Finish	52mm	58mm
Stock Harley-Davidson® heads or S&S Heads for stock or 4" bore head breathing	Teardrop/Chrome	17-0498	106-4669
S&S Heads for 4 1/8" bore vaccum breathing	Teardrop/Chrome	–	106-4668

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TEARDROP AIR CLEANER COVERS

Style	Finish	Part #
Mini	Chrome	170-0367±
	Gloss Black	170-0366
Classic Teardrop	Chrome	17-0378±
	Gloss Black	170-0384A
Slasher Teardrop	Chrome	17-0004±
	Gloss Black	170-0419
Nostalgic Teardrop	Polished	17-0071

REPLACEMENT PARTS STARTING ON PAGE 220

PRE-FILTERS

FITMENT

- S&S® Stealth Air Filters

FEATURES AND BENEFITS

- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable Nylon
- Promotes longer filter life
- Reduces the risk of water entering air intake system

PRE-FILTERS

Application	Part #
Standard	170-0193
1" Tall	170-0197



HIGH FLOW AIR FILTER KITS

FITMENT

- S&S Classic Teardrop air cleaners for Super E & G carbs and S&S EFI throttle bodies

FEATURES AND BENEFITS

- Low restriction filter element comes pre-oiled for true plug and play installation
- 1" wider filtration area provides up to 37% more airflow over standard S&S filters
- Resulting band of exposed filter material imparts a high performance look

KIT CONTENTS

- Wide filter
- Filter spacers

HIGH FLOW AIR FILTERS

Description	Fitment	Part #
High Flow Air Filter Kit <i>(includes spacers)</i>	Classic Teardrop	17-0045
	Stealth, 1" Taller	170-0127 *
1" Taller Filter Only	Classic Teardrop	106-4724
	Stealth	170-0154
Spacer	Classic Teardrop & Stealth, 1" Taller	50-5009-S

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170-0127



17-0045

STANDARD REPLACEMENT FILTERS

STANDARD REPLACEMENT AIR FILTERS

Description	Fitment	Part #
Standard Filter Only	Classic Teardrop	106-4722
	Stealth	170-0126

PERFORMANCE KIT OVERVIEW

FOR HARLEY-DAVIDSON® TWIN CAM 88®



4" BORE BOLT-IN SIDEWINDER® BIG BORE KIT

S&S 4" big bore cylinder and piston kits boost 88 and 96/103" Harley-Davidson® big twin engines to 100" and 110" respectively. These bolt-in kits don't require any machining, rebalancing or engine removal, and include just about everything you'll need to complete the installation. The biggest cylinder bore that can be installed in a stock crankcase without machining! [SEE PAGE 153](#)



124" HOT SET UP KIT

Move to the ultimate in performance packages! Increase your bore to 4 3/8" and stroke to 4 1/2" to realize a massive 124 cubic inches of pure performance. This kit includes flywheel assembly, cylinders and pistons, S&S Easy Start 640 lift chain drive camshafts, hydraulic lifters, pushrods, covers, valve springs and rocker arms. Comes complete with all gaskets and instructions. CTO options give you even more choices. Crankcases require boring to accept the larger cylinder spigots. [SEE PAGE 154](#)



106" STROKER KIT

Stroke it! This performance package gives big displacement. The kit's flywheel assembly increases your stroke from 4 3/8" to a hefty 4 1/2" and bumps your 88" to 106". Oversize your stock cylinder bore from 3 3/4" to 3 7/8". No crankcase machining needed. Maintains stock engine height for easy installation.

[SEE PAGE 155](#)



98 & 97" BIG BORE KIT

Up the displacement of your Twin Cam® 88 to a whopping 98". This bolt-on cylinder kit adds significant displacement without any machining required to your engine. Stroke stays the same at 4.00". Bore increases from 3.750 to 3.937". This kit contains pistons, cylinders and all related parts, gaskets and instructions. [SEE PAGE 156](#)



95" HOT SET UP KIT

Looking to go further? Consider the Hot Set Up Kits. These kits will put some stride in your glide. Pushrods, covers and hydraulic lifters are all included. Select from a variety of cylinder heads to achieve the compression ratio you desire or keep your stock heads. Kits include S&S Easy Start 570 or 585 chain drive camshafts. [SEE PAGE 157](#)

PERFORMANCE KIT SPECIFICATIONS FOR HARLEY-DAVIDSON® TWIN CAM 88®													
KIT DESCRIPTION	BORE	STROKE	COMPRESSION RATIO								CAMSHAFT	HORSEPOWER	TORQUE
			Stock Heads	79cc	89cc	91cc	CNC Heads					(CNC Heads)	
							83cc	85cc	87cc	90cc			
124" Hot Set Up Kit	4 3/8"	4 1/2"	10.9:1	11.4:1*	11.1	10.8:1	11.6:1	11.4:1	11.2:1	10.9:1	640	127	130
106" Stroker Kit	3 7/8"	4 1/2"	10.1:1	10.7:1	9.7:1	9.6:1	10.3:1	10.1:1	9.9:1	9.7:1	585	109	115
98" Big Bore Kit	3.937"	4"	10.4:1	11.1:1	9.9:1	9.7:1	10.6:1	10.3:1	10.1:1	9.8:1	—		
97" Big Bore Kit	3.927"	4"	9.7:1	10.3:1	9.3:1	9.1:1	9.8:1	9.6:1	9.5:1	9.2:1	—	103	107
95" Hot Set Up Kit	3 7/8"	4"	9.7:1	10.3:1	9.4:1	9.2:1	9.9:1	9.7:1	9.5:1	9.3:1	570	103	107

*Not Recommended

PERFORMANCE KIT CONTENTS, OPTIONS AND REQUIREMENTS FOR HARLEY-DAVIDSON® TWIN CAM 88®													
KIT DESCRIPTION	PACKAGE CONTENTS										MACHINING REQUIRED	CTO OPTIONS	REJETTING OR CALIBRATION CHANGE
	Flywheels	Cylinders	Pistons w/rings	Rocker Arms	Pushrods w/covers	Lifters	Camshafts	Valve Springs	Heads w/springs	Gaskets			
124" Hot Set Up Kit	●	●	●	●	●	●	●		0	●	3 4	5 6 7	●
106" Stroker Kit	●		1								2		●
98" Big Bore Kit		●	●							●			●
97" Big Bore Kit		●	●							●			●
95" Hot Set Up Kit		0	0 1		●	●	●		0	●	2	5 6 7	●

0 = Optional
 1 = Order separately
 2 = Bore & hone cylinders
 3 = Crankcase machining for center stud
 4 = Crankcase machining for cylinder spigots
 5 = Camshaft selection
 6 = CNC heads
 7 = Combustion chamber size selection
 8 = Cylinder & piston set available

*The CTO option column lists only the major items offered. Virtually any option can be selected from our product offerings through the Configure To Order (CTO) program.

4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS



S&S 4" big bore cylinder and piston kits boost 88" Harley-Davidson® big twin engines to 100". These bolt-in kits don't require any machining, rebalancing or engine removal, and include just about everything you'll need to complete the installation. The biggest cylinder bore that can be installed in a stock crankcase without machining!

FEATURES & BENEFITS

- Bolts in. No machining, balancing, or splitting the crankcases
- 88 engines end up at 100"
- Complete kits include cylinders, pistons, gaskets, and instructions
- Choose from wrinkle black or silver powder coat cylinders – matches stock finish

FITMENT

- 1999-2006 big twins

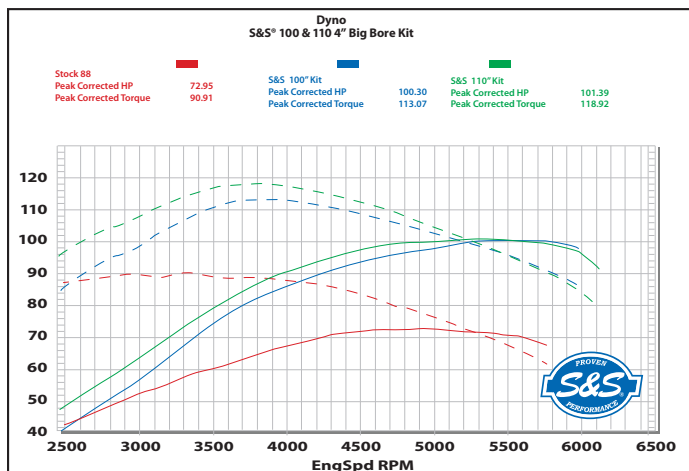
SPECS FOR S&S 4" BORE BOLT-IN CYLINDER & PISTON KITS									
Year	Stroke	Bore	Cylinder Length	Piston Type	Dome Volume	Compression Ratio			
						83cc CNC Heads	85cc Stock Heads	89cc S&S Heads	
1999-2006	4"	4.00"	4.937"	Forged	8.75 pop up	10.8:1	10.5:1	10.1:1	



4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS

Displacement	Year	Stroke	Finish	Part #
100	1999-2006 Big Twin	4"	Silver	910-0642
	1999-2006 Big Twin	4"	WBlack	910-0646

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These dyno results from our DynoJet® 250i chassis dynamometer clearly show the performance increases available with the S&S bolt-in 4 inch bore kits. The lowest (red) set of curves represents a stock 88 cid engine in a 2004 Harley-Davidson® FLHR Road King®. The next curves above the stock baseline (blue) shows the performance of the S&S 100" bolt-in big bore kit. The highest set of curves show the results from an S&S 110" big bore kit installed in a 96 cid engine. The engines with the S&S 100" and 110" kits were also set up with S&S S85 cams, Power Tune® headers, MK45 muffler, and the stock EFI throttle body with an S&S Stealth air cleaner.

NOTES

Not for use with S&S 79cc Cylinder Heads

124" HOT SET UP KIT®

FITMENT

- All big twin models



FEATURES AND BENEFITS

- Huge displacement increase means huge power increase
- Stock crankcases, cylinder heads, oil pump, and cam cover can be reused, saving hundreds of dollars
- Original engine serial numbers are retained
- Gear drive S&S 640 Easy Start Cams included!
- Wrinkle black (WBlack) powder coat finish heads match factory finish, giving bike a "sleeper" advantage
- .045" MLS (multi-layered steel) head gaskets
- Adds .096" to engine height
- Kits with S&S heads use stock length manifolds (S&S size 410)

OPTIONS

- Silver finish available through CTO

S&S® 124" HOT SET UP KIT® SPECIFICATIONS

Year	Stroke	Displacement	Bore	Cylinder Length	PISTON TYPE/COMPRESSION RATIO		
					91cc S&S Heads	89cc S&S Heads	85cc Stock Heads
1999–'06	4 3/8"	124"	4 1/8"	5.013"	Flat top forged/10.8:1	Flat top forged/11:1	Forged, 10.9cc dish/10.4:1

Cylinder w/piston kits include fitted pistons and cylinders that require no boring or honing.



900-0565

124" HOT SET UP KITS® FOR HARLEY-DAVIDSON® TWIN CAM 88®/88B™ ENGINES

(Kits include S&S® Super Stock® 91cc Cylinder Heads) (10.8:1 Compression)

Model or Engine Type	Finish	Part #
1999–2006 Twin Cam 88 Touring and Dyna® (except 2006 Dyna® models)*	WBlack	900-0564
2000–2006 Twin Cam 88B Softail® w/Balancer	WBlack	900-0565
CTO Other Finishes and Combinations Available Here	Specify	106-5752

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle. *For 2006 Dyna® 124" Kits, see Section 2.*

NOTES

Requires recalibration.

S&S Easy Start Cams save you money – no need to buy compression releases or S&S rocker covers. Note when using 1999-'06 chain drive cams: For lifts over .510", S&S strongly recommends that the stock chain drive be upgraded to the S&S gear drive or S&S TC3 oil pump and cam plate. This kit updates the problematic spring loaded chain tensioners to more reliable hydraulic tensioners and also upgrades the oil pump.

Main Bearing Note: S&S flywheel assemblies included in a 124" S&S Hot Set Up Kit® for 1999–'15 big twin engines are designed for use with Timken® sprocket shaft bearings. They will fit directly in stock 1999–'02 Harley-Davidson® crankcases and in all S&S crankcases for 1999–'15 big twin engines, with no modifications. However, stock 2003 and later engines use a roller type bearing for the sprocket shaft, and will require modification.

Due to the amount of power these engines produce with an S&S Hot Set Up Kit, S&S strongly recommends retrofitting 2003–'15 model crankcases to accept a Timken sprocket shaft bearing. A Timken conversion sleeve such as Screamin' Eagle® #34822-08 or Jim's® #956 may be used. A charging system spacer for 1999–'02 model year is also required.

This kit will require that the case be bored to accept the larger cylinders.

If you choose not to convert your crankcases to a Timken sprocket shaft bearing, S&S flywheels may be used in 2003 and later engines with the installation of the Harley-Davidson® bearing kit #24004-03B. This bearing kit adapts the S&S sprocket shaft to be compatible with stock roller type bearings. Verify that the bearing kit contains the 24604-00D or 24607-07 sprocket shaft bearing. Do not use a 24604-00, 24604-00A, 24604-00B or 24604-00C bearing. Please be advised that if this type of bearing is used, sprocket shaft bearing failure WILL NOT be covered under warranty.

Kits with S&S heads are machined special to compensate for engine height change to accommodate a stock length manifold. When using a kit with stock cylinder heads, S&S recommends using the appropriate length manifold. For a 124" with stock OEM cylinder heads, the standard manifold length is 417.

Center case bolt between cylinders will use waisted bolt kit 900-0807

106" STROKER KITS FOR USE WITH STOCK CYLINDERS

FITMENT

- 1999–'06 big twins

FEATURES AND BENEFITS

- Installation of the kit does not require any special machining, other than fitting the pistons
- S&S stroker pistons, which are sold separately, are available in all standard oversizes
- Stock 88" cylinders can be bored from 3¾" bore to 3⅞" to accommodate the S&S pistons, or a pre-fit S&S cylinder and piston kit may be installed
- Engines with factory 95" kits require piston fitting only—stock or S&S cylinder heads can be used
- Fuel injected engines will require recalibration of the fuel injection system—the S&S VFI modules and closed loop sensor kits are highly recommended
- Piston jets (p/n 31-2026) included
- Maintains stock engine height



320-0460

S&S® 106" STOCK BORE STROKER KITS FOR HARLEY-DAVIDSON® TWIN CAM 88® AND TWIN CAM 88B™ ENGINES SPECIFICATION CHART

Displacement	Stroke	Bore	Compression Ratio*	Piston Type	Piston Deck Height	Cylinder Length	Application	Engine Life
106"	4½"	3⅞"	10.1:1	Flat Top	1.020"	4.937"	Trips	Very Good

*Compression ratio with stock heads. Compression ratio with S&S 89cc heads 9.8:1. For additional compression use .030" MLS head gaskets- part #900-0605
Includes S&S piston oiling jets

106" STROKER KITS FOR HARLEY-DAVIDSON® TWIN CAM 88® ENGINES WITH STOCK CYLINDERS

Engine Displacement	Stroke	Sprocket Bearing Race	1999–2006 HD® big twin models (except 2006 Dyna® models)		2006 HD® Dyna® models
			TC 88®	TC 88B™	
S&S 106 Stroker	4 ½"	Yes	320-0459	320-0453	320-0449
		No	320-0460	320-0454	320-0450
Special Order	Specify	Specify	329-0002	329-0002	329-0002

Note - All S&S flywheel assemblies for 1999-'06 engines have connecting rods with 7.667" length and full width straight wristpin ends.

! THESE KITS REQUIRE SPECIAL S&S PISTONS: Order the required 92-1210 Series pistons. See chart.



92-1210 SERIES PISTONS FOR S&S® 106" STROKER KIT

Standard	+ .005"	+ .010"	+ .020"	CYLINDER & PISTON KIT*	
92-1210	92-1214	92-1211	92-1212	Silver	Black
				910-0199	910-0203

Piston Deck Height 1.020" *Cylinder w/ piston kits include fitted pistons and cylinders that require no boring or honing.

98" BIG BORE KITS

FITMENT

- 1999–2006 big twin

FEATURES AND BENEFITS

- 3.937" bore
- Cylinder and piston kits make going to larger bore sizes easy — *no machining required*
- Stock engine height is maintained
- 11 fin cylinder design closely resembles OEM shape and come prefinished — *ready to install*
- Increased fin area for better heat dissipation
- Centrifugal cast, gray iron liner features 40,000 psi tensile strength — *superior wear and performance*
- CP Pistons are recognized as industry leaders, and provide exceptional wear, performance and noise characteristics

KIT CONTENTS

- S&S cylinders with gaskets
- Piston set with rings, wristpins and wristpin clips

S&S® 98" BIG BORE KIT SPECIFICATION CHART

Displacement	Stroke	Bore	Cylinder Length	Forged Piston Type	COMPRESSION RATIO (with provided .045" head gasket)		
					83cc CNC Ported Stock Heads	85cc Stock Heads	89cc S&S Heads
98"	4"	3.937"	4.937"	10cc Dome	10.6:1	10.4:1	9.9:1

Cylinder w/ piston kits include pistons and cylinders that require no boring or honing.



910-0481

98" BIG BORE KITS

Cylinder Finish	Part #
Silver Powder coat	910-0482
Wrinkle Black Powder coat	910-0481

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NOTES

Not for use with S&S 79cc Cylinder Heads

97" BIG BORE KITS

FITMENT

- 1999–'06 big twins

FEATURES AND BENEFITS

- No case machining required
- Bolt-on 9 to 10 cubic inches — cylinders do not require crankcase machining to install
- Piston weight for 97" kits are the same as stock, requiring no flywheel rebalancing
- Forged coated pistons are compatible with stock or S&S Super Stock® 79cc & 89cc heads
- Valve pocket recessed in S&S pistons are enlarged for oversize valves and higher lift cams
- Maintains stock engine height
- 11 fins and full fin pattern on cam side closely resembles OEM shape

OPTIONS

- Oversize pistons available — [see page 168](#)

KIT CONTENTS

- S&S cylinders with gaskets
- Piston set with rings

S&S® 97" BIG BORE KITS SPECIFICATION CHART

Displacement	Stroke	Bore	Cylinder Length	Forged Piston Type	Compression Ratio			
					79cc S&S Heads	83cc CNC Ported Stock Heads	85cc Stock Heads	89cc S&S Heads
97"	4"	3.927"	4.937"	3cc Dome	10.3:1	9.9:1	9.7:1	9.3:1

Cylinder w/ piston kits include fitted pistons and cylinders that require no boring or honing.

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910-0205

97" BIG BORE KITS

Cylinder Finish	Part #
Silver Powder coat	910-0201
WBlack Powder coat	910-0205

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NOTES

S&S® highly recommends installing a performance cam for easier starting and better engine performance.
 S&S high flow cylinder heads will provide further horsepower gains.
 For an additional .2 bump in compression, order .030" thick head gaskets #900-0605 (2 pack). Remember to check your clearances.
 These kits require tuning.

95" HOT SET UP KITS

FITMENT

- 1999–'06 big twins

FEATURES AND BENEFITS

- .045" MLS head gaskets standard
- Up to a 40 HP increase
- True bolt on kit, no machining required
- Maintains stock engine height
- Kits include S&S 570 or 585 Easy Start chain drive cams—depending on resultant compression ratio
- S&S pushrods are made of high strength chrome-moly tubing
- Valve pocket recesses in S&S pistons are enlarged for oversize valves and high lift cams



S&S® 95" HOT SET UP KIT® SPECIFICATIONS								
Displacement	Stock Stroke	Bore	Cylinder Length	Forged Piston Type	Compression Ratio			
					79cc S&S Heads	83cc CNC Ported Stock Heads	85cc Stock Heads	89cc S&S Heads
95"	4"	3 ⁷ / ₈ "	4.937"	5.3cc pop-up dome	10.4:1	9.9:1	9.7:1	9.4:1

Cylinder w/ piston kits include fitted pistons and cylinders that require no boring or honing.

95" SUPER STOCK® HOT SET UP KITS® FOR 88" ENGINES

Includes S&S 3⁷/₈" bore cylinders and pistons, 585 gear drive cams and 79cc heads

Application	WBlack
1999–'06 (except 2006 Dyna® Models*)	106-0214±

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NOTES

Fuel injected engines will require recalibration of the fuel injection system. The S&S VFI modules and closed loop sensor kits are highly recommended.

Stock cylinders must either be bored to 3⁷/₈" or replaced with S&S® 3⁷/₈" bore cylinders.

S&S recommends either CNC porting stock cylinder heads or purchasing Super Stock® heads to maximize the effect of higher lift cams. Stock cylinder heads will produce significantly less power. S&S can CNC port your heads, for an economical increase in power.

For 95" kits ordered without cylinders, pistons must be measured and cylinders bored/honed accordingly. Recommended piston fitment:

Close: 0.0020" – 0.0025" Loose: 0.0032" – 0.0045"

92-1200 series pistons have a 1.270" deck height.

.030" MLS head gaskets optional: Part #900-0606

S&S Easy Start Cams can save you money – no need to buy compression releases or S&S rocker covers. Note when using 1999-'06 chain drive cams: For lifts over .510", S&S strongly recommends that the stock chain drive be upgraded to the S&S gear drive or S&S TC3 oil pump and cam plate. This kit updates the problematic spring loaded chain tensioners to more reliable hydraulic tensioners and also upgrades the oil pump.

ENGINE OVERVIEW

S&S performance engines for 1999–'06 Harley-Davidson® big twins are available as long blocks which do not include fuel or ignition systems. Emissions compliant engines are complete. Engines are protected by super tough powder coat finishes. Available in silver and chrome, wrinkle black and chrome, Stone Grey and chrome, and Black Edition color schemes. Stone Grey matches the engine finish on CVO models. Black Edition is a wrinkle black engine with gloss black covers.

BLACK EDITION

S&S Cycle's new Black Edition engines combine classic wrinkle black with high gloss black powder coated covers for a subtle contrast and elegant look while still producing the power and reliability you've come to expect.

T143 (143 cid)

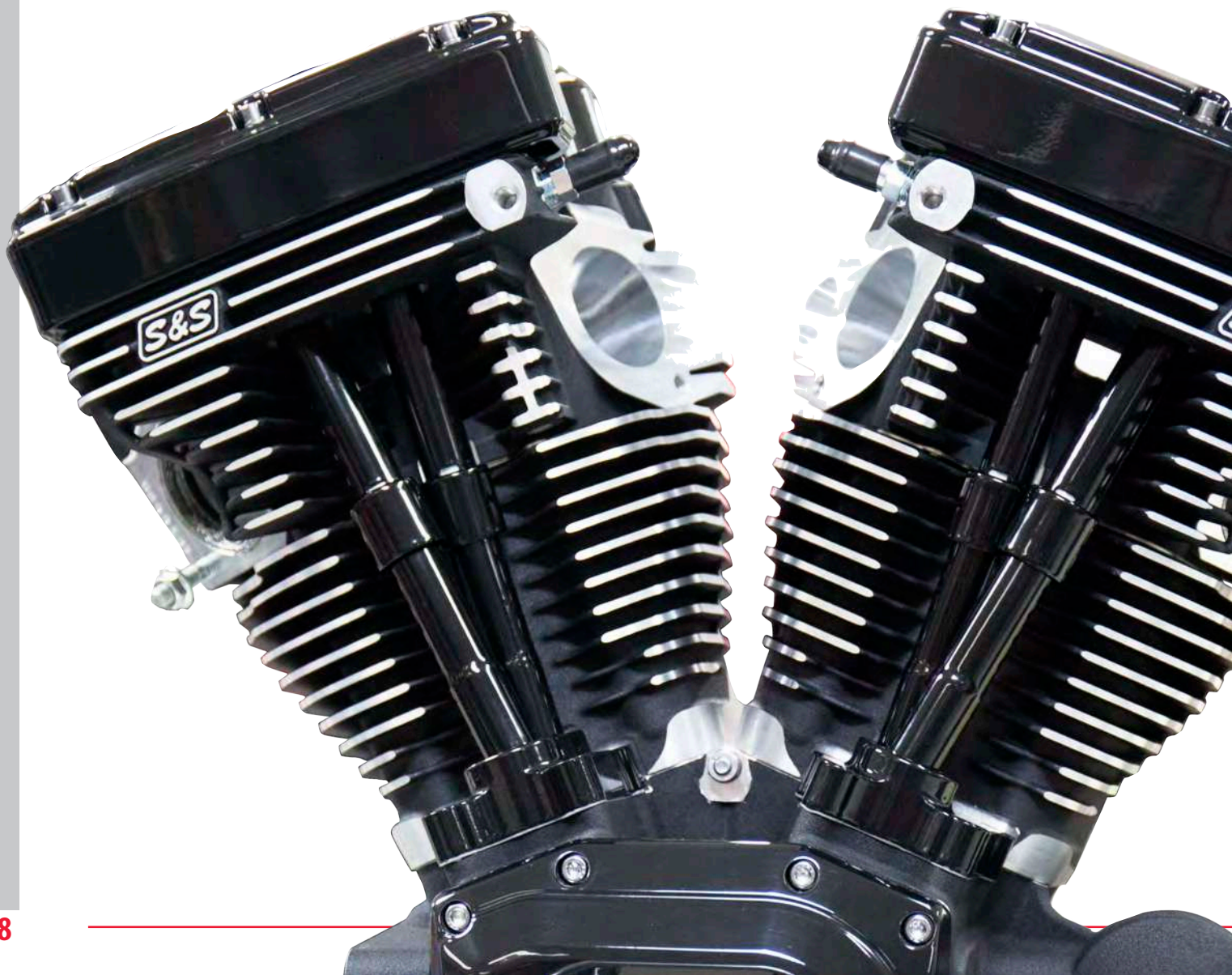
Now available for 1999–2006 chassis, the T143 long block engine is the largest (143 cid) S&S engine that will fit in a stock chassis. Available in silver, wrinkle black, or black edition finishes. Long blocks come without fuel or ignition systems (available separately) and an oil line installation kit is required. The 160 rear wheel horsepower also requires performance drive train upgrades. Not for the faint of heart!

T124 (124 cid)

The S&S T124 long block engine has been our daily rider hot rod since 2004. The combination of day in and day out reliability and brutal power make it the perfect choice. Available in silver, wrinkle black, or black edition finishes. Long blocks come without fuel or ignition systems (available separately) and an oil line installation kit is required. Our Super G carburetors and Throttle Hog EFI throttle bodies are highly recommended.

T111 (111 cid)

The S&S T111 long block is the ultimate sport touring engine. The shorter stroke provides a perfect combination of performance, engine life, quiet operation, and reduced vibration. Available in silver, wrinkle black, or black edition finishes. Long blocks come without fuel or ignition systems (available separately) and an oil line installation kit is required. Our Super E and G carburetors and Throttle Hog EFI throttle bodies are available to complete the package.



T143 ENGINES

The **BIGGEST, BADDEST, BOLT-IN** for a Stock Frame.

The S&S T143 Long Block engine is the largest S&S engine that will fit in a stock Harley-Davidson® chassis.

At double the HP of a stock motor the power of the T143 requires technical expertise for the installation and tuning along with an experienced rider. This is an ultra performance/race engine. Longevity, engine noise, vibration and throttle sensitivity have all been compromised to reach this level of performance while fitting in a stock chassis and as such is not suitable for every situation. It is the purchaser's responsibility to consider the suitability for their application. Engine noise and damage from abuse is not covered under warranty.

FITMENT

- 1999–2006 Harley-Davidson® touring models
- 1999–2005 Harley-Davidson® Dyna® models

FEATURES AND BENEFITS

- Fits in stock chassis – no cutting or frame modifications
- S&S B3 cylinder heads CNC machined with 2 bolt exhaust flanges
- 3 Piece Flywheels
- S&S high flow oil pump and cam cover
- S&S 635 Easy Start Gear Drive Cams and S&S 1.725:1 rocker arms for .674" total lift.
- S&S Premium High Performance Tappets

SUGGESTED ACCESSORIES

- Stealth Air Cleaner Kit 143 Cover
See page 148



310-0737



110-0120



110-0119



170-0288

T143 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	Compression Ratio	Warranty Period	Finish	Part #
1999–'06 Touring Models	143"	4.425"	4.625"	635	S&S Forged Flat Top	10.47:1	1 year	WBlack	310-0737
1999–'05 Dyna® Models								Silver	310-0738
1999–2006 bt (except '06 Dyna®)								Black Edition	310-0833

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! REQUIRES OIL LINE INSTALLATION KIT. See chart.

INSTALLATION PARTS

Description	Part #	
Oil Line Kit	Touring models	31-0425
	Dyna® models	31-0424
Super G Carburetor Kit w/air cleaner*	110-0120	
Super D Carburetor Kit w/air cleaner*	110-0119	

*Air cleaner assemblies included with these carburetor kits do not include air cleaner covers. Stock 1999–later air cleaner or any S&S Stealth air cleaner covers may be used.

Description	Part #	
70mm Induction Kit	2002–'05 Dyna® & Touring Models	170-0289
	2006–'07 Touring Models	170-0288
Exhaust Flange Starter Kit	550-0216	

NOTE

No fuel system available for 1999–2001 magnetti Morelli EFI models

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Milwaukee
Eight™
2007-2017
Twin Cam
96"/103"/110"
1999-2006
Twin Cam 88"
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod™
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

T-SERIES LONG BLOCK ENGINES

FOR 1999–'06 HARLEY-DAVIDSON® BIG TWINS EXCEPT 2006 DYNA® MODELS

FEATURES

- No fuel system or ignition systems included - Use what you already have
- Special Head machining — Fits stock length intake manifolds (S&S manifold size 410)
- Stock style breathing system — stock breather spacing and function is compatible with stock and most performance air cleaners
- Same quality components and performance as our complete T-Series engines
 - New S&S cylinders that look more like stock
 - Super Stock heads and crankcases
 - S&S high flow oil pump and cam cover
 - S&S Easy Start cams

OPTIONS

- T111 — 111 cubic inches, perfect sport-touring engine
- T124 — 124 cubic inches, hot-rod performance, 640 Easy Start Cams
- T124LC — 124 cubic inches with slightly lower compression, 585 Easy Start Cams

SUGGESTED ACCESSORIES

- Stealth Air Cleaner Kits. [See page 146](#)



Not for 1999-2001 Magneti Marelli® EFI models

T124 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	Compression Ratio	Warranty Period	Finish	Part #
1999–'06 bt <i>(except '06 Dyna®)</i>	124"	4 1/8"	4 3/8"	640	S&S Forged Flat Top	10.8:1	2 Years	Silver	310-0281
								WBlack	310-0282
								Black Edition	310-0831
	124"	4 1/8"	4 5/8"	585	S&S Forged Dished	10.2:1	2 Years	Silver	310-0327
								WBlack	310-0326
								Black Edition	310-0832
CTO				Specify		Specify	Varies	Specify	319-0010

T111 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	Compression Ratio	Warranty Period	Finish	Part #
1999–'06 bt, <i>(except '06 Dyna®)</i>	111"	4 1/8"	4 1/8"	585	S&S Forged	9.8:1	2 Years	Silver	310-0279
								WBlack	310-0770
								Black Edition	310-0830
CTO				Specify		Specify	Varies	Specify	319-0010

! REQUIRES OIL LINE INSTALLATION KIT. See chart.



31-0424

OIL LINE INSTALLATION KIT

Fitment	Part #
1999–'06 FLT Models	31-0425
1995–'05 Dyna® Models	31-0424

COMPLETE ENGINE REBUILD GASKET KITS

S&S Engine Family	Year Group	Bore Size	Part #
T-Series	1999–'06	4 1/8"	310-0335

NOTES

ENGINE MANAGEMENT AND FUEL SYSTEMS

Cylinder heads on T-Series long block engines are 1999–'05 style. Owners of 2006 models will need to purchase a set of 1999–'05 style, offset intake flanges such as S&S #106-3516.

Cylinder heads on these engines are specially machined to compensate for the non-stock cylinder length. As a result, they are compatible with manifolds and throttle bodies with stock length intake runners. In addition, the breather vent bolt locations have been adjusted so they are in the stock location, so stock style air cleaner Backplates will bolt up to these engines.

2002–'06 EFI engines equipped with Delphi® fuel injection will require a performance tuner such as the Harley-Davidson® Race Tuner. The stock single bore throttle body can not supply adequate air for these large displacement engines. An S&S 58mm throttle body is highly recommended for maximum performance.

Carbureted engines will require a performance ignition module that allows adjustments to the advance curves. The stock ignition module is not adjustable, and use of the stock module will likely result in engine damage due to knock from incorrect ignition timing.

Performance carburetors are recommended to achieve maximum performance. S&S Super E carbs are ideal for T111 engines in touring applications, but a Super G will produce more top end horsepower. S&S Super G carbs are recommended for T111 engines in performance applications, and for T124 engines in all applications.

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CRANKCASES

FITMENT

- 1999-'06 Harley-Davidson® Twin Cam 88° A Engines (except 2006 Dyna®)

FEATURES AND BENEFITS

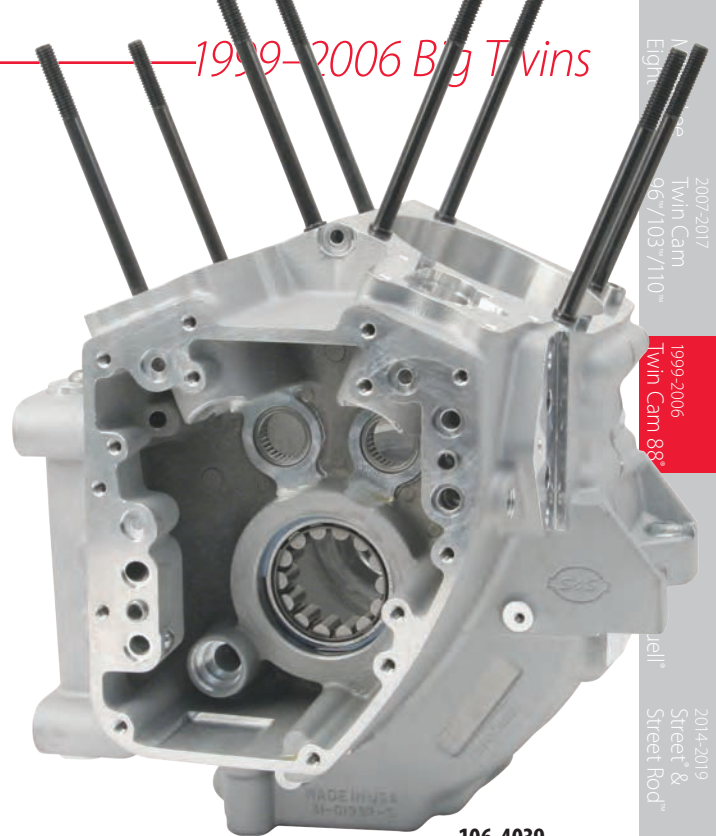
- Much stronger than stock crankcases in every aspect, extra large front motor mount for increased strength
- Large cam chest allows cam lift up to .675" without clearancing
- Timken® style sprocket shaft bearings withstand the most demanding applications
- Includes S&S crankcase breather reed valve to eliminate oil carry-over and oil scavenging problems
- Clearanced for strokes up to 5"
- All passages between the crankcase and the cam support plate are o-ring sealed
- Includes pinion and Timken® bearing

OPTIONS

- Available in stock bore, 4" bore, and 4 1/8" bore versions

KIT CONTENTS

- S&S crankcase
- S&S breather reed valve
- Bearings and hardware



106-4039

CRANKCASE FOR 1999-'06 BIG TWIN ENGINES (EXCEPT 2006 DYNA®)

Crankcase Bore Size	Silver	WBlack	Polished
Stock Bore (Stock Stud Pattern) 24596-99A 24597-99A	106-4039†	31-0172†	—
4 1/8" Bore (Stock Stud Pattern)	106-4057*	31-0181*	—
4 1/8" Bore (S&S Stud Pattern)	106-4043*	31-0178*	31-0179
4.425" Bore (S&S® T143)	—	310-0721	

†Exempt from emissions tampering regulations under CARB EO# D-355-10 when used in 1999-2006 models originally equipped with 1449cc engines

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31-0424

OIL LINE INSTALLATION KIT

Fitment	Part #
1999-'06 FLT Models	31-0425
1999-'05 Dyna® Models	31-0424

REPLACEMENT PARTS: SEE PAGE 202

NOTES

Oil line installation kit part #31-0424 is required for installation in 1999-'05 Dyna® models. This kit includes a special transmission top cover and oil lines.

Oil line installation kit part #31-0425 is required for installation in 2000-'06 FLT models. Stock transmission top cover may be used.

CRANKCASE BREATHER REED VALVES

FITMENT

- Twin Cam 88°/96™ (except "B" engines)
- S&S T-Series engines



31-2070

FEATURES AND BENEFITS

- Improved oil scavenging and reduced oil carryover

CRANKCASE BREATHER REED VALVES

Oil Pump Fitment	Year Application	Part #
For Engines with Stock or S&S TC3 Oil Pump	1999–'02	31-2070
	2003–'10	310-0742
	S&S special application crankcases*	310-0742
For Engines with S&S gear oil pump	2003–'10 stock crankcases & 1999-'06 S&S crankcases	310-0742

*Spring adaptor required to accommodate the extra .375" case width of S&S Special Application big bore crankcases.

SPRING ADAPTER AND SPACER

Fitment	Part #
Spacer (for S&S SA crankcases)*	31-2103



*Required to accommodate the extra .375" case width of S&S Special Application big bore crankcases.

REPLACEMENT PARTS: SEE PAGE 230

NOTES

The crankcases breather valve for Twin Cam 88° engines was designed and developed for use with stock Harley-Davidson® or S&S gear oil pumps and tappets, and may not be compatible with some aftermarket components.

Not available for Twin Cam 88B™ or Twin Cam 96B™ engines with internal balancers.

Does not fit with Screamin' Eagle® oil pumps.

3 PIECE FLYWHEEL ASSEMBLIES



FITMENT

- 1999–'06 Harley-Davidson® big twins – Balanced and unbalanced models
- S&S T-Series Engine and Hot Set Up Kit® replacement flywheels

FEATURES AND BENEFITS

- Heat-treated 4140 material is harder and 114% stronger than stock
- Harder material, no thrust washers required—Where stock flywheels have thrust washers, S&S flywheels have steel gripping the crankpin
- Larger 1.671" diameter crankpin—increased contact area and tighter press fit for a stronger joint. No welding required!
- Integral mainshafts —eliminates two potential points of weakness
- Consistent balance and precision machining—Truer flywheels and less vibration
- Reduced mainshaft deflection at high rpm—less vibration, reduced piston and rod side thrusting, prevents oil pump damage, fully compatible with gear drive cams
- Capable of higher rpm—More available power!



320-0460

FLYWHEEL ASSEMBLIES

Engine Displacement	Stroke	Sprocket Bearing Race	1999–2006 HD® big twin models (except 2006 Dyna® models)			2006 HD® Dyna® models	
			Total Piston Weight	TC 88®	TC 88B™	Total Piston Weight	Part #
88, 95, 97, 100 w/ Stock or S&S® Pistons	4"	Yes*	1230	320-0402	320-0396	1230	320-0392
		No	1230	320-0403	320-0397	1230	320-0393
96, 103, CVO 103, 106 big bore, 110, 117 w/ Stock or S&S® Pistons	4 3/8"	Yes*	1035	320-0360	320-0354	1035	320-0350
		No	1035	320-0361	320-0355	1035	320-0351
S&S® 106 Stroker**	4 1/2"	No	1108	320-0460	320-0454	1108	320-0450
S&S® 111	4 1/8"	No	1035	320-0417	–	1035	320-0407
SE 120R (uses 7.575" length rods)	4 5/8"	No	1035	320-0525	320-0527	1035	320-0523
S&S® 124	4 5/8"	No	1035	320-0475	320-0469	1035	320-0464
S&S® T143	4 5/8"	No	1290	320-0552	–	–	–
Special Order	Specify	Specify	Specify	329-0002	329-0002	Specify	329-0002

Note - All S&S flywheel assemblies for 1999–06 engines have connecting rods with 7.667" length and full width straight wristpin ends.

*Flywheel assemblies supplied with sprocket shaft bearing race installed are compatible with stock roller style sprocket shaft bearings. Assemblies with no race require a Timken® sprocket shaft bearing.

**4 1/2" stroke flywheels for 2006 Dyna® include 7.667" long connecting rods.

NOTES

Engines with strokes over 4" may require S&S® piston oiling jets (p/n 31-2026) and piston to jet clearance notches in the piston skirt to avoid contact.

Main Bearing Note: Most S&S flywheel assemblies for 1999–'16 big twin engines are designed for use with Timken® sprocket shaft bearings. They will fit directly in stock 1999–02 Harley-Davidson® crankcases and in all S&S crankcases for 1999–'15 big twin engines, with no modifications. However, stock 2003 and later engines use a roller type bearing for the sprocket shaft. S&S does offer flywheel assemblies that are compatible with late roller style stock sprocket shaft bearings, but they are not recommended for very large, high performance engines.

S&S strongly recommends retrofitting 2003–'16 model crankcases to accept a Timken sprocket shaft bearing. A Timken conversion sleeve such as Screamin' Eagle® #34822-08 or Jim's® #956 may be used. A charging system spacer for 1999–02 model year is also required.

If you choose not to convert your crankcases to a Timken sprocket shaft bearing, S&S flywheels may be used in 2003 and later engines by either purchasing the stock compatible flywheels or by installing Harley-Davidson® bearing kit #24004-03B when using S&S flywheels designed for Timken bearings. This bearing kit adapts the S&S sprocket shaft so it is compatible with stock roller type bearings. Verify that the bearing kit contains the 24604-00D or 24607-07 sprocket shaft bearing. Do not use a 24604-00, 24604-00A, 24604-00B or 24604-00C bearing. Please be advised that if this type of bearing is used, sprocket shaft bearing failure WILL NOT be covered under warranty.

REPLACEMENT PARTS: SEE PAGE 204

TRYING TO IDENTIFY AN S&S® FLYWHEEL?
SEE FLYWHEEL I.D. CHART ON PAGE 538

TC3 CAM PLATE

S&S cam support plates are just what the doctor ordered when repairing a damaged engine or installing new camshafts. CNC machined from forged aluminum for excellent strength and dimensional accuracy. S&S cam support plates are available to fit 1999–2006 and 2007-later Harley-Davidson® big twin engines. We don't want to encourage bad habits so plates for 1999–2006 are not compatible with stock spring-loaded chain tensioners, and require late style hydraulic tensioners and oil pump. We suggest the S&S TC3 oil pumps be installed with S&S TC3 Cam Plate.

FITMENT

- 1999–'06 big twins except 2006 Dyna® models*

FEATURES AND BENEFITS

- Precision CNC machined forged aluminum
- Adjustable oil pressure regulator — adjust without removing plate from engine
- Passage plugs are removable for service
- Rebuildable — bronze pinion shaft bushing in all models and bronze cam bushings in 2007-later style
- Made in the USA!

*Not compatible with stock spring-loaded chain tensioners or stock 1999–2006 oil pumps. A 2007-later style oil pump is required for all applications. 2007-later style hydraulic tensioners are required for chain drive cams.



310-0625

TC3 CAM PLATE

Fitment	Part #
1999–2006 bt (except 2006 Dyna® models)	310-0623

TC3 OIL PUMP

If motor oil is the lifeblood of an engine, then the oil pump is its heart. If your engine needs a transplant, the S&S TC3 Oil Pumps are a great solution for worn out or destroyed stock units. Common causes of stock pump failure are debris and excessive pinion shaft run out. The new S&S oil pumps are much less likely to be damaged by either. Oh, and by the way, the S&S TC3 Oil Pumps pump and scavenge way more oil than stock. While you've got that motor apart, it would be a good time to install a forged S&S TC3 Cam Plate.

FITMENT

- 1999–'06 Harley-Davidson® big twin engines*
- 2007–'16 Harley-Davidson big twin engines

FEATURES AND BENEFITS

- Consistent pressure and reliable scavenging
- Separate scavange sections for flywheel cavity and cam chest — *no interference*
- Screens and magnetic traps help protect the scavenge rotors from debris
- Special design allows S&S pumps to tolerate more pinion shaft run out without damage
- Made in the USA!

*S&S oil pumps for 1999–'06 are not compatible with S&S cam support plates for 1999–'06 engines. All S&S cam support plates are machined for 2007-later style oil pumps.



TC3 OIL PUMP

Fitment	Part #
1999–2006 bt (except 2006 Dyna® models)	310-0640

TC3 OIL PUMP & CAM PLATE KITS



TC3 OIL PUMP AND CAM PLATE KITS

Fitment	Part #
1999–2006 bt (except 2006 Dyna® models)	310-0731

REPLACEMENT PARTS: SEE PAGE 112 & 113

OIL PUMPS

FITMENT

- 2002–'06 carbureted & EFI big twins (except 2006 Dyna®)
- May be used in 1999-'01 engines with aftermarket ignition or EFI (see note below)
- Fits all engines built with S&S-Series crankcases

FEATURES AND BENEFITS

- Replaces stock oil pump, cams, cam support plate, bearing plate, bearings and decorative gearcover
- Uses drive gears of special S&S gear drive cams to pump oil
- Oil pressure is regulated after the oil filter – *more consistent pressure to the engine*
- Increased scavenging capacity results in:
 - Less oil in the crankcase
 - Less power loss
 - Less heat build up
 - Less oil carryover
- Excess oil from pressure control valve is filtered—*longer pump life*



OIL PUMPS WITHOUT CAMS

Gearcover Finish	Part #
Chrome	106-3887±

GEAR DRIVE CAMS FOR USE WITH S&S GEAR OIL PUMPS FOR 1999-'06 BIG TWIN (EXCEPT 2006 DYNA® MODELS)

Cam*	Easy Start Cams with Drive Gears
	Part #
585GP	106-4771
635GPE	330-0405
640GP	106-4781
675GP	106-5215

REPLACEMENT PARTS: SEE PAGE 208

NOTES

Requires installation of gear drive cams, see chart.
The S&S oil pump is not compatible with 1999-'01 engines with stock fuel injection or ignition systems which require a cam position sensor in the gearcover. May be used in 1999-'01 engines if an aftermarket ignition or fuel injection system, that does not require a cam position sensor, is installed.

*See Camshafts starting on 170 for further information on cam recommendations for different applications
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BILLET GEARCOVER

FITMENT

- 1999-'17 Twin Cam 88®, 96™ and 103™ (except '17 touring)



31-6516

BILLET GEARCOVER

Finish	Part #
Polished	31-6516
Chrome	106-3774±

NOTES

The S&S gearcover is not compatible with 1999-'01 engines with stock fuel injection or ignition systems which require a cam position sensor in the gearcover.

May be used in 1999-'01 engines if an aftermarket ignition or fuel injection system, that does not require a cam position sensor, is installed.

BILLET OIL FILTER BRACKET

FITMENT

- 1999-'06 big twin (except 2006 Dyna® models)



31-6510

BILLET OIL FILTER BRACKET

Finish	Part #
Polished 26261-99	31-6510
Chrome	106-3884

CYLINDERS WITH PISTONS KIT

- Cylinder w/piston kits include fitted pistons and cylinders, head gaskets, base, and exhaust gaskets
- Cylinder kits with pistons are honed to fit the pistons included.



S&S® 4 1/8" BORE CYLINDERS WITH PISTONS SPECIFICATIONS							
Displacement	Stroke	Cylinder Length	Forged Piston type	Compression Ratio			
				85cc Stock heads	89cc S&S heads	91cc S&S heads	SE 95cc heads
124"	4.625	5.013	Flat Top	11.4:1	11.0:1	10.8:1	10.5:1
124" Dish	4.625	5.013	10.9 cc dish	10.5:1	10.2:1	10.0:1	9.7:1
117"	4.375	4.888	Flat Top	10.9:1	10.5:1	10.3:1	10.0:1
117" Dish	4.375	4.888	10.9 cc dish	10.0:1	9.7:1	9.6:1	9.3:1
111"	4.125	4.763	Flat Top	10.3:1	9.9:1	9.8:1	9.4:1

4 1/8" BORE CYLINDERS WITH PISTONS FOR 124", 117", & 111" KIT			
Displacement	Bolt Pattern	Silver	WBlack
124" Hot Set Up - Stock Heads	Stock	910-0215	910-0223
124" Hot Set Up - S&S 89cc/91cc Heads	Stock	910-0214	910-0222
124"	S&S	910-0216	910-0226
117"	S&S	910-0217	910-0227
111"	Stock	910-0017	910-0025
111"	S&S	910-0218	910-0277

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S&S® 4" BORE BOLT-IN SIDEWINDER® KITS SPECIFICATION CHART								
Displacement	Bore	Stroke	Cylinder Length	Piston Type	Dome Volume	Compression Ratio		
						83cc CNC Heads	85cc Stock Heads	89cc S&S Heads
100"	4.00"	4.00"	4.937"	Forged	8.75 pop up	10.8:1	10.5:1	10.1:1

4" BORE BOLT-IN SIDEWINDER® BIG BORE KITS		
Displacement	Silver	WBlack
100	910-0642	910-0646

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S&S® 98" & 97" BIG BORE KIT SPECIFICATION CHART											
Displacement	Bore	Stroke	Cylinder Length	Forged Piston Type	Bolt Pattern	Compression Ratio (with provided .045" head gasket)					
						83cc Heads	79cc S&S Heads	85cc Heads	87cc Heads	89cc S&S Heads	90cc Heads
98"	3.937"	4.00"	4.937"	10cc Dome	Stock	10.5:1	n/a	10.3:1	10.1:1	n/a	9.8:1
97"*	3.927"	4.00"	4.937"	3cc Dome	Stock	n/a	9.7:1	10.3:1	n/a	9.4:1	n/a

*For an additional .2 bump in compression, order .030" thick head gaskets #900-0605 (2 pack). Remember to check your clearances.



BIG BORE KIT			
Displacement	Bolt Pattern	Silver	WBlack
98" Big Bore Kits	Stock	910-0482	910-0481
97" Big Bore Kits	Stock	910-0201	910-0205

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CYLINDERS WITH PISTONS KIT CON'T

S&S® 3 7/8" BORE CYLINDERS WITH PISTONS SPECIFICATION CHART							
Displacement	Stroke	Cylinder Length	Forged Piston Type	Bolt Pattern	COMPRESSION RATIO		
					85cc Stock Heads	79cc S&S Heads	89cc S&S Heads
106" Stroker	4 1/2"	4.937"	Forged	Stock	10.1:1	9.8:1	10.8:1
95"	4"	4.937"	Forged	Stock	9.7:1	10.3:1	9.9:1

3 7/8" BORE CYLINDERS WITH PISTONS FOR 106" & 95" KIT

Displacement	Bolt Pattern	Silver	WBlack
106" Stroker	Stock	910-0199	910-0203
95"	Stock	910-0200 	910-0204 

91-7506* Call for Pricing

NOTES

S&S® highly recommends installing a performance cam for easier starting and better engine performance.

S&S high flow cylinder heads will provide further horsepower gains.

These kits require tuning.

CYLINDERS

- Individual cylinders and cylinder sets without pistons are bored slightly under nominal size and are not honed.

4.425" BORE CYLINDERS WITHOUT PISTONS FOR T143

Displacement	Set	Silver	Black
143"	Set	910-0568	910-0565

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4 1/8" BORE CYLINDERS

Displacement	Set	Silver	WBlack	Polished
124" Hot Set Up	Set	910-0234	910-0255*	–
124"	Set	910-0237	910-0264	910-0249
117"	Set	910-0240	–	–
111"	Set	910-0243	910-0281	–

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3 7/8" BORE CYLINDERS

Displacement	Set	Silver	WBlack
106" Stroker	Set	910-0207 	910-0208 

3.937" BORE CYLINDERS

Displacement	Front or Rear	Silver	WBlack
98"	Front or Rear	910-0478	910-0477

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3.927" BORE CYLINDERS

Displacement	Front or Rear	Silver	WBlack
97"	Front or Rear	910-0210	910-0212

91-7506* Call for Pricing

CYLINDER REPLACEMENT PARTS: SEE PAGE 212

PISTON KITS

• Piston kits include set of pistons, rings, wristpins, and clips



920-0046
Dish topped



106-3491A
Flat topped

4.425" BORE FORGED PISTON KITS FOR T143

Displacement	Deck Height	Stroke	Standard	+ .020"
T143	1.167"	4 5/8"	920-0106	920-0111

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4 1/8" BORE FORGED PISTON KITS FOR HOT SET UP KITS®

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"	+ .030"
124" & 117" Stock Heads 10cc Dished	1.050"	Up To 4 5/8"	920-0046	920-0047	920-0050	920-0053
124", 117" & 111" -Stock or S&S Heads Flat Top	1.050"	Up To 4 5/8"	106-3491A	106-3872A	106-3964A	920-0094

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

4" BORE FORGED PISTON KIT

Displacement	Deck Height	Dome Height	Stroke	Standard
100	1.270	8.75cc	4"	920-0129

3.937" BORE FORGED PISTON KIT

Displacement	Deck Height	Dome Height	Stroke	Standard
98"	1.270"	10cc	4"	920-0101



92-1210
106" Stroker



92-1200
95"

3.927" BORE FORGED PISTON KITS

Displacement	Deck Height	Dome Height	Stroke	Standard	+ .010"
97"	1.270"	3cc	4"	106-3688	106-4414

3 7/8" BORE FORGED PISTON KITS

Displacement	Deck Height	Stroke	Standard	+ .005"	+ .010"	+ .020"
106" Stroker	1.020"	4 1/2"	92-1210	92-1214	92-1211	92-1212
95"	1.270"	4"	92-1200	92-1204	92-1201	92-1202

NOTE

S&S' 3 7/8" pistons for 95" kits and 4 1/8" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0005" for correct clearance.

S&S' 3.937" & 3.927" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt of early production pistons with out micrometer window makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0001" for correct clearance. Current production pistons have micrometer windows in the coating on the piston skirts that allow accurate measurements to be taken. These pistons may be installed by honing cylinder to nominal diameter +/- 0.0001" or by measuring piston and honing cylinder to achieve .002" - .0025" close clearance for street applications or .0032" - .0045" loose clearance for immediate competition use.

REPLACEMENT PARTS FOR PISTONS

PISTON RINGS, CHROMOLY FACED

Bore	Standard	+ .005"	+ .010"	+ .020"	+ .030"
4.425"	940-0043	—	—	940-0044	—
4 1/8"	940-0014	—	940-0012	940-0013	940-0017
3.937"	940-0032*	—	—	—	—
3.927"	106-3709A	—	106-4422A	—	—
3 7/8" for 106" Stroker	94-1295X	94-1299X	94-1296X	94-1297X	—
3 7/8" for 95" Kit	94-1290X	94-1294X	94-1291X	94-1292X	—
4"	940-0056†	—	—	—	—

*Only includes one set of rings.

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REPLACEMENT PISTON WRISTPINS

Description	Part #
Wristpin	For 4.425" Pistons 940-0037
	For 4 1/8" Pistons (92-1550 Series) 94-9277
	For 4 1/8", 3 7/8", 3.927" Pistons 106-1052
	For 3.937" Pistons 940-0033

REPLACEMENT PISTON KEEPERS

Description	Part #
Keeper	each 94-9278-S
	2 pack 94-9278-2
	4 pack 106-2304
Keeper for 4.425"	each 94-9278-S
Keeper For 3.937" & 4"	2 pack 940-0034

POWER PACK

LIMITED TIME PRICING, GOOD ONLY
FROM OCTOBER 1ST THROUGH JANUARY 31ST 2019

Bump 1999–'06 engines from 88ci to 100ci and 2007-'17 engines from 96ci or 103ci to 110ci with the new S&S 4" big bore kit. The kit also includes matched cams, cam plate, oil pump and everything else a high performance big inch engine needs to reliably make serious power.

FITMENT

- 1999–06 big twin except 2006 Dyna® models

FEATURES AND BENEFITS

- Largest big bore kit available without doing crankcase mods
- Upgrade Twin Cam 88 to 100 cu inches
- Cylinders fit to pistons—No machining required
- All parts required to upgrade to gear drive cam or hydraulic tensioners
- Engineered package to deliver the best bolt-in performance available



POWER PACKAGE KIT

Fitment	Finish	Cam	Drive	Part #
1999–'06 except '06 Dyna®	Silver	585CE	Chain	330-0662
1999–'06 except '06 Dyna®	Silver	585GE	Gear	330-0663
1999–'06 except '06 Dyna®	Black	585CE	Chain	330-0664
1999–'06 except '06 Dyna®	Black	585GE	Gear	330-0665

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NOTES

- 1999–04 engines will require the additional purchase of valve springs pn 900-0593
- Pinion shaft runout must be less than .003" to use gear drive cams
- Kit not available to fit '06 Dyna® models but parts may be purchased separately.
- Not for use with S&S 79cc Cylinder Heads.



CAMSHAFT OVERVIEW

OES: Original Equipment Specification (OES). A bolt-in replacement cam with stock cam timing is designed for riders with stock engines. Does not require tuning. Bolt-in stock. Equivalent to HD® A-Grind

505C: Bolt-in cam, low-end torque and mid-range horsepower. Good for heavy bikes. Stock comp. ratio. Compatible with stock valve springs. Range: Idle to 5,000 rpm

509: Designed as a bolt-in, high torque cam for 1999-'06 models. 180 psi cranking compression, no need for compression releases. For 88 CID engines with stock compression ratio. Idle–4500 rpm. Bolt-in torque.

510: Designed as a bolt-in cam for 88, 95, and 96 CID engines with compression ratios below 9.7:1, it is primarily intended for use with stock, un-ported heads. 3000–5500 rpm. Bolt-in overall.

551: Designed for engines with 96 to 106 CID and 9:1 to 9:9 compression this cam set designed for stock or mildly modified touring bikes. 551 cams are not recommended for compression ratios of 10:1 or greater. Greatly improves low-end and midrange torque, strongest from idle–4000rpm.

570: Designed for 88 to 103 CID engines with compression ratios between 9:1 and 10:1 this cam will provide a nice power increase across the entire power band. 3200–5700 rpm. Excellent bolt-in for overall power on 103".

583: Optimized for use in the Softail®/Dyna® lines, this cam makes horsepower and torque that you can feel all the way through the rpm range, making the most power right where you need it: 1500–5000rpm. 583 cams are not recommended for engines having compression ratios greater than 10.1:1

585: Designed for 88 to 95 CID engines with compression ratios from 9.7:1 to 10.5:1 and 100 to 124 CID engines from 9:1 to 10:1 compression. Provides massive horsepower and torque increases starting at 3000rpm and holds steady all the way to redline. 3500–6000 rpm for 88"–103" engines and 2500–5500 for larger engines.

625: Cam set designed for 95" or larger engines with compression ratios between 10.0 and 10.75:1. 3000–6000 rpm.

MR103: Designed as bolt-in cams for 103 CID engines with stock 9.7:1 compression ratio up to 10.5:1. Works well with stock, un-ported heads, but is great for S&S CNC ported heads. More power across the rpm range best results form 2500–5500 rpm. Bolt-in.

HP103: Designed as bolt in cams for engines with 103 and stock 9.7:1 compression up to 10.5:1. Works well with stock, un-ported heads, but is great for S&S CNC ported heads. Best power in the higher rpm range, 3000–6000 rpm. Bolt-in.

635 H.O.: High lift cam for modified engines with 106" or greater displacement and compression ratios between 10.0:1 and 11.0:1. Works well with stock, un-ported heads, but S&S CNC ported heads are recommended. Best power from 3000–6000 rpm. This is not a bolt-in cam set. High-lift springs and clearance checks are required.

640: Used in S&S T124 engines, this cam makes horsepower! Intended for engines of 95 CID or more w/ compression ratios between 10.5:1 and 11.5:1. 3000–6000 rpm.

675: A high lift monster, this cam set is designed for 120" or larger engines with at least 11:1 compression ratio. 4500–6500 rpm.



NOTE

Stock valve springs in 1999–'04 big twin models can handle cams with valve lifts as high as .515". Stock valve springs in 2005–up engines can accommodate valve lifts up to .590".

SPECIFICATIONS OF S&S® CHAIN & GEAR DRIVE CAMSHAFTS FOR 1999-UP BIG TWINS

Cam Name	Bolt-In	Valve Timing (open/close)		Valve Duration		Valve Lift	Centerline		Lift @ TDC		APPLICATION CROSS REFERENCE		
		Intake	Exhaust	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust	HD® Screamin' Eagle®	Andrews®	Most Fitting
		Open BTDC/Close ABDC	Open BBDC/Close ATDC										
OES	●	2°/34°	36°/4°	216°	220°	.475"	106°	106°	.060"	.060"	A-Grind		
505C	●	20°/36°	47°/15°	236°	242°	.505"	98°	106°	.185"	.157"			
509	●	18°/18°	46°/11°	216°	237°	.509"	90°	107.5°	.174"	.140"			
510	●	20°/38°	52°/20°	238°	252°	.510"	99°	106°	.187"	.178"			
551**		17°/19°	41°/17°	216°	238°	.550"	91°	102°	.178"	.170"	SE-203/255	21H/26H	Touring
570		20°/40°	55°/20°	240°	255°	.570"	100°	107.5°	.187"	.179"	–	54H	All Big Twin
583		5°/18°	58°/24°	203°	262°	.583"	96.5°	107°	.113"	.206"	SE-203/255	21H/26H	Softail®/Dyna®
585		20°/45°	60°/20°	245°	260°	.585"	102.5°	110°	.186"	.179"	SE-211/251/257	31H/32H/50H/55H/67H	All Big Twin
625		20°/55°	60°/20°	255°	260°	.625"	107.5°	110°	.189"	.184"	SE-258/260	60H	All Big Twin
635		19.5°/43.5°	58.5°/37.5°	243°	276°	.635"	102°	100.5°	.186"	.284"			
MR103		13°/33°	50°/22°	226°	252°	.585"	104°	104°	.172"	.177"			
HP103		20°/49°	45°/26°	249°	251°	.575"	102.7°	101.5°	.199"	.206"			
640		25°/60°	65°/25°	265°	270°	.640"	107.5°	110°	.228"	.214"	SE-264	59H	All Big Twin
675		25°/64°	70°/25°	269°	275°	.675"	109.5°	112.5°	.235"	.205"	–	64H	Race

*Note: Although several cam grinds were used in stock engines from 1999-'06, the timing specs of the 475G cams is most similar to cams used in 1999-'03 EFI engines.

**551 cams are not recommended with compression ratio of 10:1 or higher.

All reference to HD® and Andrews® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown. Use of brand names such as Harley-Davidson® Sportster® are also for reference only.

CAMSHAFT OVERVIEW CON'T

S&S EASY START CAMS

Start any engine regardless of displacement or compression ratio, with a stock starter. Easy Start Cams from S&S® Cycle make hard starting obsolete for 1999-'12 big twins. Available in economical chain drive and rock-solid gear drive versions. Don't get caught "dead" without them!

FEATURES AND BENEFITS

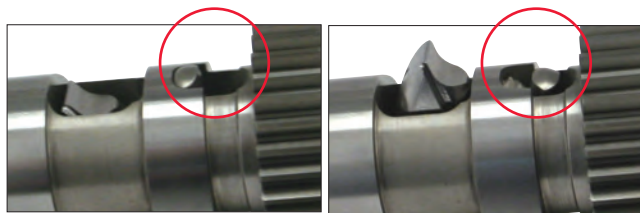
- Start any engine with a stock starter
- Save your starter and battery!
- Reliable — *tested for 100,000 accumulative starts and over 150,000 road miles without breakage or compression release failure!*
- Automatic — *no buttons to push*

OPTIONS

- Chain drive or gear drive (*See the following pages for part numbers*)

HERE'S HOW IT WORKS

Each of the two exhaust cam lobes are equipped with a spring loaded compression release lobe on the "heel" of the cam at the point where the valve would normally be fully closed. The lobe holds the exhaust valve open slightly at cranking speed. This releases some of the compression, making the engine much easier to crank. Once the engine starts, and rpm increases, the compression release lobe is centrifugally retracted and the engine runs normally, with full compression, and without any loss in performance. This allows a stock starter and battery to start nearly any engine.



The compression release lobe reduces compression until the engine starts.

Increased rpm causes the compression release lobe to be centrifugally retracted so the engine runs normally.

GEAR DRIVE CAM KITS

FEATURES AND BENEFITS

- Improves valve timing accuracy by eliminating timing chain lash
- Easy Start Cams allow stock starter to start any engine
- No tensioner shoes to wear out or fail



OPTIONS

WHICH S&S GEAR DRIVE CAM KIT TO ORDER?

- If updating a stock chain drive system, it's easiest to order a complete kit. Includes:
 - Camshafts with inner gears
 - Outer cam drive gear kit
 - Camshaft installation kit
- If replacing cams in an engine already equipped with S&S gear drive cams, order cams with inner gears and reuse the existing outer gears. Camshaft installation kit for the appropriate model year is recommended.
- If installing a set of gear drive cams from another manufacturer, order S&S cam gear kits for the appropriate model year. Each kit provides the inner cam gear as well as an outer cam gear. Camshaft installation kit for the appropriate model year is recommended.



GEAR DRIVE CAMS FOR 1999-'06 MODELS (EXCEPT 2006 DYNA®)*

Cam Name	Easy Start			Standard	
	Complete Kit	Cams w/Inner Gears		Complete Kit	Cams w/Inner Gears
	Stock Oil Pump	Stock Oil Pump	S&S gear oil pump	Stock Oil Pump	Stock Oil Pump
OES	–	–	–	106-4033[†]	106-4385[†]
509	–	–	–	330-0017	330-0018
510	–	–	–	33-5177	33-5174
551	106-5442	106-5441	–	330-0100	330-0099
570	106-5243	106-5242	–	33-5178	33-5166
583	106-5859	106-5858	–	330-0107	–
585	106-5247	106-5246	106-4771	33-5179	33-5168
625	106-5251	106-5250	–	33-5180	33-5170
MR103	330-0466	330-0467	–	330-0462	330-0463
HP103	330-0452	330-0453	–	330-0448	330-0449
635 H.O.	330-0438	330-0439	330-0405	330-0432	330-0435
640	106-4840	106-4839	106-4781	33-5181	33-5172
675	106-5255	106-5254	106-5215	–	–

*2006 Dyna® install kit is in Section 2.

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[†]Exempt from emissions tampering regulations in 1999–2006 applications originally equipped with H-D? "A" grind camshafts under CARB EO# D-355-14

NOTES

Pinion shaft run-out must be checked before installing S&S® gear drive cams. Gear Drive cams should only be used in engines with pinion shaft runout of no more than .003"

A hydraulic press and other professional tools are required to install S&S gear drive cams. Additionally, material must be removed from the inner surface of the stock gearcover. The stock crankcase will require clearancing for S&S .625", .640", and .675" lift cams. S&S recommends that gear drive cams be installed by a professional mechanic.

New cam bearings and a new gearcover gasket are required to complete cam installation. Gear drive cams for 1999–'06 models require the use of ball bearing style cam bearing rather than the stock roller bearing. Roller bearings have more internal clearance which can cause excessive gear lash and increased noise. The correct parts are provided in S&S Camshaft Installation Kit, part #106-5896.

Due to the inherent characteristics of gear drives, you may experience more valve train noise with gear driven cams. Oversized and undersized gears are available to help achieve correct gear lash. We have found that with 160 lb. of valve seat force, the S&S gear drive cams will perform well up to 6200 rpm. If higher rpm is anticipated, valve springs that provide higher seat force should be used.

S&S can do a special order cam. Contact your S&S Customer Service Representative for more information.

1999-2006 Big Twins

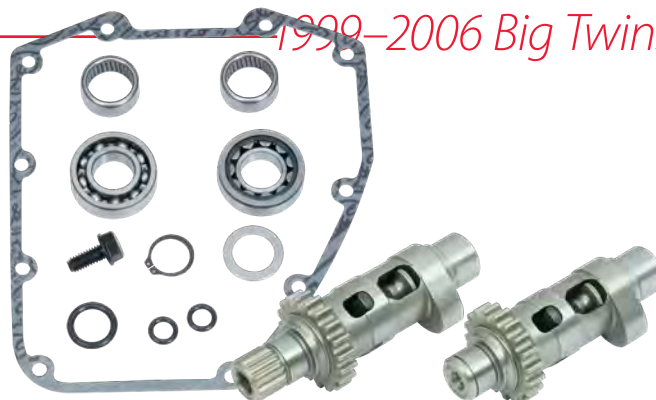
CHAIN DRIVE CAM KITS

FEATURES AND BENEFITS

- Increase performance at an affordable price
- Quick installation – reuse many stock components
- Easy Start Cams allow stock starter to start any engine

KIT CONTENTS

- Cams
- Installation Kit: gearcover gasket, bearings, retaining ring, o-ring, thread lock
- Instructions



NOTES

If OES, 509 or 510C cams are used with the stock chain drive system in Twin Cam 88° engines, it is recommended to use cylinder heads with stock valve springs or performance valve springs with no more than 160 lb. of seat force. For more demanding applications, we recommend the S&S gear drive cams.

When using 1999-'06 chain drive cams for lifts over .510", S&S strongly recommends that the stock chain drive be upgraded to the S&S gear drive or to the HD® #25284-08 or #25284-11 hybrid plate. This kit updates the problematic spring loaded chain tensioners to reliable hydraulic tensioners and also upgrades the oil pump.

551 and 583 cams are not recommended with compression ratio of 10:1 or higher.

S&S can do a special order cam. Contact your S&S Customer Service Representative for more information.

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CHAIN DRIVE CAM KITS FOR 1999-'06 MODELS (EXCEPT 2006 DYNA®)

Cam	Standard	Easy Start
OES	330-0400	–
505	330-0374	–
509	330-0016	–
510	33-5182A	–
551	330-0002	106-5293
570	330-0003	106-5296
583	330-0004	106-5289
585	330-0005	106-5299
625	330-0006	106-5302
MR103	330-0456	330-0459
HP103	330-0442	330-0445
635 H.O.	330-0426	330-0429
640	330-0007	106-5305

*2006 Dyna® cams are in Section 2.

CAM RELATED PARTS



33-4275

CAM GEAR DRIVE KITS

Fitment	Part #
1999-'06 bt	33-4275

(Includes front and rear inner cam gears, pinion gear, and outer cam gear)



33-4276

OUTER CAM DRIVE GEAR KIT

Fitment	Part #
Fits 1999-'06 bt	33-4276



33-4271P

HARDWARE PACK FOR OUTER CAM GEAR

Description	Part #
Hardware Pack, Fits 1999-up bt	33-4271P
Replacement Key	106-1348



33-5212


HEAVY DUTY CAM BEARING PLATE

Fitment	Part #
Fits 1999-'06 bt	33-5212



31-4080

CAM NEEDLE BEARINGS ASSEMBLIES

Fitment	Part #
Inner Cam Bearing 1999-'06 bt <i>(except 2006 Dyna®)</i>  9198	31-4080

REPLACEMENT GEARS, OVERSIZED & UNDERSIZED

Description	Fitment	Part #
Cam Drive Gear Set	1999-up	33-4293
Outer Rear Cam Drive Gear Only	1999-'06 <i>(except '06 Dyna)</i>	106-4882
Inner cam gear, Front or Rear	1999-'06 <i>(except '06 Dyna)</i>	330-0550
Rear Inner Cam Gear, Undersized	1999-'06 <i>(except '06 Dyna)</i>	330-0551
Rear Inner Cam Gear, Oversized	1999-'06 <i>(except '06 Dyna)</i>	330-0552
Pinion Gears	Standard Size	33-4160
	Undersized	33-4160X
	Double Under	1999-up 33-4160XX
	Oversized	33-4160Z
	Double Over	33-4160ZZ

Due to machining variations in the stock cam plate, oversized or undersized gears may be needed to achieve correct gear lash.

REPLACEMENT INSTALLATION KITS

Description	Standard
For S&S Chain Drive Cams	33-5175
For S&S Gear Drive Cams	106-5896

Includes a gearcover gasket, cam bearings, retaining ring, o-ring, thread lock and instructions.

CAM CHEST UPGRADE

GEAR OR CHAIN DRIVE

FITMENT

- 1999–'06 Harley-Davidson® big twins & 2006 Dyna® models (except 2006 Dyna® models)

FEATURES

- Upgrade to S&S bolt-in performance chain drive or gear drive camshafts
- Upgrade 1999–'06 models to 2007–'16 style oil pump
- Improved engine performance — higher lift and optimized cam timing
- S&S Quickee pushrods — easy installation, without removing rocker covers
- Replace stock oil pump, cam support plate, cams, chain tensioners, and tappets with all new premium U.S. made S&S components
- Better, more consistent oil pressure



CHAIN DRIVE CAM CHEST UPGRADE KIT FOR 1999–'06 BIG TWINS (EXCEPT 2006 DYNAMA®)

Cam	Part #
509C Standard	330-0540
510C Standard	330-0541
551CE Easy Start	330-0542
585CE Easy Start	330-0543

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GEAR DRIVE CAM CHEST UPGRADE KIT FOR 1999–'06 BIG TWINS (EXCEPT 2006 DYNAMA®)

Cam	Part #
509G Standard	310-0810
510G Standard	310-0811
551GE Easy Start	310-0812
585GE Easy Start	310-0813

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NOTE

Stock valve springs in 1999-'04 big twin models can handle cams with valve lifts as high as .515". Stock valve springs in 2005-up engines can accommodate valve lifts up to .590".

HYDRAULIC CAM CHAIN TENSIONER KIT

FITMENT

- 2007–2016 Big Twin & 2006 Dyna®
- 1999–'06 models with hydraulic cam plate upgrade

FEATURES

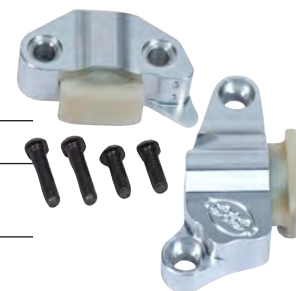
- Thicker shoe for longer wear
- Direct chain oiling
- Larger piston
- Tighter tolerance for improved stability
- Made in USA

HYDRAULIC CAM CHAIN TENSIONER KIT

Fitment	Part #
1999–'06 models with hydraulic cam plate upgrade	330-0518

REPLACEMENT PARTS

Description	Part #
Tensioner, Asm, Inner, Body, Cam Chain	330-0519
Tensioner, Assembly, Outer, Body, Cam Chain	330-0520
Tensioner Shoe, Chain, Camshaft	330-0521



PREMIUM HIGH PERFORMANCE TAPPETS

FITMENT

- 1999–2017 big twin

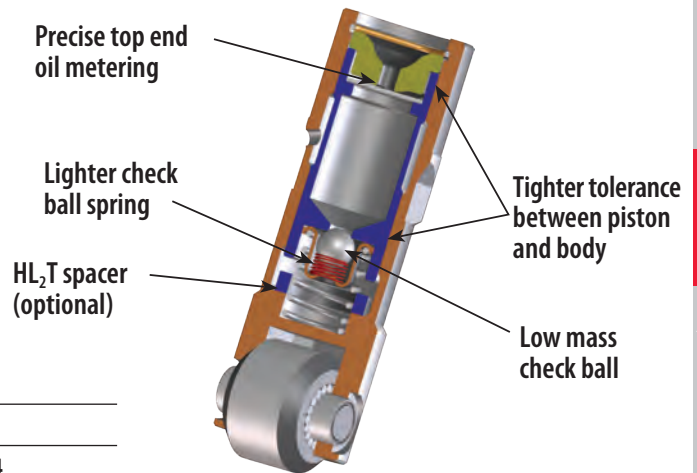
FEATURES AND BENEFITS

- Reduced valve train noise from start up to shut down
- Close tolerances for low leak down rates—fast pump up and superior high rpm performance
- Low mass, bearing grade, silicon nitride check ball and lighter check ball spring - enhances fast pump up and quiet operation
- 100% tested to ensure that leak down and top end oil flow are within specification
- Available with or without the S&S HL₂T limited travel kit installed



PREMIUM HIGH PERFORMANCE TAPPETS

Tappet Sets	Part #
Set of 4 tappets with HL ₂ T kit	330-0174
Set of 4 tappets without HL ₂ T kit	330-0175



HIGH PERFORMANCE HYDRAULIC TAPPETS

FITMENT

- 1999–'17 big twin
- S&S-T-Series engines



HIGH PERFORMANCE HYDRAULIC TAPPET SETS

Description	Part #
Standard Tappet Set (4)	33-5350 18538-99A, 18538-99B, 18538-99C

*S&S tappets with HL₂T Kit require the use of adjustable pushrods.

TAPPET COVERS

FITMENT

- 1999–'16 big twin
- S&S crankcases

FEATURES AND BENEFITS

- CNC billet aluminum provides extra strength and dimensional stability over a wide temperature range
- Simple to install upgrade that looks great

KIT CONTENTS

- Covers
- Gaskets
- Installation hardware



33-5601

TAPPET COVER KITS

Finish	Part #
Polished	33-5601
Chrome	106-3883 ±

REPLACEMENT PARTS FOR TAPPET COVERS

Descriptions	Part #
Gasket	each 33-5303-S 18635-99B
	2 pack 33-5303-2 18635-99B
Screw w/flat washer, Zinc	each 50-0092-S 4741A
	4 pack 50-0092P 4741A
Screw, Chrome	each 50-0482 ±
Washer, Flat, Chrome	each 50-7017 ±

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL₂T)

FITMENT

- Stock 1999–'16 big twin
- All S&S tappets

FEATURES AND BENEFITS

- Designed to limit the range of travel of the hydraulic tappet plunger - Easier starting
- Low noise and positive valve train activation
- More horsepower at higher RPMs



HYDRAULIC LIFTER LIMITED TRAVEL SPACER

Description	Part #
Set of four spacers (fits tappets with .612" I.D.)	33-5338 18526-89A

Adjustable pushrods must be used with HL₂T kit in order to obtain proper plunger position. If replacing lifters in a 1999-'02 with HD® #18538-99B, order S&S part #33-5338.

QUICKEE ADJUSTABLE PUSHRODS

FITMENT

- 1999–'17 big twin w/stock engine height +/- .050"

FEATURES AND BENEFITS

- Adjustable to accommodate all tappets and cam base circle diameters and engine heights
- Easy to install — removal of rocker box not needed
- Perfect for S&S HL₂T
- No threads on wrench flats

KIT CONTENTS

- Pushrods, chrome pushrod covers, o-rings, and cover keepers



When a Quickee adjustable pushrod is collapsed, it can easily be installed or removed from an assembled engine.



106-6051

QUICKEE ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Kit (includes chrome pushrod covers, o-rings & cover keepers)	106-6051 [±]
Pushrods Only*	93-5122

Longer keepers are required for taller than stock engines. See page 177 for pushrod cover keepers.

*1984–'99 style pushrod covers are required for access to the Quickee Adjustable Pushrod adjusters in 2007–'12 big twins. See page 177 for pushrod covers.

STANDARD ADJUSTABLE PUSHRODS

FITMENT

- 1999–'17 (except '17 touring)
- Lengths available for various displacements

FEATURES AND BENEFITS

- Adjustable to accommodate all tappets & cam base circle diameters
- Perfect for HL₂T kits

KIT CONTENTS

- Pushrods, chrome pushrod covers, tappet cover gaskets, o-rings, cover keepers



93-5095

STANDARD ADJUSTABLE PUSHRODS FOR HARLEY-DAVIDSON® TWIN CAM 88®

Displacement	Engine Height	Cylinder Length	Pushrod Kit [±]	Pushrods Only	Pushrod Covers [±]	Cover Keepers [±]
88", 95", 96", 103", 106"	Stock	4.937"	93-5095	93-5096	106-1340	93-4100
124"	+.096"	5.013"	—	93-5098	106-1340	93-4115
T143	+.2875"	5.057"	—	930-0103	106-1340	93-4102
Special Order	Specify	Specify	—	93-5102**	—	93-4109*

*Custom, extra long stainless steel 4.250", customer to cut to required length

NON-ADJUSTABLE PUSHRODS

FITMENT

- 1999–'06 Harley-Davidson® Twin Cam 88® big twin engines
- S&S T111

FEATURES AND BENEFITS

- Replaces stock pushrods perfectly
- 7/16" high strength chromoly steel tubing for increased strength
- Pushrods are marked with stock color code and valve position for easy installation

NON-ADJUSTABLE PUSHRODS—PUSHRODS ONLY

Fitment	Part #
1999-up	930-0046
T111	930-0144












PUSHROD COVERS & RELATED PARTS

FITMENT




- 1999–'16 big twins

PUSHROD REPLACEMENT PARTS

Description	Part #
Pushrod Cover Kit (includes top and bottom covers, cover cap, cover spring, o-rings, and spring washer for four pushrods)	106-1340
Top Cover   1,2,3	each 93-4016 17935-66T, 17935-79B
Bottom Cover   1,2,3	each 93-4015 17938-83
Cover Cap   1,2,3	each 93-4017 17945-36B
Cover Spring   1,2,3	each 93-4018 17947-36
Cover Cap Washer 	each 50-7131 6762B
Pushrod O-ring Kit (includes top, middle, and bottom o-rings for four pushrods)	93-4022
Top O-ring	each 50-8039 11293, 11157, 11101, 11190
Middle O-ring	each 50-8038 11132A
Bottom O-ring	each 50-8037 11145A



PUSHROD COVER KEEPER SETS FOR 2007-'16 BIG TWINS

Length	S&S Tubes	Part #
2.400" 	All stock height TC 96/103	93-4070 ± 17950-48
2.500"	96", 100", 117", 103", 106" HSU	93-4100 ±
2.600"	124"	93-4101 ±
2.800" 		93-4115 ± 17950-86
2.900"	143"	93-4102 ±
3.000"		93-4103 ±
3.100"		93-4104 ±
3.200"		93-4105 ±
3.330" 		93-4106 ± 17949-40, 17950-66
3.500"		93-4107
3.625"		93-4108 ±
4.250"*		93-4109

*Custom, extra long stainless steel 4.250", customer to cut to required length



All S&S pushrod keepers are chromed steel, except part #93-4109. Keeper part #93-4109 is intended for unusually tall engines. It is manufactured of unchromed stainless steel to prevent rust or peeling after it is trimmed to the required length.

SIDEWINDER® .650" VALVE SPRINGS

FITMENT

- Twin Cam 88° big twins w/stock heads (both 7mm and 5/16" valve stems)
- All S&S Super Stock® heads (5/16" valve stems)

FEATURES AND BENEFITS

- Works well with cams up to .650" lift
- Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided
- CNC machined 9° locks
- High performance conical single wire spring
- Chromoly forged retainers

KIT CONTENTS

- Valve keepers, Top & Bottom collars, Springs, Shims

SIDEWINDER .650" VALVE SPRING KITS

Description	Part #
1999–'04 (5/16" valve stems) *	900-0050
2005–'17 big twins (7mm stems) <i>except 2017 touring models</i>	106-5909

*Does not include seals

S&S® .SIDEWINDER .650" VALVE SPRINGS SPECIFICATIONS				
Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.650"	1.860"	178 lb.	376 lb.	6500



106-5909

NOTE

S&S recommends roller rocker arms be used with lifts over .585"

STREET PERFORMANCE .585"

FITMENT

- Twin Cam 88° big twins w/stock heads (both 7mm and 5/16" valve stems)
- All S&S Super Stock® heads (5/16" valve stems)

FEATURES AND BENEFITS

- Single wire conical shape
- Suitable for high performance applications
- Accommodates camshaft lift to 0.585"

STREET PERFORMANCE .585" SPRING KITS

Description	Part #
1999–'04 big twins (5/16" valve stems)	900-0593
2005–'17 big twins (7mm stems) <i>except 2017 touring models</i>	900-0594
All S&S Super Stock Heads	900-0595

S&S® .STREET PERFORMANCE .585" VALVE SPRINGS SPECIFICATIONS			
Lift	Installed Height	Seat Force	Force @ Max Lift
.585"	1.85"	135 lb.	325 lb.



900-0594

VALVE SPRING REPLACEMENT PARTS: SEE PAGE 214

FORGED ROCKER ARMS

FITMENT

- 1999–'17 big twins (except '17 touring)

FEATURES AND BENEFITS

ROLLER ROCKER ARMS

- Extremely durable rollers reduce valve stem side thrusting with high lift cams
- Superior wear and fatigue resistance even in the most demanding applications
- ¾" long bushings provide 50% more bushing support area than ½" long bushings

STANDARD ROCKER ARMS

- ¾" long bushings provide 50% more bushing support area than ½" long bushings

KIT CONTENTS

- 2 front and 2 rear rocker arms



900-4065A

FORGED ROLLER ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms	900-4065A

Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
New rocker arm shafts are recommended for maximum performance and rocker life.

STANDARD FORGED ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms	900-4119A

New rocker arm shafts are recommended for maximum performance and rocker life.

1.725:1 RATIO ROLLER ROCKER ARMS

Description	Part #
1.725:1 Ratio Roller Rocker Arm Set	900-4098A
Front exhaust/Rear Intake <i>each</i>	900-4098FA
Rear exhaust/Front Intake <i>each</i>	900-4098RA



900-4119A



900-4098A

ROCKER ARM SHAFTS

Description	Part #
Set of 4 17611-83B	90-4036
Individual 17611-83B	90-4006

New rocker arm shafts are recommended for maximum performance and rocker life.

REPLACEMENT PARTS FOR FORGED ROCKER ARMS

Rocker Arm Type	Description	Part #
Roller	Front exhaust or rear intake rocker arm	900-4065FA
	Rear exhaust or front intake rocker arm	900-4065RA
Standard 17375-83A	Front exhaust or rear intake rocker arm	900-4119FA
	Rear exhaust or front intake rocker arm	900-4119RA
Roller	Rebuild kits (rebuilds 4 rocker arms)	90-4104
Roller & Standard	Rocker arm bushing (¾" long)	90-4014



90-4036



90-4104

NOTES

- S&S roller rocker arms are recommended for use with cams having more than 0.585" of lift.
- Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
- New rocker arm shafts are recommended for maximum performance and rocker life.
- The use of 1.725:1 ratio rocker arms will increase stress on cams, tappets, and pushrods. For this reason they are recommended for racing only and not for street applications.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

Milwaukee
Eight™
2007-2017
Twin Cam
96°/103°/110°
1999-2006
Twin Cam 88°
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod™
1984-1999
Evolution™
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

CNC PORTED CYLINDER HEAD SERVICES

FITMENT

- Available for 1999–2017 big twin engines (except twin cooled models and '17 touring)
- Ideal for 88"–24" engines (must use Screamin' Eagle® high flow injectors, HD® #27796-08, with kits over 106")

FEATURES AND BENEFITS

- CNC machined ports for a consistent performance increase from stock heads
- Great throttle response, high velocity port without losing low RPM torque
- Assembled with performance valves and springs ready to bolt-on
- Choice of .585" or .650" lift valve springs
- Combustion chambers are available in the following volumes:
 - 83cc—Generally used for stock 88" up to 106" engine displacements
 - 85cc—Same as stock Twin Cam 88® and 96™ engine displacements
 - 87cc—Recommended for up to 117" engine displacements
 - 90cc—Generally used for 124" and up engine displacements
- Available in factory black or silver



106-5880

S&S CNC PORTING SERVICE OPTIONS

REWORK SERVICE

- Send your stock heads to S&S
- Get the same set of heads back with CNC machined ports
- The best option for heads with a special cosmetic treatment
- Allow 1 week turn-around (does not include shipping)

CUSTOM CNC PORT DUPLICATION

- S&S can digitize your port design and machine it in your heads, ask an S&S customer service rep for details

CNC PORTING SERVICE

Fitment	Part #
1999–2017 big twins (except for twin cooled models & '17 touring)	106-5880

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S&S® CNC PORTING SERVICE SPECIFICATION COMPARISON

Heads	Valve Size		Max Valve Lift	Max TDC Lift		Port Flow		Chamber Volume
	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust	
Stock	1.805"	1.575"	.585"	–	–	216.2 cfm	191.8 cfm	85cc
CNC Ported by S&S	1.900"	1.610"	.650"	.230"	.215"	248.6 cfm	209.7 cfm	83cc**

*Flow testing performed on a SuperFlow® 1020 flow bench at 28" of water test pressure at .600" lift. Heads tested are 2006–'12 style.

Heads	COMPRESSION RATIO								
	88"	95"	96"	97"	103"	106" Stroker	106" Big Bore	117" DD Piston	124" DD Piston
Stock	9.0:1	9.2:1	9.2:1	9.7:1	10.1:1	10.1:1	10.0:1	10.0:1	10.7:1
CNC Ported by S&S	9.2:1	9.4:1	9.4:1	9.9:1	10.3:1	10.3:1	10.2:1	10.2:1	10.9:1

**As a general rule of thumb, for every 1cc decrease in chamber volume equals a .1 increase in compression ratio.

NOTES

CNC porting is not available for previously ported heads, heads that have been structurally damaged, or heads that are determined to be unserviceable during initial inspection. These heads will be returned to the customer without modification. In these cases, the customer will be notified and options will be reviewed. New, CNC ported stock heads or S&S heads are available for purchase.

Due to variations in stock cylinder head castings, all inside surfaces of the ports may not "clean up" during machining. As a result, the inside of one or more ports may not appear to be completely machined. This does not effect performance and is not considered a defect.

Fuel injection tuning required.

CNC porting is not currently available for Harley-Davidson® CVO engines or Screamin' Eagle® cylinder heads.

Must use Screamin' Eagle® high flow injectors, HD #27796-08, with kits over 106"

S&S recommends using a S&S Throttle Hog throttle body when installing S&S CNC ported heads to achieve full horsepower performance potential.

B2 HEADS WITH STOCK BOLT PATTERN

CNC PORTED B2 SPECIAL APPLICATION CYLINDER HEADS

High performance just got a lot easier and more affordable. In the past, S&S B2 Special Application heads, that were used on the now legendary Tribute 145 engines, were often hailed as the best choice for very large displacement v-twin engines. S&S Cycle's B2 CNC ported heads are even better, providing added convenience, economy, and performance at the same time. Convenient because they now fit 2008-later bagger front motor mounts and the new two bolt exhaust-mounting flange is a lot easier to work with. Economical because riders can use stock exhaust pipes, or existing 2" header systems. The increased performance comes from the increased flow of the CNC ported intake and exhaust ports.

Kits do not include gaskets, hardware, or intake and exhaust flanges. These parts must be purchased separately. See next page.



900-0458

FITMENT

- 1999-'16 big twin engines 4 1/8" bore, stock bolt pattern (in stock, off-the-shelf*)
*S&S only stocks the late model 4 1/8" bore versions as off-the-shelf items, but heads for other applications and individual front of rear replacement heads are available by special order.
- 1999-'16 big twin engines 4 1/8" bore and larger with S&S or other bolt pattern (special order only)
- 1984-'99 big twin engines 4 1/8" bore and larger (special order only)
- S&S SB-Series 4 1/8" bore and larger engines for 1986-'03 Sportster® models (special order only)
- Old style B2 replacement heads still available by special order

FEATURES AND BENEFITS

- 106cc combustion chambers
- Oval intake ports bolt up to S&S Throttle Hog 70mm throttle bodies (08-up touring applications only)
- Stock style breather system – compatible with stock and aftermarket air cleaners
- Large 2.200" intake and 1.800" exhaust valves
- .660" lift S&S valve springs with titanium top collars
- Machined for stock sensors – EFI ready
- Available in Wrinkle Black (WBlack) or Silver Powder coat

OPTIONS BY SPECIAL ORDER

- CNC ported intake and exhaust ports – more air, more power!
- Two-bolt exhaust flanges – Can accommodate stock exhaust headers, existing 2" headers, or build your own 2" exhaust system
- Machined for 2008-later bagger front motor mount
- Select heads for 1984-'99 or 1999-'15 big twin style, or 1986-'03 XL
- 4 1/8" to 4 3/8" bore sizes
- Stock 1999-up, S&S, or other cylinder stud patterns – other patterns subject to approval
- Machined with or without S&S electric compression release
- Choose from a variety of pushrod geometry machining styles
- Choose from a variety of different chamber sizes
- Individual front of rear heads available by special order
- Available in Wrinkle Black (WBlack), Gloss Black, Silver, or Natural

B2 HEADS WITH STOCK BOLT PATTERN

Finish	Part #
Silver Powder Coat	900-0450
WBlack Powder Coat	900-0458
Special Order B2 Cylinder Heads	106-6385* [†]

*Head Kits include valves and valve springs. Head sets w/o valves or springs individual front or rear heads are available by special order.

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ADDITIONAL PARTS REQUIRED

Product Description	Part #	
Special 4 1/8" Bore Pistons & Ring Set	Standard	92-1580
	+ .010"	92-1581
Special Length Pushrods (+.250")	For 124" engines	93-5106
	Stock height engines	93-5098
Intake Manifold	Carbureted engines	16-3629*
	EFI engines	N/A
Intake Manifold Flange Kits	All B2 heads	16-0250
	B2 to stock header	550-0216
	B2 to existing 2" header	550-0217
Exhaust Adaptor Kit	Stock & 2" header	550-0218

REPLACEMENT PARTS: SEE PAGE 116

NOTES

Heads are .230" taller than stock – requires special pushrods and/or frame clearancing or motor mount modifications
Exhaust pipe adaptor kits and other parts must be purchased separately. See "Additional Parts Required" chart.
See page 210 for replacement parts.

SUPER STOCK® CYLINDER HEADS

FITMENT

- 1999–'05 big twins (2006 model year heads can be found in Section 2)

FEATURES AND BENEFITS

- Heads can be decked up to .060" to increase compression
- 79cc heads have 1.940" intake and 1.575" exhaust valves
- 89cc heads have 2.000" intake and 1.605" exhaust valves
- 91cc heads have 2.000" intake and 1.605" exhaust valves
- S&S .585" or .650" lift valve springs

- Stock Harley-Davidson® rocker boxes can be retained if S&S manual compression release or S&S Easy Start cams are used. Must use S&S valve cover gasket kit part #90-4120 with stock rocker covers
- Stock bolt pattern heads include rocker base gaskets

OPTIONS

- With or with out compression release machining
(Compression release machining is for S&S compression releases)
- Silver powder coat or wrinkle black (WBlack) powder coat finish

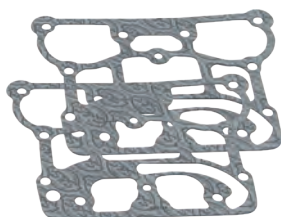
COMPRESSION RATIOS FOR S&S® SUPER STOCK® CYLINDER HEADS FOR 1999–'06 BIG TWINS

Configuration	88"	95"	97" Big Bore	103"	106" Stroker	110"	111"	117"	124"
79cc	9.1	9.6/10.3*	10.3	10.2/11.1*	10.7	10.8	–	–	–
89cc	8.3	8.7/9.3*	9.4	9.3/10.1*	9.8	9.8	–	–	–
91cc	–	–	–	–	–	9.6	9.75	10.2	10.4

*S&S pop-up piston



106-4277



90-4120

S&S valve cover gasket kit #90-4120 must be used with stock rocker covers. Included with Stock Bolt Pattern Super Stock® Head Kits.

STOCK BOLT PATTERN*

S&S® SUPER STOCK® CYLINDER HEAD KITS

Fitment	Chamber Volume	Manifold Surface	Compression Release Machining	Springs	Finish	Part #
1999–'05 bt	79cc		●	.650" lift	Silver	106-4277
			●	.585" lift		90-0254
			●	.650" lift	WBlack	90-1293
			●	.585" lift		90-0251
1999–'05 bt** 4 1/8" Bore	91cc		●	.650" lift	Silver	-
			●	.650" lift		900-4272
			●	.650" lift	WBlack	90-1163
			●	.650" lift		900-1163
S&S T124 Engines	91cc	+.032	●	.650" lift	Silver	900-0465
			●	.650" lift	WBlack	900-0470
S&S T111 Engines	91cc	-.064	●	.585" lift	Silver	900-0475
			●	.585" lift	WBlack	900-0480

*All stock bolt pattern Super Stock® head kits include S&S valve cover gasket kit part #90-4120 for use with stock rocker covers.

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90-1060*

S&S® BOLT PATTERN

S&S REPLACEMENT CYLINDER HEAD KITS FOR S&S T-SERIES ENGINES FOR 1999–'06 BIG TWINS

Description	Chamber Volume	Compression Release Machining	Springs	Finish	Part #
S&S® T-Series Engines 4 1/8" Bore	91cc	●	.650" lift	Silver	106-4275
		●	.650" lift	WBlack	90-1371

TOP END GASKET KITS FOR 1999–'06 BIG TWINS

3 7/8" & 3.927" Bore	4" Bore	S&S 4 1/8" Bore (Graphite)	Stock 4 1/8" Bore (Layered Steel)
910-0465	90-1913	90-1910	90-1914

Includes a set of head and base gaskets, exhaust gaskets and o-rings.

**REPLACEMENT PARTS:
SEE PAGE 212**

79cc heads

When 79cc stock compatible heads are used with stock HD® pistons, TDC lifts of up to .186" for intake and .179" for exhaust and can be used without additional valve pocket clearancing. This allows the use of S&S® 510, 570, and 585 camshafts. If cams with higher TDC lifts are used, or if the heads are decked, piston valve pocket machining will be required.

79cc heads may be decked as much as .060" to increase compression. If heads are decked, piston valve pockets must be re-machined.

Moderate valve spring force in S&S Super Stock® cylinder heads allows the use of camshafts designed for the stock style chain cam drive system. However, for maximum reliability and performance we recommend the S&S gear drive cams.

Must use S&S valve cover gasket kit part #90-4120 with stock rocker covers.

79cc Heads should not be used with any piston having a pop up dome.

89cc heads

If 89cc heads are used with stock pistons, valve reliefs must be machined in the pistons due to larger valve size.

89cc heads may be decked as much as .060" to increase compression. If heads are decked, valve-to-piston clearance must be checked. If stock pistons are used, valve pockets must be re-machined.

Moderate valve spring force in S&S® Super Stock® cylinder heads allows the use of camshafts designed for the stock style chain cam drive system. However, for maximum reliability and performance we recommend the S&S gear drive cams.

A larger intake manifold is recommended to supplement the heads in order to let them flow to their full potential.

Must use S&S valve cover gasket kit part #90-4120 with stock rocker covers.

91cc heads

By changing the profile and shape of the cooling fins on our heads for 4½" bore engines, a large reduction in the transmission of mechanical noise was found. This not only benefits our TÜV certified engines and our EPA approved engines, but our performance engines as well!

Since April 1, 2007, these redesigned heads have been installed on all S&S 4½" bore engines and Hot Set Up Kits.

Replacement heads of the old style are available by special order.

Must use S&S valve cover gasket kit part #90-4120 with stock rocker covers.

MANIFOLD RECOMMENDATIONS

S&S® manifolds for 1999-'06 carbureted engines are available to fit stock CV carburetors and S&S Super E and G carbs. Note that 2006 models require a slightly shorter manifold. (See "Important Manifold Information")

S&S single bore throttle body and manifold are recommended for engines with Magneti Marelli® and Delphi® fuel injection.

S&S single bore throttle body and manifold are recommended for 2006-'12, except 2008-'12 touring models. Due to the change in manifold flange mounting bolt pattern, stock flanges and S&S seal part #16-0235 must be used. The Screamin' Eagle® 58mm throttle body/manifold may also be used on 2006-'09 engines.

We recommend the stock 50 mm throttle body or Screamin' Eagle 58mm throttle body/manifold for 2008-up touring models with Electronic Throttle Control (ETC). These engines can be tuned with the Harley-Davidson® Super Tuner package, Pro EFI Super Tuner, Power Commander® or an aftermarket EFI tuning module or software tuner.

IMPORTANT MANIFOLD INFORMATION

In 2006, Harley-Davidson® changed the bolt pattern of the flanges that connect the manifold to the cylinder heads for all big twin engines. The pattern was changed from an offset bolt pattern to a symmetrical bolt pattern, so flanges can fit either the front or rear cylinder head. In addition, the intake port was moved slightly toward the drive side of the engine, making the port-to-port distance of the intake manifold slightly shorter. S&S® heads for 2006-up big twins are machined with the symmetrical bolt pattern and relocated port to allow for the fitment of stock manifolds. In 2008, Harley-Davidson touring models were equipped with electronic throttle control (ETC). The throttle body and manifold used on these engines is a one-piece unit that contains a servomechanism to control the position of the throttle plate. S&S recommends the S&S Throttle Hog throttle body for this application. This limits the cylinder length of engines using an ETC manifold/throttle body to stock length because the ETC manifold/throttle body units are only available in stock length. However, S&S does supply specially machined cylinder heads for our 124" Hot Set Up Kit® for 2008 and later baggers, which allows the use of a stock length manifold on these longer-than-stock engines.



ORDERING NOTES:

- Select the cylinder head kit that is correct for your application.
- Select a gasket kit for the bore size of your engine. (Refer to "S&S Top End Gasket Kits" chart on [page 182](#))
- Select an S&S manifold for your engine size or cylinder length and fuel system. (*Optional*)
- Select head bolt kit. ([See page 184](#))

REPLACEMENT PARTS: SEE PAGE 212

HEAD BOLTS WITH WASHERS

HEAD BOLT-INFORMATION CHART

Length w/ Washer	Washer Thickness	Head Bolt w/Washer	Washers Only
1.690"	.250"	93-3028	50-7091
1.840"	.150"	93-3027	50-0418-S
1.920"	.250"	93-3036	50-7091
2.070"	.150"	93-3031 	50-0418-S
2.220"	.250"	93-3038	50-7091
2.370"	.150"	93-3032	50-0418-S
3.134"	.250"	93-3029	50-7091
3.284"	.150"	93-3030 	50-0418-S
3.501"	.250"	93-3037*	50-7091
3.651"	.150"	93-3033*	50-0418-S



















*Drilled & tapped deeper to allow shortening for custom lengths.



HEAD BOLT WASHERS

Thickness	Part #
.150"	50-0418-S
.250"	50-7091

HEAD BOLTS FOR HARLEY-DAVIDSON® TWIN CAM 88® AND TWIN CAM 96™ ENGINES

Engine Displacement	Stroke	Cylinder Length	Cylinder Head	Short Bolt w/Washer	Long Bolt w/Washer	Head Bolt Kit
88", 95"	4"	4.935"	Stock HD®	93-3031 	93-3030 	93-3014 
			S&S®	—	93-3030 	93-3070
100"	4"	4.850"	Stock HD®	93-3036	93-3030 	93-3014 
			S&S®	—	93-3029	—
106" Stroker	4½"	4.935"	Stock HD®	93-3031 	93-3030 	93-3014 
			S&S®	—	93-3030 	93-3070
107"	4¼"	4.975"	Stock HD®	93-3031 	93-3037	93-3012
			S&S®	—	93-3030 	93-3070
111"	4⅞"	4.763"	Stock HD®	93-3027	93-3030 	93-3010 
			S&S®	—	93-3029	—
116"	4⅝"	5.160"	Stock HD®	93-3038	93-3037	93-3016
			S&S®	—	93-3037	93-3071
117"	4⅜"	4.888"	Stock HD®	93-3031 	93-3030 	93-3014 
			S&S®	—	93-3030 	93-3070
124"	4⅝"	5.013"	Stock HD®	93-3038	93-3037	93-3016
			S&S®	—	93-3037	93-3071

CALCULATING CUSTOM HEAD BOLT LENGTHS

SEE INSTRUCTIONS ON PAGE 541



Dress up your engine with these magnetic chrome head bolt covers. Easy installation, no tools, no messy adhesives. A powerful magnet holds cover in place, yet allows easy removal. Chrome plated steel looks great on any engine, but is a must for polished engines. For S&S head bolts only.

CHROME HEAD BOLT COVERS±

Set of 4	50-0333
----------	---------

DIE-CAST ROCKER COVERS

FITMENT

- All Twin Cam 88® big twins
- Sold as stock in 4 1/8" bore S&S engines

FEATURES AND BENEFITS


- Special rocker arm supports are included
- S&S rocker covers are finished with show-quality chrome
- Installation on stock and most comparable sized engines can be performed without removing the engine from the frame
- Clearanced to permit valve lifts up to .640" using S&S valve spring packages and stock rocker arms or S&S roller rocker arms
- Clearanced to permit valve lifts up to .640" using S&S valve spring packages and stock rocker arms or S&S roller rocker arms
- S&S rocker covers accept valve springs up to 1.660" O.D. without modification
- Exclusive one way valve built into the rocker cover gasket to control oil carry over

KIT CONTENTS

- Front and rear covers
- All necessary gaskets and o-rings
- Mounting hardware



DIE-CAST ROCKER COVER KIT±

Description	Part #
Chrome 	90-4110

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S ROCKER COVER WRENCH SET, SEE PAGE 513

REPLACEMENT PARTS: SEE PAGE 215

NOTES

If using valve spring packages with taller than stock installed height, some minor clearancing may be required.

Cylinder heads must be set up correctly for high lift cams, and it remains the builder's responsibility to confirm all clearances.

In most instances, only minor clearancing is required to use S&S rocker covers with valve springs larger than 1.660" O.D.

S&S® rocker covers are required if S&S cylinder heads are used with S&S electric compression releases.

MANIFOLDS FOR CARBURETED BIG TWIN ENGINES

FITMENT

- 1999–'06 big twins

FEATURES AND BENEFITS

- Fits stock or S&S heads
- Fits stock or engines with taller cylinders



Manifold for S&S carburetors



Manifold for CV carburetor

MANIFOLDS FOR 1999-2005 BIG TWIN ENGINES (REQUIRING MAP SENSOR*MACHINING)

Engine Style and Displacement	Cylinder Length	Manifold Size	Super E	Super G
**88", 95" & 106" & S&S T-Series Engines	4.937"	410	160-1718	16-2588
Stock 2006 models	4.937"	405	160-1717	16-2587
**111" & S&S T-Series 111" Engines	4.763"	398	160-4487	16-2604
117" & S&S 117" Hot Set Up Kits	4.888"	408	–	16-2603
**124" & S&S T-Series 124" Engines	5.013"	417	–	16-2598
Special Order	Specify	–	169-1639[†] Call for Pricing	16-2539[†]

**All S&S engines for 1984-'06 and 1999-up big twins equipped with S&S IST ignition system.*

***Some S&S heads have additional material on the manifold surface to allow the use of a stock length manifold (410) on a 99-06 111" and 124" engine. If you are not sure which manifold should be ordered, check fitment with the stock manifold first.*

NOTES

S&S manifolds require S&S style manifold o-rings.

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may cause damage. See page 201.

CV MANIFOLDS – 1999-2005 BIG TWIN

Style/Displacement	(mm)	Manifold Size	Part #
88", 95", 106" Twin Cam 88	40-45mm	410	160-1722
96 stock	48mm	410	160-0001A
Special order	Specify	–	169-1725A*

CV MANIFOLDS – 2006 & UP BIG TWIN

Style/Displacement	(mm)	Manifold Size	Part #
96 stock	40-45mm	405	160-1721
96 stock	48mm	405	160-0002A
Special order	Specify	–	169-1725A




16-0241



16-0242

U-RINGS FOR CONSTANT VELOCITY CARBS

Size	Part #
40-42mm	16-0242  27002-89
44-48mm	16-0241



16-0136-S



50-8372

REPLACEMENT PARTS FOR MANIFOLDS

Description	Part #
Manifold Fitting VOES Rubber Cap $\frac{3}{16}$ " I.D. x $\frac{5}{16}$ " O.D. x $\frac{1}{2}$ "	50-8372
Manifold Vacuum Fitting	16-0136-S

MANIFOLDS FOR SINGLE BORE EFI BIG TWIN ENGINES

FITMENT

- Stock height or taller than stock 1999-'05 bt (see page 95 for 2006 models)
- S&S 52mm or 58mm throttle bodies
- Stock or S&S heads
- S&S T-Series Long Block engines



MANIFOLDS FOR SINGLE BORE EFI 1999-'05 BIG TWINS

Engine Displacement	Cylinder Length	Manifold Size	Part #
**88", 95", 103", 106" & S&S T-Series Engines	4.937"	410	16-5141
124" Hot Set Up Kit (w/stock or S&S heads w/stock manifold geometry)	5.013"	417	16-5139
**S&S T-Series 111" Long Block engines	4.763"	398	16-5136
**S&S T-Series 124" Long Block engines	5.013"	417	16-5139

***Some S&S heads have additional material on the manifold surface to allow the use of a stock length manifold (410) on a 99-06 111" and 124" engine. If you are not sure which manifold should be ordered, check fitment with the stock manifold first.*

NOTE

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may cause damage.

THROTTLE HOG CABLE OPERATED THROTTLE BODIES

S&S cable operated Throttle Hog Throttle bodies are available for 2002-'17 Harley-Davidson® big twins using cable operated throttles. Choose from 58mm, for stock or mildly built engines, or the whopping 66mm Throttle Hog for big inch engines. More Air, More Power!

FITMENT

- 2002–'05 Harley-Davidson EFI big twins with cable controlled throttles
- S&S EFI Hot Set Up Kit® installations and T-Series Long Block engines with cable controlled throttles

FEATURES & BENEFITS

- More air flow for improved performance
- S&S Stealth air cleaners kit, with the proper bore sizes, are available
- Works with all air cleaner kits designed for throttle by wire engines with stock breather system
- One-piece design for easy installation and stock appearance
- Compatible with stock sensors, fuel rail, and throttle cables
- Black powder coat finish matches stock
- Sealed, stainless steel throttle shaft with dual roller bearings for smooth operation and no air leaks
- Kit includes hardened steel flanges and seals
- No stock throttle body exchange required!

THROTTLE HOG CABLE OPERATED THROTTLE BODIES FOR 2002–2005 BT

Year	Size (mm)	Engine Fitment	Manifold Size	Part #
2002–2005 bt	58	97", 98" & S&S T-Series Engines** (Engines produced after 2013)	410	170-0337
		S&S T-Series 111" Engines**	398	170-0339
		S&S 117" Hot Set Up Kits	408	170-0340
		S&S T-Series 124" Engines**	417	170-0338
	66	97", 98" & S&S T-Series Engines** (Engines produced after 2013)	410	170-0342
		S&S T-Series 111" Engines**	398	170-0344
		S&S 117" Hot Set Up Kits	408	170-0343
		S&S T-Series 124" Engines**	417	170-0341

**Some S&S heads have additional material on the manifold surface to allow the use of a stock length manifold (405) on a 124" engine.

If you are not sure which manifold should be ordered, check fitment with the stock manifold first.

Cylinder heads on T-Series long block engines are 1999-'05 style. Owners of 2006 models will need to purchase a set of 1999-'05 style, offset intake flanges such as S&S #106-3516.

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MAKE MORE POWER!

S&S AIR CLEANER KITS

See Page 146

REPLACEMENT FLANGE KITS

2002–2005 bt.....**160-0175**



SINGLE BORE EFI THROTTLE BODIES

52MM: Offering a 30% larger cross sectional area than stock throttle bodies, the S&S 52mm bore throttle body flows more than enough air for all but the most demanding street engines.

58MM: In response to constant requests for something bigger, S&S also offers a huge 58mm bore throttle body! Strictly for large displacement competition engines, this throttle body allows your engine to breathe easily and make more power!

FITMENT

- 1999–'16 big twins (except 2008–up touring models with electronic throttle control)

FEATURES AND BENEFITS

- Excellent performance
- Recommended tuning products:
 - S&S VFI
 - Cruise control compatible with no extra bracket

KIT CONTENTS

- Throttle body assembly, Fuel injectors, Fuel rail, Harness adaptors, All necessary hardware, gaskets, and hoses



Seeing is believing. It's easy to see the differences in the bore sizes of a stock Harley-Davidson® throttle body and the S&S® 52mm or 58mm throttle bodies. How big do you want to go?

REPLACEMENT PARTS:
SEE PAGE 226

NEW & IMPROVED!
CABLE-OPERATED THROTTLE HOGS PAGE 187

MAKE MORE POWER!
S&S® STEALTH AIR CLEANERS ON PAGE 146
S&S AIR CLEANER KITS FOR ON PAGE 149

SINGLE BORE EFI THROTTLE BODY/FUEL RAIL KITS

Fitment	52mm	58mm
1995–'01 EFI big twin (except Softail® models)	-	106-4406
2002–'05 EFI big twin & 2001 Softail models	17-5067	106-4407
2006–'16 EFI big twin*	17-5070	106-4408

*except 2008–up touring models with electronic throttle control.

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If you plan to use another programmable fuel injection module, it is best to consult the manufacturer to be certain that it is compatible with the S&S single bore system and has enough tuning capability for your engine configuration.

Installation of S&S throttle body on 1995-'01 bikes requires S&S ECU. Single bore throttle bodies are not compatible with stock Magneti Marelli® ECU

BLACK SUPER E & G CARBURETORS

FEATURES AND BENEFITS

- Exclusive black coating – heat and chemical resistant
- Offered in standard venturi or increased venturi diameter – specially machined for 7% more flow

BLACK CARBURETORS FOR 1984-2005 BIG TWINS

Fitment	Description	Part #
Increased venturi diameter (7% more flow)	Super E Carb	110-0099
	Super G Carb	110-0100
Standard venturi diameter	Super E Carb	110-0133
	Super G Carb	110-0138

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NOTES

- These black carb kits do not include air cleaners. Air cleaner options are available starting on page 146.
- Manifolds are required. See page 186.

SUPER E & G COMPLETE CARBURETOR KITS

FITMENT

- 1999–'06 Twin Cam 88® engines
- S&S carbureted engines
- Custom v-twin applications

FEATURES AND BENEFITS

- Four fuel delivery ports – Better throttle response
- O-ring sealed idle mixture screw
- Increased air flow for more power
- Adjustable accelerator pump for quick throttle response and easy starting
- Utilization of the factory dual cable system ensures safe operation
- Direct replacement and high quality fit and finish – less down time and better performance
- Variable position enrichment starting system

KIT CONTENTS

- Super E or G carburetor
- S&S intake manifold
- Classic Teardrop air cleaner kit
- Mounting hardware
- Gaskets, seals and hoses
- Instructions



11-0450

SUPER E & G COMPLETE CARBURETOR KITS

Fitment	Super E	Super G
1999–'05 big twin	11-0450	11-0451
2006 big twin	106-0874	106-0875

SUPER G PARTIAL KITS (NO MANIFOLD)

Fitment	Super G
1993–'99	11-0446

Does not include intake manifold. Partial kit designed for engines with longer/shorter than stock cylinders. Manifold is ordered separately.

SUPER E & G CARBURETOR ONLY

Fitment	Super E	Super G
All Years & Models	11-0420	11-0421



As the throttle plate opens, it exposes more of these holes to engine vacuum and delivers more fuel as rpm increases. This o-ring around the idle mixture screw not only eliminates potential air leaks, but helps keep the screw from vibrating out of adjustment. "Made in USA" cast into carb body identifies this as a new style carb.

REPLACEMENT PARTS: SEE PAGE 222

NOTES

S&S® does not recommend polishing or chrome plating Super E & G carbs. Our repair department has seen many carbs with plugged passages due to polishing compounds, and some carbs that have been destroyed because the polishing or chrome plating had altered critical machined surfaces.

Recommended for closed circuit use only—S&S Super E & G carbs shown are not approved for use on motor vehicles operated on California public highways, or in other states where similar pollution laws may apply. The user shall determine the suitability of the product for his or her use and shall assume all risk and liability in connection therewith.

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OPTION

Optional cruise control adapter kits allows riders to keep factory cruise feature on 1999–'06 models

CRUISE CONTROL ADAPTER KIT

Fitment	Part #
1999–'06 bt	11-2927

TWO CABLE THROTTLE ASSEMBLIES

The S&S two cable throttle assemblies are high quality “pull open – pull close” type throttles designed for use on any two cable carburetor installations on bikes with 1” O.D. handlebars. A special soft plastic material used to mold the grips makes them look and feel exactly like stock grips. There are four different assemblies available to make installation on most chassis easy.

TWO CABLE THROTTLE REQUIRED

S&S Super E and G carburetors require the use of a two cable, pull open–pull closed throttle assembly. Any chassis including 1980 and earlier stock models equipped with a single cable throttle mechanism requires conversion to a two cable, pull open–pull closed type. S&S offers high quality two cable throttle assemblies for this purpose. Stock big twin models from 1981 to present have a two cable throttle and should not require changing. Super E and G Carb kits for 1990 and later models come with the new longer throttle cable guide bracket which allows the use of the stock CV style throttle cables.



19-0440

NOTE

The chart on this page is used only when using throttle cable bracket part #11-2339. This bracket is standard on all S&S Super E & G carburetor kits for big twins 1989 and earlier and all kits for Harley-Davidson® Sportster® models with the exception of the kit for 2004-'05 models. Carburetor kits for 1990 and later big twin models come with the longer cable bracket part #11-2338 for use with stock CV throttle cables. Super E and G carburetors ordered for big twin models 1981 and later are being shipped with the correct throttle cable bracket to fit the stock cables. Big twin carbs that are not year specific will be shipped with both cable brackets. All Sportster models 1988-'03 will still require conversion to butterfly style cables.

THROTTLE CABLE APPLICATION CHART

Application	Fastening Method	Length Total Housing	Length Vinyl Housing	Open Side	Close Side
1996–Up Softai® (FXSTS, FXSTC, FLSTC, FLSTF) 1996–Up Dyna®	Snap-in	39"	35"	19-0438	19-0439
1996–Up All FLT models	Snap-in	48"	44"	19-0464	19-0465
1996–Up custom application	Snap-in	42"	38"	19-0440	19-0441

*1998 and later required Harley-Davidson® throttle assembly #71831-96

**1980 and earlier must be converted to dual cable throttle assembly.

REPLACEMENT PARTS

Description	Part #
S&S Universal Throttle Cable	106-3520
Throttle Grip Clamp Set 1985–'95	106-3519
Top Throttle Grip Clamp only	19-0222
Bottom Throttle Grip Clamp only	19-0220
Throttle Grip Clamp Screw <i>(Fits S&S throttle assemblies: Part #19-0448, #19-0449, #19-0482, #19-0450, #19-0229)</i>	50-0043
Throttle Grip Set	106-3521
Right Hand Grip only	19-0225
Left Hand Grip only	19-0226
Cable Adjuster <i>(Fits S&S throttle assembly part #19-0229)</i>	19-0223
Cable Adjuster Jam Nut <i>(Fits S&S throttle assembly part #19-0229)</i>	19-0227
Handlebar Spacing Sleeve 4" x 1" O.D.—converts 3/8" handlebars to 1" O.D.	19-0235



JETS & CARB REBUILD KITS FOR S&S SUPER E & G CARBURETORS

For those who need to rejet their carburetor because of engine modifications, exhaust modifications, or changes in altitude, we have extra jet kits available which are designed to cover most jetting situations.

DEALER JET KITS[±]

Description	Part #
S&S Carb Parts Kit (Contains needed parts to maintain S&S Super E and G carburetors)	11-3103
S&S Jet Kit (Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)	11-3102



11-3103

JET PACKS[±]

Description	Part #
Low Range Jet Pack – For jetting most stock and moderate performance engines. <i>Includes one each intermediate jets (.025", .0265", .028", .0295") one each main jets (.062", .064", .066", .068", .070", .072", .074").</i>	11-7270
High Range Jet Pack – For jetting some stock and all performance engines. <i>Includes one each intermediate jets (.0295", .031", .032", .033") and one each main jets (.072", .074", .076", .078", .080", .082", .084").</i>	11-7271
Master Jet Pack – For jetting all Super B, E, and G equipped engines. <i>Includes one each intermediate jets (.025", .0265", .028", .0295", .031", .032", .033") and one each main jets (.062", .064", .066", .068", .070", .072", .074", .076", .078", .080", .082", .084").</i>	11-7272



11-3102[±]

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION[±]

Size	QTY	Part #	Size	QTY	Part #
.025	each	11-0250	.032	each	11-0320
	3 pack	11-7107		3 pack	11-7112
.0265	each	11-0265	.033	each	11-0330
	3 pack	11-7108		3 pack	11-7113
.028	each	11-0280	.036	each	11-0360
	3 pack	11-7109		3 pack	11-7114
.0295	each	11-0295	.040	each	11-0400
	3 pack	11-7110		3 pack	11-7115
.031	each	11-0310	Blank	each	11-0000
	3 pack	11-7111			



11-7272[±]



106-3517[±]

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

- | | | | |
|--------|-------|--------|-------|
| 1..... | .025" | 4..... | .033" |
| 2..... | .028" | 5..... | .036" |
| 3..... | .031" | 6..... | .040" |

NOTES

No returns or exchanges on jets.
Refer to Section 10: Racing for the S&S fuel and turbo carburetors.

MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION*

Size	QTY	Part #	Size	QTY	Part #
.040	each	11-4040	.080	each	11-4080
	5 pack	11-7220		5 pack	11-7240
.042	each	11-4042	.082	each	11-4082
	5 pack	11-7221		5 pack	11-7241
.044	each	11-4044	.084	each	11-4084
	5 pack	11-7222		5 pack	11-7242
.046	each	11-4046	.086	each	11-4086
	5 pack	11-7223		5 pack	11-7243
.048	each	11-4048	.088	each	11-4088
	5 pack	11-7224		5 pack	11-7244
.050	each	11-4050	.090	each	11-4090
	5 pack	11-7225		5 pack	11-7245
.052	each	11-4052	.092	each	11-4092
	5 pack	11-7226		5 pack	11-7246
.054	each	11-4054	.094	each	11-4094
	5 pack	11-7227		5 pack	11-7247
.056	each	11-4056	.096	each	11-4096
	5 pack	11-7228		5 pack	11-7248
.058	each	11-4058	.098	each	11-4098
	5 pack	11-7229		5 pack	11-7249
.060	each	11-4060	.100	each	11-4100
	5 pack	11-7230		5 pack	11-7250
.062	each	11-4062	.102	each	11-4102
	5 pack	11-7231		5 pack	11-7251
.064	each	11-4064	.104	each	11-4104
	5 pack	11-7232		5 pack	11-7252
.066	each	11-4066	.106	each	11-4106
	5 pack	11-7233		5 pack	11-7253
.070	each	11-4070	.110	each	11-4110
	5 pack	11-7235		5 pack	11-7255
.072	each	11-4072	.115	each	11-4115
	5 pack	11-7236		5 pack	11-7256
.074	each	11-4074	.120	each	11-4120
	5 pack	11-7237		5 pack	11-7257
.076	each	11-4076			
	5 pack	11-7238			
.078	each	11-4078			
	5 pack	11-7239			

MAIN JET AIR BLEED KIT* (One Jet Each Size)

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518

S&S® CARBURETOR REBUILD KITS

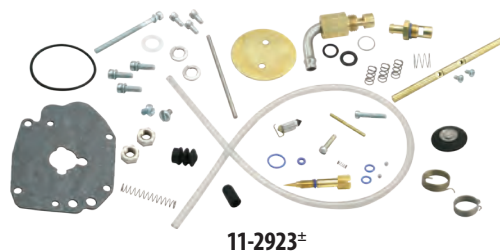
To insure that you continue to get the utmost in performance from your S&S carburetor, we have put together a series of rebuild kits that are designed to provide the proper parts to return a worn carburetor to top shape. We have assembled different types of kits to cover the different degrees of rebuild necessary.

MASTER REBUILD KITS

Master rebuild kits contain a body rebuild kit, accelerator pump rebuild kit (Super E and G only), all new fasteners, springs, idle mixture screw, seat, and needle assembly. Everything needed to completely rebuild one carburetor.

MASTER REBUILD KIT*

Description	Part #
Super E	11-2923
Super G	11-2924



11-2923*

BODY REBUILD KITS

Body rebuild kits for Super E and G carbs also contain throttle shaft nuts, nylon washers, accelerator pump o-ring, and accelerator pump boot. Body rebuild kits for Super E and G carbs do not contain throttle shaft bushings since these carbs have stainless steel throttle shaft bushings already installed.

BODY REBUILD KIT*

Description	Part #
Super E	11-2906
Super G	11-2907



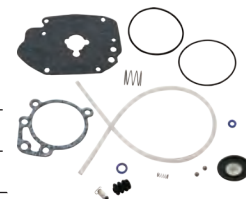
11-2907

BASIC REBUILD KIT

A gasket and seal kit for low mileage Super E & G carbs. Perfect to reassemble carbs taken apart for inspection and cleaning.

BASIC REBUILD KIT*

Description	Part #
Super E & G	110-0067

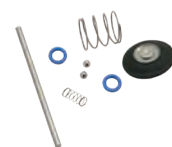


ACCELERATOR PUMP REBUILD KITS

Accelerator pump rebuild kits contain diaphragm, diaphragm spring, check balls, check ball spring, pump pushrod, and required hardware and o-rings.

ACCELERATOR PUMP REBUILD KIT

Description	Part #
Super E & G	11-2918



UNIVERSAL WIRING HARNESS

FOR CUSTOM BIKES AND RACING APPLICATIONS

FITMENT

- Custom and racing v-twin applications using Delphi® style EFI module
- Easy replacement for engine sub harness on 2002 through 2005 FL models
- 1995-'05 big twins – Useful for carb to Delphi EFI and Magneti Marelli® to Delphi EFI conversions
- Great for S&S X-Wedge® engines

FEATURES AND BENEFITS

- Simple electrical hook up of all connections required to operate engines with Delphi® style EFI
- All cables are terminated with the correct factory crimped connectors
- Works the S&S, stock and most 36 pin aftermarket Delphi style EFI modules
- Compatible with S&S throttle bodies, as well as stock and most aftermarket throttle bodies
- Replaces stock engine sub-harness in 2002-'05 FL models, simplifies carb to EFI conversions



UNIVERSAL WIRING HARNESS

Description	Part #
For Custom and Racing Applications	550-0264

COMPRESSION RELEASES

FITMENT

- S&S cylinder heads for big twin

OPTIONS

MANUAL RELEASE:

Activated by a cable similar to a choke control, this slick system can be used with any style rocker cover.

ELECTRIC RELEASE:

Solenoid operated, this system automatically opens and closes when the starter button is pressed and released. Convenient and simple, this is the best setup for big displacement high compression bikes. Requires S&S die cast rocker covers.

COMPRESSION RELEASE KITS

Description	Part #
Electric	90-4915

TOOLS AND ACCESSORIES

Description	Part #
S&S Two-Piece Socket Kit: <i>Allows in-frame installation of S&S compression releases and protects wiring from damage during installation.</i>	53-0045
S&S Compression Release Hole Plug	90-4916

REPLACEMENT PARTS

Description	Part #
Silicone Solenoid Caps	55-1009
Wiring Harness	55-1010
Electric Compression Release Assembly	90-4914



NOTES

S&S rocker covers must be used with electric compression releases due to clearance requirements for the solenoids.

Rocker covers must be removed when installing S&S® compression releases. If lack of frame clearance prevents removal of rocker covers, engine must be removed from frame for compression release installation.

In most cases, S&S compression releases can be installed while the engine is in the frame with the special S&S two-piece socket kit, part #53-0045.

If cylinder heads are machined for S&S compression releases, but compression releases are not used, special plug part #90-4916 (two required) must be installed to seal the machined hole.

Stock cylinder heads cannot be machined for S&S compression releases because there is not enough material in critical areas.

VARIABLE FUEL INJECTION MODULES (VFI)

FEATURES AND BENEFITS

- Directly replaces stock Harley-Davidson® fuel injection modules – plugs directly into stock wiring harness
- Includes ProTune II software and can be updated
- Three stage engine overheat protection helps prevent possible engine damage caused by improper modifications to fuel maps
- Altitude compensation automatically adjusts for altitude variations
- Live tuning allows manual changes to maps while the engine is running
- Self diagnostics and actuator test functions help tuning and verify proper installation/operation
- Engine light can be programmed to function as a shift light
- Closed loop capable
- Knock sensing ignition control (*USB Delphi® style unit only*)
- Optional closed loop sensor kit and knock sensor kit extend module capabilities
- Speedometer calibration function for 2004-up Harley-Davidson® models (*does not require installation of separate speedometer calibrator*)

DELPHI® STYLE S&S VFI MODULE

FITMENT

- Delphi® ECU equipped big twins

KIT CONTENTS

- Delphi® style S&S VFI module
- ProTune II software
- USB port cover kit (part #55-5090 only)
- Installation instructions

CLOSED LOOP CAPABILITY

When equipped with a dual closed loop sensor kit and running in closed loop mode, VFI tuning becomes a breeze! S&S supplies base maps for several displacement groups, creating a starting point to get bikes up and running. Utilizing dual oxygen sensors (*sold separately*) placed in the exhaust, the S&S closed loop system modifies the base fuel map to meet the specific requirements of your engine!

- Automatic tuning on the street or on the dyno
- Each cylinder is tuned individually
- Fuel map changes are saved in the module and can be merged with the pre-loaded base map
- Works with stock oxygen sensors used on late model Harley-Davidson® motorcycles

Closed loop VFI can also automatically compensate fuel delivery for modifications creating up to a 20 hp gain, such as changes in:

- Displacement
- Cams
- Exhaust
- Head porting or installation of aftermarket heads

NOTES

The Barometric Sensor Relocation kit (part #55-1599) is required for any complete S&S T-series engine installed in a 1995-2001 EFI touring chassis or any engine used in these applications using the S&S T-series oil pump where the stock cam position sensor cannot be used.

All current production S&S modules are closed loop compatible, and all older S&S modules can be updated with current calibration by simply downloading software from the S&S website.

Please note that maps created for older versions of the VFI software are not compatible with the new closed loop software, however they can be converted to closed loop if desired.



Optional Delphi® style knock sensor adjusts timing to eliminate spark knock, prolonging engine life (55-5090 module only).

S&S VFI systems installed on 2004–up Harley-Davidson® models incorporate a speedometer calibration feature.



55-5090

DELPHI® STYLE S&S VFI MODULE

Fitment/Description	Part #
VFI Module for 2001-'11 bt (except 2008-up touring and 2011 Softail®)	55-5090*
S&S Delphi Style VFI Closed Loop Sensor Kit 	106-2066
Knock Sensor Kit (55-5090 module only) 	106-0810






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NOTE

Due to the extreme range of control offered by the S&S VFI modules, we recommend that they be installed and tuned by S&S Certified VFI Tuning Centers.

REPLACEMENT PARTS FOR S&S® VFI MODULES

REPLACEMENT PARTS FOR S&S® VFI MODULES

Description		Part #
S&S VFI Closed Loop Sensor Kit	Delphi® Style 	106-2066
Knock Sensor Kit (Delphi style only)		106-0810
Service Kit, O ₂ Sensor		106-2061
Service Kit, DTM Pin		55-1521
Service Kit, Oxygen Sensor Boss	 	55-6071-5
Service Kit, Subharness	Delphi® Style	55-1595
Barometric Sensor Relocation Kit (See Notes)		55-1599*
Hardware Kit (USB Cover) (for 550-0001 & 55-5090 modules)		55-5091


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106-2066

HIGH OUTPUT COILS

HIGH OUTPUT COILS

S&S High Output 3.0Ω Single Fire Coil	<p>The perfect complement for S&S IST ignition systems. This single fire coil is actually two separate coils in a single package. Coil impedance is 3Ω per coil.</p>	55-1571
S&S High Output 0.5Ω Single Fire Coil			55-1576
<p>High output 0.5Ω single fire coil for S&S IST ignition.</p>		



55-1571



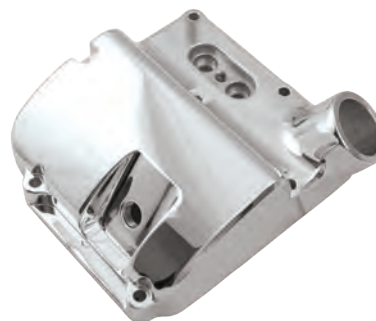
55-1576

TRANSMISSION TOP COVER

CHROME TRANSMISSION TOP COVER*

Description	Part #
Billet for 1999–'05 Dyna® Models	106-3886

This cover is required for proper oil line connection in 1999-'05 Dyna models when installing an S&S T124 engine or when installing S&S replacement crankcases. This top cover may also be used as stock replacement for 1999-'05 Dyna models.



INNER PRIMARY BEARING RACE

FITMENT

- All 1991–'06 big twins (except '06 Dyna®)



INNER PRIMARY BEARING RACE

Fitment	Part #
All 1991–'06 big twins (except '06 Dyna®)	56-5089 

FEATURES AND BENEFITS

- Will not "walk" on transmission mainshaft
- Simple to install
- Prevents costly damage to mainshaft seal, output gear & output gear bearing

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S INNER BEARING RACE PULLER, SEE PAGE 512

VARIABLE PRESSURE CLUTCH

The VP clutch is the most cost effective kit for upgrading your HD® stock clutch without any modifications. Up to 40% more pressure for stronger clutch engagement.

FEATURES AND BENEFITS

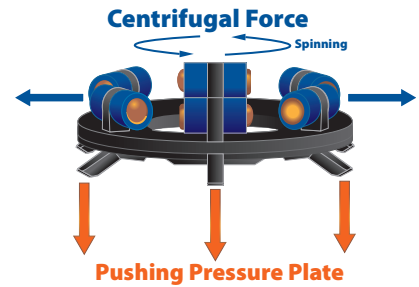
- Works like a lock up clutch
- Increased torque capacity: strength of engagement increases with RPM
- 10 minute installation
- Fits behind a stock derby cover and primary cover – No modification required
- Can be used with cable and hydraulic clutch controls

Does not fit: 2013 and later CVO™ and Tri-Glide™, 2015 and later Ultra Limited Low and Electra Glide Classic Low Models with new HD® Assist and Slipper Clutch: 3 Stud Clutch Hub

Non-stock derby cover (including any special or 2003 anniversary cover) and 3 hole derby covers may require a derby



560-0242



Centrifugal force makes more clamping force. Regular clutches have static pressure only with clutch springs. The Lock up clutch has two different types of pressure. One is a Static Pressure, and another is a Centrifugal Force by Lock-up as an additional pressure.

VARIABLE PRESSURE CLUTCH

Description	Part #
1998-up Big Twins with 6 Stud Clutch Hub	560-0242

HEAVY DUTY DIAPHRAGM SPRING

FITMENT

- 1998–up big twin models

FEATURES AND BENEFITS

- 380 lbs pressure, 25% stronger than stock
- Same pressure as Screamin' Eagle® heavy-duty spring
- Compatible with S&S VP and stock clutches

HEAVY DUTY DIAPHRAGM SPRING

Description	Part #
1998–up Big Twins	560-0244



560-0244

GATES® HIGH STRENGTH FINAL DRIVE BELTS

S&S final drive belts by Gates are available with 14mm pitch in 1½" and 1⅞" widths. See the chart and match the width and number of teeth required for your vehicle. You can find this information in the vehicle service manual.



ATTENTION CUSTOM BIKE MANUFACTURERS!

SPECIAL ORDER BELTS FROM S&S® AND GATES®

Special belt sizes, private brand labeling, and assistance with belt drive design, are available to custom performance OEM's and aftermarket bike builders, through S&S. These products and services are available for licensed motorcycle manufacturers only, and a minimum order quantity may be required.

Drive belts with your company name imprinted on them are a perfect way to show off your brand. Any belt size currently available in the S&S catalog, as well as the special ordered sizes, can be specially branded. Minimum order quantities would apply.

Whether you're designing a completely new chassis, or simply need a replacement belt, S&S can help you find the belt you're looking for. Through the combined efforts of Gates and S&S, S&S can now provide customers with the technical assistance they need for designing new secondary belt drive systems. In addition, S&S can help you determine required tooth count for your existing chassis design, based on the pulley center-to-center distances and pulley tooth counts.

All belts have a 14mm tooth pitch, and are made of the super strong Gates Carbon X3N material. Belts are available in three standard widths of 1.125", 1.5" and 1.181" (30mm), but can be special ordered in nearly any width for a nominal charge. If you want a belt with a special tooth count, they are also available (see the special order chart for availability).

Contact your S&S Customer Support Representative for more information.

SECONDARY DRIVE BELTS (14MM PITCH)

Teeth	1⅞" Wide	1½" Wide
125	106-0357	–
126	–	106-0348
127	–	106-0349
128	106-0358	106-0350
130	106-0359	106-0351
132	106-0360	106-0352
133	106-0361	106-0353
135	106-0362	106-0354
136	–	106-0355
139	106-0363	106-0356
149	106-1338	106-2695
156	–	106-2827

BELTS AVAILABLE BY SPECIAL ORDER (14MM PITCH)

Tooth Count	1.181" (30mm) Width*	1.25" Width*
125	●	
126	●	●
127	●	●
128	●	
130	●	
131	●	●
132	●	
133	●	
135	●	
136	●	●
137	●	●
139	●	
140	●	●
149	●	
150	●	●
151	●	●
152	●	●
156	●	

*Minimum order required: 1.181" (30mm) – 16 belts; 1.25" – 17 belts.

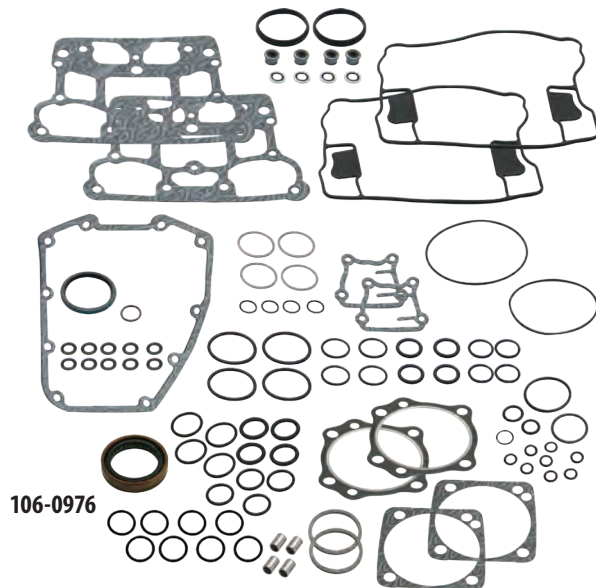
GASKETS

REBUILD GASKET KITS FOR S&S® T-SERIES 1999-UP ENGINES AND HOT SET UP KIT®

1999-'06, 4 1/8", S&S base bolt pattern	106-0976
1999-'15, 4 1/8", Stock base bolt pattern	310-0335
1999-up T143 4.425" bore	310-0751

TOP END GASKET KIT FOR TWIN CAM 88® AND S&S ENGINES

3 7/8" Stock Bolt Pattern	90-9504
4 3/8"	90-9511
4 1/8", with S&S® bolt pattern	90-9506
4 1/8", with Stock Cases	90-9510
4"	90-9505



CYLINDER HEAD GASKET KITS T-SERIES 1999-UP

4 3/8" bore	900-0800
4 1/8", with S&S® bolt pattern	90-1910
4 1/8", with Stock bolt pattern	90-1914
4" with Stock bolt pattern	90-1913
3 7/8" & 3.927"	910-0465

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

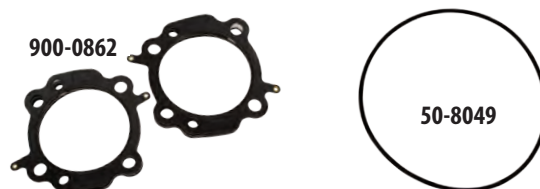
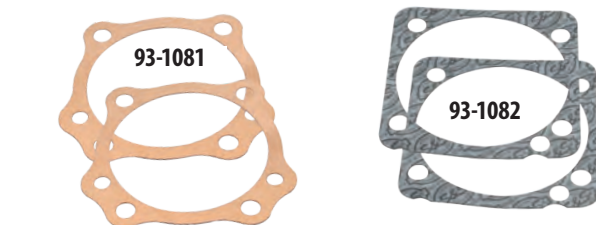
HEAD GASKETS T-SERIES 1999-UP

4 7/16"	.045"	Layered Steel	2 pack	900-0762
4 3/8"	.045"	Copper	2 pack	93-1081
4 1/8"	.043"	Graphite	each	93-1047-S
			10 pack	93-1073
4 1/8" Stock Bolt Pattern	.043"	Layered Steel	each	93-1091-S
			2 pack	930-0102
			10 pack	93-1920
4 1/8" Stock Bolt Pattern	.030	Layered Steel	2 pack	900-0217
4"	.043"	Graphite	each	93-1043-S
			10 pack	93-1058
4" Stock Bolt Pattern	0.45"	Layered Steel	2 pack	900-0822
4" Stock Bolt Pattern	.030"	Layered Steel	2 pack	900-0821*
3 7/8" & 3.937"	.045"	Layered Steel	2 pack	900-0862
3 3/4" 16775-99B	.043"	Graphite	each	93-1045-S

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

BASE GASKETS AND O-RINGS T-SERIES 1999-UP

4"	.018"	Graphite	each	93-1050-S
4 1/8"	.018"	Graphite	each	93-1048-S
			2 pack	930-0101
			10 pack	93-1074
4 3/8"	.018"	Micropore	2 pack	93-1082



4 1/8" Stock Bolt Pattern	.018"	Micropore	each	93-1092-S
			2 pack	930-0101
			10 pack	93-1921
4.425"	.018"	Micropore	2 pack	900-0783
4"	.103"	Viton O-ring	each	50-8049
3 3/4", 3 7/8", 3.927"	.103"	Viton O-ring	each	50-8048 11256

EXHAUST GASKETS

1984-'12 big twins 65324-83B, 65324-83A	each	106-5029
	10 pack	93-1072

VALVE GUIDE SEALS



CONTINUED- GASKETS

S&S® Heads with Powdered Metal Valve Guide	4 pack	900-0737
Valve Stem Oil Seal, Hat Style 18094-02	each	900-0590
Valve, Umbrella 26858-99	each	900-0495
For 1984-'02 Big Twin Stock Heads & S&S® prior to Jan. 2014	each	900-0338
	8 pack	90-2158
CNC Heads (2005-up bt)		106-5688

ROCKER BOX GASKET KITS AND INDIVIDUAL GASKETS


S&S BILLET (OBSOLETE)

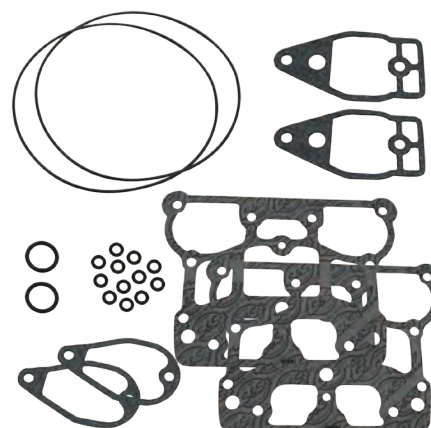
Gasket Kit		90-4073
O-ring, (-114), .625" ID x .812" OD, Black, Viton® 11270		50-8033
O-ring, (-268), 9.483" ID x		50-8050
Gasket, Breather Cover, Stock Pattern, 1999-'10 17591-99, 17162-03, 17592-99		90-4077
Gasket, Breather Baffle, Stock Pattern, 1999-'10 17162-03, 17592-99		90-4078
Gasket, bottom rocker cover, 4½" 1984-up	each	90-4071-S
	2 pack	90-4071
	10 pack	90-4099

DIE CAST ROCKER BOXES

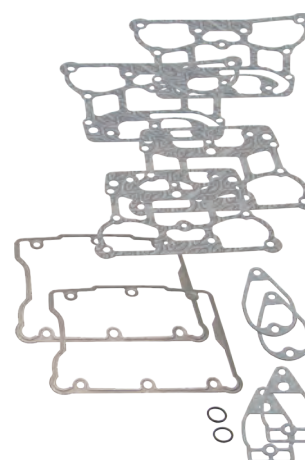
Gasket set - rocker cover, cast		90-4111
O-ring, (-223), 1.625" ID x 1.875" OD, Vito 11270		50-8044
Gasket, bottom rocker cover, 4½", 1984-up	each	90-4071-S
	2 pack	90-4071
	10 pack	90-4099
Gasket, Rckr Cvr, S&S® DieC, O-ring, 1984-up		90-4079

STOCK ROCKER BOXES

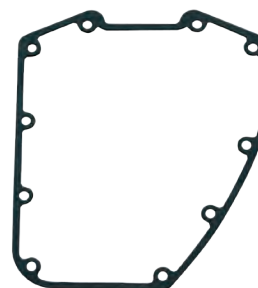
Gasket kit for 1999-'06 bt (use w/S&S heads)		90-4097
Gasket kit for 1999-'06 bt (use w/Stock heads)		900-0534
O-ring, (-114), .625" ID x .812" OD, Black, Viton® 11270	each	90-4071-S
	2 pack	90-4071
	10 pack	90-4099
Gasket, Breather Cover, Stock Pattern, 1999-'10 17591-99, 17162-03, 17592-99		90-4077
Gasket, Breather Baffle, Stock Pattern, 1999-'10 17162-03, 17592-99		90-4078
Gasket, Rocker Cover, Steel, 1999-up bt	each	90-4096-S
Gasket, Rocker Cover, w/Stock Rocker Box, 1999-up bt	each	90-4124
	2 pack	90-4120
Filter, Breather  63815-99	each	900-0496



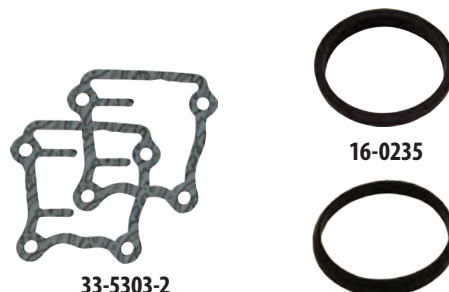
90-4073



90-4097



31-2032-5



16-0235

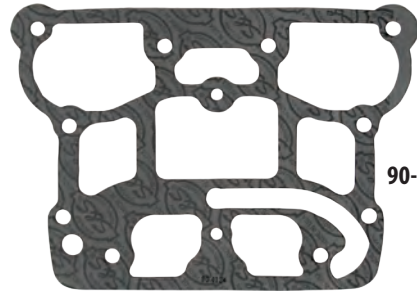
16-0236

33-5303-2

CONTINUED- GASKETS

LOWER END GASKETS AND SEALS

For S&S Heads/Stock boxes	<i>each</i>	90-4124
	<i>2 pack</i>	90-4120
Gear Cover gasket 25244-99A	<i>each</i>	31-2032-S
Tappet Cover gasket 18635-99B	<i>each</i>	33-5303-S
	<i>2 pack</i>	33-5303-2



90-4124

PUSHROD O-RINGS

O-ring,Kit,Pushrod Cover,1984-'99 bt		93-4022
Top O-ring 11293, 11157, 11101, 11190	<i>each</i>	50-8039
Middle O-ring 11132A	<i>each</i>	50-8038
Bottom O-ring 11145A	<i>each</i>	50-8037
Sprocket Shaft seal 12068		31-4035
S&S Oil pump seal kit		31-2097
Oil Pump Scavenge o-ring 11293, 11157, 11101, 11190	<i>each</i>	50-8039
Case alignment dowel o-ring 26432-76A	<i>each</i>	50-8034-S
	<i>2 pack</i>	50-8034
Oil jet o-ring	<i>each</i>	50-8270
	<i>5 pack</i>	50-8275
Cam plate and oil line plate o-ring 11301	<i>each</i>	50-8066-S



31-4035




50-8066-S

CONTINUED- GASKETS

FUEL SYSTEM GASKETS

Manifold Seals

S&S Manifold O-Ring	each	16-0235
	10 pack	16-0243
Stock Manifold O-ring 	each	16-0236
	10 pack	16-0244
26995-86A, 26992-99, 26995-86B		
Cap, rubber, manifold, fitting		50-8372

CLASSIC TEARDROP AIR CLEANER

Backplate gasket	each	106-1724	
	10 pack	106-2328	
Vent seal washers silicone coated steel	1/2"	each	50-7055
		10 pack	50-7057
	3/8"	each	50-7054
		10 pack	50-7059

STEALTH AIR CLEANER

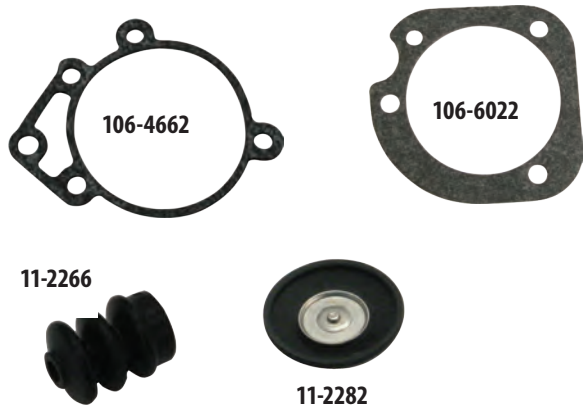
Backplate gasket

Stock CV Carb & EFI Throttle Body, 1991-up xl/bt (except Throttle by Wire) 29062-95B		106-6022
Super E/G	each	106-1724
	10 pack	106-2328
For Muscle air cleaner (includes lanyards).		170-0137
Vent seal washers Nitrile Rubber Coated, .380" x .880" x .024"	each	50-7054
	10 pack	50-7059

SINGLE BORE TUNED INDUCTION

Backplate gasket

Gasket, Backplate - E/G/SBEFI	each	106-1724
	10 pack	106-2328
Gasket, S&S SBEFI 58mm		106-4662
Gasket, Stock carb/Throttle Body 29062-95B		106-6022
Adaptor plate gasket		17-1022
Adaptor plate bracket o-ring	each	50-0446



SINGLE BORE EFI THROTTLE BODY

Backplate gasket		
52mm	each	106-1724
	10 pack	106-2328
58mm	each	106-4662
O-ring, throttle body to manifold		50-7967-S
Air Temp Sensor gasket		16-5009-S
IAC o-ring		50-8149-S
Fuel injector o-ring top		50-8264-S
Fuel injector o-ring bottom		50-8265-S
Fuel rail inlet o-ring 27237-95	each	50-8137-S

CARBURETOR GASKETS (for Rebuild Kits, see page 192)

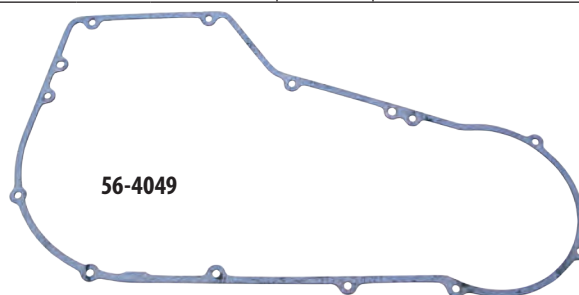
Bowl Gasket, Super E & G		11-2386	
Pump cap o-ring - (two required)	each	50-8012	
	10 pack	50-8100	
Idle Mixture Needle o-ring	each	500-0036	
	10 pack	500-0148	
Bellows Seal, Accelerator Pump		11-2266	
Accelerator pump diaphragm		11-2282	
Manifold to carb/ throttle body o-rings	Super E	each	50-8016
		10 pack	50-8094
	Super G	each	50-8015
		10 pack	50-8093
Seat and bowl plug o-ring	each	50-8009	
	10 pack	50-8095	

TRANSMISSION GASKETS

O-ring, (-114), .625" ID x .812" OD, Black, Viton® 11270		50-8033
O-ring, Quad Seal, (-031), 1.734" X 1.875" 11165		50-8045
Seal, Transmission Output Shaft 2.255" x 3.388" x .250, 1994-'99 bt 12067B		56-3033

PRIMARY GASKETS












Gasket, Primary Cover, 1990-'05 Softail® and Dyna®	each	56-4049
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Milwaukee
Eight
2007-2017
Twin Cam
96"/103"/110"
1999-2006
Twin Cam 88"
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod™
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index


CRANKCASE REPLACEMENT PARTS

FOR HARLEY-DAVIDSON® TWIN CAM 88® ENGINES

1. Bolt, stator 10-24 x 1" SHC - 4 required 2720
each **50-0044**
4 pack **31-0113**
2. Seal, sprocket shaft 12068 **31-4035**
3. Bearing, Timken® sprocket shaft 9028
 **31-4013**
4. Timken Main Bearing Spacers
 Fits 1¼" stock diameter shaft.
 .0995" - .1005" 9124  **31-4071**
 .1015" - .1025" 9125  **31-4072**
 .1035" - .1045" 9126  **31-4073**
 .1055" - .1065" 9127  **31-4074**
 .1075" - .1085" 9128  **31-4075**
 .1195" - .1205" 9134  **31-4076**
5. Bolt, case 5/16" - 18 x 3½" HHC - 8 required
 Chrome (*each*) **50-0254-S[±]**
 Zinc 3427 (*each*) **50-0117**
6. Washer, flat 5/16" x 1¼" x 1/16" - 8 required
 Chrome (*each*) **50-7104-S[±]**
 Zinc 6320, 70907-07, 6016, 6702 (*each*) **50-7034**
7. Bolt center case ¼" - 28 x 5½" HHC Grade 8
 Chrome (*each*) **50-0252-S[±]**
 Zinc (*each*) **50-0090**
8. Washer, flat, ¼" x .474" x .050"
 Chrome (*each*) **50-7105-S[±]**
 Zinc (*each*) **50-7020**
9. Nut ¼"-28 Grade 8 - 1 required
 Chrome (*each*) **50-5017-S[±]**
 Zinc 7683 (*each*) **50-5011**
10. Cylinder stud, S&S® Bolt Pattern - 8 required (*each*)  **31-2325-S**
 8 pack  **31-2340**
 Cylinder stud, Stock Bolt Pattern - 8 required (*each*) **310-0437**
11. Dowel, cylinder deck - 2 required (4 pack) **500-0219**
12. Bolt, cam plate ¼" - 20 x 1" SHC - 4 required 852
 each **50-0084**
13. Bolt, cam plate ¼" - 20 x 1¼" SHC - 2 required 4740A, 3482A
 each **50-0008**
14. Washer, flat ¼" chrome (*each*) **50-7017[±]**
 12 pack **50-7013**
15. O-ring, cam plate - 9 required 11301 (*each*) **50-8066-S**
16. O-ring, oil pump 1¼" I.D. x 1½" O.D. x 1/8" CS 11293, 11157, 11101, 11190
 each **50-8039**
17. O-ring, case alignment - 2 required 5/16" I.D. x 1¼" O.D. x 1/8" CS 26432-76A
 each **50-8034-S**
 2 pack **50-8034**
18. Dowel, cam plate - 2 required 16589-99A **50-8148-S**
19. Bearing, inner cam 9198  **31-4080**
20. Bearing, pinion shaft - Fits all S&S & OEM 2000-'02 (Balanced models only)
 & all OEM 2003-up 24604-00D **31-4085**
21. Retaining ring, internal, spiraloc - 2 required
 35114-02 **50-8160-S**
22. Plug, magnetic drain  **50-8335**
23. Baffle plate **31-0119-S**
24. Screw 10-24 x 3/8" pan head - 2 required (*each*) **50-0050**
25. Dowel, case alignment - 2 required 16574-99A, 16573-83, 16573-83A
 each **50-8023**
 10 pack **50-8109**

26. Piston Oiler Jet Kit *includes #27 (1), #28 (1), #29 (2)*  **310-0647**
27. O-ring, (-014), .500" ID x .625" OD, Nitrile
 each **50-8270**
 5 pack **50-8275**
28. Jet, Assembly, Piston Cooling, 1999-up bt
 (*each*)  **310-0646**
29. Screw, Torx Pan, Tri-Lobe, 8-32 x 3/8", Zinc, 68042-99
 each **50-0054-S**
30. Fitting, crankcase vent
 1999-'00 **50-0454**
 2001-'06 (*each*) **50-0449**
31. Plate, oil line cover **106-1184**
32. BHS CS 5/16" - 18 x 3/4" (10 pack) **106-1178**
33. O-ring 11105, 11273 (*each*) **50-8008**
 10 pack **50-8078**
34. Pin, dowel 18535-99 (*each*) **50-8195-S**
 2 pack **50-8195**

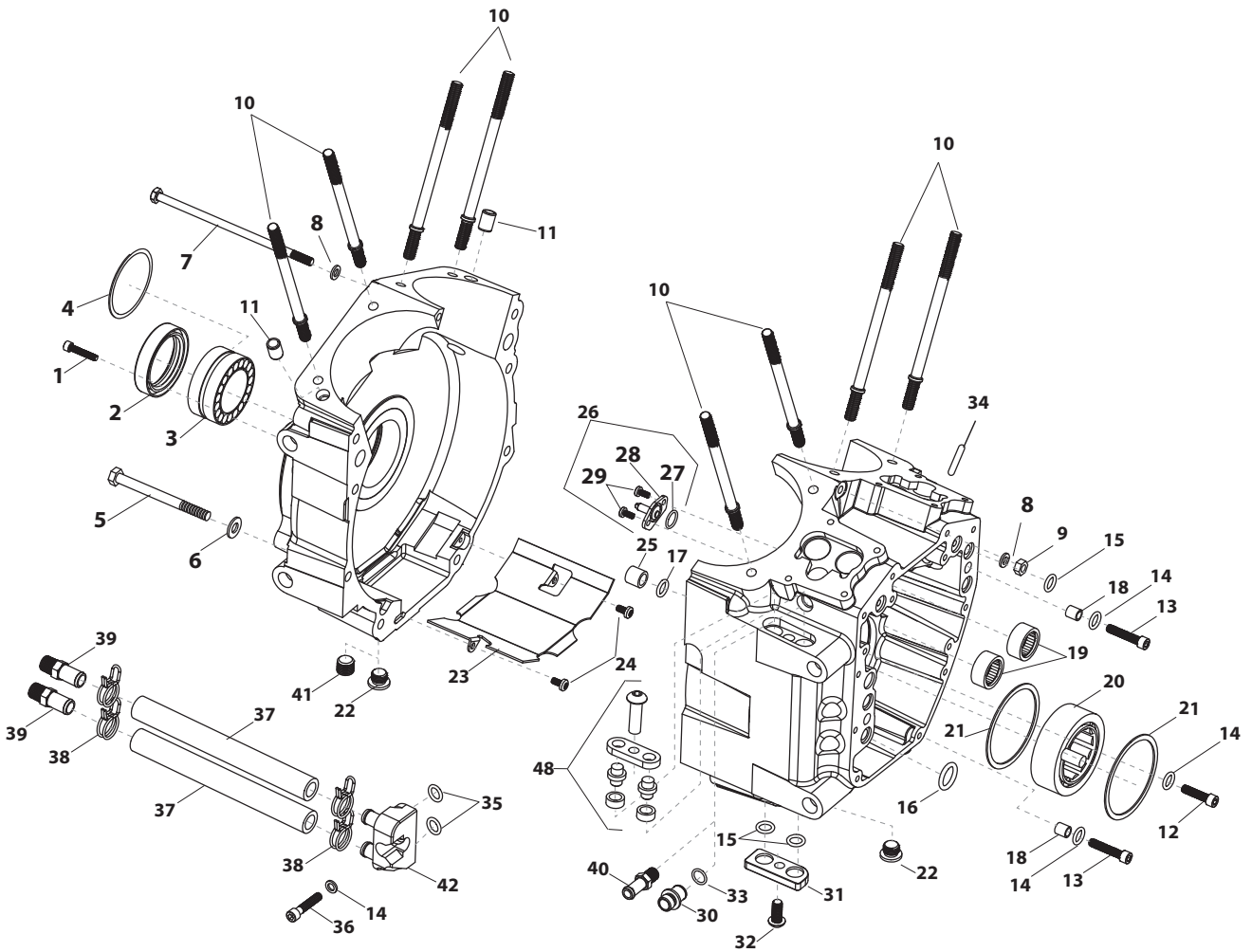
These parts are for crankcases manufactured before 8-1-06:

35. O-ring, 5/16" I.D. x 1¼" O.D. x 1/8" CS 26432-76A (*each*) **50-8034-S**
 2 pack **50-8034**
36. Bolt, ¼" - 20 x 3/4" SHCS 4069A (*each*) **50-0067**
37. Hose, oil, inlet/outlet **50-8157**
38. Spring clips **50-8156-S**
39. Oil line fittings, inlet/outlet - 2 required **N/A**
40. Oil line fitting - vent **N/A**
41. Plug, sump 765 (*each*) **50-8330**
42. Oil conduit block **N/A**
43. Sensor, Kit, Crank Position, 1984-2007 bt (N/S)
 32707-01B, 32707-01C  **55-1051**

HARDWARE KITS


45. Hardware Kit, Crankcase, Cam Plate Bolts, 1999-up bt
 includes #12 (4), #13 (2), #14 (6) **31-0117**
46. Hardware Kit, Crankcase, O-rings, 1999-up bt *includes #15 (7), #16 (1), #17 (2)*
 **31-0111**
47. Hardware Kit, Crankcase Baffle Plate, 1999-up bt *includes #23 (1) and #24 (2)*
 **31-0122**
48. Hardware kit, oil line plugs **50-1081**

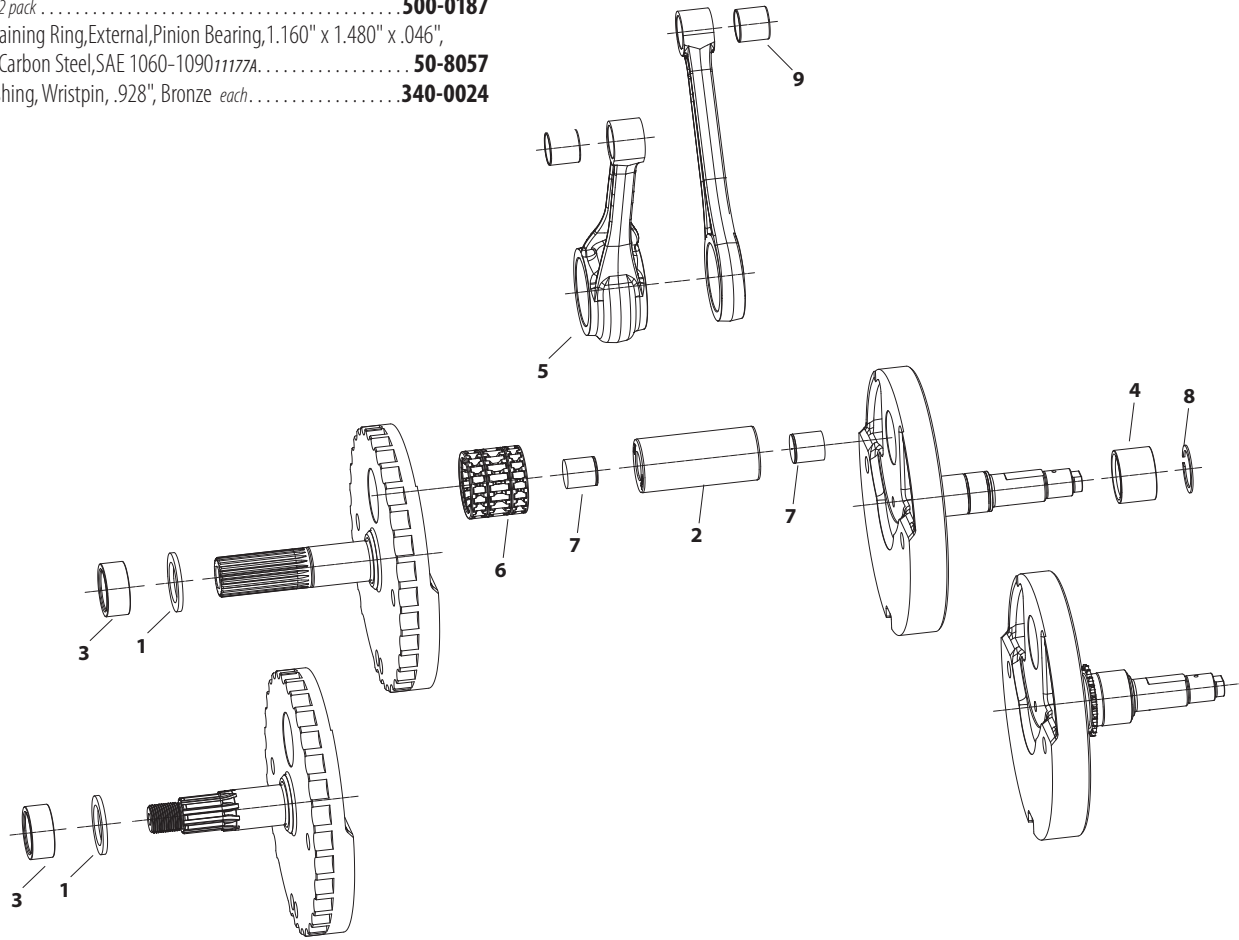
(N/S) = Not Shown



**CRANKCASE BREATHER REED VALVE
REPLACEMENT PARTS ON PAGE 230**

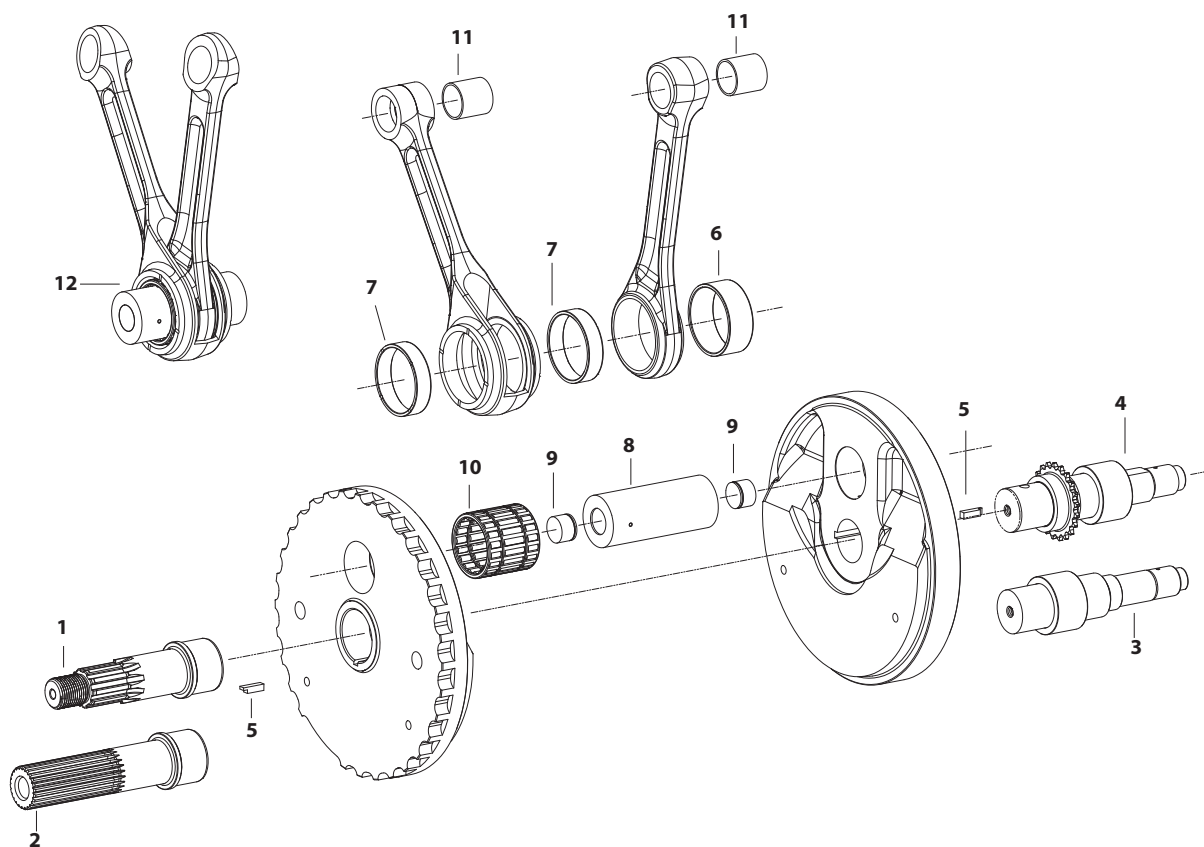
3-PIECE FLYWHEEL REPLACEMENT PARTS

- 1. Washer, Flywheel, Thrust, 1.25" x 1.83" x .136", Hardened Steel **320-0198**
- 2. Crankpin, Press-In, Straight, 1.671", 1999-Up bt (includes plugs)
 Standard **340-0069**
 +.001 **340-0070**
 +.002 **340-0071**
- 3. Race, Inner, Left Main Bearing,
 1.25" x 1.65" x .713", Hardened Steel **340-0076**
- 4. Race, Inner, Right Main Bearing,
 1.25" x 1.65" x 1.120", Hardened Steel **340-0077**
- 5. Connecting Rod, Set, Full Width Wristpin, 7.575", 120R. . **340-0062**
 Connecting Rod, Set, Full Width Wristpin, 7.667" **340-0060**
 Connecting Rod, Set, Full Width Wristpin, 7.800", T143 . **340-0128**
- 6. Bearing, Set, Rod, Standard  **340-0072**
- 7. Plug, Drive, .8965" x .850", Steel, Fatigue Proof
 2 pack **500-0187**
- 8. Retaining Ring, External, Pinion Bearing, 1.160" x 1.480" x .046",
 Carbon Steel, SAE 1060-109011177A **50-8057**
- 9. Bushing, Wristpin, .928", Bronze *each* **340-0024**



5 PIECE FLYWHEEL REPLACEMENT PARTS

1. Sprocket Shaft, 1999–2006 bt (includes key #5) **33-2009**
2. Sprocket Shaft, 2006 Dyna®, 2007–2012 bt **33-2011**
3. Pinion Shaft, 1999–2012 bt (includes key #5) **N/A**
4. Pinion Shaft, 2000–2012 w/ balancer (includes key #5) **N/A**
5. Key (each) **50-8227**
6. Front Rod Race, 1999–2012 **USA 34-4008**
7. Rear Rod Race **USA 34-4013**
8. Crankpin (std.) **106-6239**
 +.001 **340-0017**
 +.002 **340-0018**
 +.003 **340-0019**
9. Crankpin Plug (each) **106-5256**
 2 pack **50-8329-2**
10. Race/Bearing Set **340-0028**
11. Wristpin Bushing, 1999–2012*bt
 Straight **USA 34-4012**
12. Connecting Rod Set, 7.668" length
 1999–2006 bt, straight wristpin ends **N/A**

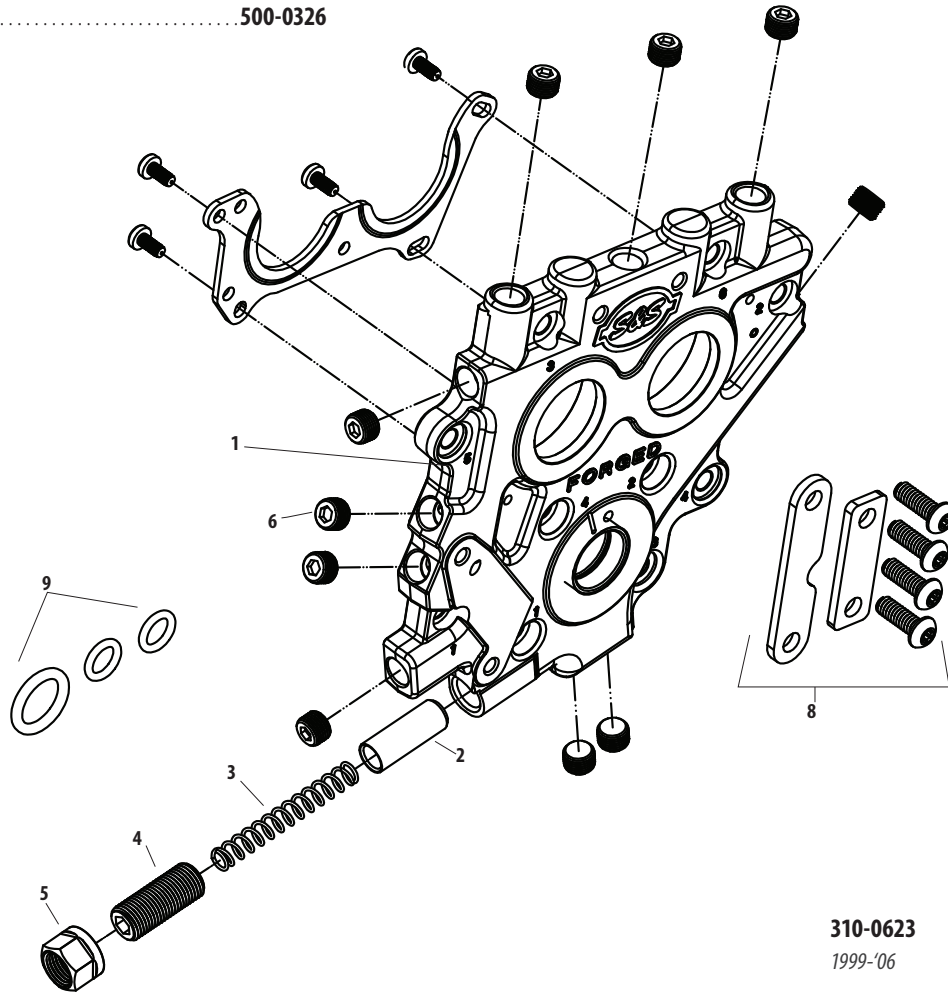


NOTES

S&S flywheels for Harley-Davidson® Twin Cam 88® and Twin Cam 96™ engines are pressed together as opposed to using the traditional tapered shafts and crankpin. Assembly and truing requires special equipment.

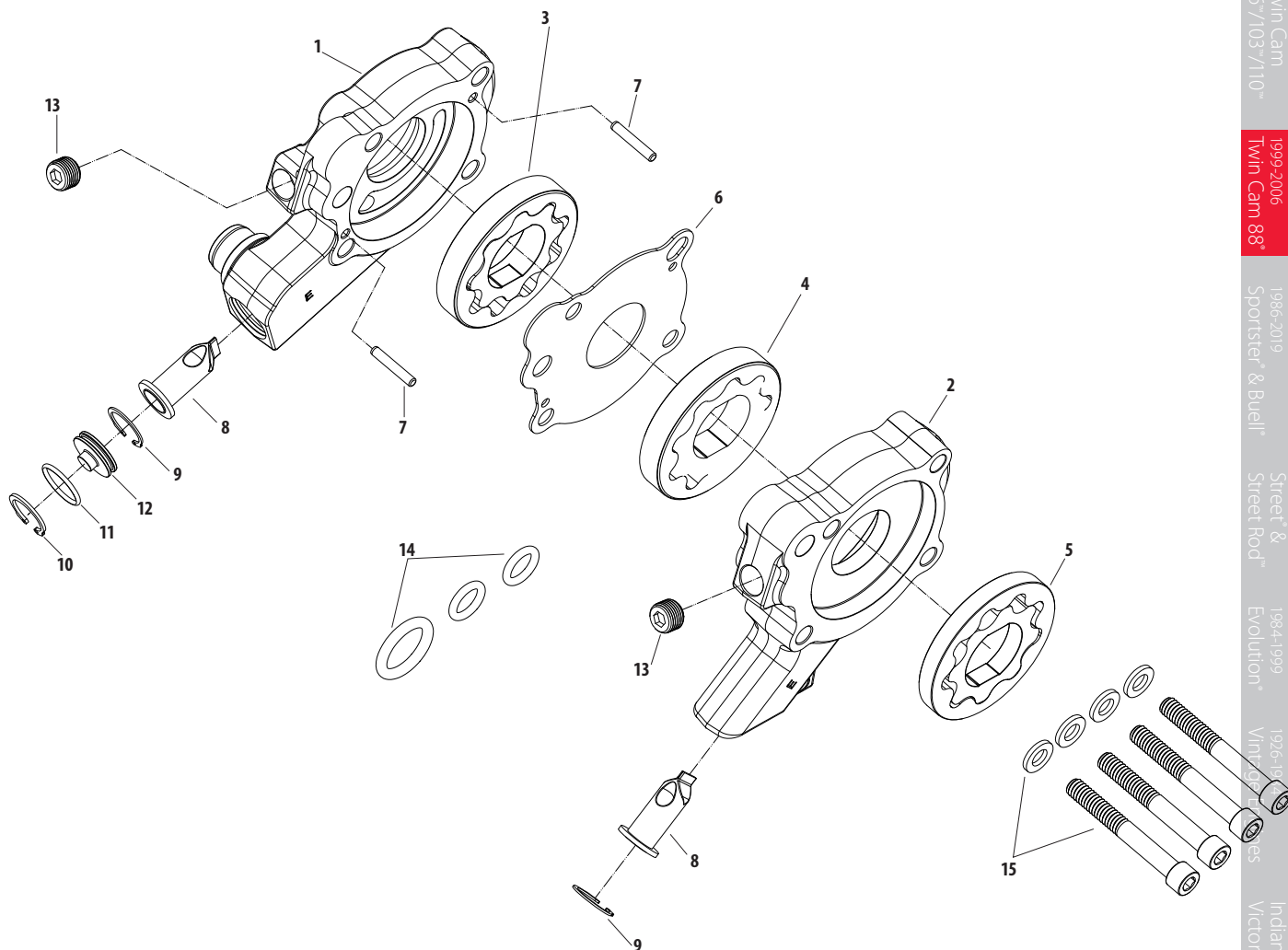
TC3 CAM PLATE REPLACEMENT PARTS

- 1. Cam support plate NA
- 2. Pressure relief valve 31-6082-5
- 3. Pressure relief spring 31-6018
- 4. Pressure relief adjusting screw 170-0252
- 5. Pressure relief adjusting screw lock nut 170-0251
- 6. 1/8" 27 taper pipe plug 50-8331A
- 7. Bearing retention plate kit 330-0015
- 8. Hydraulic tensioner block off kit 106-5723
- 9. O-ring kit 500-0326



310-0623
1999-'06



TC3 OIL PUMP REPLACEMENT PARTS




- 1. Oil pump body case return section **NA**
- 2. Oil pump body cam chest return / pressure feed **NA**
- 3. Oil pump rotor set, flywheel cavity return **310-0644**
- 4. Oil pump rotor set, cam chest cavity return **36-7021-S**
- 5. Oil pump rotor set, supply **310-0561**
- 6. Plate, divider **310-0516**
- 7. Dowel Pin, .125 x .750 Hardened Steel **500-0858**
- 8. Debris screen **310-0546**
- 9. Internal Retaining Ring, .625 **500-0860**
- 10. Internal Retaining Ring, 17mm **500-0859**
- 11. O-ring, 1.5mm x 14mm, Viton (5 pack) **500-0861**
- 12. Oil pump return plug **310-0564**
- 13. Plug, Pipe 1/8" 27 **50-8331A**
- 14. O-ring kit **500-0326**
- 15. Screw Kit, Oil Pump, 1999-Up BT
(1/4" 20 x 2" SHCS w/washers) **500-0327**

OIL PUMP REPLACEMENT PARTS

FOR HARLEY-DAVIDSON® TWIN CAM 88® ENGINES

1. Cover, assembly, camchest
Chrome..... **106-3890[±]**
2. Cover plate..... **31-6507**
3. Bushing, cam support (each)..... **31-4087-S**
4. Nut, gear retainer, rear cam..... **31-6511**
5. O-ring, Viton (-220) (each)..... **50-8245-S**
6. Screw, SHC - 10-24 x 1" (each)..... **50-0044**
7. Alignment dowel (each)..... **50-8182-S**
8. Idler gear shaft (each)..... **31-2079-S**
9. Divider plate..... **31-6508**
10. Screw FHSC 10-24 x 1/2" (5 pack)..... **50-0312**
11. Gear, cam chest return..... **33-4291**
12. Gear assembly, pinion shaft..... **33-4170**
13. Gear, idler - (Includes item PN 33-4214 bushing)..... **33-4172**
14. Gear, cam drive..... **33-4292**
15. Gear, spacer..... **33-4171**
16. Thread adapter..... **31-2089-S**
17. Cam drive gear
(for reference only, not included in pump kit)..... **33-4293**
18. Body assembly.....  **31-6505**
19. Spring, pressure control 26207-83 (each)..... **31-6018**
10 pack.....  **31-6084**
20. Plunger, pressure control valve 26400-82, 26400-82B..... **31-6082**
21. Pressure control plug w/o-ring..... **50-8326**
22. Fitting, flywheel cavity return..... **50-8183**
23. Screw, SHC 8-32 x 5/8", (5 pack)..... **50-0293**
24. O-ring, Viton 11301 (each)..... **50-8066-S**
25. Bushing, pinion shaft..... **31-4088**
26. Screw FHSC 10-24 x 3/4" (5 pack)..... **50-8328**
27. Screw FHSC 1/4"-20 x 2" (5 pack)..... **50-8163**
28. Screw, SHCS, 1/4-20 x 1-1/2", Chrome, ASTM A574-92A... **50-0255-S[±]**
29. Screw, SHCS, 1/4-20 x 1-1/4", Chrome, ASTM A574-92A
..... **50-0257-S[±]**
30. Washer, Flat, .260" x .425" x .060", Chrome, Steel..... **50-7017[±]**
31. Gasket 25244-99A (each)..... **31-2032-S**
32. Dowel pin, 3/32" diameter x 1" (each)..... **50-8193-S**
33. Retaining ring..... **N/A**
34. Bushing..... **33-4214**
35. O-ring 5/16" O.D. x 1/16" Viton (-011)..... **50-8138-S**
36. O-ring (-209) Viton 11293, 11157, 11101, 11190
each..... **50-8039**
37. Washer, pinion gear..... **50-0331-S**
38. Screw, FHHc - 5/16"-18 x 3/4" G8 25566-06..... **50-0100**
39. Steel ball, 1/8" (each)..... **50-8092-S**
40. Pin dowel - .275" I.D. x .3745" O.D. x .397"
16589-99A..... **50-8148-S**
41. Viton o-ring (-207) (5 pack)..... **50-8244**
42. Viton o-ring (-225) (5 pack)..... **50-8243**
43. Viton o-ring (-16) (5 pack)..... **50-8242**
44. Screw, FLC 1/4"-20 x 1 3/4" (N/S) 905 (each)..... **50-0334-S**

45. Pipe plug 1/8"-27 each)..... **50-8331A**
10 pack..... **50-1015**
46. Key kit - cams..... **50-1038**
47. Camshafts
See Cam Selection Chart below.
48. Ball, pressure relief valve 3/8" diameter 8866, 8873
.....  **50-8091**
49. Spring, pressure relief valve..... **50-8408**
50. Seal rebuild kit (N/S) (Includes #5, 24, 31, 36, 41, 42, 43)
..... **31-2097**
51. Kit, cover screw (N/S) (includes #28 (7), #29 (3), #30 (10)
..... **50-1035**
52. Breather Valves (see page 162)
53. Screw, SFH, 1/4-20 x 1-3/4", Black, Alloy St..... **50-0334-S**

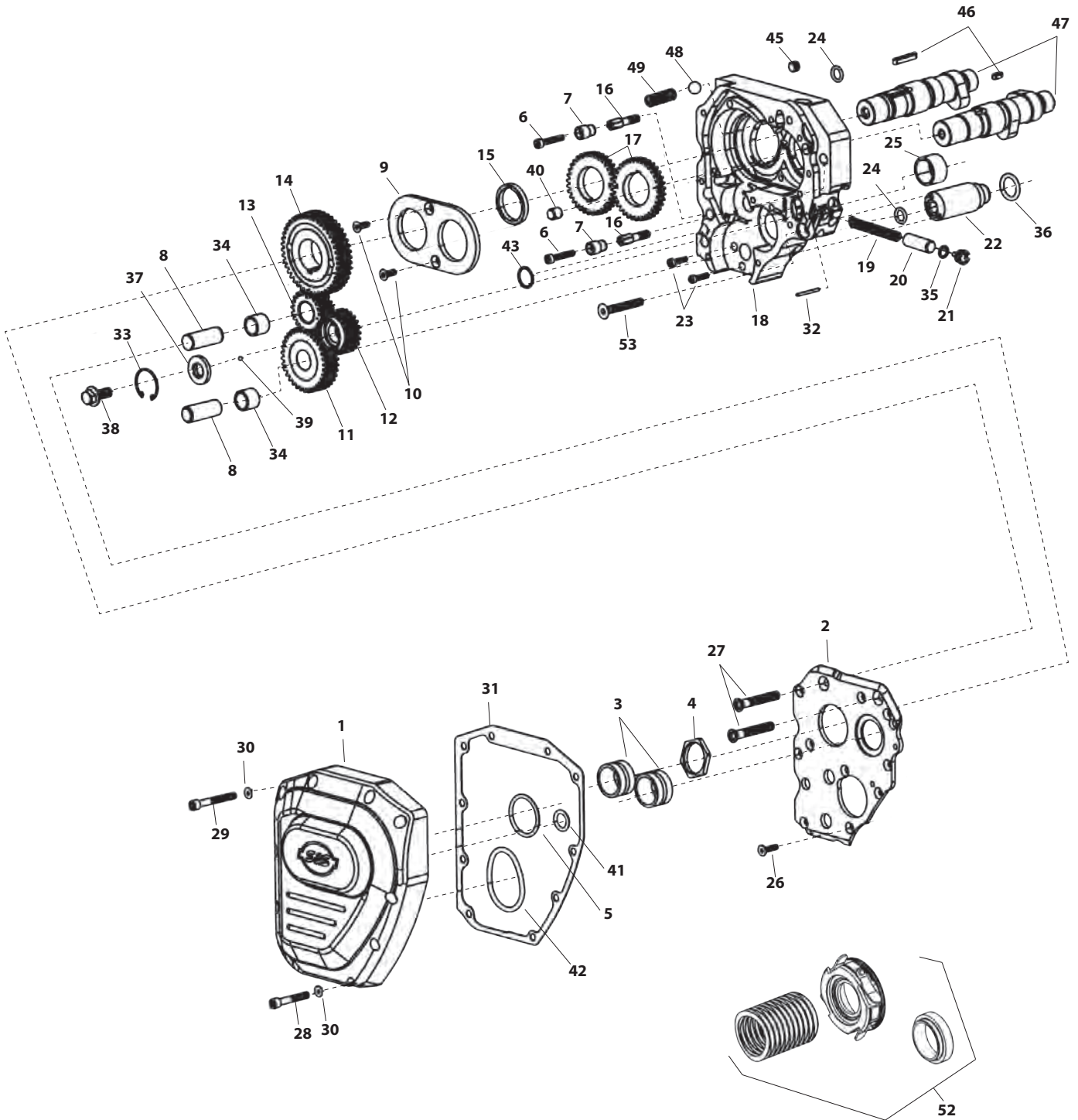
(N/S) = Not Shown

GEAR DRIVE CAMS FOR USE WITH S&S GEAR OIL PUMPS FOR 1999-'06 BIG TWIN (EXCEPT 2006 DYNA® MODELS)

Cam*	Easy Start Cams with Drive Gears
585GP	106-4771
635GPE	330-0405
640GP	106-4781
675GP	106-5215

*See Cam listings on page 170 for further information on cam recommendations for different applications.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



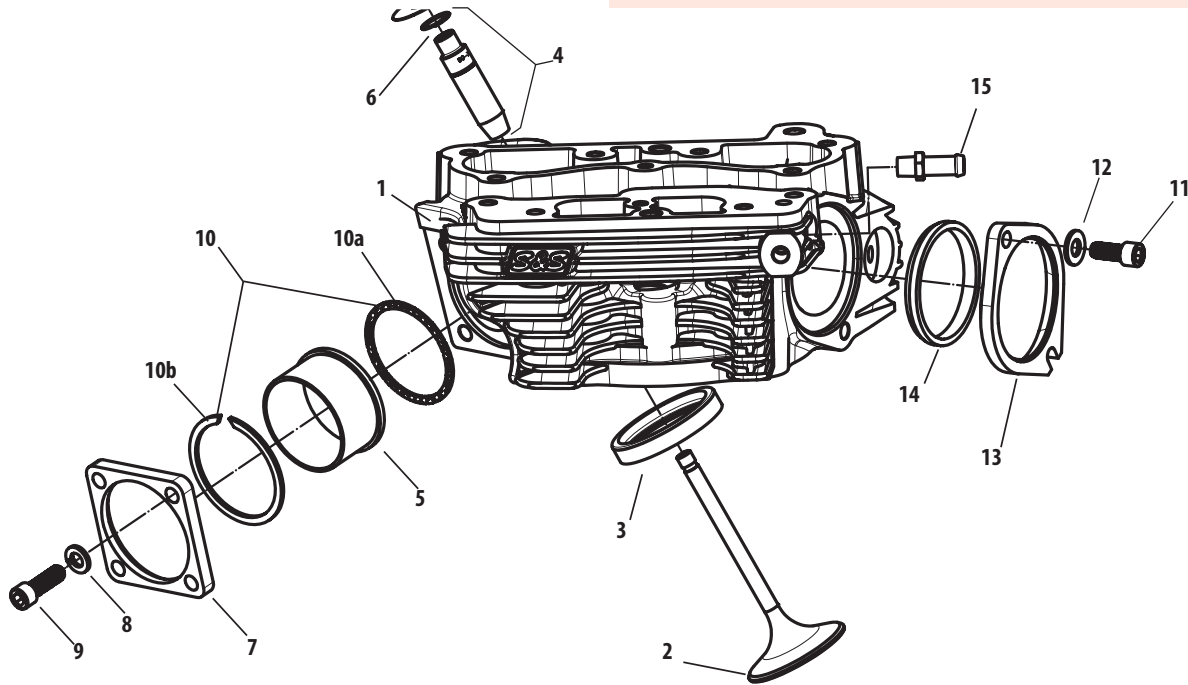
All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

B2 CYLINDER HEADS REPLACEMENT PARTS

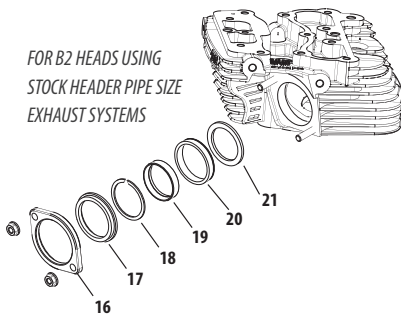
FOR 1984–'17 BIG TWIN ENGINES (EXCEPT 2017 TOURING MODELS)

- | | |
|--|------------------|
| 1. Cylinder Head – (See page 181) | |
| 2. Valve | |
| Intake, 2.200" Dia..... | 90-2127 |
| Exhaust, 1.800" Dia..... | 90-2128 |
| 3. Valve Seat | |
| Exhaust, 1.800" Dia..... | 90-2126 |
| Intake, 2.200" Dia..... | 90-2125 |
| 4. Valve Guide - Cast - Intake/Exhaust | |
| Std..... | 106-2166 |
| +.030"..... | 106-2170 |
| 5. Adaptor, Exhaust Flange..... | 55-6022 |
| 6. Snap Ring..... | 106-2164 |
| 7. Flange, Exhaust, Front/Rear..... | 55-6021 |
| 8. Washer, Lock, .332" X .583" X .078"..... | 50-7032 |
| 9. Screw, Sh, 5/16" - 18 X 1" 3201WA, 2708..... | 50-0101 |
| 10. Gasket, Kit, Exhaust, B2 Heads, SA..... | 90-1900 |
| Kit Includes Two Each: | |
| A: Gasket, Exhaust Pipe (each)..... | 93-1083-5 |
| 6 pack..... | 93-1083 |
| B: Retaining Ring..... | 50-8159-5 |
| 11. Screw, SH, 5/16-18 X 3/4" 3275..... | 50-0302-5 |
| 12. Washer, 5/16" 6320, 70907-07, 6016, 6702..... | 50-7034 |
| 13. Manifold Mounting Flange | |
| Front..... | 16-0247 |
| Rear..... | 16-0248 |
| 14. O-Ring, Manifold..... | 16-0246-5 |
| 6 pack..... | 16-0246 |
| 15. Fitting, Vent Hose, 1/8"-27 Pipe..... | 50-8115 |
| 16. Exhaust Flange, 1984–Up S&S® B2 Heads..... | 550-0223 |
| 17. Exhaust Adapter Flange For Stock Header Pipe,
1984–Up S&S® B2 Heads..... | 550-0224 |
| 18. Exhaust Flange Retaining Ring, 1.759" X .062"..... | 550-0226 |
| 19. Exhaust Gasket, Tapered Stainless Steel,
1984–Up bt 65324-83B, 65324-83A..... | 106-5029 |
| 20. Press-In Aluminum Retaining Ring..... | 550-0225 |
| 21. Exhaust Gasket Backing Washer 2.18" X 1.690" X .125"..... | 550-0220 |
| 22. Exhaust Flange Retaining Ring, 2.125" X .078"..... | 50-8159-5 |
| 23. Exhaust Gasket, Tapered, Stainless Steel..... | 550-0221 |
| 24. Exhaust Gasket Backing Washer 2.18" X 1.885" X .200"..... | 550-0219 |
| 25. Weld-On Exhaust Header Pipe..... | 550-0222 |

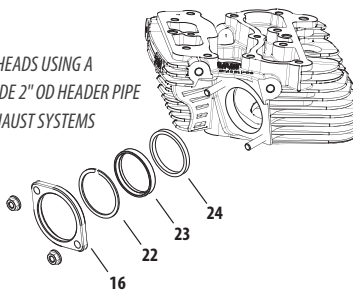
VALVE SPRING REPLACEMENT PARTS ON PAGE 214



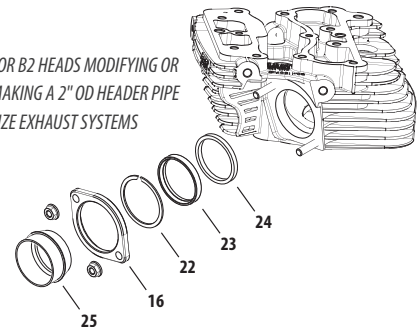
FOR B2 HEADS USING STOCK HEADER PIPE SIZE EXHAUST SYSTEMS



FOR B2 HEADS USING A PRE-MADE 2" OD HEADER PIPE SIZE EXHAUST SYSTEMS



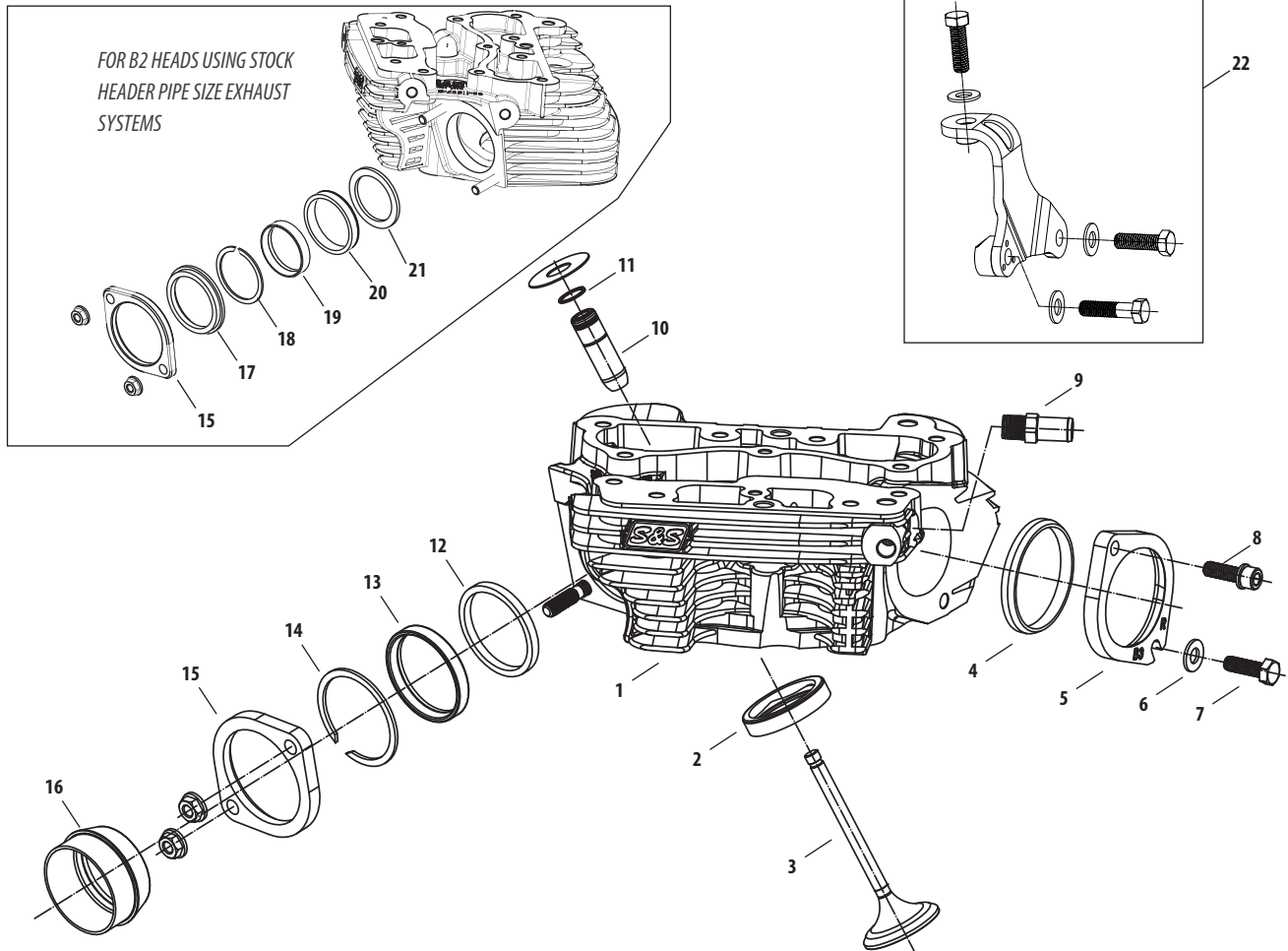
FOR B2 HEADS MODIFYING OR MAKING A 2" OD HEADER PIPE SIZE EXHAUST SYSTEMS



B3 CYLINDER HEADS REPLACEMENT PARTS FOR S&S T143 ENGINES



















- | | |
|--|------------------|
| 1. Cylinder Heads Set, B3
Black | 900-0803 |
| Silver | 900-0818 |
| 2. Seat, Blank, B3 Heads, 2.300"
Intake | 900-0677 |
| Exhaust | 90-2126-S |
| 3. Valve
Intake | 900-0678 |
| Exhaust | 900-0679 |
| 4. Seal, Manifold, B2 Heads, 2.250" x 2.520" x .290" | 16-0246-S |
| 5. Flange
Front | 160-0087 |
| Rear | 160-0088 |
| Set | 160-0091 |
| 6. Washer, Flat, .344" x .688" x .065", Zinc, Steel | 50-7034 |
| 7. Bolt, Hex Head, Gr5, 5/16-18 x 1", Zinc | 50-0108 |
| 8. Screw, SHCS, w/Flat Washer, 5/16-18 x 1", Zinc | 50-0125-S |
| 9. Fitting, Pipe, Straight, 1/4-18 NPTF x 1.510" X .500", Zinc, Steel
..... | 50-8158-S |
| 10. Valve Guide, Intake, Powder Metal | 900-0780 |
| 11. Retaining Ring, External, Spiral, Heavy Duty, .525" x .035" x .050",
Carbon Steel | 106-2164 |
| 12. Exhaust Gasket Backing Washer, 2.18" x 1.885" x .200" | 550-0219 |
| 13. Exhaust Gasket, Tapered, Stainless Steel | 550-0221 |
| 14. Exhaust Flange Retaining Ring, 2.125" x .078" | 50-8159-S |
| 15. Exhaust Flange | 550-0223 |
| 16. Weld-On Exhaust Header Pipe | 550-0222 |
| 17. Exhaust Adapter Flange for Stock Header Pipe | 550-0224 |
| 18. Exhaust Flange Retaining Ring, 1.759" x .062" | 550-0226 |
| 19. Exhaust Gasket, Tapered Stainless Steel | 106-5029 |
| 20. Press-in Aluminum Retaining Ring, 1984-up | 550-0225 |
| 21. Exhaust Gasket Backing Washer, 2.18" x 1.690" x .125" | 550-0220 |
| 22. Head Mount Bracket Kit
2008 T143 | 900-0797 |
| 2009-up T143 | 900-0798 |

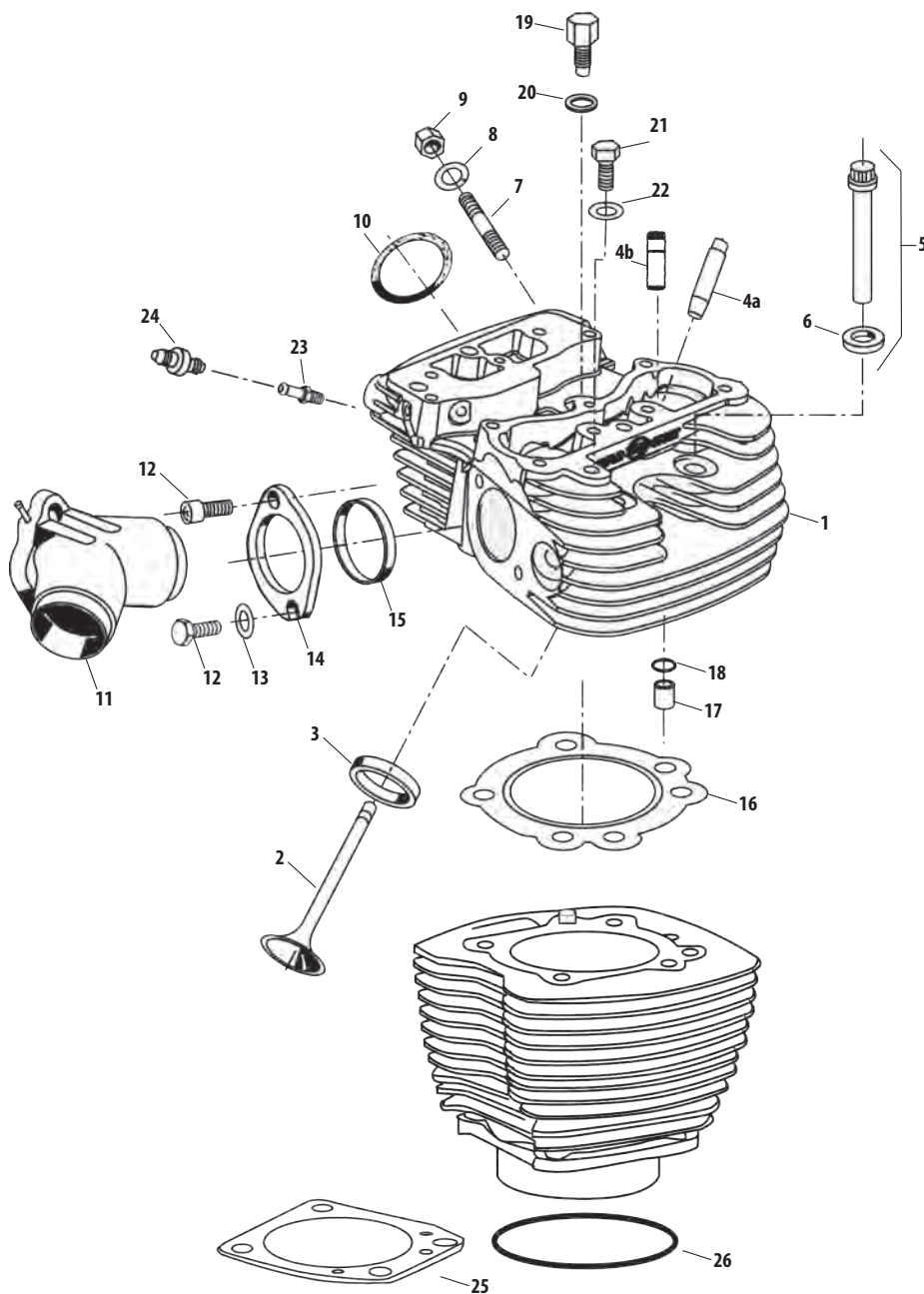
VALVE SPRING REPLACEMENT PARTS ON PAGE 214



All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

SUPER STOCK® CYLINDER HEADS REPLACEMENT PARTS FOR 1999–UP BIG TWIN ENGINES

1. Cylinder head (See page 182)
2. Valve
 - All S&S heads with 89cc chamber
 - Intake
 - 2.000" diameter  **90-2000**
 - 2.000" diameter + .085" stem length **90-2004**
 - Exhaust
 - 1.605" diameter  **90-2001**
 - All S&S heads with 79cc chamber
 - Intake – 1.940" diameter **90-2025**
 - Exhaust – 1.575" diameter **90-2026**
3. Valve seat
 - All S&S heads with 89cc chamber
 - Intake - 2.000" diameter  **90-2002**
 - Exhaust - 1.605" diameter  **90-2003**
 - All S&S heads with 79cc chamber
 - Intake - 1.940" diameter **90-2027**
 - Exhaust - 1.575" diameter **90-2028**
- 4a. Valve guide - Cast- Intake or Exhaust
 - Standard Diameter .5625/.5620 18112-92  **90-2210**
 - + .001" Diameter .5635/.5630 18130-83C  **90-2211**
 - + .002" Diameter .5645/.5640 18133-83A, 18133-83D  **90-2212**
 - + .003" Diameter .5655/.5650 18131-83C  **90-2213**
 - + .030" Diameter .5925/.5920  **90-2219**
- 4b. Valve guide - Powder Metal - Intake or Exhaust
 - Standard **900-0553**
 - + .001" **900-0554**
 - + .002" **900-0555**
 - + .003" **900-0556**
5. Head bolt assembly – (8 Required) (Includes head bolt washer)
 - 88", 95", 96", 100", 107" & 111"  **93-3030**
 - 4 pack **93-3030-4**
 - 116", 117" **93-3037**
 - 4 pack **93-3037-4**
6. Head bolt washer
 - .150" (each) **50-0418-S**
 - .250" (each) **50-7091**
7. Exhaust port stud 16715-83 (each)  **50-0493**
- 5 pack  **50-1028**
8. Lock washer - 5/16" **50-7032**
9. Nut, flanged - 5/16" -24
 - Zinc (each) **50-5025-S**
 - 2 pack **50-5025-2**
 - 5 pack **50-1001**
 - Chrome (each) **50-5030-S±**
10. Exhaust pipe gasket, tapered 65324-83B, 65324-83A (each) **106-5029**
- 10 pack **93-1072**
11. Intake manifold (See page 186)
12. Manifold mounting screw
 - SH - 5/16" -18 x 3/4" 3275 (each) **50-0302-S**
 - SH - 5/16" -18 x 1" 3201WA, 2708 **50-0101**
 - HH - 5/16" -18 x 1" 3987 (each)  **50-0108**
13. Flat washer - 5/16" 6320, 70907-07, 6016, 6702 **50-7034**
14. Manifold mounting flange
 - a. Standard Profile Flange
 - Front 27009-86A (each)  **16-0232**
 - 5 pack  **16-0600**
 - Rear 27010-86A (each)  **16-0233**
 - 5 pack  **16-0601**
 - Set (Front & Rear) **106-3516**
 - b. Low Profile Flange
 - Front **106-1344**
 - Rear **106-1345**
15. Manifold o-ring
 - For S&S heads (each) **16-0235**
 - 10 pack **16-0243**
 - For Stock heads 26995-86B, 26995-86A, 26992-99 (each)  **16-0236**
 - 10 pack **16-0244**
16. Head gasket
 - For Stock Bolt Pattern
 - 3 3/4" x .043" Graphite 16775-99B (each) **93-1045-S**
 - 3 7/8" /3.927" x .030" Layered Steel (2 pack) **900-0605**
 - 3 7/8" /3.927" x .045" Layered Steel (each) **900-0606**
 - 4" x .043" Graphite (each) **93-1043-S**
 - 10 pack **93-1058**
 - 4 1/8" x .043" Layered Steel (each) **93-1091-S**
 - 10 pack **93-1920**
 - 4 1/8" x .030" Layered Steel (2 pack) **900-0217**
 - For S&S Bores
 - 4 1/8" x .043" Graphite (each) **93-1047-S**
 - 10 pack **93-1073**
 - 4 3/8" x .045" Copper (Set of Two) **93-1081**
17. Alignment dowel, base and head 16595-99A
 - each **50-8177**
 - 4 pack **50-8177-4**
18. Alignment dowel o-ring – Base (all bore sizes)
 - S&S heads 3 3/4" bore only 11105, 11273
 - each **50-8008**
 - 10 pack **50-8078**
19. Plug, HH - 14mm (each) **90-4916**
- 2 pack **90-4916-2**
20. Washer, compression - 14mm, 507" x .705" x .047" (each) **50-7094**
21. Head mount bolt - 3/8" -16 x 1 1/4" 4716W (each) **50-0168**
22. Flat washer - 3/8" (each) **50-7051**
23. Vent hose fitting, (For 4 1/8" Bore Only)
 - Front, 1/16" -27 pipe **50-8117**
 - Rear, 1/8" -27 pipe **50-8115**
24. Check Valve (For 4 1/8" Bore Only) **50-8122**
25. Base Gaskets
 - For S&S Bores
 - 4 3/8" x .018" Graphite (2 pack) **93-1082**
 - 4 1/8" x .018" Graphite (each) **93-1048-S**
 - 10 pack **93-1074**
 - 4" x .018" Graphite (each) **93-1050-S**
 - For Stock Bolt Pattern
 - 4 1/8" x .018" Graphite (each) **93-1092-S**
 - 10 pack **93-1921**
26. Base O-ring (Used for early S&S bores)
 - 4" x .103" (each) **50-8049**
 - 3 5/8" or 3 1/2" x .103" 11256 (each) **50-8048**





TOP END REBUILD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

Bore Size	Part #
S&S 4 $\frac{3}{8}$ "	90-9511*
S&S 4 $\frac{1}{8}$ "	90-9506
4 $\frac{1}{8}$ " Stock Cases	90-9510
4"	90-9505
3 $\frac{7}{8}$ "	90-9504

*Kits include: Intake and exhaust seals, head & base gaskets, o-rings, pushrod o-rings, and valve guide seals.
Does not include intake seals.

VALVE SPRING REPLACEMENT PARTS

.720" & .660" Lift Valve Springs (B3 Cylinder Heads)

- | | |
|---|--|
| 1. Seal, valve guide, intake/exhaust 18001-83B (each) |  90-2008 |
| 8 pack |  90-2158 |
| 2. Keeper, valve spring, SA | 90-2153A |
| 3. Valve spring shim | |
| .015" (each) | 90-2086 |
| 5 pack | 50-7161 |
| .030" (each) | 90-2087 |
| 5 pack | 90-2198 |

.650" Lift Valve Springs (B2 Cylinder Heads)

- | | |
|---|------------------|
| 1. Seal, Valve Guide, fits .315" x .554" OD, Viton® | 900-0737 |
| 2. Keeper, valve spring, Standard, 9° | 90-2094-S |

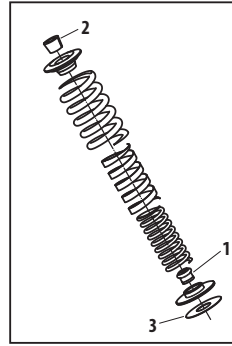
.650" Lift Sidewinder® Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

- | | |
|--|-----------------|
| 1. Spring, Valve .650" | 106-5689 |
| 2. Collar, Top, Steel | 106-5690 |
| 3. Collar, Bottom, Steel | 106-5691 |
| 4. Seal, Valve | |
| S&S CNC Ported Heads & 2005-up bt w/7mm valve stem | 106-5688 |
| S&S Super Stock Heads | |
| .420" Cast | 900-0338 |
| .562" Powder Metal | 900-0737 |
| 5. Keeper, valve spring | 106-5692 |
| 6. Valve Spring Shim | |
| .015" (each) | 500-0013 |
| .030" (each) | 500-0014 |

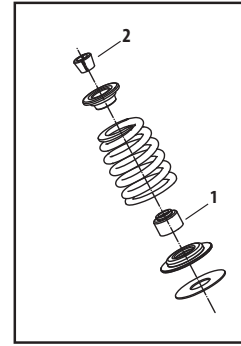
.585" Lift Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

- | | |
|---|------------------|
| 1. Spring, Valve .585" | 900-0444 |
| 2. Collar, Top | 900-0550 |
| 3. Collar, Bottom | |
| For Stock Heads w/7mm valve stem (includes seal) | 900-0590 |
| For CNC Ported Heads w/7mm valve stem | 900-0549 |
| For Super Stock Heads | 900-0600 |
| 4. Seal, valve guide | |
| For Stock Heads w/7mm valve stem (includes bottom collar) | 900-0590 |
| For CNC Ported Heads w/7mm valve stem | 106-5688 |
| For Super Stock Heads | |
| .420" Cast | 900-0338 |
| .562" Powdermetal | 900-0737 |
| 5. Keeper, valve spring | |
| For Stock and CNC Ported Heads | 106-5692 |
| For Super Stock Heads | 90-2094-S |
| 6. Valve spring shim | |
| For Stock and CNC Ported Heads | |
| .015" | 500-0013 |
| .030" | 500-0014 |
| For Super Stock Heads | |
| .015" | 90-2086 |
| .030" | 90-2087 |

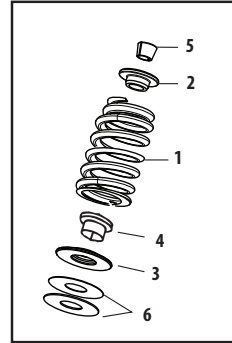
.720" & .660" Lift Valve Springs



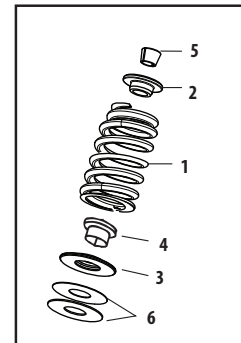
.650" Lift Valve Springs



.650" Lift Sidewinder® Valve Springs



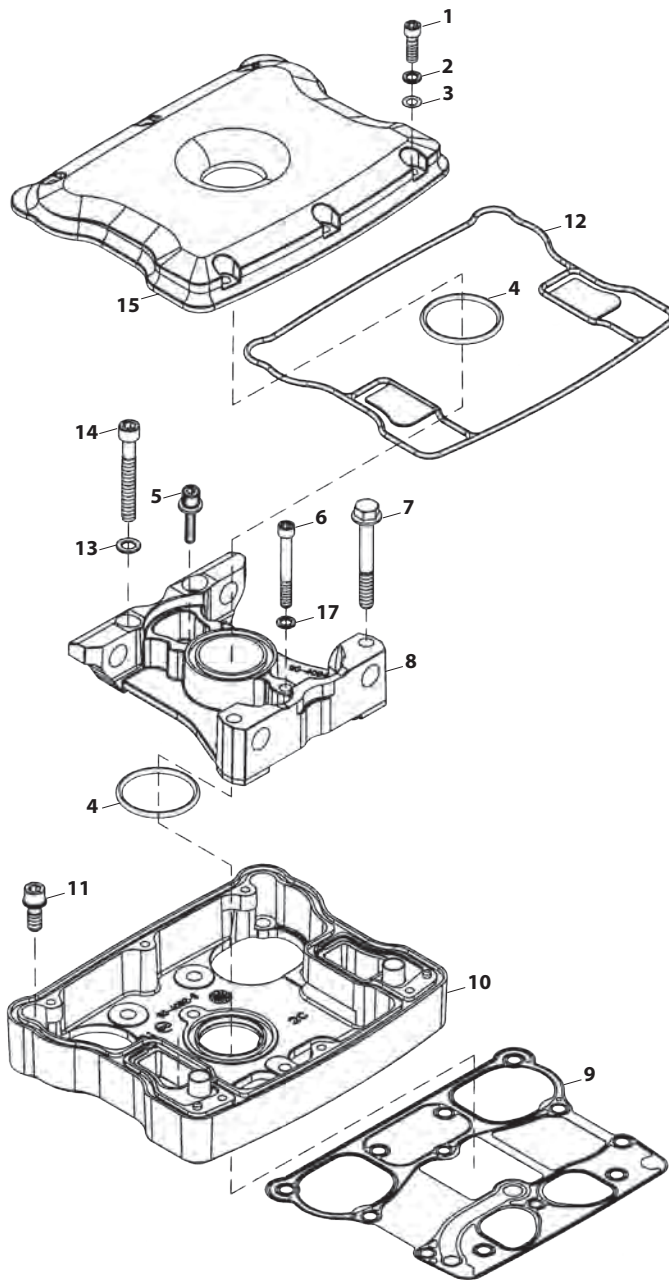
.585" Lift Valve Springs



DIE-CAST ROCKER COVER REPLACEMENT PARTS

FOR 1999–UP BIG TWIN ENGINES

1. Screw, socket head 1/4"-20 x 3/4" 4069A (each) **50-0067**
2. Washer, flat 1/4" (each) **50-7017**
12 pack **50-7013**
3. Washer, silicone coated 1/4" (each) **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
4. Seal, o-ring
(Included in gasket kit see #16 below.)
5. Screw, socket head, 1/4"-20 x 1" 4741A
each **50-0092-S**
4 pack **50-0092P**
6. Screw, socket head, 1/4"-20 x 2" 25794-36 **50-0013**
7. Screw, hex flange head, 5/16"-18 x 2 1/2" 3501 **50-0123**
8. Support, rocker arm **90-4140**
9. Gasket, rocker cover, Graphite
For Stock or S&S rocker covers on stock heads 16719-99B
each **90-4071-S**
2 pack **90-4071**
10 pack **90-4099**
For Stock rocker covers on S&S heads (each) **90-4124**
2 pack **90-4120**
10. Housing, rocker, Chrome **900-4283±**
11. Screw, socket head, 5/16"-18 x 1" **50-0125-S**
12. Seal, rocker cover
(Included in gasket kit see #16 below.)
13. Washer, flat 5/16" (each) **50-7026**
14. Screw, socket head 5/16"-18 x 2 1/4"
each **50-0115-S**
15. Cover, rocker, chrome **900-0706±**
16. Gasket set - rocker cover, cast (Not Shown) **90-4111**
17. Washer, .261" x .474" x .050", Annealed, Stainless Steel **50-7020**

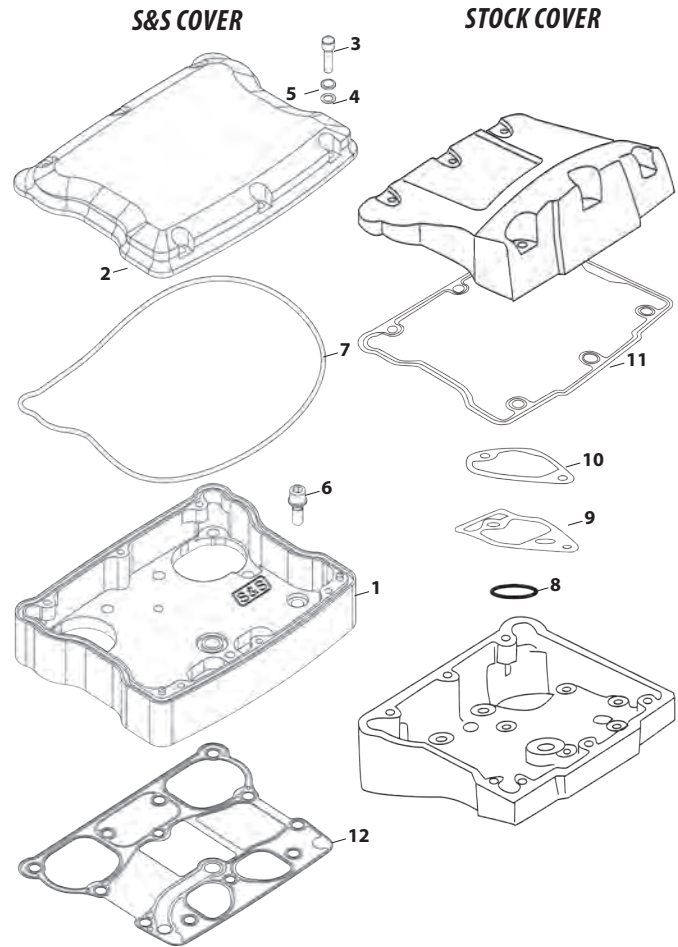


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BILLET ROCKER COVER REPLACEMENT PARTS FOR 1999–UP BIG TWIN ENGINES (DISCONTINUED)

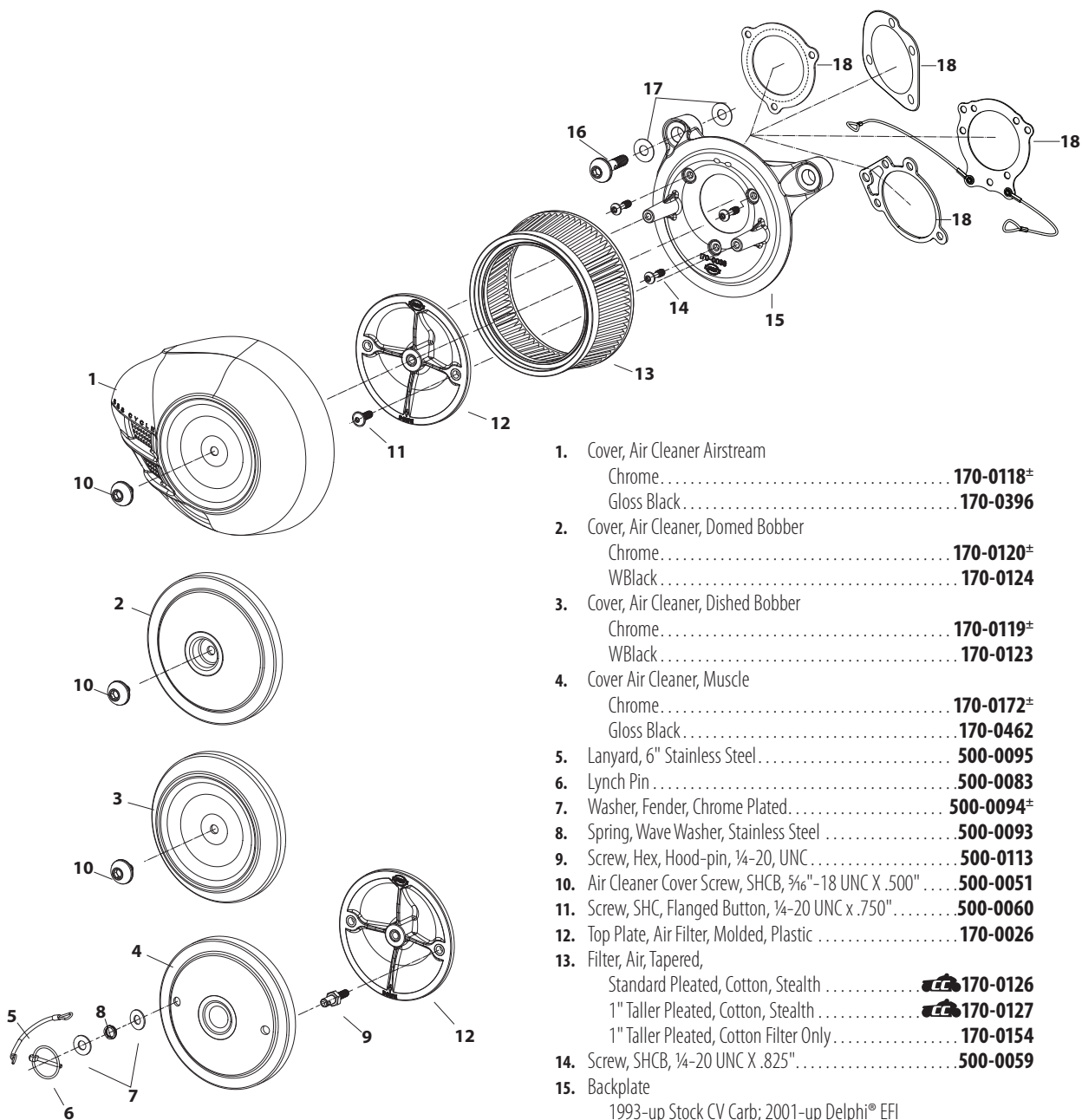
- 1. Base assembly, rocker **N/A**
- 2. Top, rocker cover **N/A**
- 3. Screw, SHCS, 1/4"-20 x 3/4" 4069A (each)..... **50-0067**
- 4. Washer, flat, chrome, 260" x .425" x .060"
each **50-7017[±]**
12 pack **50-7013[±]**
- 5. Washer, flat, rubber coated, 1/4" x 7/16" x .020"
each **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
- 6. SHCS, 5/16"-18 x 1" with flatwasher **50-0125-S**
- 7. O-ring, rocker cover seal, Viton® **50-8050**
- 8. O-ring, (-114), .625" ID x .937" OD 11270 **50-8033**
- 9. Gasket, Breather Baffle, Stock Pattern, Paper, 1999-'10 bt
17162-03, 17592-99 each **90-4078**
- 10. Gasket, Breather Cover, Stock Pattern, Paper, 1999-'10 bt
17591-99, 17162-03, 17592-99 each **90-4077**
- 11. Gasket, Rocker Cover, Steel, 1999-up bt 17386-99A
each **90-4096-S**
- 12. Gasket, bottom rocker cover
each **90-4071-S**
2 pack **90-4071**
10 pack **90-4099**
- 9. Gasket kit, rocker cover (includes gaskets for 2 rocker covers)
For S&S billet rocker covers
(includes #5,7,8,9,10,12)..... **90-4073**
For 1999-'10 bt
(includes #8,9,10,11,12) **90-4097**

N/A = No longer available



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STEALTH AIR CLEANER REPLACEMENT PARTS



1. Cover, Air Cleaner Airstream
 Chrome..... **170-0118±**
 Gloss Black..... **170-0396**
2. Cover, Air Cleaner, Domed Bobber
 Chrome..... **170-0120±**
 WBlack..... **170-0124**
3. Cover, Air Cleaner, Dished Bobber
 Chrome..... **170-0119±**
 WBlack..... **170-0123**
4. Cover Air Cleaner, Muscle
 Chrome..... **170-0172±**
 Gloss Black..... **170-0462**
5. Lanyard, 6" Stainless Steel..... **500-0095**
6. Lynch Pin..... **500-0083**
7. Washer, Fender, Chrome Plated..... **500-0094±**
8. Spring, Wave Washer, Stainless Steel..... **500-0093**
9. Screw, Hex, Hood-pin, ¼-20, UNC..... **500-0113**
10. Air Cleaner Cover Screw, SHCB, ⅝"-18 UNC X .500"..... **500-0051**
11. Screw, SHC, Flanged Button, ¼-20 UNC x .750"..... **500-0060**
12. Top Plate, Air Filter, Molded, Plastic..... **170-0026**
13. Filter, Air, Tapered,
 Standard Pleated, Cotton, Stealth..... **170-0126**
 1" Taller Pleated, Cotton, Stealth..... **170-0127**
 1" Taller Pleated, Cotton Filter Only..... **170-0154**
14. Screw, SHCB, ¼-20 UNC X .825"..... **500-0059**
15. Backplate
 1993-up Stock CV Carb; 2001-up Delphi® EFI
 (except Throttle by Wire)..... **170-0021**
 Super E/G, Black, Die Cast, 1993-up bt..... **170-0049**
16. Screw, Backplate Vent, SHCB, ⅜-16 x 1½", Chrome Plated..... **170-0045±**
17. Washer, Flat, Nitrile Rubber Coated, .380" x .880" x .024"
 each..... **50-7054**
 10 pack..... **50-7059**
18. Gasket, Backplate
 Stock CV Carb & EFI Throttle Body, 1991-up bt 29062-958
 (except Throttle by Wire)..... **106-6022**
 Throttle by Wire, 58mm-72mm, .0625" Thick, 2008-up bt..... **160-0035**
 Super E/G, CV Adapter,..... **106-1724**
 w/ lanyards for use with Muscle Cover..... **170-0137**

SINGLE BORE TUNED INDUCTION SYSTEM REPLACEMENT PARTS

FOR S&S T-SERIES ENGINES AND 1999–'06 BIG TWINS

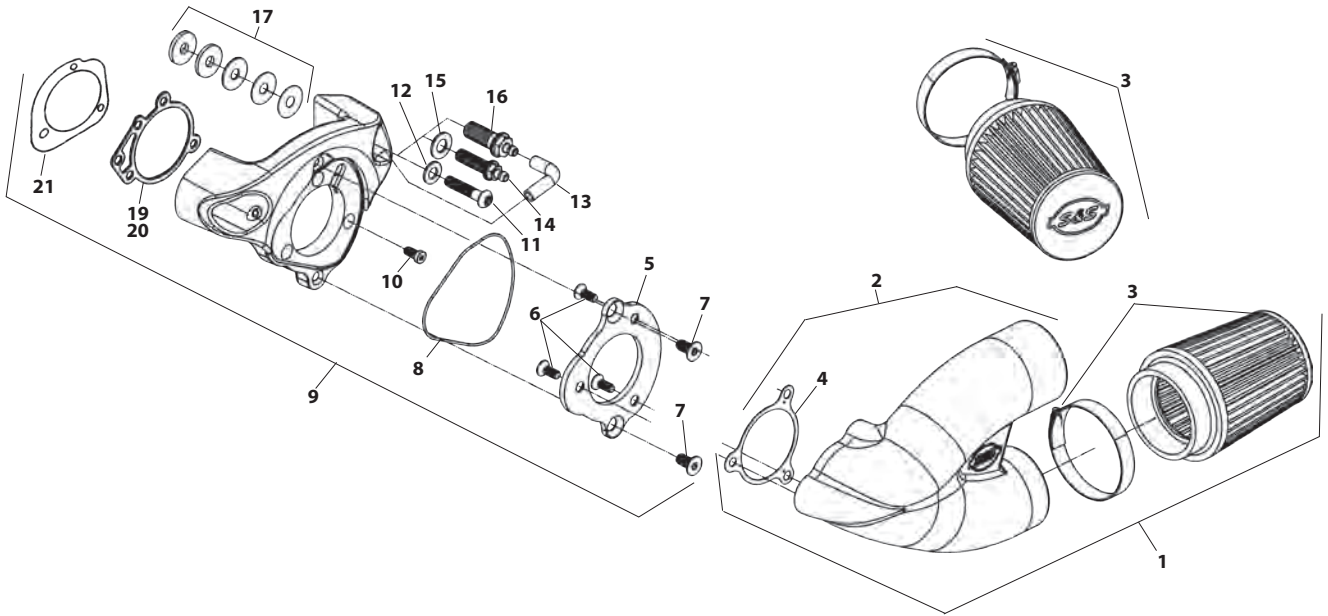
1. Tuned Intake Kit, 2.19" Single Bore with Red Filters
 - Gloss Black  **170-0454**
 - Chrome Plated  **106-4967[±]**
2. Tuned Intake Assembly, 2.19" Single Bore
 - Natural  **106-4968**
 - Gloss Black  **170-0453**
 - Chrome Plated  **106-4970[±]**
3. Air Filter, w/clamp, Stainless Cap – Conical – 2⁷/₁₆" I.D. x 4"
 - Red (each) **17-1020**
 - Blue (each) **17-1023**
4. Gasket, Intake – Adapter Plate **17-1022**
5. Plate, Adapter, 2.19" Single Bore Tuned Intake
 - Chrome Steel **17-1014**
6. FHSC 1/4–20 x 5/8" (each) **50-0433**
7. FHSC 5/16–18 x 5/8" (each) **50-0432**
8. O-Ring, Adapter Plate Bracket 3⁵/₈" O.D. x 3¹/₂" I.D. 1/16 CS, Viton
each **50-0446**
9. Bracket Kit, 2.19" Single Bore Tuned Intake, Chrome
 - Super E/G, S&S T124 **106-4973[±]**
 - Super E/G, 1999–'06 BT **106-4974[±]**
 - Single VFI, S&S T124 **106-4976[±]**
 - Single VFI, 1984–up BT **106-4977[±]**
 - Stock Carb, Delphi® EFI, 1984–up BT **106-4978[±]**
10. Backplate Screw, SHC, w/Threadlock, 1/4–20 x 1/2" (each) **106-2084**
10 pack **106-2105**
11. Screw, 5/16–18 x 1 1/4, BHC, Chrome (each) **50-0309-5[±]**
12. Flat Washer 5/16" x 1/16" 6320, 70907-07, 6016, 6702 **50-7034**
13. Hose, Breather, 1/4" I.D., 90° **19-0178A**
14. Screw, Breather Fitting, 3/8–16 x 1 1/4" **50-0436**
15. Washer, Flat, 3/8" x 13/16" x 1/16", Chrome **50-7106-5[±]**
16. Screw, Breather Fitting, 1/2–13 x 1.25 **50-0435**
17. Shim Kit
 - (a) 5/16" I.D. S&S 4¹/₈" engines **17-0314**
Includes:
 - .325" x 1" x .018", Stainless Steel (each) **50-7038**
 - .325" x 1" x .030", Stainless Steel (each) **50-7039**
 - .325" x 1" x .048", Stainless Steel (each) **50-7040**
 - .325" x 1" x .105", Stainless Steel (each) **50-7041**
 - .325" x 1" x .125", Stainless Steel (each) **50-7042**
 - (b) 1/2" I.D. 1993–up BT **17-0464**
Includes:
 - .515" x 1" x .018", Stainless Steel (each) **50-7085**
 - .515" x 1" x .030", Stainless Steel (each) **50-7086**
 - .515" x 1" x .048", Stainless Steel (each) **50-7087**
 - .515" x 1" x .105", Stainless Steel (each) **50-7089**
 - .515" x 1" x .125", Stainless Steel (each) **50-7090**
18. Enrichment Device*, S&S Super E & G carbs **N/A**
(*Use in place of enrichment device on air cleaner backplate)
19. Gasket, Backplate – E/G/SBEFI (each) **106-1724**
10 pack **106-2328**
20. Gasket, Backplate, S&S SBEFI 58mm **106-4662**
21. Gasket, Backplate, Stock carb/Throttle Body 29062-958 **106-6022**
22. Hardware Kit
 - 1999–'06 bt, Stock CV & EFI Delphi®
(includes #7, 8, 10, 11, 12, 13, 14, 15, 16, 17a, 17b, 19, 21) **17-5098**
 - 1999–'06 bt, Super E/G
(includes #7, 8, 10, 11, 12, 13, 14, 15, 16, 17a, 17b, 18, 19, 21) **17-5099[±]**
 - S&S 4¹/₈" Bore Heads (includes #7, 8, 10, 11, 12, 13, 17a, 19) **500-0016**
23. Oil, Air Filter, 8 oz. (Not shown)
 - Red **106-1163**
 - Blue **106-1164**

ACCESSORIES

Description		Part #
Nylon Air Filter Cover	each	106-0247
	2 pack	106-0248



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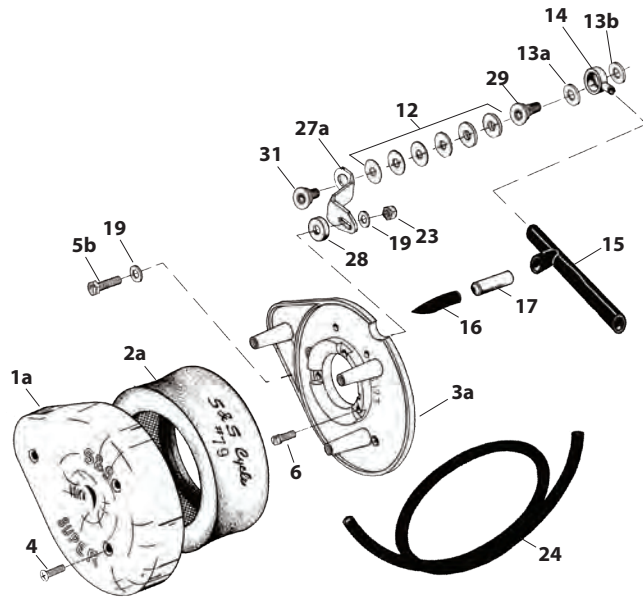


AIR CLEANER REPLACEMENT PARTS

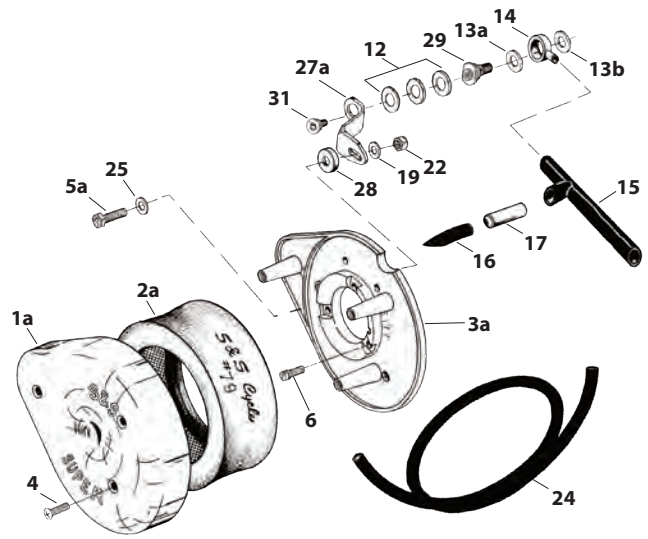
FOR STOCK FUEL SYSTEMS

1. Air cleaner cover		
a. Chrome	17-0078 [±]	
Black	17-0075	
b. Chrome	17-0378 [±]	
Gloss Black	170-0384A	
Slasher	17-0004 [±]	
2. Filter Element		
a. Foam	17-0079	
b. Pleated	106-4722	
3. Backplate		
a. 1993-'99, bt stock CV	17-0003	
b. 1993-'06 bt, stock CV/Delphi® EFI	106-0907	
4. Cover screw 1305 (each)	50-0072	
3 pack	50-1052	
10 pack	50-0094	
Black 902 (each)	50-0310-S	
3 pack	50-0310	
5. Screw		
b. All others — HHCS ¼"–28 x 7/8"	50-0074	
6. Backplate screw, BT 1999-up, All 2002-up EFI BT		
Zinc Plated (each)	106-2084	
10 pack	106-2105	
7. Backplate plug 1/8"–27 (each)	50-8331A	
10 pack	50-1015	
8. Spacer, 1/2" Hex, Threaded	N/A	
9. Stud, Fully Threaded, 5/16–18 x 1.25", Zinc Plated, 1999-'01	N/A	
10. SHCS, ¼–20 x 3/4 SEMS	50-0066	
11. Screw, SHCS,		
1995-'98, ¼–20 x 3/4", SEMS	50-0066	
1999-'01, 5/16–18 x 3/4" 3275 (each)	50-0302-S	
12. Shims		
a. 5/8" x .025" (each)	50-7113	
10 pack	50-7110	
b. 5/8" x .050" (each)	50-7114	
10 pack	50-7111	
c. 5/8" x .075" (each)	50-7115	
10 pack	50-7112	
13. Breather screw seal		
a. BT 1993-'99, All 2002 EFI BT — Washer, .520 (each)	50-7055	
10 pack	50-7057	
b. BT 1999-up, All 2002 EFI BT — Washer, .380 (each)	50-7054	
10 pack	50-7059	
14. Breather fitting (each)	17-0350	
2 pack	17-0355	
15. Crankcase breather vent hose, BT 1999-up	USA 1,2 17-0339	
16. Vent hose, with angle cut	17-0365	
17. Hose fitting	17-0336C-S	
18. Hose, vent, breather, formed,		
.250" x .375" x 1.825", 1993–2007 BT (each)	17-0364A	
19. Flatwasher, ¼" 6194, 6245, 6703, 6736, 6228W, 6192 (each)	50-7021	
20. Washer, Lock, .250" 7035, 7036	50-7019	
21. Screw, SHCS, ¼–20 x 1 1/4" (each)	50-0008	
22. Support bracket locknut – ¼"–28 x 7/8" (each)	50-5010	
23. Lockwasher, 5/16"	50-7032	
24. Rubber tubing – ¼" x 3/8" x 3'	USA N/A	
25. Washer, flat – 3/8" x 7/8" x .146" (each)	50-7053	
26. Washer, Flat, .375" x .875" x .146", Zinc, Steel (each)	50-7053	
27. Support bracket		
a. 1999-up bt & EFI Softail® 2001	N/A	
b. 1995–2001 bt, Air Cleaner To Head, Nickel Plated	106-1285	
28. Shim – ¼" x 3/4" x .200"	50-7024	
29. Screw vent fitting, BT 1999-up	17-0345	
30. Screw, Breather, +.250" (Rear Head)	17-0348	
31. Screw, Backplate (Rear Head), Socket Panhead		
5/16–24 x .360", Zinc, Alloy Steel	17-0346	
32. Screw, Backplate Vent (Front Head)		
1999-'01, 5/16–18	17-0345	
33. Screw, LSHC 5/16–24, x 1/2" Stainless Steel Front Head	106-2023	
34. Cover, Breather Screw, Chrome, Aluminum, Front Head	106-2022 [±]	
35. Gasket, backplate (each)	106-1724	
10 pack	106-2328	
36. Adaptor assembly, 1993-'06 bt	106-0881 [±]	
37. Clamp, spring, 5/16"	50-8001	
38. Clamp, Spring, .660" (each)	50-8076-S	
39. Wire tie (N/S)	50-8003	

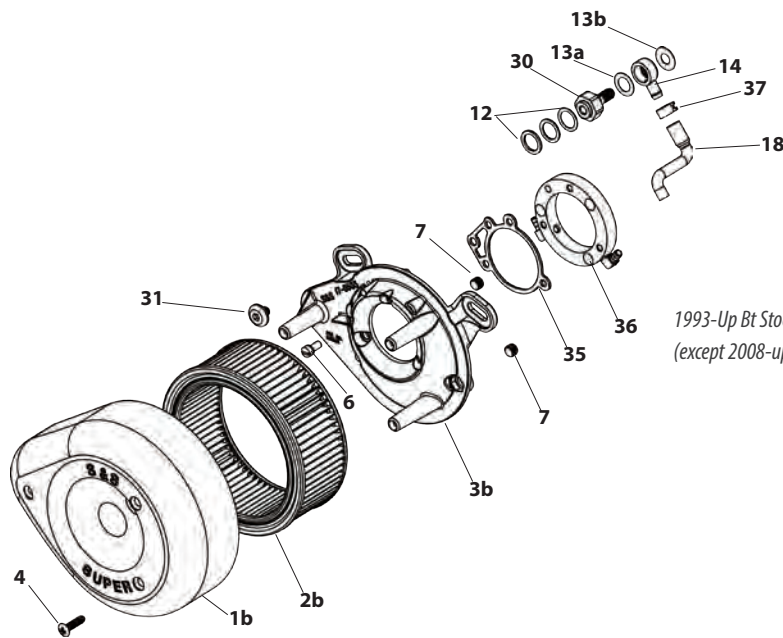
(N/S) = Not Shown



1999-Up Big Twin with CV Carburetor, 2001 Harley-Davidson® EFI Softail®, & All 2001-'06 EFI Models except Dyna® (Discontinued) **17-0101**







1993-'06 Carbureted Big Twin Models, 2001 EFI Softail® Models, and 2002-Up All EFI Models (except 2006-Up Dyna®) (Discontinued) **17-0117**

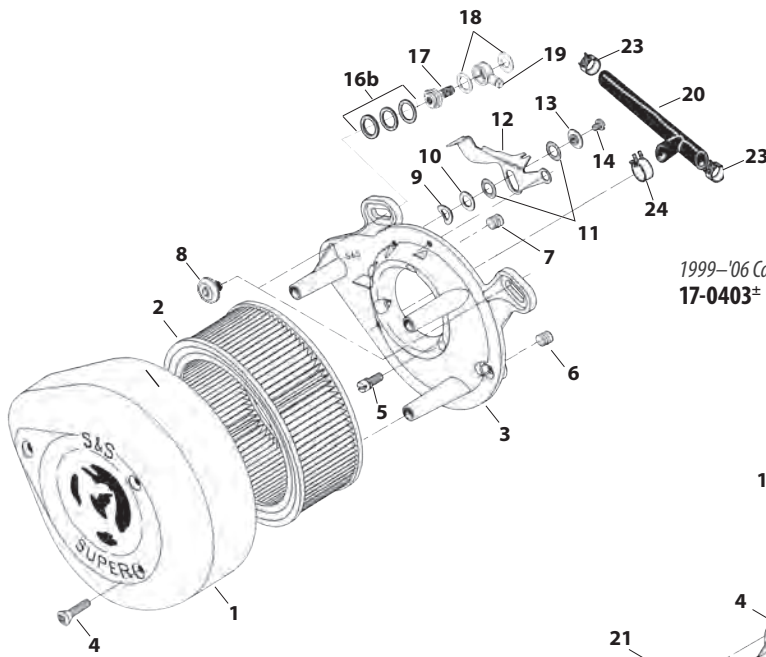


1993-Up Bt Stock Cv And Delphi® Single Bore EFI (except 2008-up touring models) **17-0450±**

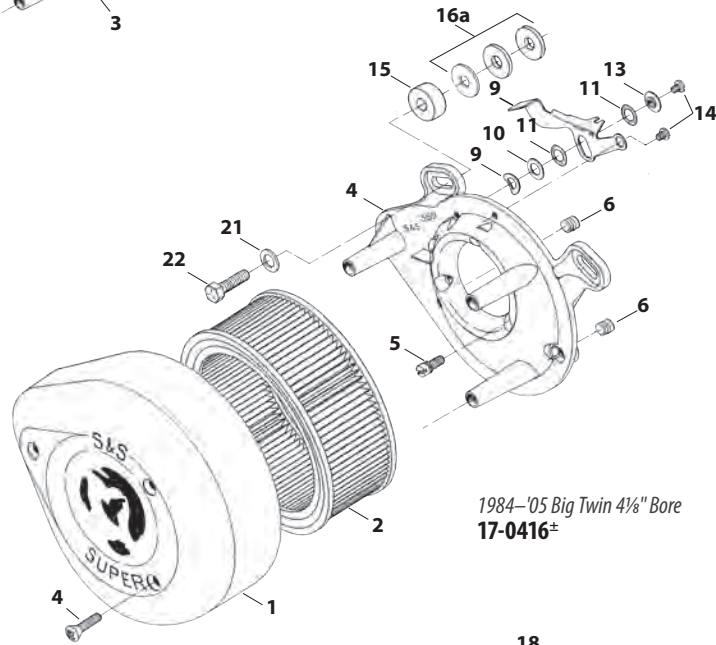
SUPER E & G AIR CLEANER REPLACEMENT PARTS FOR 1999–'06 BIG TWINS

1. Air cleaner cover –		
Chrome.....	17-0378 [±]	
Gloss Black.....	170-0384A	
Slasher.....	17-0004 [±]	
2. Filter Element		
Pleated.....	106-4722	
Pleated Carbon.....	17-0375	
3. Backplate		
1999-'06 bt.....	 17-0336	
4 1/8" Bore (Manufactured after 1-1-03).....	 17-0387	
4. Cover screw		
Chrome (each).....	50-0347-S [±]	
Stainless Steel 1305 (each).....	50-0072	
10 pack.....	50-0094	
Black 902 (each).....	50-0310-S	
3 pack.....	50-0310	
5. Backplate screw, Zinc Plated (each).....	106-2084	
10 pack.....	106-2105	
6. Backplate plug 1/8"-27 (each).....	50-8331A	
10 pack.....	50-1015	
7. Screw vent fitting – BT 1999-'06 except 06 Dyna®.....	17-0345	
8. Screw, air cleaner to head.....	17-0346	
9. Fast idle friction washer (each).....	50-7035	
10 pack.....	50-7058	
10. Fast idle steel washer (each).....	50-7037	
10 pack.....	50-7061	
11. Fast idle nylon washer (each).....	50-7036	
10 pack.....	50-7060	
12. Fast idle lever.....	 17-0329	
13. Fast idle brass washer (each).....	50-7007 [±]	
10 pack.....	50-7010 [±]	
14. Fast idle lever screw (one required for current backplate)		
each.....	50-0041	
10 pack.....	50-0062	
15. Shim, .850" x .325" x .400"		
S&S 4 1/8" Bore.....	50-7027	
16. Shims		
a. S&S 4 1/8" Bore, .325" x 1" x		
.018" (each).....	50-7038	
.030" (each).....	50-7039	
.048" (each).....	50-7040	
b. BT 1993-'06, .625" x .880" x		
.025" (each).....	50-7113	
10 pack.....	50-7110	
.050" (each).....	50-7114	
10 pack.....	50-7111	
.075" (each).....	50-7115	
10 pack.....	50-7112	
17. Screw vent fitting		
b. BT 1999-up.....	17-0345	
18. Washer, silicone coated steel		
BT 1999-up, .520" (each).....	50-7055	
10 pack.....	50-7057	
BT 1999-up, .380" (each).....	50-7054	
10 pack.....	50-7059	
19. Breather fitting (each).....	17-0350	
2 pack.....	17-0355	
20. Crankcase breather hose, BT 1993-'99.....	 17-0339	
21. Flatwasher – 5/16" x 1/16" 6320, 70907-07, 6016, 6702.....	50-7034	
22. Mounting bracket bolt, S&S 4 1/8" Bore, 5/16"-18 x 1 1/4".....	50-0110	
23. Spring clamps.....	50-8001	
24. Clamp,Hose,Bolt Style,5/8" – 7/8".....	50-8002	
25. Plate, air cleaner noise reducer.....	17-0389	
26. Plate, Restrictor, Super E/G TÜV, 1999-up bt.....	N/A	
27. Rubber isolator mounts (each).....	50-8510-S	
28. Shim, spacers, 1/2" OD x 1/4" ID x .080" (each).....	50-7971-S	
HARDWARE KITS		
29. For Super E/G, 1999-up bt.....	17-0437 [±]	
For Super E/G, 4-1/8", 1984-'99 bt.....	17-0460 [±]	

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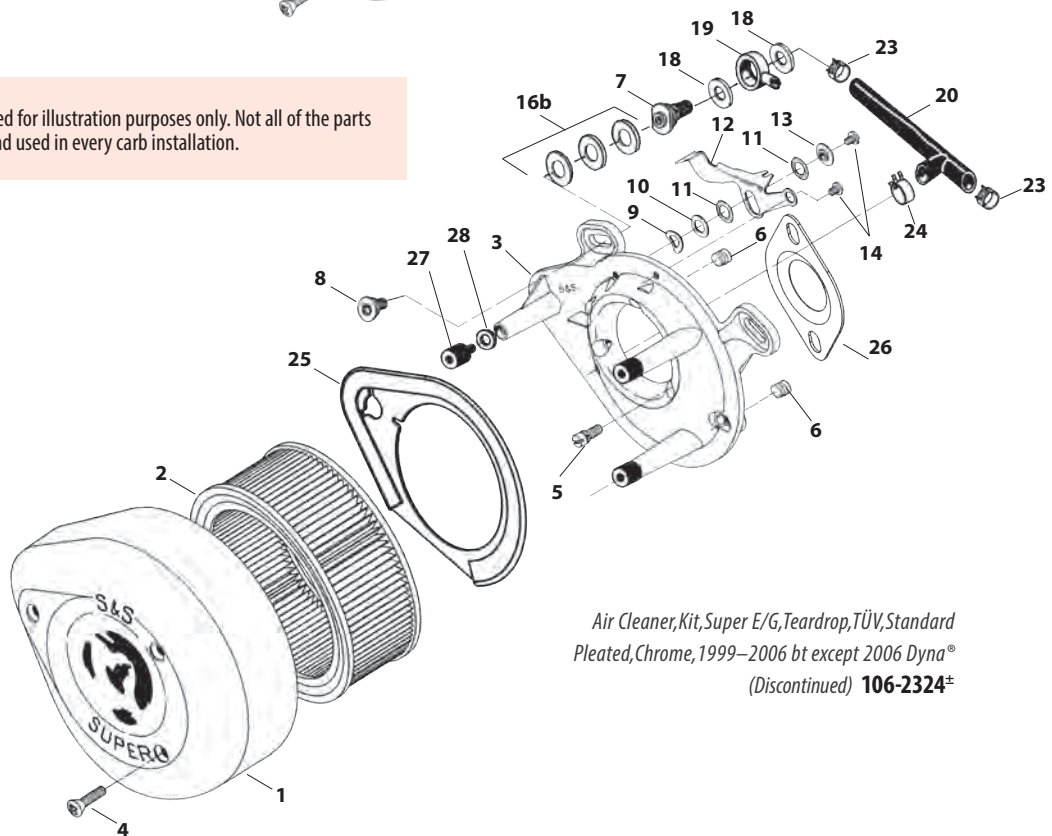
1999-'06 Carbureted Harley-Davidson® Twin Cam 88°
17-0403±



1984-'05 Big Twin 4 1/8" Bore
17-0416±

NOTE

The line drawing is used for illustration purposes only. Not all of the parts shown are included and used in every carb installation.



Air Cleaner, Kit, Super E/G, Teardrop, TÜV, Standard
Pleated, Chrome, 1999–2006 bt except 2006 Dyna®
(Discontinued) 106-2324±

CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS FOR S&S® SINGLE BORE EFI

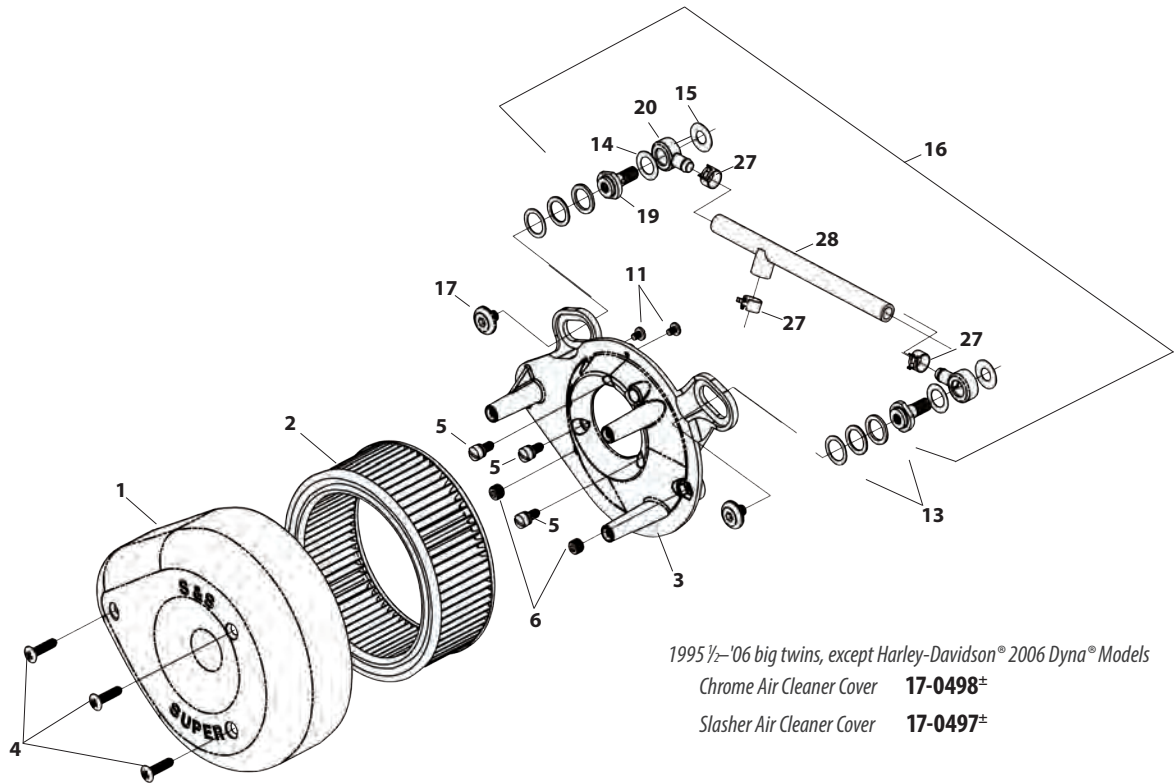
1. Air Cleaner Cover	
Slasher (slotted chrome)	17-0004±
Chrome	17-0378±
Gloss Black	170-0384A
2. Element, pleated	106-4722
3. Backplate SBFFI	
BT 1999-up	17-0120
S&S 4½" bore engines	17-0380
4. Screw, Cover, oval ¼-20 x 1	
Chrome 1305 (each)	50-0072±
3 pack	50-1052±
10 pack	50-0094±
Black 902 (each)	50-0310-S
3 pack	50-0310
5. Backplate screw	
Zinc Plated (each)	106-2084
10 pack	106-2105
6. Pipe plug, ½, air cleaner backplate (each)	50-8331A
10 pack	50-1015
7. Mounting bracket bolt, hex ⅝-18 x 1¼	50-0110
8. Flat washer, ⅝" x ⅞" 6320, 70907-07, 6016, 6702	50-7034
9. Shim, .850" x .325" x .400"	50-7027
10. Shim kit for 4½" bore	17-0314
Individual shims, .325" x 1" x	
.018" (each)	50-7038
.030" (each)	50-7039
.048" (each)	50-7040
.105" (each)	50-7041
.125"	50-7042
2 pack	50-7042P
11. Screw, cable guide & air cleaner backplate, 10-24 x ¼ (each)	50-0041
10 pack	50-0062
12. Breather hardware for 4½" bore	31-2104
<i>(Not included in air cleaner kit)</i>	
13. Shims, individual	
⅝ x ⅞ x .025 (each)	50-7113
10 pack	50-7110
⅝ x ⅞ x .050 (each)	50-7114
10 pack	50-7111
⅝ x ⅞ x .075 (each)	50-7115
10 pack	50-7112
14. Silicone washer, ½" ID (each)	50-7055
10 pack	50-7057
15. Silicone washer, ⅜" ID (each)	50-7054
10 pack	50-7059
16. Breather hardware for 1999-up bt	17-0455
<i>(Not included in air cleaner kit)</i>	
17. Screw, wide head, ⅝-24 x .36	17-0346
18. Air cleaner hardware kit (N/S)	
BT 1999-up	17-0482
S&S 4½" bore	17-0481

19. Breather vent fitting, BT 1999-up	17-0345
20. Breather fitting (each)	17-0350
2 pack	17-0355
21. Check Valve	50-8122
22. Clamp, Spring, .660"	50-8076-S
23. Clamp, Spring, .440"	50-8143-S
24. Hose, Cut To Size, 1875" x 6", Black, Rubber, SAE 30R2	50-8142AS
25. Hose, Rear, Vent, Breather, Formed, Section 1, SAE J30	50-8262-S
26. Hose, Rear, Vent, Breather, Formed, Section 2, SAE J30	50-8263-S
27. Clamp, Spring, ⅞"	50-8001
28. Hose, Vent, Breather, Epichlorohydrin Polymer	USA 17-0339

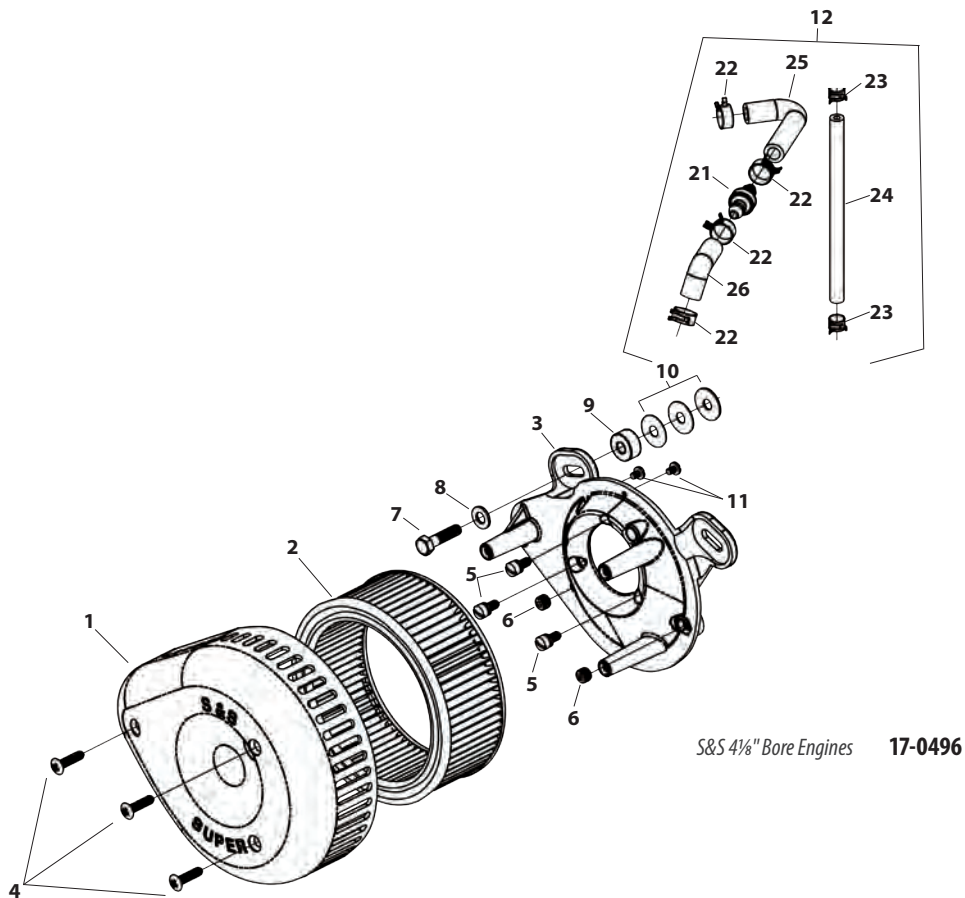
(N/S) = Not shown

NOTE Breather hardware not included in these air cleaner kits.

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1995 1/2–'06 big twins, except Harley-Davidson® 2006 Dyna® Models
 Chrome Air Cleaner Cover **17-0498**±
 Slasher Air Cleaner Cover **17-0497**±

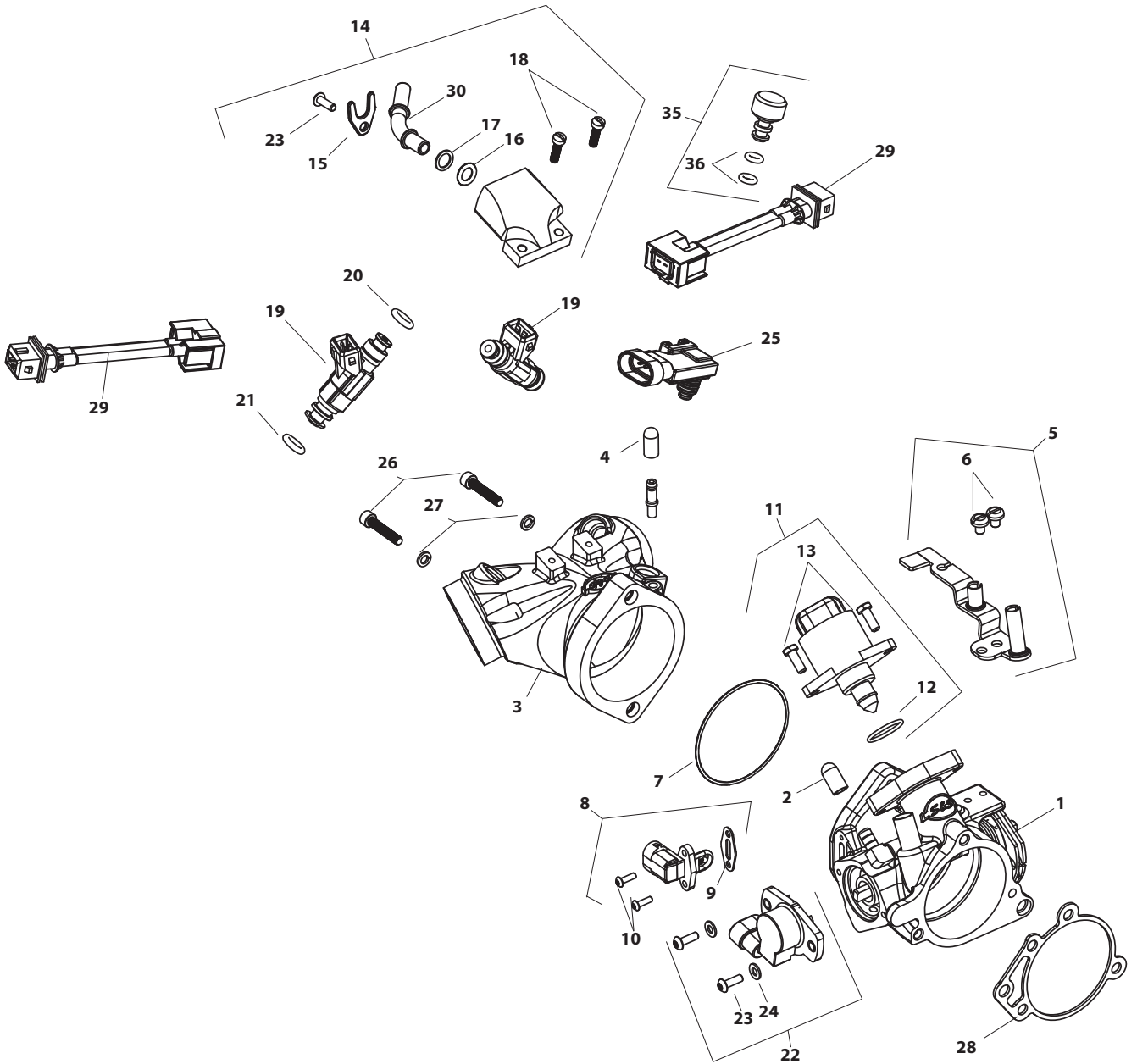


S&S 4 1/8" Bore Engines **17-0496**

SINGLE BORE EFI THROTTLE BODY AND RELATED REPLACEMENT PARTS

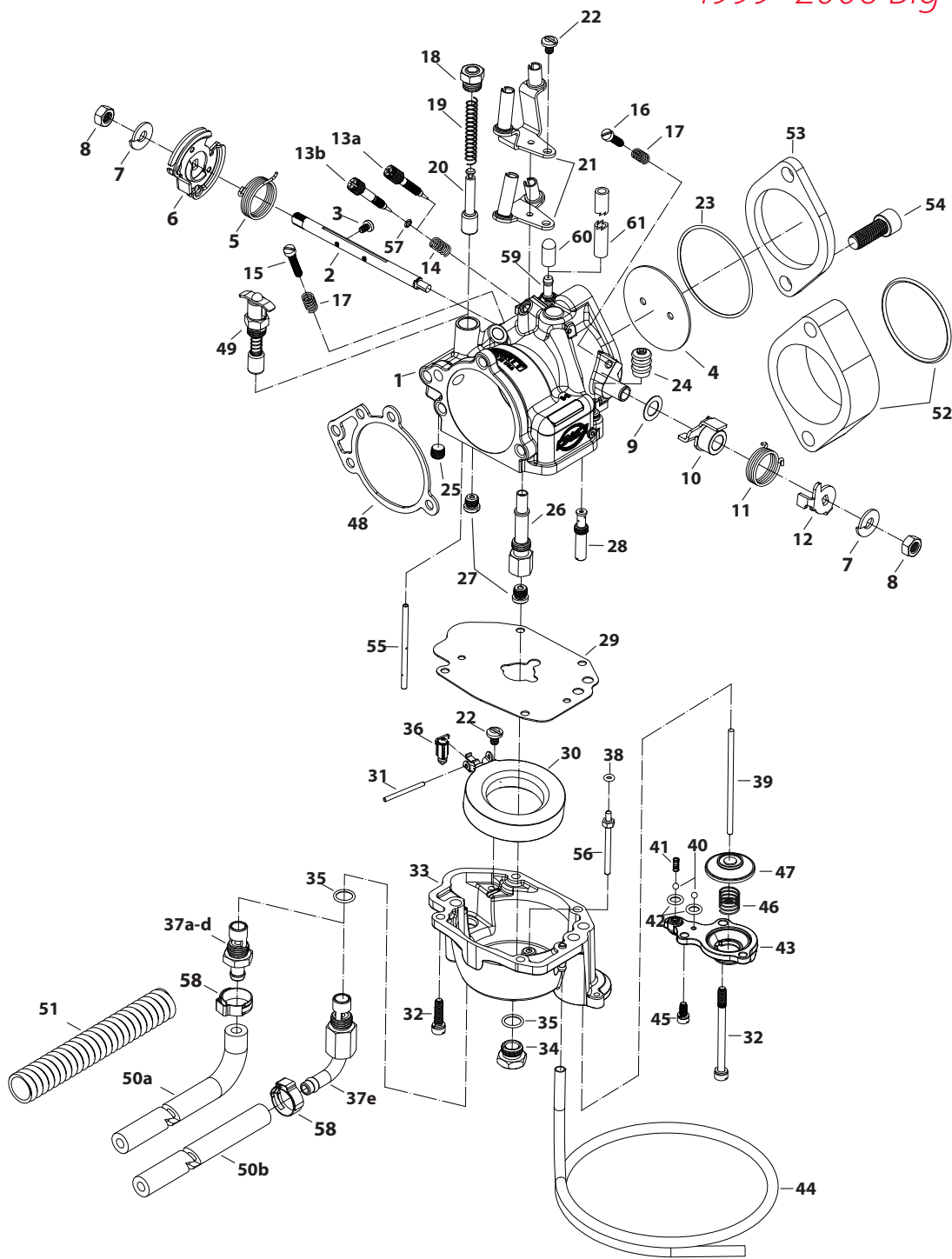
- | | |
|---|---|
| 1. Throttle body | |
| 52mm 1995-'05 | 16-5101 |
| 52mm 2006-Up |  16-5153 |
| 58mm 1995-'05 |  106-3954 |
| 58mm 2006-Up |  106-3957 |
| 2. Cap, canister purge (each) | 50-8266-S |
| 3. Manifold (See page 186) | |
| 4. Cap, rubber, manifold, fitting | 50-8372 |
| 5. Throttle cable guide packet with hardware | 55-5084 |
| 6. Screw, cable guide & air cleaner backplate (each) | 50-0041 |
| 10 pack | 50-0062 |
| 7. O-ring, throttle body to manifold | 50-7967-S |
| 8. Intake air temperature sensor with hardware 27270-95 |  55-5041± |
| 9. Gasket, IAT | 16-5009-S |
| 10. Screw, M3, IAT | 50-0357-S |
| 11. Idle air control motor SS EFI with hardware, 1995-'05 | |
| 27628-01, 27628-01A |  55-5085± |
| 12. O-ring, IAC | 50-8149-S |
| 13. Screw, 10-24, IAC | |
| 1995-'05 (each) | 50-0356-S |
| 2006-Up (each) | 50-0358-S |
| 14. Fuel rail kit | |
| 2006-'16 (Fuel inlet tube included) | 16-5202 |
| 2002-'05 (Fuel inlet tube not included) | 16-5203 |
| 1995-'01 | 16-5207 |
| 15. Tube clip, fuel rail inlet 2001-'07 | |
| each | 50-0391-S |
| 16. O-ring, fuel rail inlet, 2001-'07 27237-95 | |
| each | 50-8137-S |
| 17. Backing washer, fuel rail inlet | |
| 2001-'07 | 50-0349-S |
| 18. Screw, rail, 1995-Up | |
| each | 50-0039 |
| 10 pack | 50-0146 |
| 19. Fuel injector | |
| each | 55-5052A |
| 2 pack | 55-5052 |
| 20. O-ring, injector top, black | 50-8264-S |
| 21. O-ring, injector bottom, orange | 50-8265-S |
| 22. Throttle position sensor VFI with hardware | |
| 1995-'01 27271-95 |  55-5058 |
| 23. Screw, TP sensor & fuel rail | |
| each | 50-0358-S |
| 25. MAP sensor 32424-98, 32416-10, 32417-10 |  55-5057 |
| 26. Screw, throttle body to manifold | |
| each | 50-0359-S |
| 27. Washer, lock, #10,
throttle body to manifold | 50-7000 |
| 28. Gasket, backplate | |
| 52mm (each) | 106-1724 |
| 10 pack | 106-2328 |
| 58mm (each) | 106-4662 |
| 29. Harness, injector adapter kit | |
| 1995-'05 | 55-5074 |
| 2006-Up | 55-5209 |
| 30. Fuel inlet tube 45°, 2002-up 27221-95 |  50-0485 |
| 31. Spacer, throttle position — 2002-up | 55-5201 |
| 32. Pressure regulator, 1995-'01 | 16-5297 |
| 33. Screw, pressure regulator, 6-32 x 3/16", 1995-'01 | 50-0279-S |
| 34. Clamps, Hose, ½" diameter, smooth, 1995-'01 | |
| each | 50-8352 |
| 35. Plug, assembly, MAP sensor hole, 1995-'01 | 50-8350 |
| 36. O-ring, MAP plug, 1995-'01 | |
| each | 50-8133-S |

(N/S) = Not Shown



SUPER E & G CARBURETOR REPLACEMENT PARTS

1. Carb body assembly		
1 $\frac{7}{8}$ " Super E	USA	11-2381 [±]
2 $\frac{1}{16}$ " Super G		11-2391 [±]
2. Throttle shaft		
1 $\frac{7}{8}$ " Super E — Includes two plate screws		11-2383
2 $\frac{1}{16}$ " Super G — Includes two plate screws		11-2483
3. Throttle plate screw 11-2045- (two required) (each)		50-0055-S
10 pack		50-0064
4. Throttle plate		
1 $\frac{7}{8}$ " Super E		11-2055
2 $\frac{1}{16}$ " Super G		11-2355
5. Throttle return spring (each)		11-2382
5 Pack	USA	11-3502
6. Throttle spool	USA	11-2385
7. Throttle shaft lock washer (two required)		50-7031
8. Throttle shaft nut (two required) (each)		11-2350
5 pack		11-2363
9. Throttle shaft nylon washer (each)		50-7050
10 pack		50-7072
10. Pump actuator lever		11-2376
11. Actuator spring (each)		11-2375-S
5 pack	USA	11-3501
12. Pump actuator arm		11-2377
13. Idle mixture screw		
a. Idle mixture screw, brass (each)		11-2354 [±]
5 pack		11-2378 [±]
b. Idle mixture screw only		
each		110-0003
5 pack		110-0069 [±]
Idle mixture screw w/ 500-0036 o-ring		
each		110-0068 [±]
14. Idle mixture screw spring (each)		11-2052
10 Pack	USA	11-2060
15. Idle speed screw (each)		50-0038
10 Pack		50-0150
16. Pump adjustment screw (each)		50-0039
10 Pack		50-0146
17. Idle speed/pump adjuster spring (each)		11-2048
10 pack	USA	11-2053
18. Plunger nut (each)		11-2344 [±]
5 Pack		11-2372 [±]
19. Plunger spring (each)		11-2340
10 Pack	USA	11-2359
20. Fast idle plunger		11-2343
21. Cable guide assembly with screw		
Use with butterfly style cables		11-2339P
Use with constant velocity style cables		11-2338P
22. Cable clamp/float pin screw (each)		50-0041
10 Pack		50-0062
23. O-ring		
1 $\frac{7}{8}$ " Super E (each)		50-8016
10 Pack		50-8094
2 $\frac{1}{16}$ " Super G (each)		50-8015
10 pack		50-8093
24. Bellows seal (each)		11-2266
5 Pack		11-2279
25. Bowl vent plug (each)		50-0105
10 pack		50-0151
26. Main discharge tube		11-2085 [±]
27. Main jet — See Chart on 192		
28. Intermediate Jets — See Chart on 191		
Series #94 fits all Super 1 $\frac{7}{8}$ ", 2 $\frac{1}{16}$ " 2 $\frac{1}{4}$ " gas carburetors.		
29. Bowl gasket (each)		11-2386
10 pack		11-2387
30. Float		11-2187
31. Float pin (each)		11-2369 [±]
5 Pack		11-2370 [±]
32. Bowl screw		
10-24 x $\frac{3}{4}$ " — Three required (each)		50-0034
10 Pack		50-0063
10-24 x 2 $\frac{3}{8}$ " — One required (each)		50-0040
10 Pack		50-0061
33. Carb bowl only	USA	11-2388 [±]
Carb bowl assembly	USA	11-2388P
34. Bowl plug (each)		11-2090
5 pack		11-2092 [±]
35. Seat o-ring* (required with part #11-2465 & #11-2466 only when replaces 360° style fuel inlet.)		50-8009
each		50-8009
10 pack		50-8095
36. Needle		
1 $\frac{7}{8}$ " Super E & 2 $\frac{1}{16}$ " Super G	USA	11-2195 [±]
Racing only		11-2197 [±]
37. Seat — Includes O-ring #35		
(Replaces obsolete seats 11-2347 and 11-2348)		
a. 1 $\frac{7}{8}$ " E & 2 $\frac{1}{16}$ " G (Uses part #11-2195 [±] needle)		11-2465
b. Racing only (Uses part #11-2197 [±] needle)		11-2466
c. Racing only — threaded fuel inlet (6AN, 157" ID)		
(Uses part #11-2195 [±] needle)		11-2395
d. Permeation Compliant fuel inlet seat Super E or G		
(Uses part #11-2195 [±] needle)	USA	106-2011
38. Ejector nozzle o-ring (each)		50-8011
10 Pack		50-8096
39. Pump pushrod (each)		11-2373
5 Pack	USA	11-2393
40. Check ball — (two required) (each)		50-8090
10 pack		50-8125
41. Check ball spring (each)		11-2374
5 Pack	USA	11-2392
42. Pump cap o-ring — (two required) (each)		50-8012
10 Pack		50-8100
43. Pump cap assembly	USA	11-2389
44. Overflow hose per 24" 27369-76 (each)	USA	19-0262-S
5 Pack	USA	19-0263
45. Pump cap screw 8-32 — (two required) (each)		50-0042
10 Pack		50-0098
46. Diaphragm spring (each)		11-2275
10 pack	USA	11-2278
47. Diaphragm		11-2282
48. Gasket, backplate (each)		106-1724
10 pack		106-2328
49. Enrichment device (Use with air horn only)		11-2084 [±]
50. Fuel line With 90° bend* 19"		
b. Permeation Compliant straight, 311" x .563" x 17.5"		
(Use with part #106-2011, 90° seat)		190-0001
51. Fuel line insulator — 12"	USA	19-0172
52. Spacer, Kit, w/ O-ring		
1 $\frac{7}{8}$ " x 1"		16-0057*
2 $\frac{1}{16}$ " x 1"		16-0357*
2 $\frac{1}{4}$ " x 1"		16-0157*
*Use with 1" Spacer Block		16-0058
53. Insulator Block, Manifold, w/ O-ring		
1 $\frac{7}{8}$ " x $\frac{1}{4}$ " Super E		16-0491
1 $\frac{7}{8}$ " x $\frac{3}{8}$ " Super E		16-0497
2 $\frac{1}{16}$ " x $\frac{1}{4}$ " Super G		16-0492
2 $\frac{1}{16}$ " x $\frac{3}{8}$ " Super G		16-0498
2 $\frac{1}{4}$ " x $\frac{1}{4}$ " Super D		16-0499
54. Screw		
1" x $\frac{3}{8}$ " — 16 (each)		50-0161
1 $\frac{1}{4}$ " x $\frac{3}{8}$ " — 16 (each)		50-0162
10 pack		50-0177
1 $\frac{3}{8}$ " x $\frac{3}{8}$ " — 16 (each)		50-0163
5 pack		50-0178
2" x $\frac{3}{8}$ " — 16 (each)		50-0164
5 pack		50-0185



- 1 1/4" x 1/4"-20 4740A, 3482A (each) 50-0008
- 1 1/2" x 1/4"-20 4718A 50-0079
- 2 1/4" x 1/4"-20 4717A 50-0078
- 55. Tube, Fast Idle Pick-Up, Super E/G, 125" x 2.350", Brass 0381F*
- 56. Tube, Ejector Nozzle, Super E/G, Flared, Brass 106-6124*
- 57. O-ring, 3mm x 5mm x 1mm (each) 500-0036
- 10 pack 500-0148
- 58. Clamp, 5/8" - 7/8" 50-8002
- 59. Hose, Fitting straight, .040" 16-0134
- 60. VOES Fitting Cap 50-8372
- 61. VOES/Oil Return Hose 19-0395



*360° banjo style fuel inlet fitting used on early S&S E&G carbs is no longer available. Replace with one of the inlet/seat fittings listed under #37 on this page. We highly recommend inlet/seat #106-2011.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CARBURETOR REBUILD KITS
SEE PAGE 192

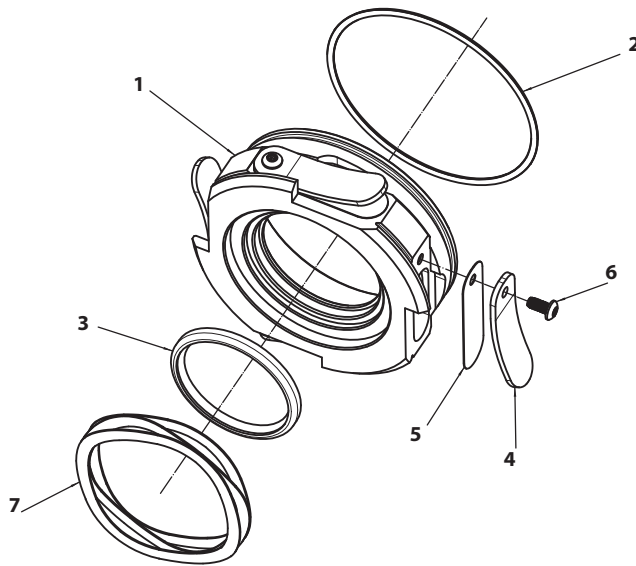
Milwaukee
Eight™
2007-2017
Twin Cam
96-/103-/110-
1999-2006
Twin Cam 88*
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod™
1984-1999
Evolution*
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

CRANKCASE BREATHER REED VALVE REPLACEMENT PARTS

1. Valve, Assembly, Breather Reed
Engines with Stock Oil Pumps
1999-'02 bt with stock or S&S Super Stock crankcases
.....  **31-2070**
- 2003-'10 bt with stock or S&S Super Stock crankcases
.....  **310-0742**
- S&S SA Crankcases **310-0742**
- Engines with S&S gear oil pumps
2003-up bt w/stock crankcases and all S&S crankcases
..... **310-0742**
2. O-ring
1999-'02 bt (-038), 2.614" ID x 2.750" OD, Viton® ... **50-8154-S**
2003-up bt (-036), 2.364" ID x 2.500" OD, Viton® ... **50-8155-S**
3. Seal, Breather Reed Valve, 1999-up bt. **31-4086**
4. Stop, Breather Reed Valve, Packaged, 1984-up bt. **31-2075**
5. Reed, Breather Valve, bt (each) **31-2072-S**
6. Screw, Torx BH, 4-40 x 1/4", Black, Alloy Steel (each) **50-0305-S**
7. Wave Spring, 2" OD X 1.6" ID X .375" **50-8404**
8. Spring Adaptor (for S&S SA Crankcases) (N/S) **31-2103***

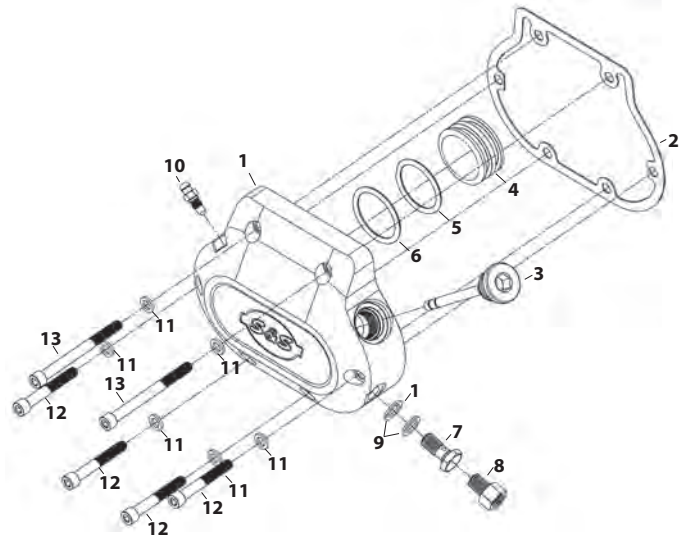
*Required to accommodate the extra .375" case width of S&S Special Application big bore crankcases.

(N/S) = Not Shown



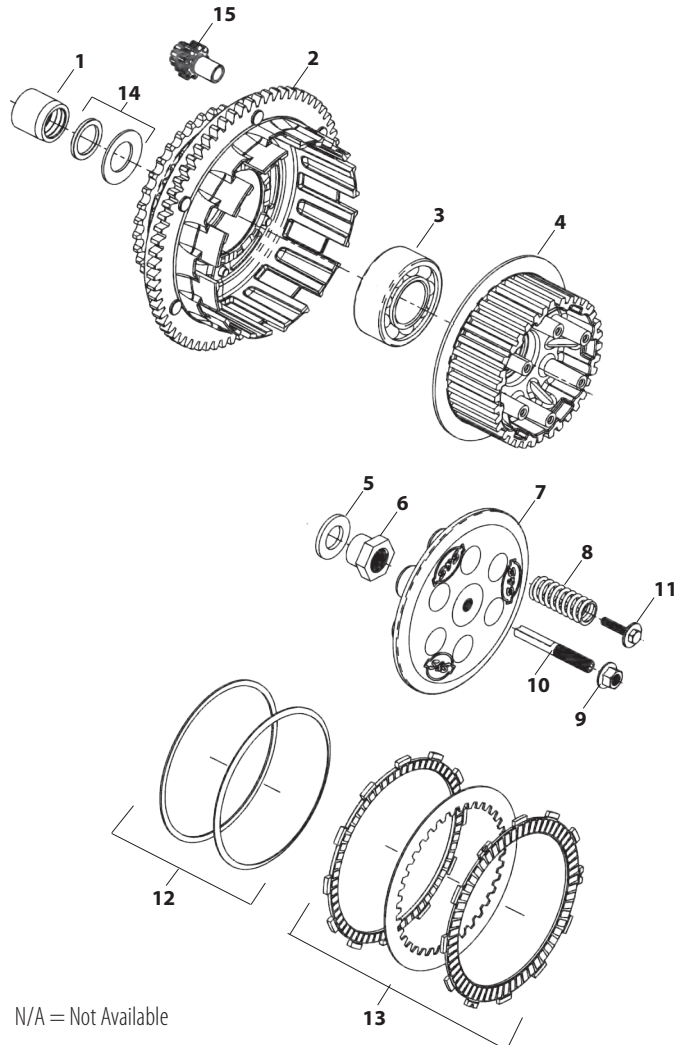
CHROME PLATED BILLET TRANSMISSION SIDE COVER REPLACEMENT PARTS

- 1. Hydraulic Clutch Side Cover (Chrome Billet)..... N/A
Cable Actuated (Chrome Billet)..... N/A
- 2. Gasket Side Cover (each)..... N/A
- 3. Dipstick Assembly..... N/A
- 4. Piston, Hydraulic Clutch (Billet)..... N/A
- 5. O-ring, 1 ¼ ID x ⅛ CS, Buna-N 70 (each)..... N/A
- 6. O-ring, 1 ¼ ID x ⅛ CS, Viton..... N/A
- 7. Banjo Bolt ¾-24 x ¾..... N/A
- 8. Adapter, Hydraulic Clutch Line..... N/A
- 9. Crush Washer, Copper. 400 ID x .590 OD x .050..... N/A
- 10. Valve, Bleed Fitting, ¼-28..... N/A
- 11. Washer, Flat. .260 x .420 x .06 Chrome..... **50-7017[±]**
12 pack..... **50-7013[±]**
- 12. Screw, Cap Hex SH ¼-20 UNC x 1.75 Zinc..... N/A
- 13. Screw, Cap Hex SH ¼-20 UNC x 2.75 Zinc..... N/A



HIGH PERFORMANCE CLUTCH REPLACEMENT PARTS

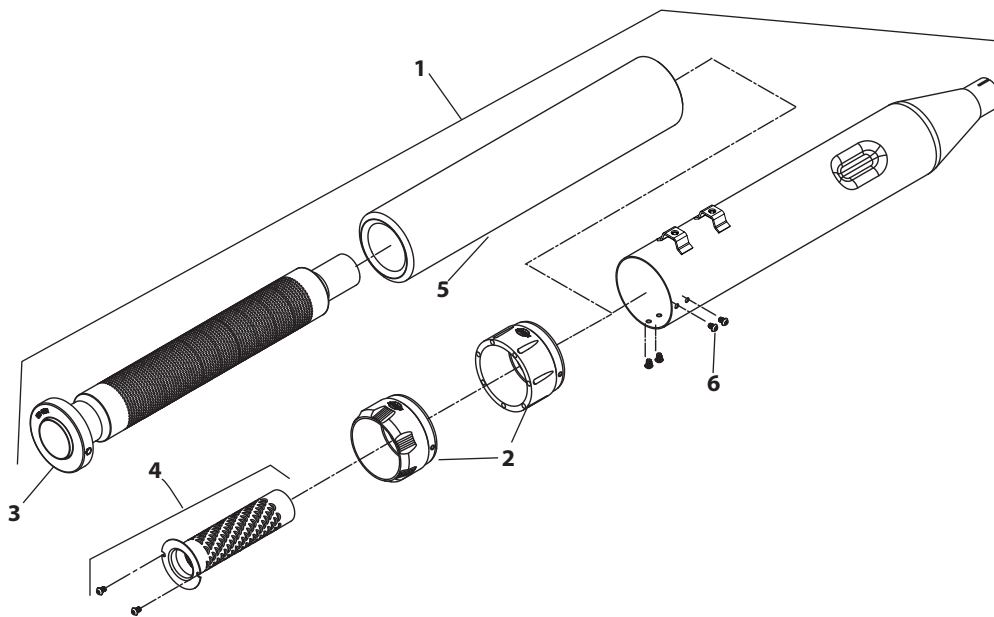
- 1. Race, inner primary bearing, 5/6 speed main shaft
All 1991-'05 BT and 2006 Harley-Davidson® Softail® models
..... **USA 56-5089**
- 2. Basket,
Clutch, 36-tooth..... **USA N/A**
Clutch, 37-tooth..... **USA N/A**
- 3. Bearing, clutch (basket to hub)..... **USA N/A**
- 4. Hub, clutch..... **USA N/A**
- 5. Washer, thrust, 19.5 mm I.D. x 35.6 mm O.D..... N/A
- 6. Nut, mainshaft, clutch hub, ¾-18 UNS-2B..... N/A
(Recommended early style mainshaft nut HD® #37496-84)
(Recommended late style mainshaft nut HD® #37496-90)
- 7. Plate, pressure - clutch
Mechanical (3-piece pushrod actuated)..... N/A
- 8. Spring, pressure plate, clutch
Light duty, 334 lbs. (6 pack)..... **USA N/A**
Standard, 370 lbs..... N/A
Heavy duty, 408 lbs. (each)..... **56-5106-S**
6 pack..... **USA 56-5106**
- 9. Nut, flange, M10 x 1.25"..... N/A
- 10. Screw, clutch adjuster, M10 x 1.25"..... N/A
- 11. Bolt, special, M6 x 30, w/washer..... **50-8413-S**
- 12. Jutter spring with seat..... **USA N/A**
- 13. Clutch pack, 11 frictions, 10 steels..... **56-5085-S**
- 14. Kit, shim, clutch inner race..... **56-5090**
Shim, ⅝ speed main shaft
1.300" O.D. x .960" I.D. x .0075" (36 gauge) thick..... N/A
1.300" O.D. x .960" I.D. x .0150" (28 gauge) thick..... N/A
1.300" O.D. x .960" I.D. x .0240" (24 gauge) thick..... N/A
1.300" O.D. x .960" I.D. x .0470" (18 gauge) thick..... N/A
- OPTIONAL:**
- 15. Pinion Gear..... N/A



N/A = Not Available

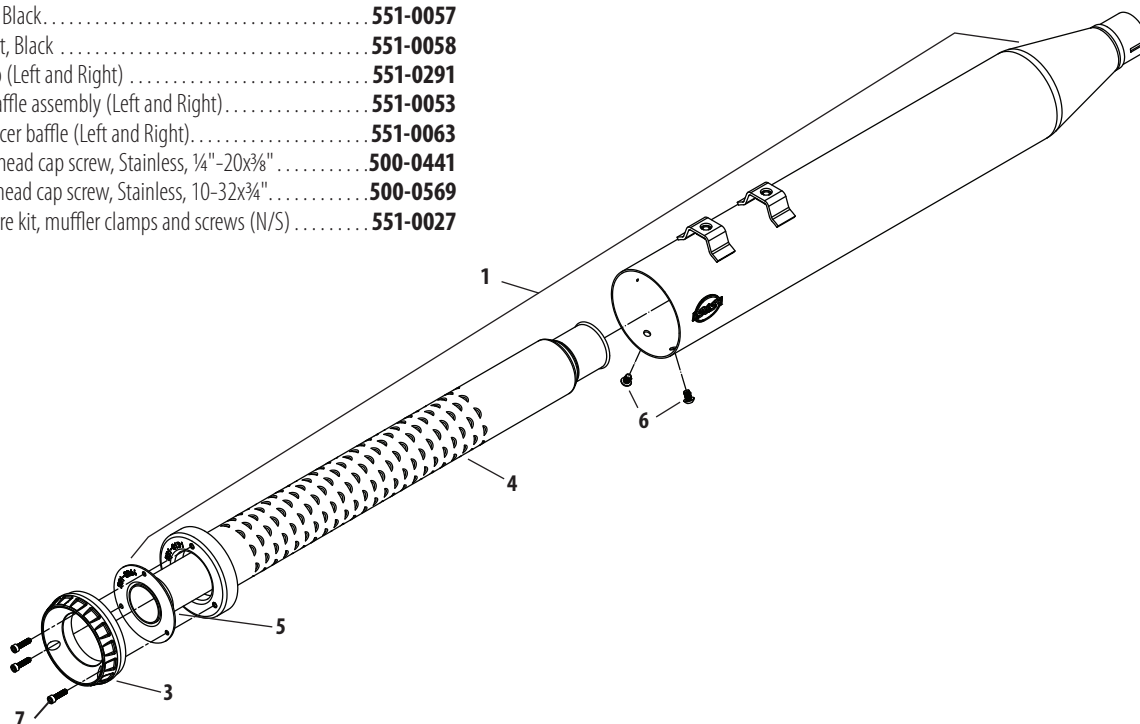
Mk45 4.5" MUFFLER REPLACEMENT PARTS

- 1. 4.5" Muffler Assembly
 - Left, Chrome **551-0020**±
 - Right, Chrome **551-0021**±
 - Left, Black **551-0022**
 - Right, Black **551-0023**
- 2. End Cap
 - Thruster, Chrome **550-0634A**±
 - Thruster, Highlighted Machined **550-0629A**
 - Tracer, Chrome **550-0636A**±
 - Tracer, Highlighted Machined **550-0632A**
- 3. Main Baffle Assembly, 4.5" Muffler **551-0007**
- 4. dB reducer **551-0026**
- 5. Insulation, 4.5" Muffler **551-0003**
- 6. Button Head Cap Screw, Stainless, 1/4"-20X3/8" **500-0441**
- 7. Hardware Kit, Muffler Clamps And Screws (N/S) **551-0027**



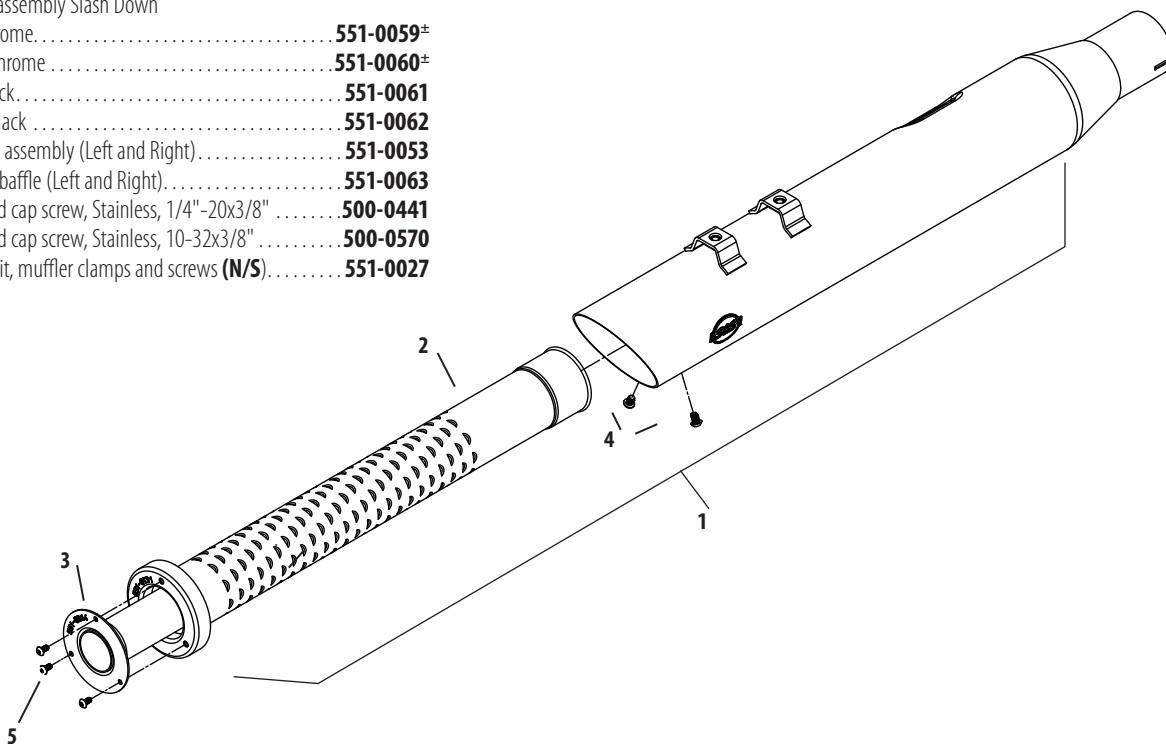
GRAND NATIONAL® 4" REPLACEMENT PARTS

- 1. 4" Muffler assembly with Grand National end cap
 - Left, Chrome..... **551-0055±**
 - Right, Chrome..... **551-0056±**
 - Left, Black..... **551-0057**
 - Right, Black..... **551-0058**
- 3. End Cap (Left and Right)..... **551-0291**
- 4. Main baffle assembly (Left and Right)..... **551-0053**
- 5. dB reducer baffle (Left and Right)..... **551-0063**
- 6. Button head cap screw, Stainless, 1/4"–20x3/8"..... **500-0441**
- 7. Socket head cap screw, Stainless, 10–32x3/4"..... **500-0569**
- 9. Hardware kit, muffler clamps and screws (N/S)..... **551-0027**



SLASH CUT 4" REPLACEMENT PARTS

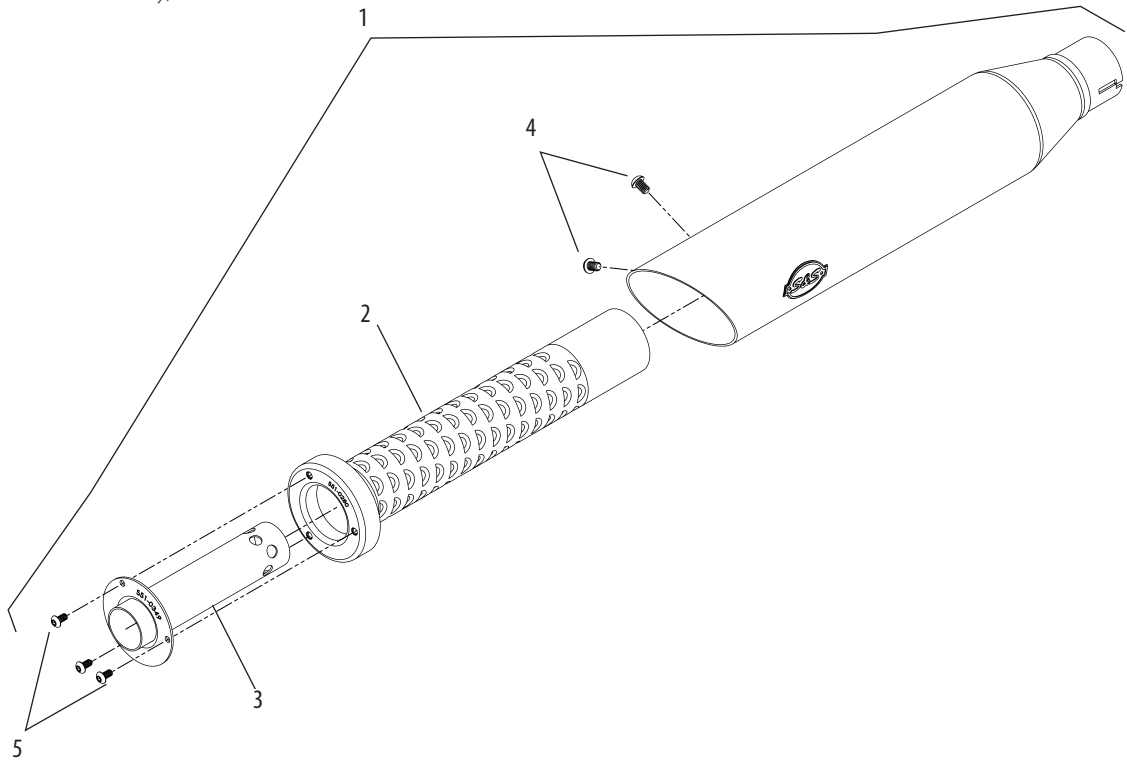
- 1. 4" Muffler assembly Slash Down
 - Left, Chrome..... **551-0059±**
 - Right, Chrome..... **551-0060±**
 - Left, Black..... **551-0061**
 - Right, Black..... **551-0062**
- 2. Main baffle assembly (Left and Right)..... **551-0053**
- 3. dB reducer baffle (Left and Right)..... **551-0063**
- 4. Button head cap screw, Stainless, 1/4"–20x3/8"..... **500-0441**
- 5. Button head cap screw, Stainless, 10–32x3/8"..... **500-0570**
- 6. Hardware kit, muffler clamps and screws (N/S)..... **551-0027**



SLASH CUT SLIP-ON MUFFLERS FOR DYNA® MODELS

REPLACEMENT PARTS

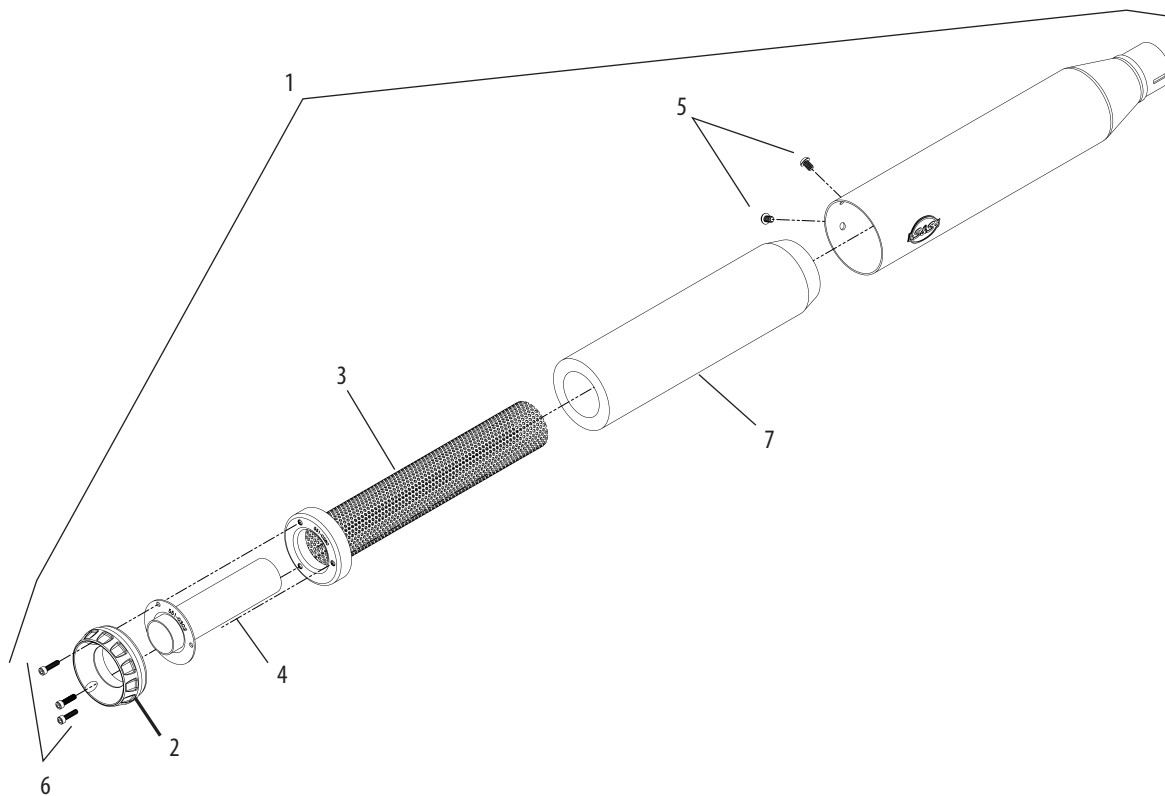
- 1. Slash Cut Muffler Assembly, Front or Rear
 - Chrome **551-0308±**
 - Black **551-0311**
- 2. Main Baffle Assembly **551-0301**
- 3. dB Reducer **551-0350**
- 4. Button head cap screw, Stainless, 1/4"-20x3/8"1
(Hold Main baffle assy to muffler shell) **500-0441**
- 5. Socket head cap screw, Stainless, 10-32x3/8"
(Hold db killer baffle to main baffle assy) **500-0570**



GRAND NATIONAL® SLIP-ON MUFFLERS FOR DYNA® MODELS

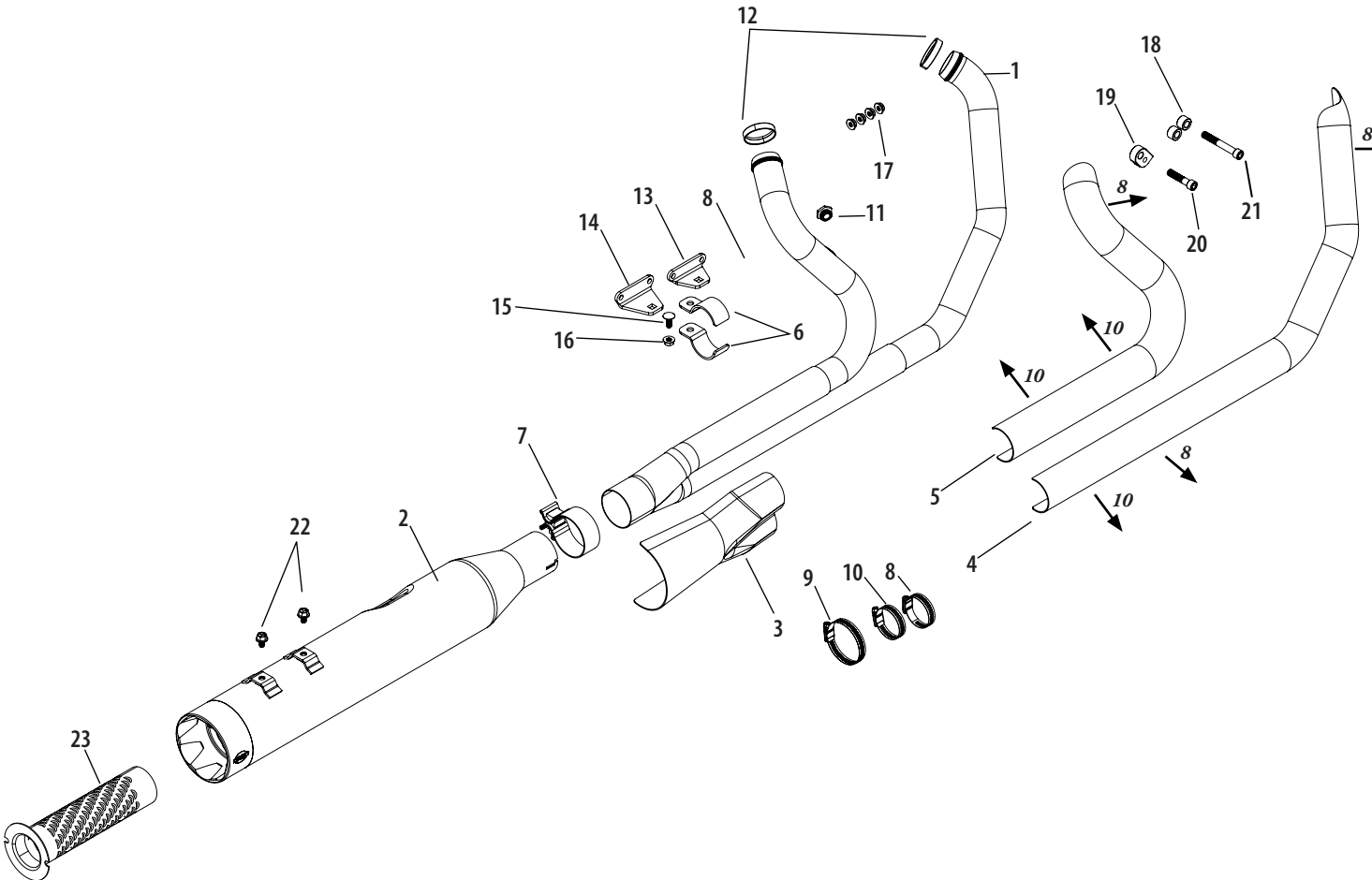
REPLACEMENT PARTS

1. Muffler Assembly Front or Rear
 - Grand National, Chrome..... **551-0314[±]**
 - Grand National, Black..... **551-0317**
2. End Cap..... **551-0294**
3. Main Baffle Assembly..... **551-0299**
4. dB Reducer..... **551-0304**
5. Button head cap screw, Stainless, 1/4"–20x3/8"
(Hold Main baffle assy to muffler shell)..... **500-0441**
6. Socket head cap screw, Stainless, 10–32x3/4"
(Hold End Cap to main baffle assy)..... **500-0569**
7. Insulation, Muffler, Pillow Pack..... **551-0305**



SIDEWINDER® 2:1 EXHAUST REPLACEMENT PARTS

1. Header, Assembly, 2 into 1, Sidewinder®, Weldment,
1995-'16 Touring Models **551-0705**
2. Muffler, 49 state, end cap compatible, 2:1, 4.5", Chrome shell,
2017-'18 M8 touring
 Chrome **551-0529**
 Black **551-0530**
3. Collector, heat shield, chrome, 2017-'18 M8 touring
 Chrome **551-0379**
 Black **551-0381**
4. Heat shield, front, 2:1, Sidewinder®, chrome, 1995-'16 touring models
 Chrome **551-0709**
 Black **551-0715**
5. Heat shield, rear, 2:1, Sidewinder®, chrome, 1995-2016 touring models
 Chrome **551-0712**
 Black **551-0717**
6. Clamp, header mount, 2:1, chrome plate, mild steel, 11 gauge,
 M8 2017 touring **551-0361**
7. Clamp, muffler, band style, 2.5" **551-0135**
8. Clamp, hose, worm drive, SAE #20 (qty. 3) **551-0527**
9. Clamp, hose, worm drive, SAE #40 **551-0402**
10. Clamp, hose, worm drive, SAE #24 (qty. 3) **500-0791**
11. Adapter, oxygen sensor, 12mm to 18mm, stainless steel **550-0375**
12. Gasket, exhaust, tapered, stainless steel,
 1984-up bt, 1986-up xl 65324-83B, 65324-83A **106-5029**
13. Bracket, header mount, 2:1, powdercoated, black,
 2007-'16 touring models **551-0719**
14. Bracket, header mount, 2:1, powdercoated, black,
 1995-'06 touring **551-0786**
15. Bolt, carriage, 5/16-18 x 3/4" **500-0555**
16. Nut, HSFH, 5/16-18 unc-2b x .283", Zinc, steel **50-5053-S**
17. Nut, HSFH, 5/16-24 unf-2b x .283", Zinc, steel 7593 **50-5025-S**
18. Washer, spacer, floor board **551-0400**
19. Spacer, floor board, powdercoated, black **551-0399**
20. Screw, shc, 3/8-16 x 1-3/4", zinc, steel **500-0789**
21. Screw, shc, 3/8-16 x 2-3/4", zinc, steel **500-0790**
22. Screw, hh, flg, serrated, 5/16-18 x 1/2" **500-0744**
23. dB reducer **551-0026**



POWER TUNE® DUAL HEADER REPLACEMENTS

POWER TUNE® DUAL HEADERS

Fitment	Finish	Part #
1995-'08* big twins	Chrome	550-0003A ±
	Black	550-0142A



*Has 18mm sensor fittings in the stock locations for 2007-'08 bikes. If not equipped with oxygen sensors, the ports can be used for tuning. Plugs are included if ports are not used.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on EPA pollution controlled vehicles originally equipped with catalyst.

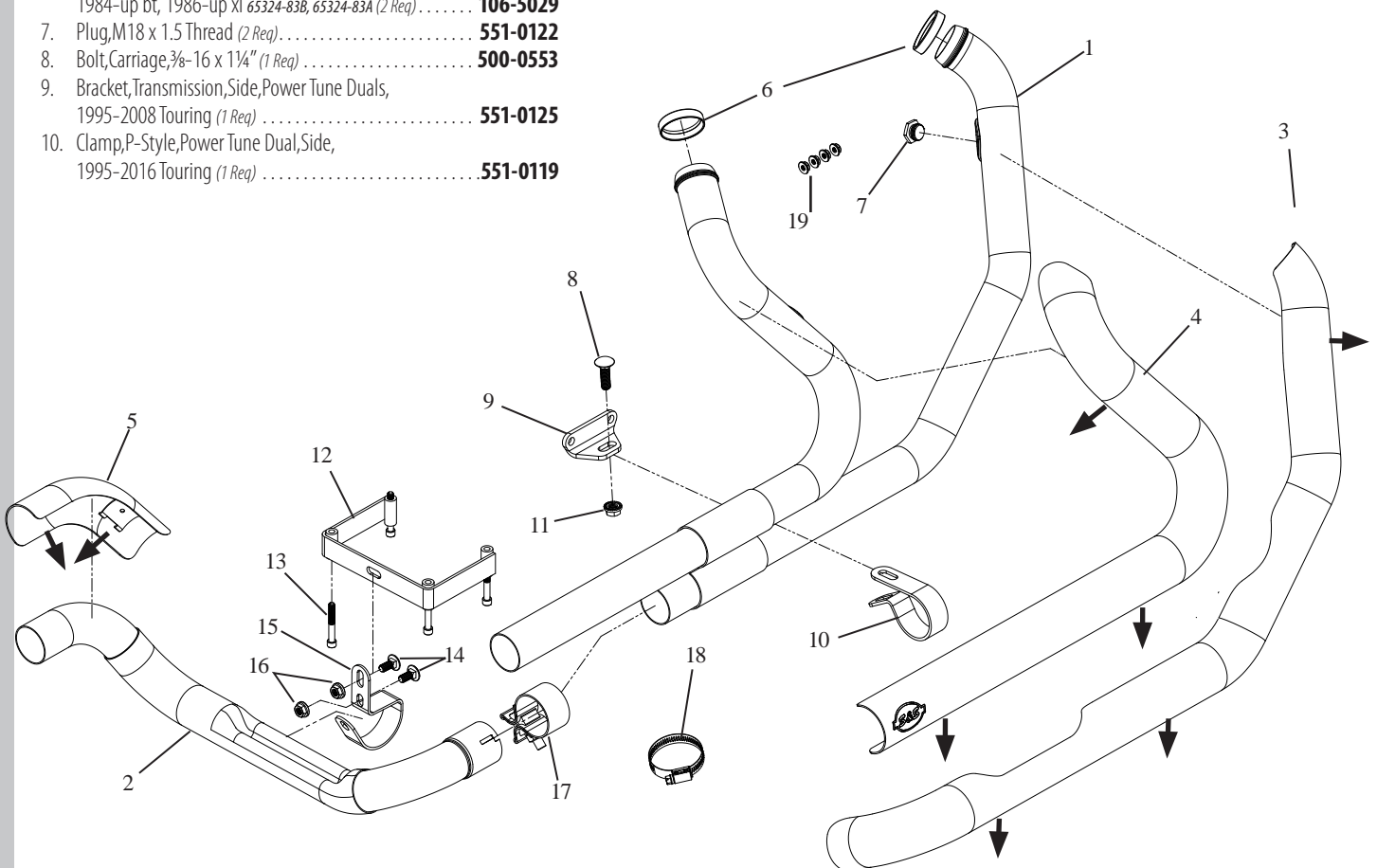
*Qualified manufacturer declared emissions replacement part on FL touring models listed below.

California Models: FL Touring Fuel Injected MY 1995-2003, and 2007; CVO FL Touring MY 2000-2003

49 State Models: FL Touring Carbureted MY 1995-2005; FL Touring Fuel Injected MY 1995-2005 and 2007-2008; CVO FL Touring MY 2000-2005

POWER TUNE® DUAL HEADER REPLACEMENT PARTS

- | | | | |
|--|-------------------|--|------------------|
| 1. Pipe,Header,Power Tune Dual, Weldment,1999-2008 Touring (1 Req) | 551-0083 | 11. Nut,Flanged,Serrated, $\frac{3}{8}$ -16 (1 Req) | 500-0554 |
| 2. Tube,Crossover,Power Tune Dual,Weldment, 1995-2008 Touring (1 Req) | 551-0077 | 12. Bracket,Assembly,Transmission,Pan, Power Tune Dual,1995-2008 Touring (1 Req) | 551-0126 |
| 3. Shield,Front,Power Tune Dual,1995-2008 Touring (1 Req) Chrome | 551-0091 ± | 13. Screw,SHC, $\frac{1}{4}$ -20 x $1\frac{1}{8}$ " Zinc Plated (4 Req) | 500-0641 |
| Black | 551-0092 | 14. Bolt,Carriage, $\frac{5}{16}$ -18 x $\frac{3}{4}$ " (2 Req) | 500-0555 |
| 4. Shield,Rear,Power Tune Dual,1995-2016 Touring (1 Req) Chrome | 551-0103 ± | 15. Clamp,P-Style,Crossover, Power Tune Dual Header,1995-2008 Touring (1 Req) | 551-0120 |
| Black | 551-0104 | 16. Nut, Flanged, Serrated, $\frac{3}{16}$ "-18 (2 Req) | 50-5053-S |
| 5. Shield,Left,Power Tune Dual, 1995-2016 Touring (1 Req) Chrome | 551-0115 ± | 17. Clamp,Muffler,Band Style (1 Req) | 551-0569 |
| Black | 551-0116 | 18. Clamp,Hose,Worm Drive,SAE #28 (8 Req) | 551-0527 |
| 6. Gasket,Exhaust,Tapered,Stainless Steel, 1984-up bt, 1986-up xl 65324-83B, 65324-83A (2 Req) | 106-5029 | 19. Nut, HSFH, 5/16-24 7593 | 50-5025-S |
| 7. Plug,M18 x 1.5 Thread (2 Req) | 551-0122 | | |
| 8. Bolt,Carriage, $\frac{3}{8}$ -16 x $1\frac{1}{4}$ " (1 Req) | 500-0553 | | |
| 9. Bracket,Transmission,Side,Power Tune Duals, 1995-2008 Touring (1 Req) | 551-0125 | | |
| 10. Clamp,P-Style,Power Tune Dual,Side, 1995-2016 Touring (1 Req) | 551-0119 | | |



NOTE - Install #18 heat shield clamps with screw heads pointing in direction shown by arrows. →

SPORTSTER® & BUELL®

Harley-Davidson

Performance Kits

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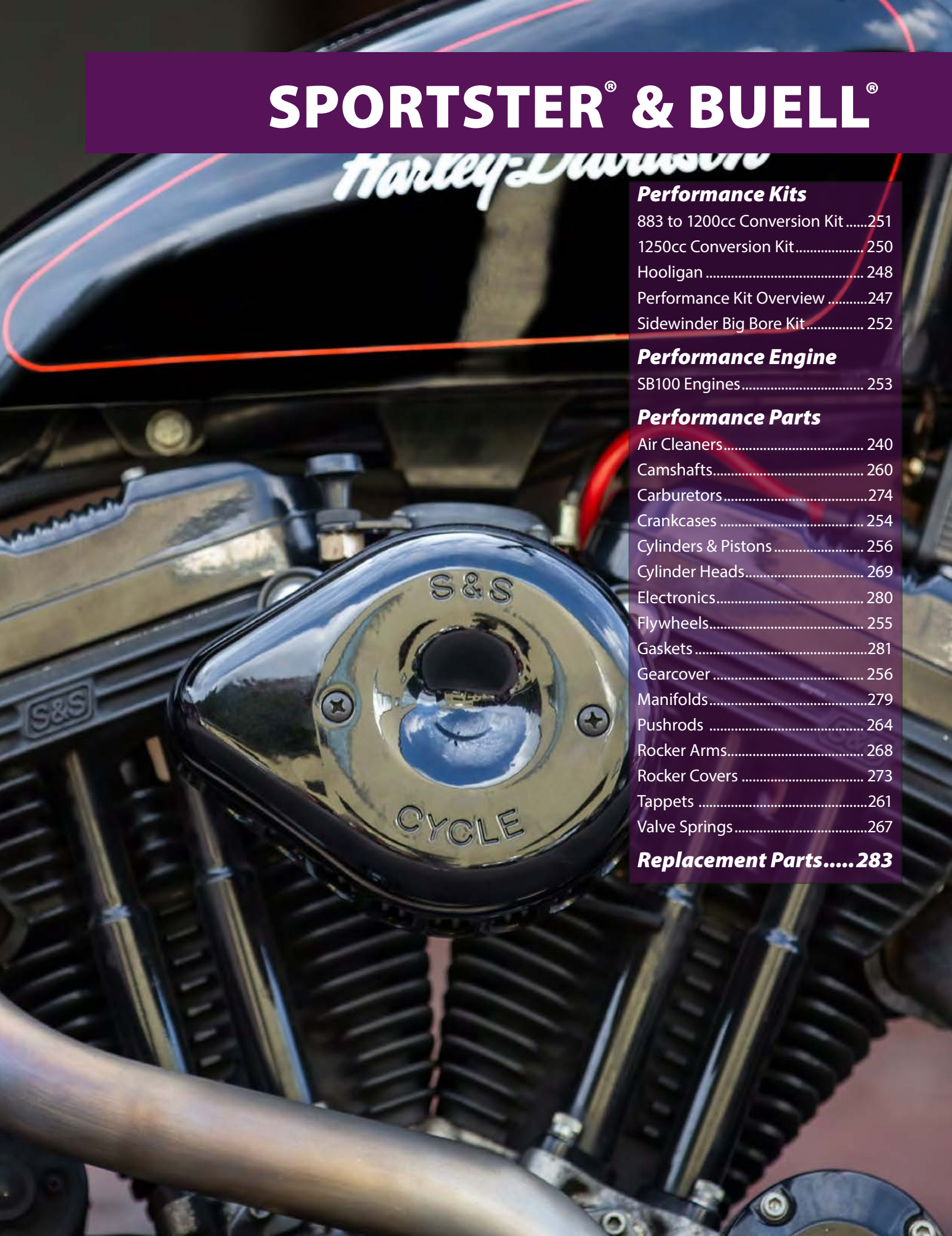
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STEALTH TEARDROP AIR CLEANER KITS



FEATURES AND BENEFITS

- Iconic look
- Same size as the original
- Traditional dimpled cover with S&S stinger on the inside creates smooth path for air
- Gloss black or chrome
- Well-known S&S Cycle Stealth kit for great performance and easy install
- Backplate has air horn style radiused inlet to reduce turbulence
- Slasher style available as cover

STEALTH TEARDROP AIR CLEANER KITS FOR 2007–'18

Description	Part #
Chrome Stealth Teardrop plus Stealth Kit (170-0302C)	170-0526
Gloss Black Stealth Teardrop plus Stealth Kit (170-0302C)	170-0527

Exempt from emissions tampering regulations under CARB EO# D-355-24

STEALTH TEARDROP COVER ONLY

Chrome	170-0530
Gloss Black	170-0531
Slasher – Chrome	170-0532
Slasher – Gloss Black	170-0533

STEALTH AIR CLEANER KITS

FITMENT

- 1991–2006 Harley-Davidson® Sportster® models

FEATURES AND BENEFITS

- Pre-filter available — See page 246
- Air directional stinger cone in the filter
- Use with any of several S&S designed covers
- High flow (1" taller) filter kit available — See page 246



MINI TEARDROP COVER PLUS STEALTH AIR CLEANER KIT

Fitment	Fuel System	Finish	Part #
1991–2003 xl	S&S Super E/G,	Chrome	170-0447±
		Gloss Black	170-0448
1991–2006 xl	Stock CV Carb	Chrome	170-0449±
		Gloss Black	170-0450

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



AIRSTREAM COVER IN CHROME PLUS STEALTH AIR CLEANER KIT±

Application	Fuel System	Part #
1991–'06 xl	Stock CV/EFI	170-0053
1991–'03 xl	S&S Super E & G Carbs	170-0114

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



BOBBER-DISHED COVER IN CHROME PLUS STEALTH AIR CLEANER KIT±

Application	Fuel System	Part #
1991–'06 xl	Stock CV/EFI	170-0094
1991–'03 xl	S&S Super E & G Carbs	170-0115

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



BOBBER-DOMED COVER IN CHROME PLUS STEALTH AIR CLEANER KIT±

Application	Fuel System	Part #
1991–'06 xl	Stock CV/EFI	170-0095
1991–'03 xl	S&S Super E & G Carbs	170-0116

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



MUSCLE COVER IN CHROME PLUS STEALTH AIR CLEANER KIT±

Application	Fuel System	Part #
1991–'06 xl	Stock CV/EFI	170-0096
1991–'03 xl	S&S Super E & G Carbs	170-0117

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



STEALTH AIR CLEANER KITS* — NO COVER

Application	Fuel System	Part #
1991–'06 xl	Stock CV	170-0093
1991–'03 xl	S&S Super E & G Carbs	170-0113

*These kits do not contain covers—Use an S&S cover, see page 243 r.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

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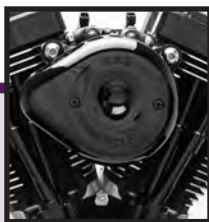
CON'T STEALTH AIR CLEANER KITS



NOTES

Fuel injection tuning is not required with this product.

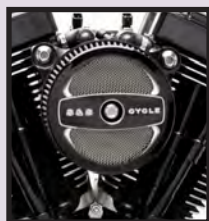
REPLACEMENT PARTS: SEE PAGE 289



MINI TEARDROP COVER PLUS STEALTH AIR CLEANER KIT

Kit includes Stealth Air Cleaner 170-0302C which is exempt from emissions tampering regulations under CARB EO# D-355-24.

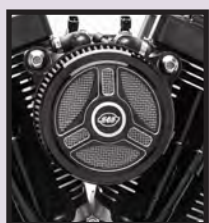
Application	Fuel System	Finish	Part #
2007-'19 xl	Stock Bore Throttle Body	Chrome	170-0439A[±]
		Gloss Black	170-0440A



AIR 1 COVER PLUS STEALTH AIR CLEANER KIT

Kit includes Stealth Air Cleaner 170-0302C which is exempt from emissions tampering regulations under CARB EO# D-355-24.

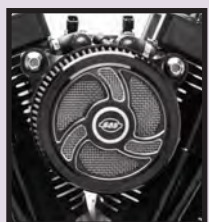
Application	Fuel System	Part #
2007-'19 xl	Stock EFI	170-0492A



TRI-SPOKE COVER PLUS STEALTH AIR CLEANER KIT

Kit includes Stealth Air Cleaner 170-0302C which is exempt from emissions tampering regulations under CARB EO# D-355-24.

Application	Fuel System	Part #
2007-'19 xl	Stock EFI	170-0490A



TORKER COVER PLUS STEALTH AIR CLEANER KIT

Kit includes Stealth Air Cleaner 170-0302C which is exempt from emissions tampering regulations under CARB EO# D-355-24.

Application	Fuel System	Part #
2007-'19 xl	Stock EFI	170-0491A



AIRSTREAM COVER PLUS STEALTH AIR CLEANER KIT

Kit includes Stealth Air Cleaner 170-0302C which is exempt from emissions tampering regulations under CARB EO# D-355-24.

Application	Fuel System	Finish	Part #
2007-'19 xl	Stock EFI	Chrome	170-0493A[±]
		Gloss Black	170-0494A



MUSCLE COVER PLUS STEALTH AIR CLEANER KIT

Kit includes Stealth Air Cleaner 170-0302C which is exempt from emissions tampering regulations under CARB EO# D-355-24.

Application	Fuel System	Finish	Part #
2007-'19 xl	Stock EFI	Chrome	170-0495A[±]
		Gloss Black	170-0496A



STEALTH AIR CLEANER KITS*

Exempt from emissions tampering regulations under CARB EO# D-355-24

Application	Fuel System	Part #
2007-'19 xl	Stock EFI	170-0302C

*These kits do not contain covers – Use an S&S cover, see page 243.

STEALTH AIR CLEANER KIT COVERS

NEW STEALTH TEARDROP COVERS SEE PAGE 240



Carbon Fiber



Mini in Chrome



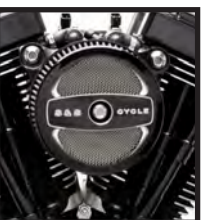
Mini in Gloss Black



Tri-Spoke



Torker



Air 1



Airstream in Chrome



Airstream in Gloss Black



Muscle in Chrome



Muscle in Gloss Black



Bobber-dished



111



124



143

STEALTH COVERS

Carbon Fiber	Mini		Tri-Spoke	Torker	Air 1	Bobber-Dished	
Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights	Chrome	Wrinkle Black
170-0501	170-0367±	170-0366	170-0210	170-0206	170-0214	170-0119±	170-0123

Airstream		Muscle		Displacement			Bobber-Domed	
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	111	124	143	Chrome	Wrinkle Black
170-0118±	170-0396	170-0121±	170-0463	170-0319	170-0321	170-0323	170-0120±	170-0124

SINGLE BORE TUNED INDUCTION SYSTEM

FITMENT

- 1991–'16 Harley-Davidson® Sportster® (with stock CV carb or EFI, or S&S carb)

FEATURES AND BENEFITS

- Bolt-on performance—over twice the filtering area over stock intake system
- Increases horsepower and torque across the rpm range using air column inertia and carefully timed gas dynamic pressure waves
- Smooth intake tract of carefully selected tuned lengths increases performance
- High flow washable and reusable cotton media provides performance, protection, and economy



Billet adaptor brackets make single bore tuned induction compatible with many engines and motorcycles.



SINGLE BORE TUNED INDUCTION SYSTEM KITS[±] EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24

Fitment	Fuel System	Finish	Part #
2007–'19 xl	Stock EFI	Chrome Runner and Red Filters	170-0311C

SINGLE BORE TUNED INDUCTION SYSTEM KITS

Fitment	Fuel Delivery	Finish	Part #
1991–'06 XL	Stock CV	Chrome Runner and Red Filters	170-0089[±]
CTO	Specify	Specify	106-5337*

**Use the Configure to Order (CTO) part number to order different finish and filter color.*

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS: SEE PAGE 292

CLASSIC TEARDROP AIR CLEANER KIT

FITMENT

- 1986–'7 Harley-Davidson® Sportster®
- 1994–'02 Buell®

FEATURES AND BENEFITS

- Uniquely designed back plate has air horn style radiused entryway to reduce turbulence
- Dimpled cover with directional air cone on inside creates smooth path for air
- Great addition to performance exhaust or cams

KIT CONTENTS

- Teardrop Air Cleaner Cover in Chrome or Gloss Black
- Filter
- Backing plate
- All mounting hardware



REPLACEMENT PARTS STARTING ON PAGE 290



CLASSIC TEARDROP AIR CLEANER KITS FOR SPORTSTER® MODELS

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-24

Model	Finish	FUEL SYSTEM	
		Stock EFI	
2007–'19 xl	Chrome	170-0306C±	
	Gloss Black	170-0307C	

CLASSIC TEARDROP AIR CLEANER KITS FOR SPORTSTER® AND BUELL® MODELS

Model	Finish	FUEL DELIVERY TYPE	
		Stock CV	Super E & G
2004–2016 xl	Chrome	17-0448±	17-0428±
	Gloss Black	170-0182A	–
1991–'06 HD® Carbureted xl	Chrome	17-0448±	17-0404±
	Gloss Black	170-0182A	–
1988–'90 xl	Chrome	–	17-0399±
1986–'87 xl	Chrome	–	17-0399±

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NOTE

Fuel delivery (carbureted or EFI) may need to be modified to maintain the correct air and fuel mixture



TEARDROP AIR CLEANER COVERS

Style	Finish	Part #
Mini	Chrome	170-0367±
	Gloss Black	170-0366
Classic Teardrop	Chrome	17-0378±
	Gloss Black	170-0384A
Slasher Teardrop	Chrome	17-0004±
	Gloss Black	170-0419
Nostalgic Teardrop	Polished	17-0071

PRE-FILTERS

FITMENT

- S&S® Stealth Air Filters

FEATURES AND BENEFITS

- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable Nylon
- Promotes longer filter life
- Reduces the risk of water entering air intake system

PRE-FILTERS

Application	Part #
Standard Stealth Air Filter	170-0193
1" Tall Stealth Air Filter	170-0197



170-0197

HIGH FLOW AIR FILTER KITS

FITMENT

- S&S Classic Teardrop air cleaners for Super E & G carbs and S&S EFI throttle bodies

FEATURES AND BENEFITS

- Low restriction filter element comes pre-oiled for true plug and play installation
- 1" wider filtration area provides up to 37% more airflow over standard S&S filters
- Resulting band of exposed filter material imparts a high performance look

KIT CONTENTS

- Wide filter
- Filter spacers



170-0127



17-0045

HIGH FLOW AIR FILTERS

Description	Fitment	Part #
High Flow Air Filter Kit (includes spacers)	Classic Teardrop	17-0045
	Stealth, 1" Taller	170-0127*
1" Taller Filter Only	Classic Teardrop	106-4724
	Stealth	170-0154
Spacer	Classic Teardrop & Stealth, 1" Taller	50-5009-S

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

STANDARD REPLACEMENT FILTERS

STANDARD REPLACEMENT AIR FILTERS

Description	Fitment	Part #
Standard Filter Only	Classic Teardrop	106-4722
	Stealth	170-0126

PERFORMANCE KIT OVERVIEW

FOR HARLEY-DAVIDSON® SPORTSTER® & BUELL®



1250CC CONVERSION KIT

This is the largest big bore kit S&S offers for Harley-Davidson® Sportster® models, that can be bolted directly to stock crankcases. Quick and easy to install. Fast on the strip. Over 90 hp typical with S&S exhaust, cams, and CNC ported heads — Using the stock fuel system! (See page 250)



883 TO 1200CC CONVERSION KIT

Boost any 883cc Harley-Davidson® Sportster® to 1200cc. No machine shop? No problem, no machining is needed. Don't want to rebalance your stock 883cc flywheels? You don't need to since these pistons weigh the same as stock 883 pistons. Cylinder head modification is also not needed. The dished piston dome keeps compression down to a streetable 9.4:1 with stock 883cc heads. Installing this kit takes the same time as replacing a stock top end. It's just more fun when you're done. (See page 251)



HOOLIGAN KIT

Whether you're racing Hooligan flat-track or just want more power, the S&S Hooligan kits for 2000-'16 Harley-Davidson® Sportster® models will give you an edge on the competition. Boost that 883 to 1200cc. Already running a 1200? Bring it up to 1250cc. Bolt on big bore kits mean easy installation with no machining and no rebalancing. S&S bolt-in cams and premium tappets make the most of the added displacement. (See page 248)

HOOLIGAN KITS

FOR 2000–2019 HARLEY-DAVIDSON® SPORTSTER® MODELS

FITMENT

- 2000–'19 Harley-Davidson® Sportster® models

FEATURES & BENEFITS

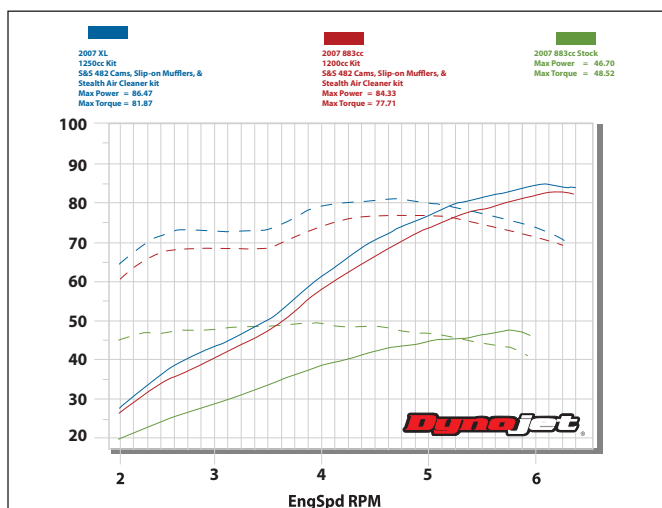
- Easy installation—Bolt-on parts—no machining, no rebalancing
- Increase 883cc engines to 1200cc
- Increase 1200cc engines to 1250cc
- Use stock heads, pushrods, and fuel system*
- Available in wrinkle black or silver powder coat that matches stock finish

*For maximum performance gains use with S&S Stealth air cleaner and S&S Slip-on mufflers.

HOOLIGAN KITS

Kit	Finish	Part #
883cc to 1200cc	WBlack	910-0699
883cc to 1200cc	Silver	910-0700
1200cc to 1250cc	WBlack	910-0701
1200cc to 1250cc	Silver	910-0702

DISCLAIMER: FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE. LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY.



This dyno chart from our DynoJet® 250i chassis dyno, makes it easy to see why S&S Hooligan kits raise the fun factor and give you a competitive edge. The S&S 1200cc kit with stock 883 heads increases horsepower by 80% over the original stock 883cc engine. The 1250cc kit shown here had 1200 heads. Stock 883 heads cannot be used on the 1250cc kit. Even more power is available with the S&S CNC cylinder head porting service. Do you want to win, or are you just along for the ride?

NOTES

This kit is not compatible with the stock ignition.



1250cc CONVERSION KIT

FOR 1986–2019 1200cc HARLEY-DAVIDSON® SPORTSTER® MODELS

FITMENT

- 1986–2019 1200cc Harley-Davidson® Sportster® models
- 1986–2019 883cc Harley-Davidson Sportster models

FEATURES & BENEFITS

- Forged pistons — coated piston skirts with measurement window
- Stock 1986–2018 1200cc cylinders can be bored over to accept these pistons
- Pistons have larger than stock valve pockets — accepts up to 2.00" valves

OPTIONS

- Silver powder coat finish
- Wrinkle black (WBlack) powder coat finish

KIT CONTENTS

- S&S 1250cc pistons w/rings and wristpins
- S&S 3 $\frac{3}{16}$ " bore cylinders
- MLS head, base, and exhaust gaskets
- Assembly lube
- Instructions



910-0692

1250cc CYLINDER AND PISTON CONVERSION KITS

Fitment	Piston Type	Compression Ratio	Finish	Part #
1986–2019 Sportster®	S&S Forged Flat top	10.3:1	Silver	910-0689
			WBlack	910-0691
	S&S Forged 5.5cc dome	11.2:1	Silver	910-0690
			WBlack	910-0692

*The cylinder fin profile does not perfectly match the fins on 2004 and later stock heads, but the difference is not considered to be objectionable. See Photos.

Compression ratios given are with 60cc combustion chambers.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTES

Can not run stock 883 cylinder heads with this kit. 883 heads may be used if S&S CNC porting is performed. PN 909-0011

The cylinder fin profile does not perfectly match the fins on 2004 and later stock heads, but the difference is not considered to be objectionable. See photo.

S&S does not recommend boring 2004 and later 883cc cylinders from 3" to 3 $\frac{1}{2}$ " bore to increase engine displacement to 1200cc due to changes in factory cylinder and liner. A smaller O.D. liner and large chamfer on the bottom of the spigot make boring the 883 cylinder not possible. New cylinders are recommended.

This kit is not compatible with the stock ignition.



S&S cylinders match the fin profile on 1986–'03 cylinder heads. Although there is a slight difference in the fin profiles of S&S cylinders and stock 2004–'18 cylinder heads (shown above), the look is generally not considered to be objectionable. You decide!

883 TO 1200cc CONVERSION KIT

FOR 1986–2019 883CC HARLEY-DAVIDSON® SPORTSTER® MODELS

FITMENT

- 1986–2019* 883cc Harley-Davidson® Sportster® models (*See photos)

FEATURES & BENEFITS

- Increase displacement from 883cc to 1200cc
- Save time because pistons are already fit to the cylinders – Ready to assemble out of the box!
- No machining
- No rebalancing of 883cc flywheels
- No cylinder head modifications
- Durable powder coat finish
- 9.6:1 Compression ratio
- Must be used with 883 heads

OPTIONS

- Silver powder coat finish
- Wrinkle black (WBlack) powder coat finish

KIT CONTENTS

- S&S 883-1200cc conversion pistons w/rings and wristpins
- S&S 106-5548 piston kit - 11.2cc dish volume
- S&S 3½" Bore Cylinders
- Cylinder head, base, and exhaust gaskets
- Assembly lube
- Instructions



910-0687



S&S cylinders match the fin profile on 1986–'03 cylinder heads. Although there is a slight difference in the fin profiles of S&S cylinders and stock 2004–'18 cylinder heads (shown above), the look is generally not considered to be objectionable. You decide!

883cc TO 1200cc CYLINDER AND PISTON CONVERSION KITS

Fitment	Finish	Part #
1986–2019 883cc Sportster®	Silver Powder coat	910-0688
	WBlack Powder coat	910-0687

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE.
Not legal for sale or use on any EPA pollution controlled motor vehicle.

SIDEWINDER® BIG BORE KITS

FITMENT

- 1986–'03 Harley-Davidson® Sportster®
- 1994–'02 Harley-Davidson® Buell®

FEATURES AND BENEFITS

- Available in three displacements, for four-speed (1986-'90) and five-speed (1991-'03) models, and in natural aluminum and black powder coat finish.
- Requires that the crankcase cylinder spigot holes be bored to accept the larger cylinders
- Complete instructions are provided for this machining operation, and S&S has special tools available that simplify the crankcase boring procedure. See Section 11 in this catalog for more information



S&S® SIDEWINDER® BIG BORE KIT SPECIFICATIONS FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

Displacement	Application	Stroke	Bore	Compression Ratio	Piston Type	Cylinder Length
79" Sportster**	1986 to 2003	3 ¹³ / ₁₆ "	3 ⁵ / ₈ "	≠	Forged	Stock

≠ Compression ratio depends on cylinder head type used. If stock heads are used extensive cylinder head modifications must be performed, making compression ratios completely dependent on final combustion chamber volume.

SIDEWINDER® BIG BORE KITS FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

Displacement	Stroke	Bore	Application	Part #
1295cc (79")**	3 ¹³ / ₁₆ "	3 ⁵ / ₈ "	1986 to 2003	91-3002

**This kit has stock height cylinders and will fit Buell® motorcycles.

PARTS INCLUDED IN S&S® SIDEWINDER® BIG BORE KITS FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

Displacement	Stroke	Kit Part #	Flywheel Assembly	Pistons	Cylinders	Gaskets		Head Bolt	Head Mount		Pushrods	Manifold
						Head	Base		Center	Front		
1295cc (79")	3 ¹³ / ₁₆ "	91-3002		Forged	●	●	●					

NOTES

This kit is not compatible with the stock ignition.

SB100 ENGINES FOR HARLEY-DAVIDSON® SPORTSTER®

FITMENT

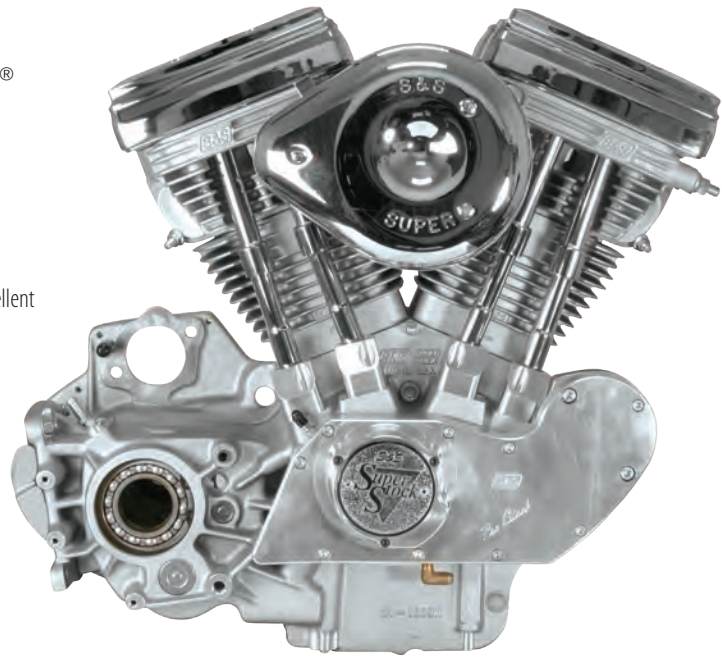
- 1986–'03 Harley-Davidson® Sportster®

FEATURES AND BENEFITS

- Bolt-in replacement for stock engines
- "Square" motor configuration (equal bore and stroke) produces excellent torque, greatly increases engine life
- S&S Super G carburetor with Classic Teardrop air cleaner
- S&S high flow Super Stock® cylinder heads
- High strength supreme rods, S&S cylinders, and forged pistons
- Adjustable pushrods and pushrod cover assemblies
- Hydraulic tappets and S&S forged roller rocker arms
- S&S billet gear cover kit and billet aluminum rocker covers
- Now includes oil pump and oil filter mount

KIT CONTENTS

- Assembled SB100 engine
- Instructions



S&S® SB100 ENGINE SPECIFICATIONS								
Displacement	Bore	Stroke	Cylinder Length	Camshaft	Piston Type	Compression Ratio	Fuel Delivery	Warranty Period
100"	4"	4"	4.420"	600	S&S forged	10.3:1	S&S Super G Carb	1 year parts only

COMPLETE SB100 ENGINES FOR SPORTSTER® MODELS

Application	Part #
SB100 for Sportster	31-9891

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTES

Requires 1991–'03 style primary components and transmission. Will not accept 1986–'90 4 speed transmission, charging system or primary components.

Primary components, starter charging system, ignition system, and transmission components are not included.

CRANKCASES

FOR 1986–'03 SPORTSTER® AND BUELL®

FITMENT

- 1986–'03 Harley-Davidson® Sportster® and Buell®
- S&S SB-Series engines

FEATURES AND BENEFITS

- Super strong for high performance engines
- Crankcases come complete with all required bearings and hardware
- Replaceable tappet guides for all year groups

OPTIONS

- Super Stock Cases
 - Choice of cam geometry—1986-'90 (4-speed) or 1991-'99 (5-speed)
 - Available for stock and 3 $\frac{3}{8}$ " bore sizes
- Special Application (SA) Cases
 - Choice of cam geometry—1986-'90 (4-speed) or 1991-'99 (5-speed)
 - 3 $\frac{3}{8}$ " bore to 4 $\frac{1}{2}$ " bore
 - Up to 1" taller cylinder deck height
 - Machined for stock, big twin, or S&S 1.500" diameter sprocket shafts

KIT CONTENTS

- Crankcase assembly
- Billet tappet guides
- Bearings and hardware
- Transmission trapdoor
- Oil filter mounting bracket



ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S DEGREE WHEEL, SEE PAGE 515

SUPER STOCK® CRANKCASES FOR HARLEY-DAVIDSON® SPORTSTER® & BUELL® MODELS

Cam Geometry	Stock Bore	3 $\frac{3}{8}$ " Bore
1991–'03	31-1008*	31-1009*
1986–'90	-	31-1014

All S&S crankcases use 5-speed transmission and primary components. These cases will not accept 4-speed transmissions or flywheel assemblies.

*Requires use of S&S cam cover gasket. (#31-2052). 1991–'03 cases require 1991–'96 gearcovers which are available from S&S.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

SPECIAL APPLICATION CRANKCASES FOR 1986–'03 FOR HARLEY-DAVIDSON® SPORTSTER® & 1994–'02 BUELL® MODELS

Engine	Cam Geometry	4" Bore
Sportster/Buell	1986–'90	31-1012 31-1012NS

All S&S crankcases use 5-speed transmission and primary components.

- These cases will not accept 4-speed transmission.
- Not compatible with stock flywheel assemblies.
- Since S&S Special Application crankcases are .500" wider than stock, they require part #33-2329 +.500" pinion shaft and S&S Special Application tappet guides.
- Requires use of S&S cam cover gasket. (Part #31-2099).
- 1991–'03 cases require 1991–'96 gearcovers.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTES

If transmission and primary do not share the same lubricant, it is vital to ensure that both the primary and the transmission are filled with the correct lubricants.

REPLACEMENT PARTS: SEE PAGE 284

FLYWHEELS

FOR 1986–'99 HARLEY-DAVIDSON® SPORTSTER® AND 1994–'97 BUELL® MODELS

FITMENT

- 1986–'99 Harley-Davidson® Sportster®
- 1994–'97 Buell®
- S&S SB-Series engines

FEATURES AND BENEFITS

- CNC machined from heat-treated, closed die, steel forging
- Stronger than cast iron or late style steel flywheels
- 5-piece design—easily rebuilt with standard flywheel fixtures and tools
- Unassembled balanced flywheels are balanced by the static method

FLYWHEEL ASSEMBLIES FOR 1994–'97 BUELL® MODELS

S&S flywheels for two-cylinder 1994–'97 Buell models. Although similar to flywheels for Sportster® models, these flywheels are knife edged and lightened. This design offers these advantages:

- Knife edging is a proven design used in race motors to make the flywheels "shed" oil more quickly to reduce drag at high rpm.
- Knife edging and lightening increases effective crankcase volume and reduces the flywheel assembly weight by 2–4 lbs. Increased crankcase volume results in better oil control, effectively reducing friction and heat, as well as helping to control oil carry over. Reduced weight results in faster revving and higher top rpm capability.
- All S&S flywheels for Sportster and Buell models feature removable mainshafts for easy rebuilding. In addition, the S&S pinion shaft is the 1986–'87 splined design, which is much stronger than the stock pinion shaft, allowing the use of higher lift cams and stronger valve springs.

OPTIONS

- Stock replacement or stroker flywheels for high performance upgrade
- Available in a wide variety of styles and strokes
- Available balanced or unbalanced
- Available assembled or unassembled by special order

KIT CONTENTS

- Flywheels
- Pinion shaft and sprocket shaft
- Optional connecting rods



**TRYING TO IDENTIFY AN S&S® FLYWHEEL?
SEE FLYWHEEL I.D. CHART IN THE APPENDIX:
PAGE 538**

REPLACEMENT PARTS: SEE PAGE 283

NOTES

Lightened flywheels are not recommended for Sportster models with solid mounted engines due to increased vibration and loss of low rpm torque.

S&S pinion shafts for 1986–'03 Sportster® models are the splined 1986–'87 style.

Pinion and oil pump drive gears in 1988–'03 models must be replaced with early style gears. See page 261

Complete S&S Flywheel assemblies will fit up to 1999 model year engines. However, the flywheels are compatible with stock crankpins up to 1999 only.

Stock stroke flywheels are balanced to stock weight pistons

These flywheels will not fit 1998–up Buell® models.

REPLACEMENT FLYWHEEL ASSEMBLIES FOR HARLEY-DAVIDSON® SPORTSTER® MODELS

Year Group	Displacement	Stroke	Flywheel Diameter	Part #
1986–'90	1200cc (Stock)	3 ¹³ / ₁₆ " (Stock)	7 ⁷ / ₈ " (Stock)	320-0052
	S&S 89" SW Kit	4 ¹ / ₁₆ "	7 ⁷ / ₈ " (Stock)	32-3061
1991–'99	1200cc (Stock)	3 ¹³ / ₁₆ " (Stock)	7 ⁷ / ₈ " (Stock)	320-0053
	S&S 89" SW Kit	4 ¹ / ₁₆ "	7 ⁷ / ₈ " (Stock)	32-3062
Special Order*	Specify	Specify	Specify	32-3014*

Application	Stroke	Flywheel Diameter	Part #
Special Order For Buell*	Specify	Specify	32-3014*

BILLET GEARCOVERS FOR SPORTSTER® AND BUELL® MODELS

BILLET GEARCOVER KITS — STANDARD±

Bushing Style	Part #
1986–'90 style bushing	31-0303

REPLACEMENT GASKETS

Product	Part #
Gearcover Gasket	31-2052
Cam Seal 11124	31-4051



31-0303

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

BILLET FILTER MOUNT

FITMENT

- 1986–'87 Harley-Davidson® Sportster®
- S&S SB-Series engines
- S&S crankcases for Sportster and Buell®

FEATURES AND BENEFITS

- Accepts stock oil pressure sending switch
- Machined for easy routing of an oil cooler
- Seals off cam chest, providing a convenient place to spin on an oil filter



BILLET FILTER MOUNT±

Fitment	Part #
1986–'87 Harley-Davidson® Sportster® S&S SB-Series engines S&S crankcases for Sportster and Buell®	106-3134

CYLINDERS WITH PISTONS KIT

- Cylinders with piston kits include fitted pistons and cylinders, head gaskets, base gaskets, and exhaust gaskets
- Cylinder kits with pistons are honed to fit the pistons included



S&S® 4" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART

Displacement	Stroke	Cylinder Length	Piston Deck Height	COMPRESSION RATIO	
				Low Compression* Heads 85cc	High Compression* Heads 76cc
100"	4"	4.420"	1.200"	9.6:1	10.3:1

*91" and 100" engines for Sportster models typically use heads with 76cc chambers for high compression and 85cc chambers for low compression.

4" BORE CYLINDERS WITH PISTONS FOR 100" KIT

Displacement	Description	Finish	Part #
100"	Cylinder with Piston Set	Natural	91-3031

CYLINDERS WITH PISTONS KIT con't



91-3208

S&S® 3 5/8" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART					
Displacement	Stroke	Cylinder Length	Piston Deck Height	COMPRESSION RATIO	
				S&S Super Stock® Heads - Low/Intermediate/High	Stock Heads
1458cc (89")	4 5/16"	5.087"	1.200"	9.5/10.3/12.4	*
1688cc (103")	5"	5.750"		10.9:1/11.8:1/14.2:1	*

**Compression ratio will be determined by the combustion chamber modifications*

3 5/8" BORE CYLINDERS WITH PISTONS FOR 89" KIT

Displacement	CYLINDERS W/PISTONS (SET)	
	Low Compression (92-1080 series pistons)	Intermediate Compression (92-1120 series pistons)
	Natural	Natural
1458cc (89")	91-3207	91-3208



910-0689

S&S® 3 3/16" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART					
Displacement	Stroke	Cylinder Length	Dome Volume	Piston Deck Height	Compression Ratio S&S Heads
1250cc	3 3/16"	4.650"	Flat Top	1.208"	10.3:1
			5.5cc		11.2:1

3 3/16" BORE CYLINDERS WITH PISTONS FOR 1250CC KIT

Displacement	Piston Type	Silver	WBlack
1250cc	S&S Forged Flat Top	910-0689	910-0691
	S&S Forged 5.5cc Domed	910-0690	910-0692

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910-0688

S&S® 3 1/2" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART					
Displacement	Stroke	Cylinder Length	Piston Deck Height	COMPRESSION RATIO	
				S&S Heads	Stock Heads
1200cc	3 3/16"	4.650"	1.208"	10.5:1	9.6:1

3 1/2" BORE CYLINDERS WITH PISTONS FOR 1200CC & 883CC KITS

Displacement	Silver	WBlack
1200cc, 1986–2003 Sportster®, 1994–02 Buell® Models with S&S® Heads	910-0694	910-0696
883cc (conversion to 1200cc), 1986–2017* Sportster® models	910-0688	910-0687

**The cylinder fin profile does not perfectly match the fins on 2004 and later stock heads, but the difference is not considered to be objectionable. See Photos on page 251*

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91-3604*

NOTE

Stock crankcases must be machined to accommodate the larger spigot diameter.
Combustion chamber modifications must be made to stock cylinder heads to reduce compression.

Milwaukee
Twin Cam
1999-2006
Twin Cam 88"
Sportster® & Buell®
Street & Street Rod®
Evolution®
Vintage Engines
Indian® & Victory® Models
Tools & Shop Supplies
Apparel
Warranty & Company Policy
Appendix & Index

CYLINDERS

- Cylinder sets without pistons are bored slightly under normal size and are not honed.
- Include dowel pins



4" BORE CYLINDERS

Displacement		Natural
100"	Set	91-3030

3¾" BORE CYLINDERS

Displacement		Silver	WBlack
1200cc	Set	910-0693	910-0697

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

3½" BORE CYLINDERS

Displacement		Natural	Silver	WBlack
1200cc	Set	91-3010	910-0698	910-0695

NOTES

Stock crankcases must be machined to accommodate the larger spigot diameter.
Combustion chamber modifications must be made to stock cylinder heads to reduce compression.

PISTON KITS

- Piston kits include set of pistons, rings, wristpins, and clips



4" BORE FORGED PISTON KITS

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"
100"	1.200"	4"	92-1420	92-1421	92-1422

Recommended piston fitment: Close: .0020"-.0025" Loose: .0032"-.0045"

92-1420

3¾" BORE FORGED PISTON KITS FOR STOCK HEADS

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"	+ .030"	+ .040"
1458cc (89")	1.200"	4¾"	92-1940	92-1941	92-1942	92-1943	92-1944
1688cc (103")	1.200"	5"					

Recommended piston fitment: Close: 0.0015"-0.0020" Loose: 0.0030"-0.0040"

3¾" SUPER STOCK® FORGED LOW COMPRESSION PISTON KITS

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"	+ .030"	+ .040"
1458cc (89")	1.200"	4¾"	92-1080	92-1081	-	92-1083	92-1084
1688cc (103")	1.200"	5"					

3¾" SUPER STOCK® FORGED MEDIUM COMPRESSION PISTON KITS

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"	+ .030"	+ .040"
1458cc (89")	1.200"	4¾"	-	-	92-1122	-	-
1688cc (103")	1.200"	5"					

Recommended piston fitment: Close: 0.0023"-0.0025" Loose: 0.0035"-0.0045"

PISTON KITS con't

3¼" BORE FORGED PISTON KITS

Displacement	Dome Volume	Deck Height	Stroke	Standard
1250cc	Flat Top	1.207"	3¼"	920-0070
	5.5cc	1.207"	3¼"	920-0071

DISCLAIMER: FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.
LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY.




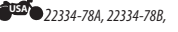











3½" BORE FORGED PISTON KITS

Cylinder Heads	Deck Height	Stroke	Standard	+ .010"	+ .020"
S&S® Super Stock®	1.1875"	3½"	92-2016	92-2017	92-2018
Stock 883cc	1.207"		106-5548	106-5549	106-5550

Recommended piston fitment: Close: 0.0025"–0.003" Loose: 0.0030"–0.0040"


REPLACEMENT PARTS FOR PISTONS

PISTON RINGS, CHROMOLY FACED

Bore	4"	3⅝"	3 ⅞"	3½"	
				S&S® Heads	Stock 883cc Heads
Deck Height	1.200	1.200	-	1.1875"	1.207"
Standard	94-1300X 	94-1210X 	940-0042*	94-2216X 	94-2206X 
+ .005"	-	-	-	94-22165X 	-
+ .010"	94-1301X 	94-1211X 	-	94-2217X 	94-2207X 
+ .020"	94-1302X 	94-1212X 	-	94-2218X 	94-2208X 
+ .030"	-	94-1213X	-	94-2219X 	94-2209X 
+ .040"	-	94-1214X	-	-	-
+ .060"	-	94-1216X	-	-	-

*Clips and pins not available.

WRISTPINS

Bore	Description	Part #
4"	Wristpin .792" x 2.825"	94-9256 
3⅝"		
3½"		

KEEPERS

Bore	Description	Part #
4"	Keeper 22589-83A	each 94-9254-S
3⅝"		2 pack 94-9254-2
3½"		4 pack 94-9254

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CAMSHAFTS

FITMENT

- 1986–'19 Harley-Davidson® Sportster®
- 1994–'02 Buell®

APPLICATIONS

S&S 482: Bolt-in cam for 2004–'19 models only. Recommended for S&S 883 to 1250 conversion kits. Best performance gains 3500–6500 rpm. Compatible with stock valve springs and stock non-adjustable pushrods.

S&S 500: Bolt-in cams that provide excellent torque with stock or ported heads. Recommended for modified engines up to 89" displacement and 9.0:1 to 10.5:1 compression ratio. Will work in 89" to 100" engines with less than 9.0:1 compression. Normal clearancing checks recommended. 2000–6000 rpm. Works with stock valve springs and stock non-adjustable pushrods.

S&S 555: Recommended for 89"–100" engines with 9.5:1 to 11.5:1 compression ratio. Provides best performance from 3500–6500 rpm using ported stock heads or S&S heads. Requires adjustable pushrods, spring spacing or high lift valve springs, and normal clearance checks.

S&S 600: The standard cam included in 4" bore S&S engines. For engines larger than 89" with 9.5:1 to 10.5:1 compression ratio and S&S heads. Great addition to a S&S 103" Sidewinder® kit. Requires adjustable pushrods, crankcase clearancing and high lift valve springs. 3500–6500 rpm.



33-5082

With the exception of the "bolt-in" 500 camshafts, S&S cams are high lift and are designed to take advantage of the extra flow of ported stock heads or S&S Super Stock® heads. Due to the high lift of these cams, high lift valve springs and minor clearancing is required for proper installation.

S&S® CAMS SPECIFICATIONS FOR 1986–'19 SPORTSTER® AND 1994–'02 BUELL® MODELS

Cam Name	Valve Timing ¹		Valve Duration (°)		Valve Lift	Lift @ TDC ²		Spring Spacing Required	Tappet ³ Type Required
	Intake	Exhaust	Intake	Exhaust		Intake	Exhaust		
	Open BTDC/Close ABDC	Open BBDC/Close ATDC							
S&S 482	22°/38°	43°/11°	240°	234°	.482"	.181"	.134"	No	Hydraulic
S&S 500	34°/50°	56°/28°	264°	264°	.500"	.241"	.212"	No	Solid or Hydraulic
S&S 555	33°/53°	53°/33°	266°	266°	.555"	.240"	.240"	Yes	Solid or Hydraulic
S&S 600	20°/55°	60°/20°	255°	260°	.600"	.194"	.184"	Yes	Solid or Hydraulic

¹Timing designations is a function of zero lash @ 0.053" off base circle.

²TDC lifts are measured at the valve and are for reference only. Overlap valve lifts must be checked on assembled motor.

³Requires cam lobe clearancing when used in stock crankcases.

CAMS FOR 1986–'19 SPORTSTER® AND 1994–'02 BUELL® MODELS

Cam Name	Application	Part #
S&S 482	2000–'19	330-0189
S&S 500	1991–'19*	33-5082
	1986–'90	33-5081
S&S 555	1991–'19*	33-5084
S&S 600	1991–'19*	33-5126
	1986–'90	33-5125

*See Notes regarding pinion gears

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NOTES

1991–'99 style pinion gear must be used with S&S® cams (except for 482) in 2000–'19 Sportster® models and 2000–'02 Buell® models with stock flywheels. See page 261.

2000–'03 Sportster models and 2000–'02 Buell models using S&S flywheels or pinion shafts require the use of '91–'99 style cams and S&S '86–'87 pinion gear and oil pump drive gear.

PINION GEARS

FITMENT

- 1986–'99 Sportster®
- 1994–'02 Buell®



33-4153



33-4163



33-4228

PINION GEARS FOR 1986–'87 SPORTSTER®

REQUIRED FOR ALL S&S FLYWHEEL ASSEMBLIES FOR 1986–'99 SPORTSTER AND 1991–'99 BUELL MODELS

Color Code	Size	HD® Part #	S&S® Part #
Blue	Biggest	24056-86	33-4152
Red	Average	24057-86	33-4153
White	Average	24058-86	33-4154
Green	Average	24059-86	33-4155
Yellow	Smallest	24060-86	33-4156

PINION GEARS FOR 1991–'99 SPORTSTER®

WITH STOCK FLYWHEEL ASSEMBLY

Color Code	Size	HD® Part #	S&S® Part #
Blue	Biggest	24056-91	33-4162
Red	Average	24057-91	33-4163
White	Average	24058-91	33-4164
Green	Average	24059-91	33-4165
Yellow	Smallest	24060-91	33-4166

Note: Can be used to install S&S cams in 2000–2013 Sportster® engines

PINION SHAFT COMPONENTS FOR 1986–'03 SPORTSTER® MODELS

Item Description	HD® Part # ¹	S&S® Part #
1986–'87 Style Pinion Gear Nut	7913	33-4254
1986–'87 Style Pinion Shaft Oil Pump Drive Gear	26318-75	33-4228

¹Note: No longer available from Harley-Davidson®

NOTE If the stock gear is unmarked and the size is unknown or you are scratch building an engine and have no gear, we recommend that you order a gear in the middle of the size range. These sizes were used more often and should provide adequate gear clearance under most circumstances. When in doubt, use a gear from the middle to the small side of the range because a combination of looser fitting smaller gears is less likely to cause binding and premature wear. Consult the chart for the size and appropriate part number required. If you wish to achieve optimum cam gear to pinion gear fit, consult your factory service manual for instructions on fitting these gears before making a selection. Some sizes, particularly those on and near the ends of each range, are available on a limited basis because they are the extremes.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

PREMIUM HIGH PERFORMANCE TAPPETS

FITMENT

- 2000–'19 Sportster® Models

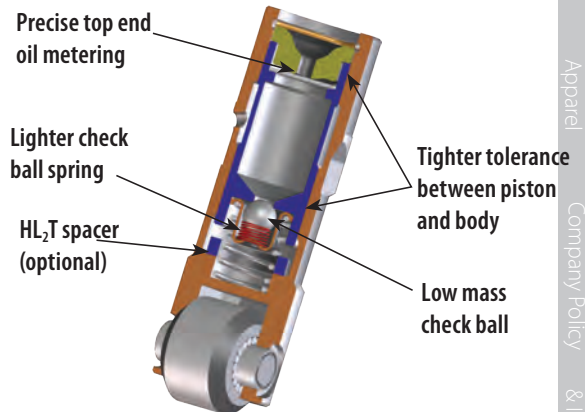
FEATURES

- Reduced valve train noise from start up to shut down
- Close tolerances for low leak down rates—fast pump up and superior high rpm performance
- Low mass, bearing grade, silicon nitride check ball and lighter check ball spring—enhances fast pump up and quiet operation
- 100% tested to ensure that leak down and top end oil flow are within specification



PREMIUM HIGH PERFORMANCE TAPPETS

Tappet Sets	Part #
Set of 4 tappets with HL ₂ T kit	330-0174
Set of 4 tappets without HL ₂ T kit	330-0175



HIGH PERFORMANCE HYDRAULIC TAPPETS

FITMENT

- 1986–'90 Harley-Davidson® Sportster®
- 2000–'19 HD Sportster
- 2000–'02 Buell®

FEATURES AND BENEFITS

- Redesigned plunger assembly better withstands forces associated with heavy-duty valve springs and cams typically used in high-performance applications
- Revised metering device precisely controls oil delivery to top end, ensuring rapid lifter pump-up and reducing possibility of oil starvation to bottom end
- Each lifter body and plunger assembly is selective-fit and tested to ensure correct operation
- 1986–'90 (4-speed)
 - Larger inner bearing race reduces stresses to increase axle, bearing and roller life. The S&S inner bearing race is .123" larger in diameter than the "raceless" roller axles currently used by some manufacturers.
 - Improved inner race-roller design allows use of more and larger bearings to increase load—carrying surface area, further reducing stress and wear in the critical roller area.

OPTIONS

- Tappets for 1986–'90 four speed Sportster® models are available with the HL₂T Limited Travel Kit for improved cold starts and high rpm valve timing accuracy.

KIT CONTENTS

- Four hydraulic tappets

33-5350



33-5352



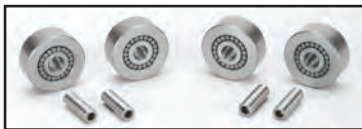
HIGH PERFORMANCE HYDRAULIC TAPPETS

Fitment	Description	Part #
2000-'19 Sportster® models 2000-'02 Buell® models	S&S Standard Tappet (HL ₂ T kit not installed)	33-5350
1991-'99 Sportster® models	S&S Standard Tappet (HL ₂ T kit not installed)	330-0288
1986-'90 Sportster® models	S&S Standard Tappet (HL ₂ T kit not installed)	33-5352
	S&S Standard Tappet (With HL ₂ T kit installed)	33-5353

NOTE

S&S tappets with HL₂T Kit require the use of adjustable pushrods. See page 264 for S&S adjustable pushrod options

HIGH QUALITY TAPPET ROLLER AND AXLE REPLACEMENT



High quality tappet roller and axle replacement kit for 1984–99 HD® big twin and 1986–90 Sportster® models. Kit includes rollers to rebuild 4 tappets.

HIGH QUALITY TAPPET ROLLER AND AXLE REPLACEMENT KIT

Fitment	Part #
Kit includes rollers to rebuild 4 tappets.	330-0378

HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL₂T)

FITMENT

- 1986–'03 Harley-Davidson® Sportster®
- 1994–'02 Buell®

FEATURES AND BENEFITS

- Positive valve train activation!
- More horsepower at higher RPMs
- Easier starting

KIT CONTENTS

- Set of four spacers



HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL₂T)

Fitment	Part #
1986–'03 Sportster® with stock or S&S® tappets (fits tappets with .612" I.D.)	33-5338

TAPPET GUIDES

FITMENT

- 1986–'90 Harley-Davidson® Sportster®
- S&S Super Stock® crankcase
- S&S Special Application crankcase

FEATURES AND BENEFITS

- Unlike cast aluminum, billet has no internal voids or impurities
- No residual strain from thermal contraction or expansion means no cracking or changes in shape
- Simple to install upgrade that looks great
- Tappet guides for special application cases have correct pushrod angles for 1/2" camchest offset

KIT CONTENTS

- Guides
- O-rings
- Installation hardware

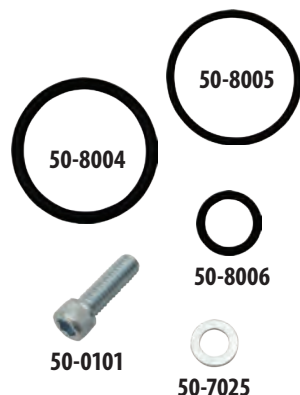


TAPPET GUIDE SETS FOR SPORTSTER®, SUPER STOCK®, AND SPECIAL APPLICATION CRANKCASES

Application	Set
1986-'90 Stock/S&S® Super Stock	33-5375
1986-'90 S&S Special Application	33-5365
1991-'99 S&S Super Stock	33-5389

NOTE

2000 and later Sportster models use the same tappet as 1999–up big twin engines. However, these tappets will not fit the S&S tappet guides for 1991–'99 models.



REPLACEMENT PARTS FOR TAPPET GUIDES

Description	Part #
Tappet Guide O-ring Kit <i>Fits 1986–'90 Sportster models with stock or S&S crankcases and 1991–'99 Sportster models with S&S crankcases 1167A</i>	50-8153
Upper O-ring, 1" I.D. x 1 3/4" O.D. x 3/32" CS Viton® 11167	<i>each</i> 50-8004
Lower O-ring, 1" I.D. x 1 1/8" O.D. x 1/16" CS Viton 11168A	<i>each</i> 50-8005
Oil Passage O-ring, 3/8" I.D. x 1/2" O.D. x 1/16" CS 70 Buna 11110	<i>each</i> 50-8006
	<i>10 pack</i> 50-8077
Screw, SHC, 5/16-18 x 1", Zinc 3201WA, 2708	<i>each</i> 50-0101
Washer, Flat, .325" x .548" x .062", Zinc, Low Carbon Steel 6771	<i>each</i> 50-7025

QUICKEE ADJUSTABLE PUSHRODS

FITMENT

- 1991–'19 Harley-Davidson® Sportster®
- 1994–'02 Buell®

FEATURES AND BENEFITS

- Easy to install
- Adjustable to ensure consistent valve train operation under all conditions

KIT CONTENTS

- Pushrods
- Pushrod covers and keepers
- O-rings



930-0023

QUICKEE ADJUSTABLE PUSHRODS FOR 1991–'19 HARLEY-DAVIDSON® SPORTSTER® MODELS

Description	Part #
Complete Kit, for 2004–'19 xl	930-0023
Pushrod Set only, for 1991–'19 xl	93-5122

NOTES

Quickee pushrods cannot be used in the S&S® SB-100 engine. 33-5355 adaptors, 93-4039 cover kit and 93-4101 keepers are needed when used on 1991–2003 applications.

REPLACEMENT PARTS: SEE PAGE 265

STANDARD ADJUSTABLE PUSHRODS

FITMENT

- 1986–'19 Harley-Davidson® Sportster®
- 1994–'02 Buell®

FEATURES AND BENEFITS

- Made out of 7/16" O.D. chromoly steel tubing for strength and durability
- Adjustable to ensure accurate valve train operation under all conditions
- Compatible with solid and hydraulic lifters
- Kit includes all pushrods, covers, keeper and o-rings

KIT CONTENTS

- Pushrods,
- Pushrod covers and keepers
- O-rings



930-0024

STANDARD ADJUSTABLE PUSHRODS FOR 2004–'19 HARLEY-DAVIDSON® SPORTSTER® MODELS

Description	Part #
Complete Kit	930-0024
Pushrod Set only	93-5022

NOTES

S&S pushrod sets are available separately for those who wish to use an aftermarket pushrod cover other than S&S.

33-5355 pushrod cover adaptors are required for 1991-'03 applications. See page 265

REPLACEMENT PARTS: SEE PAGE 265

PUSHROD SETS FOR 1991–'03 SPORTSTER® AND 1994–'02 BUELL® MODELS

Displacement	Cylinder Length	Part #
883cc, 1200cc, 79"	4.650" (Stock)	93-5022
89"	5.087" (+0.437)	93-5089

PUSHROD SETS FOR 1986–'90 SPORTSTER® MODELS











Displacement	Cylinder Length	Part #
883cc, 1200cc, 79"	4.650" (Stock)	93-5033
89"	5.087" (+0.437)	93-5022

PUSHROD COVERS AND RELATED PARTS

FITMENT

- 1986–2019 Harley-Davidson® Sportster®
- 1994–'02 Buell®

PUSHROD REPLACEMENT PARTS

Item Description		Part #
S&S Pushrod Cover Kit* (includes Top and bottom covers, Cover cap, Cover spring, Spring washers, and o-rings)	Stock Height 	93-4039*
	1" or more taller than stock	93-4038*
Cover Cap Washer 67628		50-7131
Bottom Cover Washer		50-7150
Top O-ring 11132A		50-8039
Middle O-ring		50-8038
Bottom O-ring		50-8037
Top Cover  		93-4016
Bottom Cover  		93-4015
Cover Cap  		93-4017
Cover Spring  		93-4018
Pushrod O-ring Kit		93-4022
Ball End 	Fits S&S adjustable with 5/16"-32 threads. (Manufactured after 2-1-1996)	93-5002
Adjusting Unit Locknut	Fits S&S adjustable pushrods with early stock 5/32"-32 threads	33-5333
	Fits S&S adjustable pushrods with 5/16"-32 threads. (Manufactured after 2-1-1996)	93-5003-S

*1991-'03 Sportster and 1994-'02 Buell models require S&S pushrod cover adaptor kit part #33-5355 to use two-piece pushrod covers.



S&S pushrod cover adapters for five-speed Sportster models are designed to convert stock 1991-'03 crankcases to accept 1986-'90 style pushrod cover assemblies in order to allow access to adjustable pushrods. 2004-up Sportster models do not require these adapters.

PUSHROD COVER ADAPTER

Set of four	33-5355
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PUSHROD COVER KEEPER SETS±




Application		Length	Part #
2004-'18 Sportster® Pushrod covers	883cc & 1200cc	(2.600")	93-4101
1991-'03 Sportster and 1994-'02 Buell® with Stock Cases and S&S Adaptors	883cc & 1200cc	(2.600")	93-4101
	79"	(2.600")	93-4101
	89"	(3.000")	93-4103
1986-'90 Sportster with Stock or S&S Cases	883cc & 1200cc	(2.800")	93-4115  17950-86
	79"	(2.800")	93-4115  17950-86
	89"	(3.100")	93-4104
	100"	(3.000")	93-4103



93-4101

All S&S pushrod keepers are chromed steel except part #93-4109. Keeper #93-4109 is intended for unusually tall engines. It is manufactured of unchromed stainless steel to prevent rust or peeling after it is trimmed to the required length. Keepers are sold in sets of four.

CUSTOM LENGTH PUSHROD COVER KEEPER SETS

Length	Part #
2.400" 17950-48	93-4070 ± 
2.500"	93-4100 ±
2.600"	93-4101 ±
2.800" 17950-86	93-4115 ± 
2.900"	93-4102 ±
3.000"	93-4103 ±
3.100"	93-4104 ±
3.200"	93-4105 ±
3.330" 17949-40, 17950-66	93-4106 ± 
3.500"	93-4107 ±
3.625"	93-4108 ±
4.250"	93-4109 *

*Custom extra long stainless steel 4.250", customer to cut to required length

SIDEWINDER® .650" LIFT VALVE SPRINGS

FITMENT

- 1986–'19 Harley-Davidson® Sportster® with stock heads

FEATURES AND BENEFITS

- Works well with cams up to .650" lift
- Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided
- CNC machined 9° locks
- High performance conical single wire spring
- Chromoly forged retainers

KIT CONTENTS

- Valve keepers, top & bottom collars, springs, shims
- Valve guide seals (*not included in kit for 1999-'04 xl*)

S&S® .650" LIFT SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.650"	1.860"	178 lb.	376 lb.	6500



.650" LIFT SPRING KIT

Description	Part #
1986-2003 (5/16" valve stems)	900-0050
2004-2019 (7mm stems)	106-5909

NOTE

S&S recommends roller rocker arms be used with lifts over .585"

STREET PERFORMANCE .585" VALVE SPRINGS

FITMENT

- 1986–'19 Harley-Davidson® Sportster® / 1995-'02 Buell

FEATURES AND BENEFITS

- Dual springs reduce the risk of valve float
- Suitable for high performance applications
- Accommodates camshaft lift to 0.585"

KIT CONTENTS

- Valve Guide Seals, Springs, Top & Bottom Collars, Keepers, Shims

STREET PERFORMANCT .585" VALVE SPRING KIT

Description	Part #
1986-'03 Sportster® & 1995-'02 Buell® (5/16" valve stems)	900-0593
2004-'19 Sporsters® (7mm stems)	900-0594
S&S Super Stock Heads	900-0595

S&S® .585" LIFT SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift
.585"	1.850"	135 lb.	325 lb.



VALVE SPRING REPLACEMENT PARTS: SEE PAGE 300

FORGED ROCKER ARMS

FITMENT

- 1986–'19 Harley-Davidson® Sportster®
- 1994–'02 Buell®

FEATURES AND BENEFITS

ROLLER ROCKER ARMS

- Extremely durable rollers reduce valve stem side thrusting with high lift cams
- Superior wear and fatigue resistance even in the most demanding applications
- ¾" long bushings provide 50% more bushing support area than ½" long bushings
- Ideal for cams of any lift

STANDARD ROCKER ARMS

- ¾" long bushings provide 50% more bushing support area than ½" long bushings
- An economical alternative for cams up to .585" lift


KIT CONTENTS

- 2 front and 2 rear rocker arms



900-4065A

FORGED ROLLER ROCKER ARM KIT


Description	Part #
2 front and 2 rear rocker arms 	900-4065A

Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance. New rocker arm shafts are recommended for maximum performance and rocker life.



900-4119A

STANDARD FORGED ROCKER ARM KIT




Description	Part #
2 front and 2 rear rocker arms 	900-4119A

New rocker arm shafts are recommended for maximum performance and rocker life.








90-4036

ROCKER ARM SHAFTS

Description	Part #
Set of 4 17611-83B 	90-4036
Individual 17611-83B  	90-4006

New rocker arm shafts are recommended for maximum performance and rocker life.

REPLACEMENT PARTS FOR FORGED ROLLER ROCKER ARMS

Rocker Arm Type	Description	Part #
Roller	Front exhaust or rear intake rocker arm 	900-4065FA
	Rear exhaust or front intake rocker arm 	900-4065RA
Standard	Front exhaust or rear intake rocker arm 17375-83A 	900-4119FA
	Rear exhaust or front intake rocker arm 17360-83A 	900-4119RA
Roller	Rebuild kits (rebuilds 4 rocker arms)	90-4104
Roller & Standard	Rocker arm bushing (¾" long) 	90-4014

NOTES

S&S roller rocker arms are recommended for use with cams having more than 0.585" of lift. Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance. New rocker arm shafts are recommended for maximum performance and rocker life.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CNC PORTED CYLINDER HEAD SERVICES

CNC PORTING SERVICE FEATURES AND BENEFITS

- CNC machined ports are consistent - repeatable - performance increase
- High flow and high port velocity - great power without losing low RPM torque
- Assembled with performance valves and your choice of .585" or .650" lift springs ready to bolt-on
- Stock heads with S&S CNC porting are also available for outright sale in select models

XL CNC

- Available for 2004-'18 XL 883 and 1200cc engines
- Combustion chamber volume of 60cc - For stock compression in 1200cc engines
- 883 engines must be upgraded to 1200cc or greater
- Perfect for the S&S 1200cc and 1250cc kits.



CNC PORTING SERVICE FOR SPORTSTER® MODELS

Description	Part #
CNC Porting Service - S&S Ports Your Heads	909-0011
CNC Ported Heads - Complete Set Sold Outright	909-0011

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE.
Not legal for sale or use on any EPA pollution controlled motor vehicle.

S&S® CNC PORTING SERVICE – SPECIFICATION COMPARISON — HARLEY-DAVIDSON® SPORTSTER® MODELS

Heads	Valve Size		Max Valve Lift	Max TDC Lift		Port Flow		Chamber Volume
	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust	
Stock	1.805	1.575	.585	–	–	218.2 cfm	186.7 cfm	60cc
CNC Ported by S&S	1.830	1.575	.650	.213	.215	249.3 cfm	206.0 cfm	60cc

*Flow testing performed on a SuperFlow® 1020 flow bench at 28" of water test pressure at .600" lift. Heads tested are 2007-'13 style.

Heads	COMPRESSION RATIO	
	1200cc	With .03 Head Gaskets
Stock 60cc	9.7	10:1
CNC Ported by S&S 60cc	9.7	10:1

**As a general rule of thumb, for every 1cc decrease in chamber volume equals a .1 increase in compression ratio.

NOTES

For XL applications, S&S recommends for use with cam TDC lifts no greater than: .213" intake, .215" exhaust to achieve .050" valve to valve clearance.

CNC porting is not available for previously ported heads, heads that have been structurally damaged, or heads that are determined to be unserviceable during initial inspection. These heads will be returned to the customer without modification. In these cases, the customer will be notified and options will be reviewed. As an alternative, S&S heads or CNC ported stock heads are available for purchase.

Due to variations in stock cylinder head castings, all inside surfaces of the ports may not "clean up" during machining. As a result, the inside of one or more ports may not appear to be completely machined. This does not effect performance and is not considered a defect.

CNC porting is not currently available for Harley-Davidson® CVO engines or Screamin' Eagle® cylinder heads.

SUPER STOCK® CYLINDER HEADS

FOR 4" BORE S&S ENGINES

FITMENT

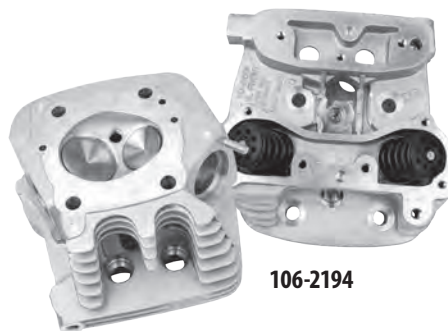
- SB-Series for Harley-Davidson® Sportster® 1986-'03
- SB-Series for Buell® 1994-'02

FEATURES AND BENEFITS

- Machined for S&S manual or electric compression releases
- 2.000" intake valves and 1.605" exhaust valves
- Special "cast-to-shape" intake ports with a special directional fin for improved air flow
- Precision CNC machined from heat treated aircraft quality aluminum castings
- Machined with S&S 4" cylinder stud pattern and '86-90 S&S SA pushrod hole locations

KIT CONTENTS

- 2 fully assembled cylinder heads in Natural or Wrinkle Black (WBlack) with S&S .650" lift springs
- Threaded plugs to seal compression release holes if no compression releases are used



106-2194

SUPER STOCK® HEAD KITS FOR 4" BORE S&S ENGINES

Application	Natural
1986-'03 Sportster® models	106-2194
1994-'02 Buell® models	106-2297

! THESE KITS REQUIRES SPECIAL S&S PISTONS AND GASKETS. Order the required piston oversize and gaskets from the charts below.

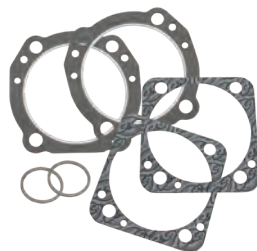


92-1420

4" PISTON KITS FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

Oversize	Part #
Standard	92-1420
+0.010"	92-1421
+0.020"	92-1422

Kits include a set of pistons, rings, wristpins and keepers.



90-1909

4" BORE GASKET KIT FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

Description	Part #
Head, Base, and Exhaust Gaskets	90-1909

REPLACEMENT PARTS: SEE PAGE 286

NOTE

Due to expanded stud pattern, these heads will not fit on stock Sportster® Evolution® engines.

3-1/2" AND 3-5/8" SUPER STOCK® CYLINDER HEADS

FITMENT

- 1986–'03 Harley-Davidson® Sportster®
- 1994–'02 Buell® (heads require S&S Super stock pistons)

FEATURES AND BENEFITS

- Machined with a stock bolt pattern
- Larger, more open combustion chamber presents less resistance to air flow around the valves
- 2.000" intake valves and 1.605" exhaust valves
- Special "cast-to-shape" intake ports with a special directional fin for improved air flow
- Precision CNC machined from heat treated aircraft quality aluminum castings



KIT CONTENTS

- Complete head assembly in Natural or Wrinkle Black (WBlack) with valves and S&S .650" lift springs

REPLACEMENT PARTS: SEE PAGE 286

ASSEMBLED S&S® SUPER STOCK® HEAD KITS

Application	Natural	WBlack
1991-'03 Sportster® models	90-1310	90-1810

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

! THESE KITS REQUIRES SPECIAL S&S PISTONS AND GASKETS. Order the required piston oversize and gaskets from the charts below.



3 5/8" FORGED PISTON KITS FOR S&S® SUPER STOCK® HEADS

Oversize	Low Compression	Intermediate Compression
Standard	92-1080	–
+0.010"	92-1081	–
+0.020"	–	92-1122
+0.030"	92-1083	–
+0.040"	92-1084	–

Piston kits include set of pistons, rings, wristpins, and clips.
Loose: 0.0035"–0.0045"

Recommended piston fit: Close: 0.0023"–0.0025"

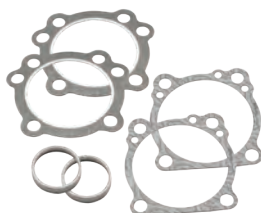
FOR COMPRESSION RATIOS AND CYLINDER KITS SEE PAGE 256

3 1/2" BORE FORGED PISTON KITS FOR S&S® SUPER STOCK® HEADS (10.5:1 COMPRESSION)

Oversize	Deck Height	Part #
Standard	1.1875"	92-2016
+0.010"		92-2017
+0.020"		92-2018

Piston kits include set of pistons, rings, wristpins, and clips.

Recommended piston fit: Close: 0.0025"–0.003" Loose: 0.0030"–0.0040"



90-1907

GASKET KITS FOR S&S® SUPER STOCK® CYLINDER HEADS

Bore Size	Part #
3 1/2"	90-1907
3 5/8"	90-1908

CYLINDER HEAD AND MOTOR MOUNTS

HEAD MOUNTS FOR SPORTSTER® MODELS

Two head mounts are required for 1986-'03 Harley-Davidson® Sportster® models. The center mount is a two-piece design for maximum flexibility. The front mount is one piece and available in two versions according to cylinder length. Machined from ¼" thick steel and provided in a semi-gloss black finish.



93-4055

1986-'03 Sportster® Chassis

CENTER MOUNT

Fits All Engines	93-4055
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FRONT MOUNT

Stock to 5.087" Long Cylinders 16214-86, 16222-86	93-4056
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HEAD BOLTS WITH WASHERS

HEAD BOLT INFORMATION CHART

Length w/Washer	Washer Thickness	Head Bolt w/Washer	Washers Only
1.690"	.250"	93-3028	50-7091
1.840"	.150"	93-3027	50-0418-S
1.920"	.250"	93-3036	50-7091
2.070"	.150"	93-3031	50-0418-S
2.220"	.250"	93-3038	50-7091
2.370"	.150"	93-3032	50-0418-S
3.134"	.250"	93-3029	50-7091
3.284"	.150"	93-3030	50-0418-S
3.501"	.250"	93-3037*	50-7091
3.651"	.150"	93-3033*	50-0418-S

*Drilled & tapped deeper to allow shortening for custom lengths.



93-3028

HEAD BOLT WASHERS

Thickness	Part #
.150"	50-0418-S
.250"	50-7091

HEAD BOLTS FOR 1986-2003 HARLEY-DAVIDSON® SPORTSTER® MODELS

Engine Displacement	Stroke	Cylinder Length	Cylinder Head Type	Short Bolt w/Washer	Long Bolt w/Washer	Head Bolt Kit
883/1100/1200cc S&S 79"	3 ¹³ / ₁₆ "	4.650"	S&S 1986-'90 HD®	93-3027	93-3030	93-3010
			1991-Up HD®	93-3027	93-3030	93-3010
S&S 89"	4 ⁵ / ₁₆ "	5.087"	S&S 1986-'90 HD®	93-3038	93-3033	93-3013
			1991-up HD®	93-3032	93-3033	93-3013
S&S 91"	3 ⁵ / ₈ "	4.230"	S&S®	93-3028	93-3029	93-3011
S&S 100"	4"	4.420"	S&S®	93-3028	93-3029	93-3011

CALCULATING CUSTOM HEAD BOLT LENGTHS SEE INSTRUCTIONS ON PAGE 541

Dress up your engine with these magnetic chrome head bolt covers. Easy installation, no tools, no messy adhesives. A powerful magnet holds cover in place, yet allows easy removal. Chrome plated steel looks great on any engine, but is a must for polished engines. For S&S head bolts only.



CHROME HEAD BOLT COVERS

Set of 4	50-0333
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All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

BILLET ROCKER COVERS

FITMENT

- 1986–'03 Harley-Davidson® Sportster®
- 1994–'02 Buell®



FEATURES AND BENEFITS

- OEM-style "umbrella" fittings are included with billet rocker boxes for 1993-'99 big twin engines with cylinder head venting
- S&S billet rocker covers are available in three finishes: show-quality chrome, or unfinished. Unfinished is ideal for powder coating and other custom cosmetic treatments
- Installation on stock and most comparable sized engines can be performed without removing the engine from the frame

KIT CONTENTS

- Covers
- Gaskets
- O-rings
- Mounting hardware

BILLET ROCKER COVER KITS

Finish	Part #
Chrome	90-4050 [±] 
Unfinished	90-4055 

REPLACEMENT GASKET KIT

Description	Part #
Includes gaskets for two rocker covers	90-4049

NOTES

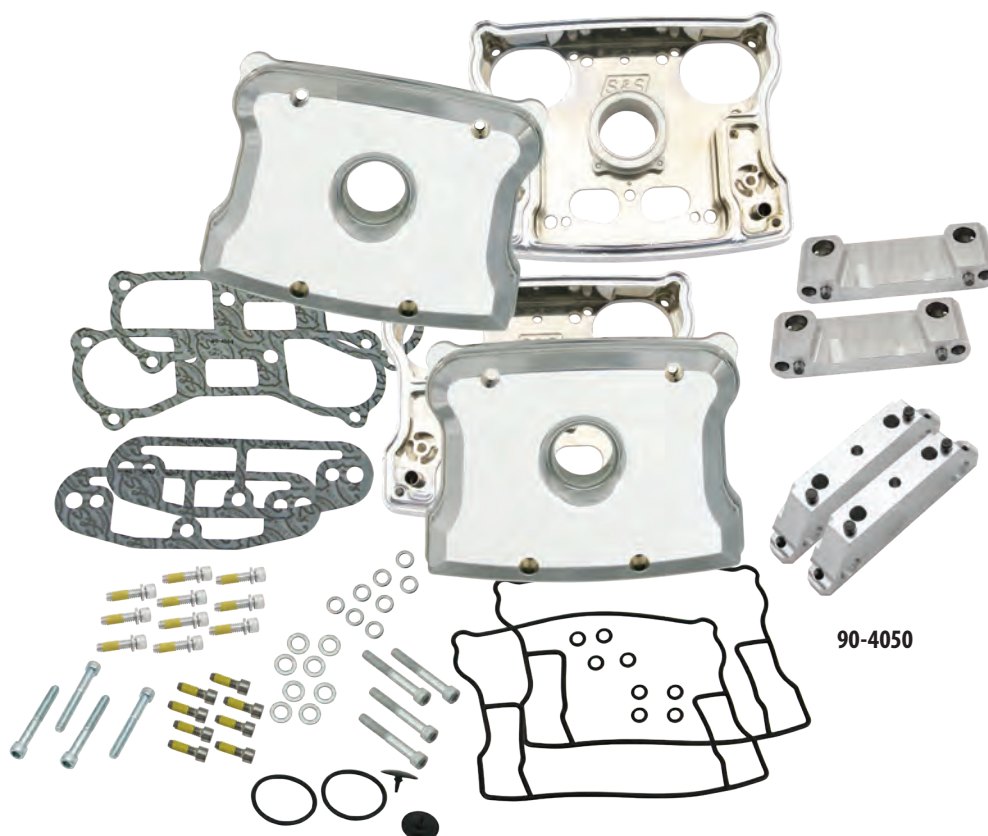
The performance-oriented design of the billet rocker boxes permits valve lifts up to .710" with stock or S&S Super Stock® heads, and up to .810" with S&S Special Application heads. S&S roller rocker arms are recommended for high lift cams.

S&S billet rocker covers accept valve springs up to 1.660" O.D. without modification. Cylinder heads must be set up correctly for high-lift cams, and it remains the builder's responsibility to confirm all clearances.

Kits include front and rear cover assemblies with base and top cover, rocker shaft supports, gaskets and o-rings, and instructions

REPLACEMENT PARTS: SEE PAGE 288

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S ROCKER COVER WRENCH SET, PAGE 513



SUPER E & G COMPLETE CARBURETOR KITS

FITMENT

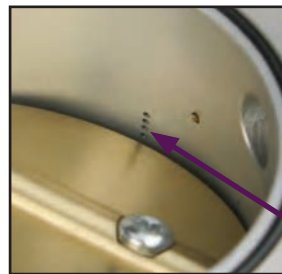
- 1986-'06 Harley-Davidson® Sportster®
- 1994-'02 Buell®

FEATURES AND BENEFITS

- Four fuel delivery ports – Better throttle response
- O-ring sealed idle mixture screw
- Increased air flow for more power
- Adjustable accelerator pump for quick throttle response and easy starting
- Utilization of the factory dual cable system ensures safe operation
- Direct replacement and high quality fit and finish – less down time and better performance
- Variable position enrichment starting system

KIT CONTENTS

- FULL KIT (For engines with stock length cylinders)
 - Super E/G carburetor
 - S&S intake manifold (stock length)
 - Classic Teardrop air cleaner kit
 - Mounting hardware and gaskets
 - Instructions
- Partial Kit
 - Super E carburetor
 - Classic Teardrop air cleaner
 - Mounting hardware
 - Gaskets
 - Instructions



As the throttle plate opens, it exposes more of these holes to engine vacuum and delivers more fuel as rpm increases. When you run out of holes in the intermediate system, the main jet comes in and handles fuel delivery for the higher rpm.

REPLACEMENT PARTS: SEE PAGE 298

SUPER E & G COMPLETE CARBURETOR KITS

Models	Super E
2004-'06 Sportster	11-0470
1991-'03 Sportster	11-0409
1986-'90 Sportster	11-0408

SUPER E PARTIAL KIT (NO MANIFOLD)

Models	Part #
1991-'03 Sportster	11-0443
1986-'90 Sportster	11-0440

SUPER E & G CARBURETOR ONLY

Fitment	Super E	Super G
All Years & Models	11-0420	11-0421

NOTES

Due to inadequate frame clearance, the taller throttle bracket cannot be used on 1986-'03 Harley-Davidson® Sportster® chassis. Therefore, these Sportster models require the installation of earlier butterfly style throttle cables. Kits for 2004-'06 Sportster models are compatible with stock throttle cables.

S&S® does not recommend polishing or chrome plating Super E & G carburetors. Our repair department has seen many carbs with plugged passages due to polishing compounds, and some carbs have been destroyed because the polishing or chrome plating had altered critical machined surfaces.

Recommended for closed circuit use only—S&S Super E & G carburetors shown in this catalog section are not approved for use on motor vehicles operated on California public highways, or in other states where similar pollution laws may apply. The user shall determine the suitability of the product for his or her use and shall assume all risk and liability in connection therewith.

1998-up Buell® models require the use of 1996-'97 throttle assembly.

S&S throttle cables must be used for all Buell applications.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

BLACK SUPER E & G CARBURETORS

FEATURES AND BENEFITS

- Exclusive black coating — heat and chemical resistant
- Offered in standard venturi or increased venturi diameter — specially machined for 7% more flow

BLACK CARBURETORS FOR 1986-2006 XL MODELS

	Description	Part #
Increased venturi diameter <i>(7% more flow)</i>	Super E Carb	110-0099
	Super G Carb	110-0100
Standard venturi diameter	Super E Carb	110-0133
	Super G Carb	110-0138

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



NOTE

These black carb kits do not include air cleaners. Air cleaner options are on page 292

RIGID CARB SUPPORT BRACKETS

FITMENT

- 1986-'03 Harley-Davidson® Sportster®, 1994-'02 Buell®

SUPPORT BRACKET, AIR CLEANER TO HEAD

Application	Stock Carb and S&S Air Cleaner
	Part #
1986-'03 Sportster® & 1994-'02 Buell®	17-0311



BREATHER CONVERSION KIT

FITMENT

- 1991-'03 Harley-Davidson® Sportster®

FEATURES AND BENEFITS

- Instead of o-rings, banjo fittings are sealed with durable silicon coated washers

BREATHER CONVERSION KIT

Fitment	Part #
Super E 1 7/8" Carb	17-0487



Breather conversion kit for XL engines updates earlier S&S® air cleaner kits for 1991-'03 Sportster® models to the latest breather hardware.

17-0487

TWO CABLE THROTTLE ASSEMBLIES

Harley-Davidson® Sportster® models 1987-'03 originally fitted with a constant velocity (CV) carb require conversion to butterfly style throttle cables to work with the S&S butterfly type carburetor. The throttle cables shown in the chart below are designed for this application. S&S Super E carb kits for 2004-'06 Sportster models are designed to accept the stock throttle cables.

FITMENT

- 1986-'03 Harley-Davidson® Sportster®
- 1996-'02 Buell®



S&S® THROTTLE CABLE APPLICATION CHART

Application	Fastening Method	Length Total Housing	Length Vinyl Housing	Open Side	Close Side
1996-'03	Snap-in	36"	32"	19-0436	19-0437
1986-'95	Threaded	36"	32"	19-0432	19-0433
1996-up Custom	Snap-in	42"	38"	19-0440	19-0441
1986-'95	Threaded	42"	38"	19-0446	19-0447

*1998 and later required Harley-Davidson® throttle assembly #71831-96

REPLACEMENT PARTS

Description	Part #
S&S Universal Throttle Cable	106-3520
Throttle Grip Clamp Set 1985-'95	106-3519
Top Throttle Grip Clamp only	19-0222
Bottom Throttle Grip Clamp only	19-0220
Throttle Grip Clamp Screw <i>(Fits S&S throttle assemblies: Part #19-0448, #19-0449, #19-0482, #19-0450, and #19-0229)</i>	50-0043
Throttle Grip Set	106-3521
Right Hand Grip only	19-0225
Left Hand Grip only	19-0226
Cable Adjuster Fits S&S throttle assembly part #19-0229.	19-0223
Cable Adjuster Jam Nut Fits S&S throttle assembly part #19-0229	19-0227
Handlebar Spacing Sleeve 4" x 1" O.D. – converts 7/8" handlebars to 1" O.D.	19-0235



NOTES

The chart on this page is used only when using throttle cable bracket part #11-2339. This bracket is standard on all S&S® Super E & G carburetor kits for Harley-Davidson® Sportster® models with the exception of the kit for 2004-'06 models.

1987-'03 Sportster® models originally fitted with a constant velocity (CV) carb require conversion to butterfly style throttle cables to work with the S&S butterfly type carburetor. S&S Super E carb kits for 2004-'06 Sportster models are designed to accept the stock throttle cables.

JETS & CARB REBUILD KITS FOR S&S SUPER E & G CARBURETORS

For those who need to rejet their carburetor because of engine modifications, exhaust modifications, or changes in altitude, we have extra jet kits available which are designed to cover most jetting situations.

DEALER JET KITS±

Description	Part #
S&S Carb Parts Kit (Contains needed parts to maintain S&S Super E and G carburetors)	11-3103
S&S Jet Kit (Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)	11-3102



11-3103±

JET PACKS±

Description	Part #
Low Range Jet Pack – For jetting most stock and moderate performance engines.	
Includes one each intermediate jets (.025", .0265", .028", .0295") one each main jets (.062", .064", .066", .068", .070", .072", .074")	11-7270
High Range Jet Pack – For jetting some stock and all performance engines	
Includes one each intermediate jets (.0295", .031", .032", .033") and one each main jets (.072", .074", .076", .078", .080", .082", .084")	11-7271
Master Jet Pack – For jetting all Super B, E, and G equipped engines	
Includes one each intermediate jets (.025", .0265", .028", .0295", .031", .032", .033") and one each main jets (.062", .064", .066", .068", .070", .072", .074", .076", .078", .080", .082", .084")	11-7272



11-3102±

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION±

Size	QTY	Part #	Size	QTY	Part #
.025	each	11-0250	.032	each	11-0320
	3 pack	11-7107		3 pack	11-7112
.0265	each	11-0265	.033	each	11-0330
	3 pack	11-7108		3 pack	11-7113
.028	each	11-0280	.036	each	11-0360
	3 pack	11-7109		3 pack	11-7114
.0295	each	11-0295	.040	each	11-0400
	3 pack	11-7110		3 pack	11-7115
.031	each	11-0310	Blank	each	11-0000
	3 pack	11-7111			



11-7272±



106-3517±

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

1.....	.025"	4.....	.033"
2.....	.028"	5.....	.036"
3.....	.031"	6.....	.040"

NOTES

No returns or exchanges on jets.

Refer to Section 10: Racing for the S&S fuel and turbo carburetors.

1986–2019 HD® Sportster® Models

MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION*

Size	QTY	Part #	Size	QTY	Part #
.040	each	11-4040	.080	each	11-4080
	5 pack	11-7220		5 pack	11-7240
.042	each	11-4042	.082	each	11-4082
	5 pack	11-7221		5 pack	11-7241
.044	each	11-4044	.084	each	11-4084
	5 pack	11-7222		5 pack	11-7242
.046	each	11-4046	.086	each	11-4086
	5 pack	11-7223		5 pack	11-7243
.048	each	11-4048	.088	each	11-4088
	5 pack	11-7224		5 pack	11-7244
.050	each	11-4050	.090	each	11-4090
	5 pack	11-7225		5 pack	11-7245
.052	each	11-4052	.092	each	11-4092
	5 pack	11-7226		5 pack	11-7246
.054	each	11-4054	.094	each	11-4094
	5 pack	11-7227		5 pack	11-7247
.056	each	11-4056	.096	each	11-4096
	5 pack	11-7228		5 pack	11-7248
.058	each	11-4058	.098	each	11-4098
	5 pack	11-7229		5 pack	11-7249
.060	each	11-4060	.100	each	11-4100
	5 pack	11-7230		5 pack	11-7250
.062	each	11-4062	.102	each	11-4102
	5 pack	11-7231		5 pack	11-7251
.064	each	11-4064	.104	each	11-4104
	5 pack	11-7232		5 pack	11-7252
.066	each	11-4066	.106	each	11-4106
	5 pack	11-7233			
.070	each	11-4070	.110	each	11-4110
	5 pack	11-7235		5 pack	11-7255
.072	each	11-4072	.115	each	11-4115
	5 pack	11-7236		5 pack	11-7256
.074	each	11-4074	.120	each	11-4120
	5 pack	11-7237		5 pack	11-7257
.076	each	11-4076			
	5 pack	11-7238			
.078	each	11-4078			
	5 pack	11-7239			

MAIN JET AIR BLEED KIT* (One Jet Each Size)

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518

S&S® CARBURETOR REBUILD KITS

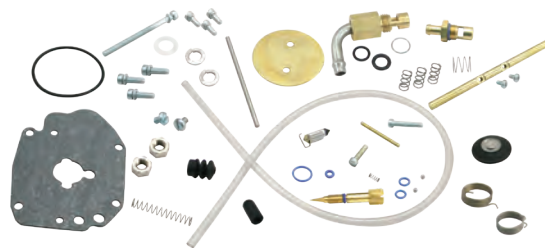
To insure that you continue to get the utmost in performance from your S&S carburetor, we have put together a series of rebuild kits that are designed to provide the proper parts to return a worn carburetor to top shape. We have assembled different types of kits to cover the different degrees of rebuild necessary.

MASTER REBUILD KITS

Master rebuild kits contain a body rebuild kit, accelerator pump rebuild kit (Super E and G only), all new fasteners, springs, idle mixture screw, seat, and needle assembly. Everything needed to completely rebuild one carburetor.

MASTER REBUILD KIT*

Description	Part #
Super E	11-2923
Super G	11-2924



11-2923

BODY REBUILD KITS

Body rebuild kits for Super E and G carbs also contain throttle shaft nuts, nylon washers, accelerator pump o-ring, and accelerator pump boot. Body rebuild kits for Super E and G carbs do not contain throttle shaft bushings since these carbs have stainless steel throttle shaft bushings already installed.

BODY REBUILD KIT*

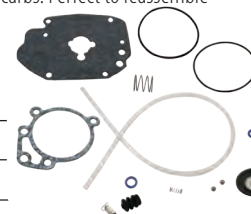
Description	Part #
Super E	11-2906
Super G	11-2907



11-2907

BASIC REBUILD KIT

A gasket and seal kit for low mileage Super E & G carbs. Perfect to reassemble carbs taken apart for inspection and cleaning.



BASIC REBUILD KIT*

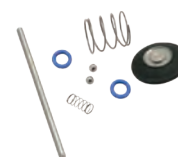
Description	Part #
Super E & G	110-0067

ACCELERATOR PUMP REBUILD KITS

Accelerator pump rebuild kits contain diaphragm, diaphragm spring, check balls, check ball spring, pump pushrod, and required hardware and o-rings.

ACCELERATOR PUMP REBUILD KIT

Description	Part #
Super E & G	11-2918



MANIFOLD CONVERSION KITS

FITMENT

- 1986-'03 Harley-Davidson® Sportster®
- Can be used with S&S Super B and Super E carburetors, as well as stock carburetors with a two-bolt mounting pattern

FEATURES AND BENEFITS

- Increased airflow
- Eliminates the possibility of severe engine damage due to extreme lean conditions created by cracks in stock rubber manifolds

KIT CONTENTS

- Manifold
- Front and rear mounting flanges
- Manifold o-rings
- Aluminum spacer shims



16-1650

MANIFOLD CONVERSION KITS FOR SPORTSTER® MODELS

Year	Cylinder Length	Size No.	Part #
1986-'03	4.650"	341	16-1650*

*Fits S&S ES, LS, Super B, Super E, Tillotson®, Bendix®, Keihin®

NOTES

These manifolds may change the way a stock carburetor and air cleaner assembly fit. This means that these components may require shimming and/or a slight change in mount bracketing.

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may damage the manifold.

REPLACEMENT PARTS MANIFOLD CONVERSION KIT

Description	Part #	
Manifold	16-1620	
Flanges	Front 27009-86A <i>each</i>	16-0232 USA
	<i>5 pack</i>	16-0600 USA
	Rear 27010-86A <i>each</i>	16-0233 USA
	<i>5 pack</i>	16-0601 USA
Set (Front & Rear)	106-3516	
O-rings	<i>each</i>	16-0235
	<i>5 pack</i>	16-0243
0.350" Spacers	50-7044	

INTAKE MANIFOLDS

FITMENT

- 1986-'06 Harley-Davidson® Sportster®
- S&S carburetors and other carbs with the same mounting bolt pattern

FEATURES AND BENEFITS

- Increases airflow

MANIFOLDS FOR 2004-'06 HARLEY-DAVIDSON® SPORTSTER® MODELS

Displacement	Cylinder Length	Size No.	S&S Super E
1200cc	Stock (4.650")	335	16-1519*
Special Order**	Specify	–	169-0003

*Replacement for manifold supplied in S&S part #11-0470 Super E carb kit. 1 7/8" bore.



16-1620



16-1519

REPLACEMENT PARTS FOR MANIFOLDS

Description	Part #
Manifold Fitting VOES Rubber Cap, 3/16" I.D. x 5/16" O.D. x 1/2"	50-8372
Manifold Vacuum Fitting	16-0136-S



MANIFOLDS FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® MODELS

S&S Engine Kit Displacement	Cylinder Length	Size No.	Carburetor Type		
			S&S ES, LS, Super A, B, E, Tillotson®, Bendix®, Keihin®	Super G	Super D
883cc, 1100cc, 1200cc, 79"	Stock (4.650")	341	16-1620	16-2520	–
100"	4.420"	357	–	16-2559	–
103"	5.750"	426	–	16-2532	–
Special Order*	Specify	–	169-0003	169-0004	169-0005

Manifolds available in 1 7/8", 2 1/8", or 2 1/4" bore.

MANIFOLDS FOR 1994–'02 BUELL® MODELS

MANIFOLDS FOR 1994-'02 HARLEY-DAVIDSON® BUELL® MODELS

Engine Displacement	Cylinder Length	Size Number	Super E Part #	Super G Part #
1200cc, 79"	Stock - 4.650"	341	16-1520	–
S&S SB100	4.420"	357	–	16-2569
Special Order*	Specify	–	169-0003	169-0004



16-1520

NOTES

S&S manifolds for Buell models are not interchangeable with manifolds for Harley-Davidson® Sportster® models as they position the carburetor about ¼" higher. This change in position will cause misalignment of mounting hardware.

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may damage the manifold.

HIGH OUTPUT COILS



55-1576



55-1571

HIGH OUTPUT COILS

S&S High Output 3.0Ω Single Fire Coil	Part #
<i>The perfect complement for S&S IST ignition systems. This single fire coil is actually two separate coils in a single package. Coil impedance is 3Ω per coil.</i>	55-1571
S&S High Output 0.5Ω Single Fire Coil ^{USA}	Part #
<i>High output 0.5Ω single fire coil for S&S IST ignition. 55-1571</i>	55-1576

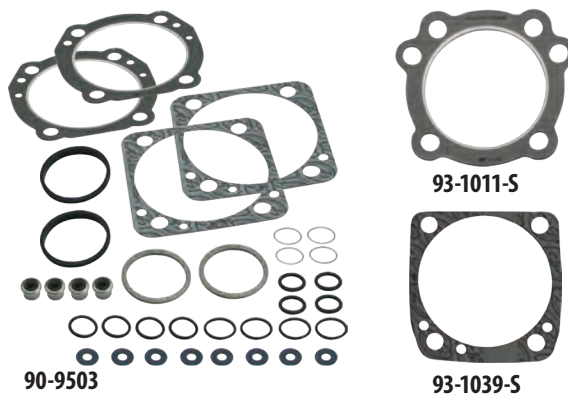
GASKETS

TOP END GASKET KITS FOR S&S SB-SERIES ENGINES 1986-'03

4"	90-9503
3½"	90-9509

CYLINDER HEAD, BASE & EXHAUST GASKET KITS FOR S&S SB-SERIES ENGINES 1986-'03

4"	.043" Micropore	90-1909
3½"	.045" Micropore	90-1908
3½"	.045" Micropore	90-1907
	.030" Layered Steel	900-0532



HEAD GASKETS

4"	.043" Micropore	each	93-1040-S
		2 pack	930-0087
		10 pack	93-1071
3½"	.045" Micropore	each	93-1037-S
		2 pack	930-0091
		10 pack	93-1052
	.0625" Micropore	each	93-1016-S
		2 pack	930-0097
		10 pack	93-1053
3½"	.045" Micropore 16770-84F, 16770-84D	each	93-1011-S
		2 pack	930-0098
		10 pack	93-1024
	.0625" Micropore 16770-84D, 16770-84F, 10773-85	each	93-1313-S
		10 pack	93-1051
	.030" Layered Steel	each	900-0530

ROCKER BOX GASKET KITS AND INDIVIDUAL GASKETS

S&S Billet	
Gasket Kit	90-4049
O-ring, (-223), 1.625" ID x 1.875" OD, Viton®	each 50-8044
Seal, Umbrella Valve Cover 26856-89, 26856-89A	90-4030
Gasket, Rocker Cover, S&S® Billet, O-ring, 1986-2003 xl	90-4048
Gasket, Bottom, Rocker Cover, 1986-2003 xl	each 900-0538
	2 pack 900-0592
Gasket, Kit, Rocker Box, 1986-'90 xl 17026-91A	900-0773
Gasket, Kit, Rocker Box, 1991-2003 xl 17026-91A	900-0774
Gasket, Kit, Rocker Box, 2004-'06 xl	900-0775
Gasket, Kit, Rocker Box, 2007-up xl	900-0776

LOWER END GASKETS AND SEALS

Gearcover gasket	each	31-2052
Camshaft Oil Seals, 1971 - up 11124		31-4051

BASE GASKETS AND O-RINGS

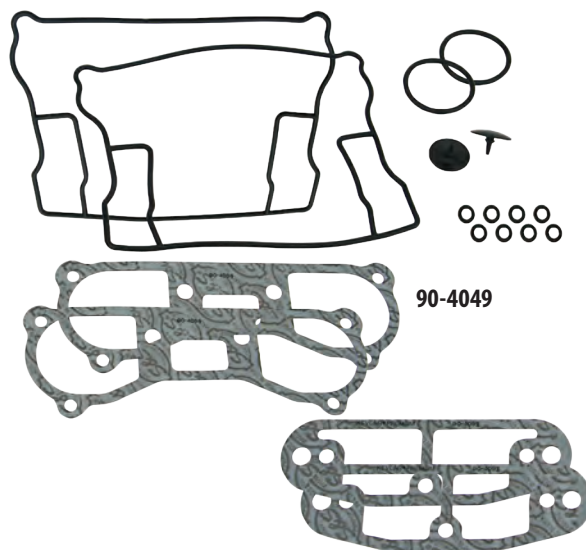
4"	.018" Micropore	each	93-1031-S
		2 pack	930-0094
		10 pack	93-1067
3½"	.018" Micropore	each	93-1039-S
3½"	.018" Micropore 16777-83A, 16774-86D	each	93-1038-S

EXHAUST GASKETS

1986- 2003 Sportster Models 65324-83B, 65324-83A	each	106-5029
	10 pack	93-1072

VALVE GUIDE SEALS

1986- 2003 Sportster Models	each	900-0338
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All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding H-D part number shown.

1986–2019 HD® Sportster® Models

TAPPET GUIDE O-RINGS

1" I.D. x 1 ³ / ₁₆ " O.D. x 3 ³ / ₃₂ " CS (upper) 11167	each	50-8004
1" I.D. x 1 ¹ / ₈ " O.D. x 1 ¹ / ₁₆ " CS (lower) 11168A	each	50-8005
3 ³ / ₈ " I.D. x 1 ¹ / ₂ " O.D. x 1 ¹ / ₁₆ " CS (oil hole) 11110	each	50-8006
	10 pack	50-8077

PUSHROD O-RINGS


O-ring, Kit, Pushrod Cover, 1986–2003 xl		93-4022
Top O-ring 11293, 11157, 11101, 11190	each	50-8039
Middle O-ring 11132A	each	50-8038
Bottom O-ring 11145A	each	50-8037

SPROCKET SHAFT SEAL

1991-'03 35151-74A	31-4060
1991-'03 S&S SA cases, BT style 120268	31-4010

FUEL SYSTEM GASKETS

Manifold Seals

S&S Manifold O-ring	each	16-0235
	10 pack	16-0243
Stock Manifold O-ring  26995-86B, 26995-86A, 26992-99	each	16-0236
	10 pack	16-0244
Cap, rubber, manifold, fitting		50-8372

CLASSIC TEARDROP AIR CLEANER

Back Plate gasket	each	106-1724
	10 pack	106-2328
Vent seal washers silicone coated steel 1/2"	each	50-7054
	10 pack	50-7059

STEALTH AIR CLEANER

Back Plate gasket		
Stock CV Carb & EFI Throttle Body, 1991-up xl 29062-95B		106-6022
Super E/G.	each	106-1724
	10 pack	106-2328
For Muscle air cleaner (includes lanyards)		170-0137
Vent seal washers Nitrile Rubber Coated, 520" x .880" x .024" xl 1991-'06	each	50-7055
	10 pack	50-7057



SINGLE BORE TUNED INDUCTION SYSTEM

Back Plate gasket

Gasket, Backplate - E/G/SBEFI	each	106-1724
	10 pack	106-2328
Gasket, S&S SBEFI 58mm		106-4662
Gasket, Stock carb/Throttle Body 29062-95B		106-6022
Adaptor plate gasket		17-1022
Adaptor plate bracket o-ring	each	50-0446

CARBURETOR GASKETS

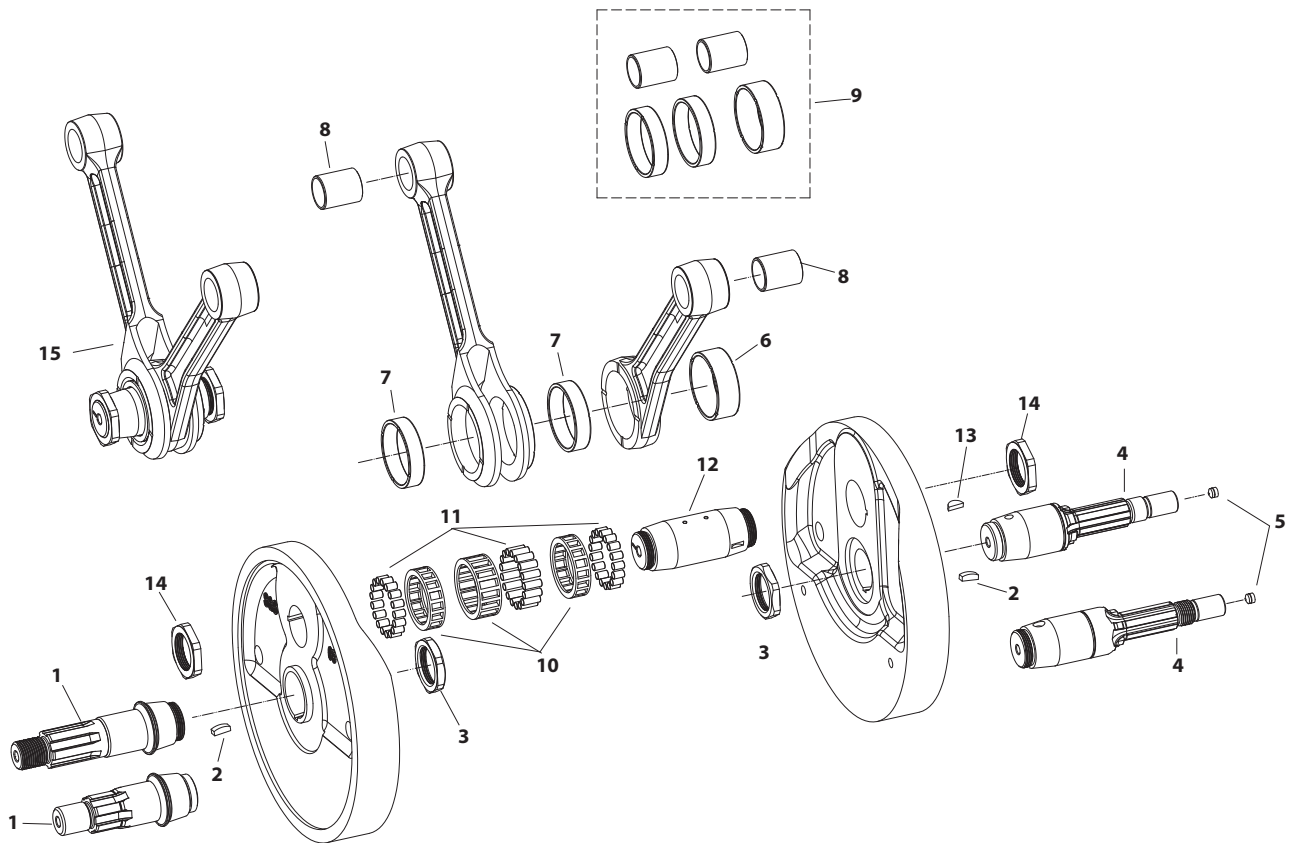
Bowl Gasket, Super E & G		11-2386	
Pump cap o-ring - (two required)	each	50-8012	
	10 Pack	50-8100	
Idle Mixture Needle o-ring	each	500-0036	
	10 pack	500-0148	
Bellows Seal, Accelerator Pump		11-2266	
Accelerator pump diaphragm		11-2282	
Manifold to carb orings various sizes	Super E	each	50-8016
		10 pack	50-8094
	Super G	each	50-8015
		10 pack	50-8093
Seat and bowl plug o-ring	each	50-8009	
	10 pack	50-8095	



FLYWHEEL REPLACEMENT PARTS

1. Sprocket Shaft (includes #2 & 3)
1986–1990 xl w/ S&S D/SB/SBD/SC/SCD/SCDR/SCR flywheels. **33-2302**
1991–2003 xl w/ S&S D flywheels & 1994–1999 Buell **33-2303**
2. Key (each) **50-8224**
3. Nut **33-2331**
4. Pinion Shaft 1986–2003 xl (includes #2, 3, 5)
w/S&S D/DR flywheels / 1994–1999 Buell **33-2325**
w/S&S D/DR/DF flywheels – Special Application, +.500" **33-2329**
5. Meter Plug–
.0625" hole **50-8316±**
no hole – Special application **50-8314±**
6. Front Rod Race 24352-52A **34-4505**
7. Rear Rod Race 24341-52A **34-4506**
8. Wrist Pin Bushing
.767" x .895" x .950" 24331-36
(for use with Heavy Duty Rods) **34-4507**
.767" x .895" x 1.077" 24334-36
(for use with Supreme Rods) **34-4007**
9. Race and Bushing Set (includes #6, 7, 8)
(for use with Heavy Duty Rods) **34-4540**
10. Alloy Bearing Cage Set **34-4520**
11. Bearing Set
Standard 24354-87A **34-4521**
12. Crankpin (includes #13 & 14) Late 1981–1999 Sportster
Standard 23960-80A **34-2602**
.001" OS 23948-87 **34-2603**
.002" OS 23949-87 **34-2605**
13. Crankpin Key late 1981–1999 Sportster / 1994–1999 Buell 11218
each **50-8222-S**
5 pack **50-1009**
14. Crankpin Nut **34-2504**
15. Connecting Rod Assembly- 1986–1999 Sportster / 1994–1999 Buell
(includes #9, 10, 11, 12, 13, 14)
Heavy Duty/6.926" rod length– for stock stroke engines
24275-86A **34-7800**

ANY JOB IS EASY WITH THE RIGHT TOOLS
COMPLETE S&S FLYWHEEL REBALANCING KIT PAGE 510



NOTES

S&S® connecting rods, with their beefier than stock construction, are slightly heavier than stock connecting rods. Therefore, rebalancing the flywheels is recommended when S&S connecting rods are used in stock replacement applications. We realize that rebalancing is an inconvenience, but we did not want to sacrifice rod strength for convenience's sake. In addition, given the variations in stock and aftermarket components available to engine builders, flywheel rebalancing is a desirable step in any major engine overhaul. In some cases, stock flywheels will need to be relieved to clear the rods.

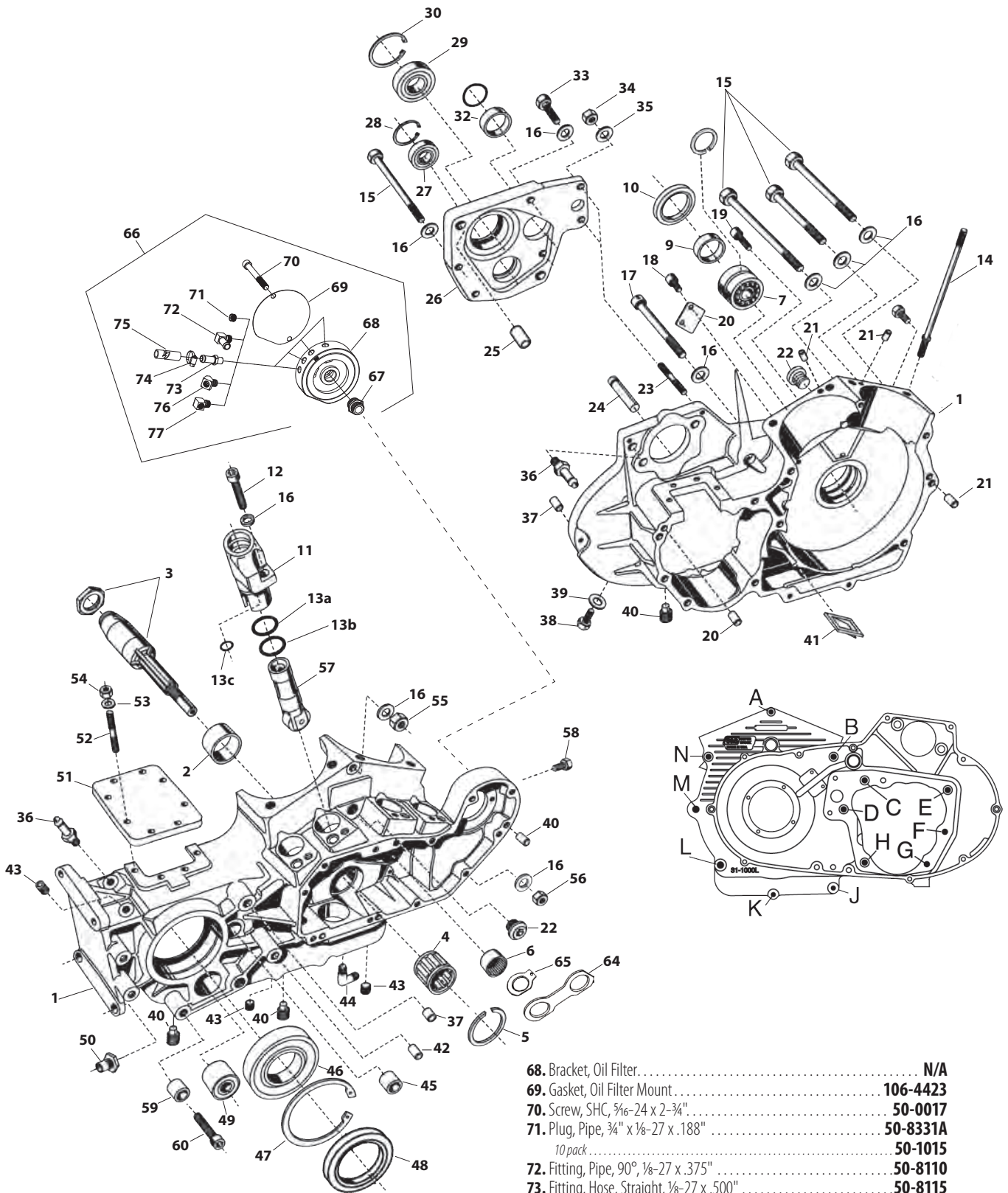
All S&S mainshafts for Harley-Davidson® Sportster® models are designed for use in flywheels with tapered mainshaft holes. 1986-later stock flywheels have mainshafts which are manufactured as an integral part of the flywheel.

S&S pinion shafts for 1986-'03 Sportster models are the splined 1986-'87 style. Pinion and oil pump drive gears in 1988-'03 models must be replaced with early style gears.

CRANKCASE REPLACEMENT PARTS

FOR SB100, 1986-'03 SPORTSTER® & 1994-'02 BUELL® MODELS

- | | |
|--|-----------|
| 1. Crankcase assembly, half | N/A |
| 2. Race, right main bearing - Standard 1991-'03 | 31-4050 |
| 3. Pinion shaft assembly - Standard | |
| 1986-'03 xl/1994-'02 Buell | 33-2325 |
| 1986-up S&S SA only | 33-2329 |
| 4. Right main bearing assembly 1986-'03 | |
| Blue 24647-87 | 31-4055 |
| Red 24650-87 | 31-4056 |
| White 24659-87 | 31-4057 |
| Green 24660-87 | 31-4058 |
| 5. Ring, main bearing retainer 1986-'03 11177A | 50-8057 |
| 5 pack | 50-1004 |
| 6. Cam needle bearing assembly - 1986-'03 9057 | 31-4061 |
| 7. Left Timken® main bearing assembly, 1991-'03 24729-74, 48302-85 | 31-4059 |
| 8. Spacer, Left Main Bearing - 1974-'03 xl Fits stock diameter shaft. | |
| .098" | 31-4062 |
| .1015" - .1025" 9143 | 31-4064 |
| .1035" - .1045" | 31-4065 |
| .1055" - .1065" 9145 | 31-4066 |
| .1075" - .1085" 9146 | 31-4067 |
| .110" 9147 | 31-4068 |
| .114" | 31-4070 |
| 9. Seal spacer, 1991-'03 xl | 31-4034 |
| 10. Seal, sprocket shaft oil, 1991-'03 xl 35151-74A | 31-4060 |
| 11. Tappet guide assembly (See page 263) | |
| 12. Screw, SHC - 3/16" - 18 x 1" 3201WA, 2708 | 50-0101 |
| 13. O-ring | |
| 13a. 1" I.D. x 1/16" O.D. x 3/32" CS (upper) 11167 | 50-8004 |
| 13b. 1" I.D. x 1/16" O.D. x 1/16" CS (lower) 11168A | 50-8005 |
| 13c. 3/8" I.D. x 1/2" O.D. x 1/16" CS (oil hole) 11110 | 50-8006 |
| 10 pack | 50-8077 |
| 14. Cylinder stud 1991-'03 style 16832-86C | 31-2331-5 |
| 8 pack | 31-2331 |
| 15. Bolt, case HH - See "Bolt Position Diagram" | |
| (Position A) | |
| S&S XL 1/4" - 28 x 5 1/2" (each) | 50-0090 |
| S&S SA XL 1/4" - 28 x 6" (each) | 50-0020 |
| (Position E, F, G, H) | |
| S&S XL HHC 3/16" - 18 x 4" | 50-0102 |
| (Position J, K) | |
| S&S XL 1/4" - 20 x 3/4" | 50-0022 |
| (Position L, M) | |
| S&S XL 3/8" - 24 x 5 1/2" (5 pack) | 50-0170 |
| (Position N) | |
| 3/16" - 18 x 3 1/2" 3427 | 50-0117 |
| 16. Washer, flat - See "Bolt Position Diagram" | |
| (Position A, J, K) | |
| 1/4" x .474" x .050" (each) | 50-7020 |
| (Position B, C, D, N) & Tappet guide | |
| 5/16" x .548" x 1/16" (each) | 50-7025 |
| (Position E, F, G, H) | |
| 5/16" x 1/16" x 1/8" | 50-7033 |
| (Position L, M) | |
| 3/8" x 7/8" x .146" (each) | 50-7053 |
| 17. Screw, SHC - 3/16" - 18 x 3" | |
| See "Bolt Location Diagram" | |
| (Positions B, C, D, H) | 50-0021 |
| 18. Screw, SHC - 10-24 x 3/8" (Stator wires cover) 4091 | 50-0023 |
| 19. 10-24 x 1" (Stator) 2720 (each) | 50-0044 |
| 20. Cover, stator wires 29950-91 | 31-2050 |
| 21. Dowel pin - .250" diameter x 1/2" 358, 366 | 50-8022 |
| 2 pack | 50-8022-2 |
| 5 pack | 50-8105 |
| 22. Plug, timing hole - 1991-'03 720 | 31-2005 |
| 23. Stud - 1/4" - 20, 1/4" - 28 x 1 1/4" 1991-up (shifter shaft) | 50-8080 |
| 24. Spring pin - 1991-'03 (Shifter spring) | N/A |
| 25. Dowel pin - 1991-'03 (transmission door) | |
| 1/8" diameter x 1/2" | 50-8020 |
| .390" I.D. x .558" O.D. x 1/2" 16574-99A, 16573-83, 16573-83A | 50-8023 |
| 10 pack | 50-8109 |
| 26. Transmission access door assembly | 56-3025 |
| (Includes 1 ea. transmission access door, 50-8007, 56-3030.) | |
| 27. Bearing, transmission countershaft (LH) 1991-'03 8992A, 8998 | 56-3026 |
| 28. Ring, transmission countershaft bearing retainer, 1991-'03 | |
| 35021-89 | 50-8053 |
| 29. Bearing, transmission mainshaft (LH) 1991-'03 | |
| 35030-89, 35030-89A | 56-3027 |
| 30. Ring, transmission mainshaft bearing retainer, 1991-'03 | |
| 35038-84, 35038-89 | 50-8052 |
| 31. O-ring - 32mm x 1.5mm CS, Shifter drum bushing | 50-8007 |
| 32. Bushing, shifter drum - unfinished - 1991-'03 9187 | |
| | 56-3030 |
| 33. Screw, HHC 3/16" - 18 x 1 1/4" (10 pack) | 50-0110 |
| 34. Lock nut, hex 1/4" - 28 (each) | 50-5010 |
| 35. Washer, flat 1/4" x 5/8" x 1/16" 6194, 6245, 6703, 6736, 6228W, 6192 | |
| each | 50-7021 |
| 36. Fitting, hose - 1/8" - 27 pipe male transmission vent | 50-8115 |
| 37. Dowel pin - .309" I.D. x .430" O.D. x 1/2" | |
| 24754-75, 24754-75A | 50-8018 |
| 38. Screw, HHC - 1/4" - 20 x 1/2", primary oil level 3728 | 50-0014 |
| 39. Washer, flat 1/4" x 5/8" x 1/32" copper, primary oil level 6114 | |
| | 50-7018 |
| 40. Plug, drain | |
| 3/8" - 18 NPT Manufactured before 5-1-2000 | 31-2006 |
| 1/2" - 20 thread - (Includes o-ring.) Manufactured after 5-1-2000 | 50-8335 |
| 41. Reed valve assembly, 1991-'03 (Optional) | 31-2051 |
| 42. Dowel pin - 3/16" dia. x 1/2" | N/A |
| 43. Plug, SH pipe, 1/4" - 27 (each) | 50-8331A |
| 10 pack | 50-1015 |
| 44. Fitting, 90° - 1/8" - 27 pipe male x 5/16" flared tube | 50-8119 |
| 45. Bearing, transmission shifter drum (RH) 1991-'03 | 56-3032 |
| 46. Bearing, transmission output shaft 1991-up 8996A | 56-1280 |
| 47. Ring, transmission output shaft bearing retainer, | |
| 109" x 3.734" tru-arc 11161, 11599 | 50-8051 |
| 48. Seal, Transmission Output Shaft | |
| 2.255" x 3.388" x .250, 1995-'03 xl 12067B | 56-3033 |
| 49. Bearing, transmission countershaft (RH) 1991-'03 | 56-3031 |
| 50. Nut, press-in, 3/8" - 24 - All 1991-'03 | 31-2048 |
| 51. Cover, transmission inspection window 1991-up S&S SA cases only | 31-2055 |
| 52. Stud - 5/16" - 18, 5/16" - 24 x 1.370" 1991-up S&S SA cases only | 50-8081 |
| 53. Washer, flat - 5/16" x 1 1/4" x 1/16" 6320, 70907-07, 6016, 6702 | 50-7034 |
| 54. Nut, hex - 5/16" - 24 7833, 7883 | 50-5023 |
| 55. Nut, hex - 1/4" - 28 7683 | 50-5011 |
| 56. Nut, hex - 3/8" - 24 7861 | 50-5037 |
| 57. Hydraulic tappet assembly (See page 262) | |
| 58. 3/8" - 16 x 1/2" BHCS | N/A |
| 59. 5/16" x 3/4" .35 Shim | 50-7044 |
| 60. 1/4" - 20 x 2" SHCS 25794-36 | 50-0013 |
| 61. Gasket, gearcover, S&S (N/S) | 31-2052 |
| 62. 45° hose fitting - 1/8" pipe male/female (Oil pump) (N/S) | 50-8112 |
| 63. Oil Pump, Assembly, Stock, 1991-up xl (N/S) | |
| 26204-91A, 26488-98 | 106-5368 |
| 64. Washer, Cam, Thrust, Double, .043", 1958-'90 xl, .043" | N/A |
| 1985-'90 XL, .062" 25551-58 | 33-5210 |
| 65. Washer, Cam, Thrust, For S&S Cam Covers only, .062" | 33-5211 |
| 66. Bracket Kit, Oil Filter 1986-'90 xl | 106-3134± |
| 67. Fitting, Straight, 3/4-16 UNF 2A x 1" 26352-95A | 50-8197-5 |



















68. Bracket, Oil Filter	N/A
69. Gasket, Oil Filter Mount	106-4423
70. Screw, SHC, 5/16-24 x 2-3/4"	50-0017
71. Plug, Pipe, 3/4" x 1/8-27 x .188"	50-8331A
10 pack	50-1015
72. Fitting, Pipe, 90°, 1/8-27 x .375"	50-8110
73. Fitting, Hose, Straight, 1/8-27 x .500"	50-8115
74. Clamp, Hose, 3/8" - 7/8"	50-8002
75. Hose, Oil Line Return, 375" x 12"	N/A
76. Fitting, Pipe, 45°, 1/8-27 x 1/8-27	50-8112
77. Fitting, Pipe, 90°, Male/Female, 1/8-27 26338-68A, 26561-81A, 26561-84A, 26338-68	
each	106-2682
5 pack	50-1007

(N/S) = Not Shown

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

SUPER STOCK® CYLINDER HEAD REPLACEMENT PARTS

SPORTSTER® MODELS 3-5/8" TO 4" BORE

1. Cylinder head (See cylinders on page 286)
2. Valves
 - Intake
 - 2.000" diameter  **90-2000**
 - 2.000" diameter + .085" stern length **90-2004**
 - Exhaust
 - 1.605" diameter  **90-2001**
3. Valve seats
 - Intake - 2.000" diameter  **90-2002**
 - Exhaust - 1.605" diameter  **90-2003**
- 4a. Valve guide - Cast - Intake or Exhaust
 - Standard Diameter .5625/.5620 18112-92  **90-2210**
 - + .001" Diameter .5635/.5630 18130-83C  **90-2211**
 - + .002" Diameter .5645/.5640 18133-83A, 18133-83D  **90-2212**
 - + .003" Diameter .5655/.5650 18131-83C  **90-2213**
 - + .030" Diameter .5925/.5920  **90-2219**
- 4b. Valve guide - Powder Metal - Intake or Exhaust
 - Standard **900-0553**
 - + .001" **900-0554**
 - + .002" **900-0555**
 - + .003" **900-0556**
5. Head mount bolt - 3/8" - 16 x 1 1/4" 4716W
 - each **50-0168**
6. Flat washer - 3/8" **50-7051**
7. Head bolt assembly - Includes head bolt washer
(See headbolts on page 272)
8. Head bolt washer
 - .150" (each) **50-0418-S**
 - .250" (each) **50-7091**
9. Exhaust port stud 16715-83 (each)
 - 5 pack  **50-0493**
 -  **50-1028**
10. Lock washer - 5/16" **50-7032**
11. Nut, HH - 5/16" - 24 7833, 7883 **50-5023**
12. Exhaust pipe gasket 65324-83B, 65324-83A
 - each **106-5029**
 - 10 pack **93-1072**
13. Thread conversion insert 1/2" - 13 to 5/16" - 18 **50-8151**
14. Intake manifold (See manifolds on page 279)
15. Screw, manifold mounting
 - SH - 5/16" - 18 x 1" 3201WA, 2708 **50-0101**
 - HH - 5/16" - 18 x 1" 3987 (each)  **50-0108**
16. Washer, flat - 5/16" 6320, 70907-07, 6016, 6702 **50-7034**
17. Flange, manifold mounting
 - Front 27009-86A (each)  **16-0232**
 - 5 pack  **16-0600**
 - Rear 27010-86A (each)  **516-0233**
 - 5 pack  **16-0601**
 - Set (Front & Rear) **106-3516**
18. O-ring, manifold (each) **16-0235**
 - 10 pack **16-0243**
19. Head gasket
 - 3 1/2" Bore
 - .045" thick - (no o-rings required) 16770-84D, 16770-84F
 - each **93-1011-S**
 - 10 pack **93-1024**
 - .0625" thick - (No o-rings required) 16770-84D, 16770-84F, 10773-85
 - each **93-1313-S**
 - 10 pack **93-1051**
 - 3 5/8" Bore
 - .045" thick - (no o-rings required) (each) **93-1037-S**
 - 10 pack **93-1052**
 - .062" thick - (no o-rings required) (each) **93-1016-S**
 - 10 pack **93-1053**
 - 4" Bore
 - .045" thick (each) **93-1040-S**
 - 10 pack **93-1071**
20. Alignment dowel 16574-99A, 16573-83, 16573-83A
 - each **50-8023**
 - 10 pack **50-8109**

Dowel pin - 1/4" diameter x 1/2" - 4" bore 358, 366

 - each **50-8022**
 - 2 pack **50-8022-2**
 - 5 pack **50-8105**
21. Plug, HH - 14mm (each) **90-4916**
 - 2 pack **90-4916-2**
22. Washer, compression release - 14mm .507" x .705" x .047"
 - each **50-7094**

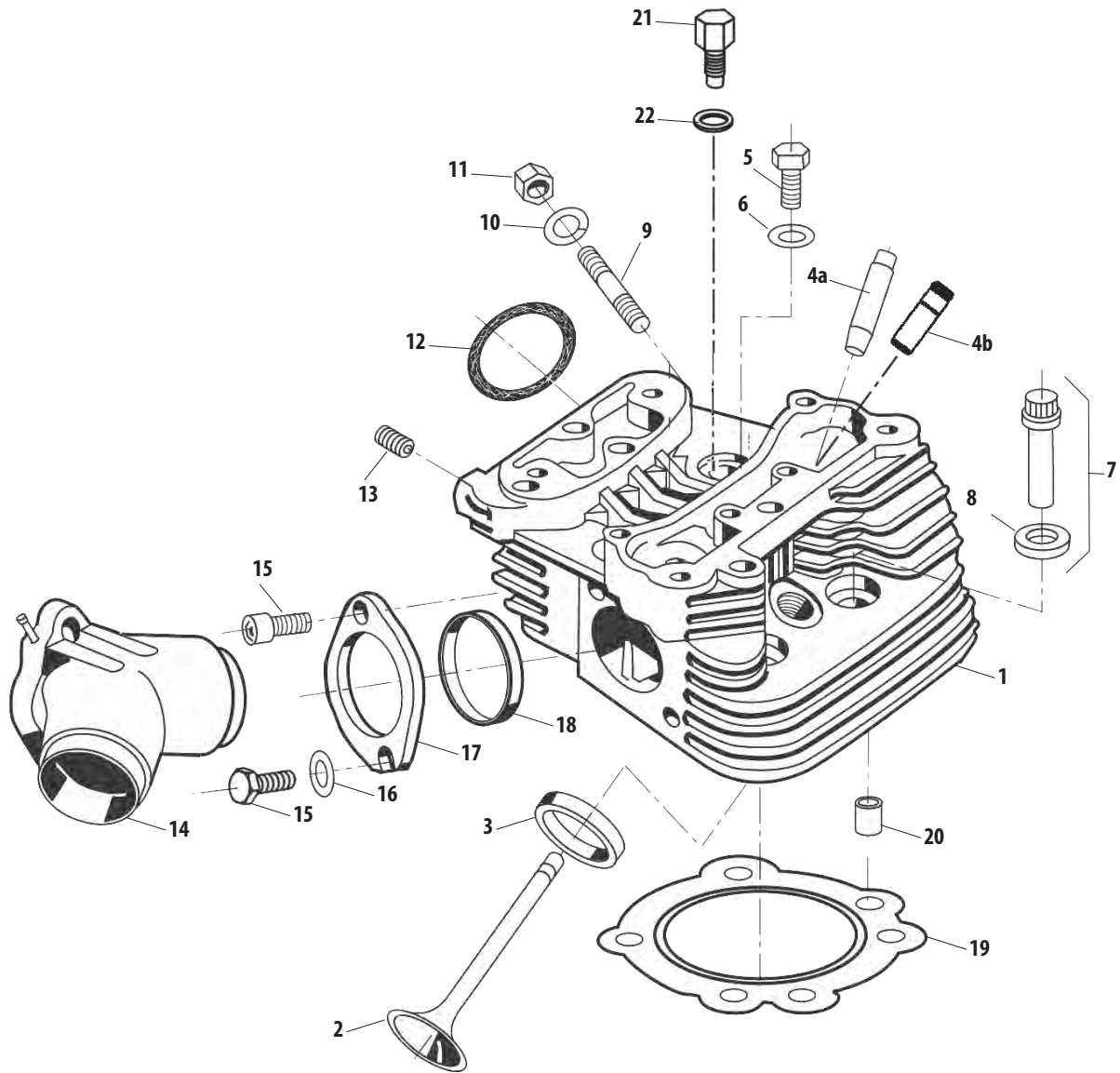
GASKET KITS

23. Rocker cover gasket kits, 1986-'03 xl
 - S&S Billet rocker cover, Rubber (N/S) **90-4049**
 - S&S Cast rocker cover, Rubber (N/S) **90-4091**
24. Pushrod cover o-ring kit (N/S)
 - 1986-'90 XL **93-4022**
 - Includes 4 each:
 - Bottom 11145A (each) **50-8037**
 - Middle 11132A (each) **50-8038**
 - Top 11293, 11157, 11101, 11190 (each) **50-8039**
25. Flat washer, bottom pushrod tube (N/S) **50-7150**
26. Top End Rebuild Kits for SB-Series Engines (N/S)
 - 4" Bore **90-9503**
 - 3 5/8" Bore **90-9509**

(N/S) = Not Shown


NOTE

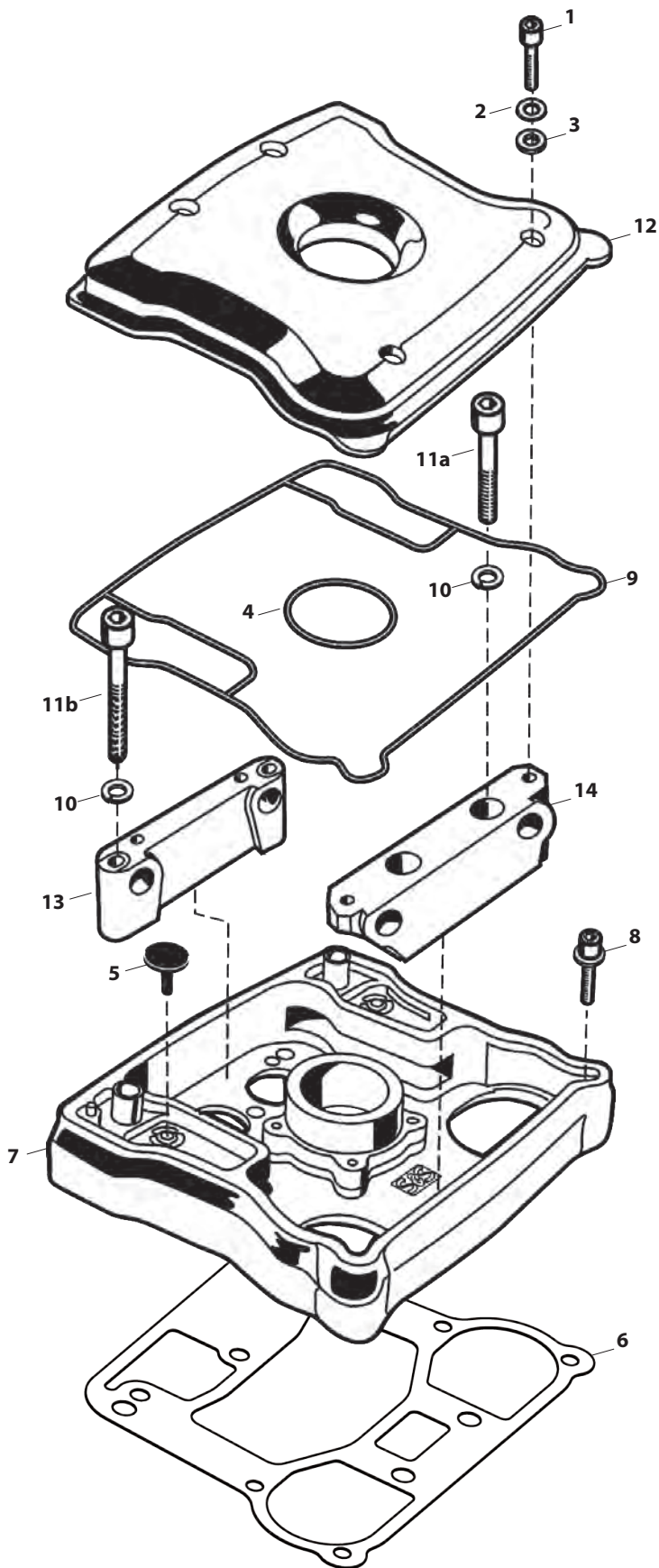
S&S heads for Harley-Davidson® Sportster® and Buell® models are similar but have different diameter front motor mount holes.



BILLET ROCKER COVER REPLACEMENT PARTS

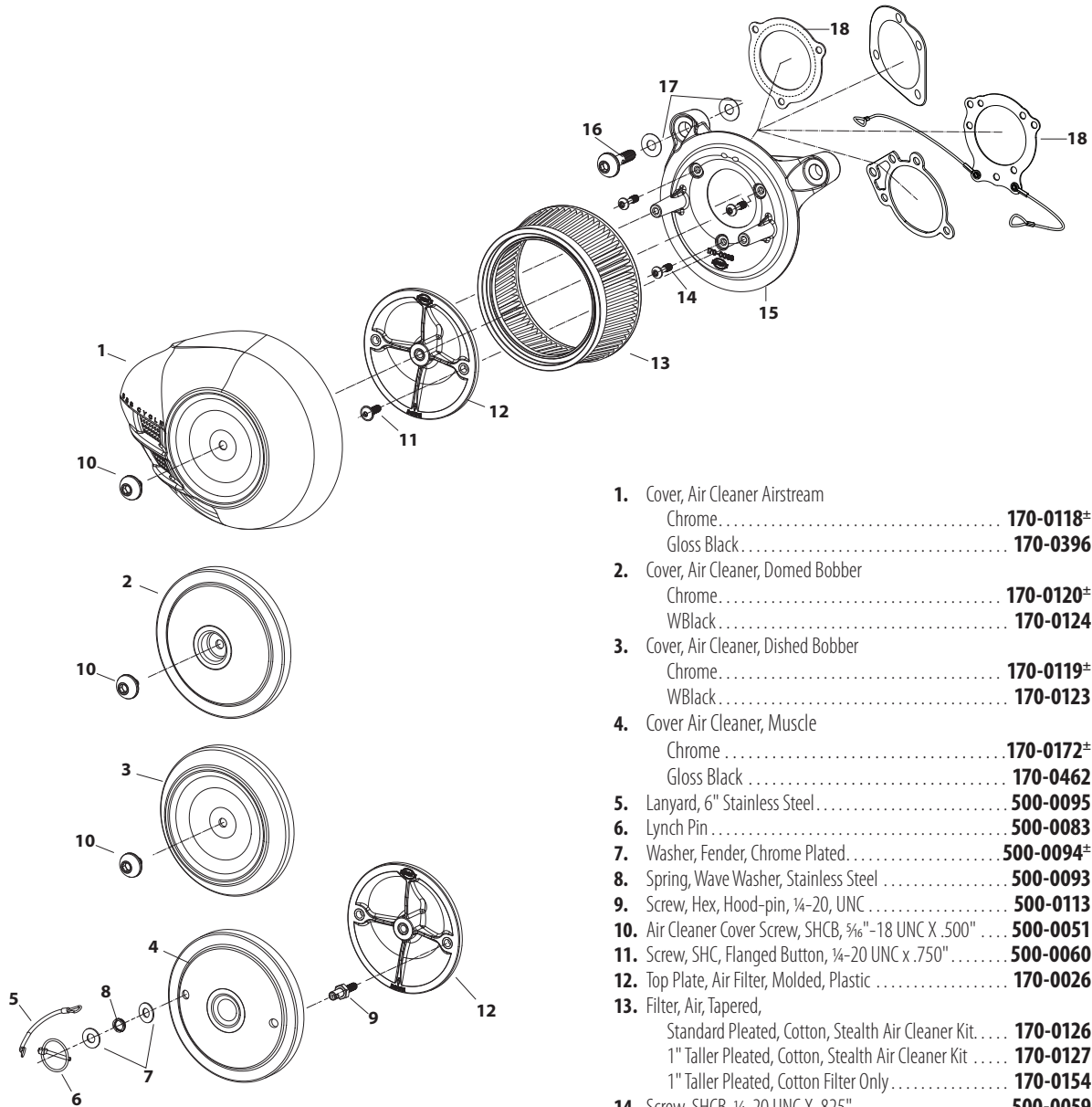
FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® & BUELL® MODELS

1. Screw, SH - 1/4"-20 x 3/4" 4069A (each) **50-0067**
2. Washer, flat - 1/4" (each) **50-7017**
12 pack **50-7013**
3. Washer, flat - 1/4" rubber covered (each) **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
4. O-ring - 1 5/8" I.D. x 1 7/8" O.D. x 1/8" CS Viton®
5. Rocker cover umbrella valve 26856-89, 26856-89A
1990-up XL  **90-4030**
6. Gasket, Bottom, Rocker Cover, 1986-2003
each **900-0538**
2 pack **900-0592**
7. Rocker cover base - billet
Chrome **90-4051±**
Natural **90-4056**
8. Screw, SH w/washer - 1/4"-20 x 1" 4741A
(each) **50-0092-S**
4 pack **50-0092P**
9. Rocker cover o-ring gasket - S&S billet rocker cover
(Included in gasket set. See #16 below.)
10. Washer, flat - 5/16" (each) **50-7026**
11. Bolt, rocker support - socket head
11a. 5/16"-18 x 2 1/4" (left support) (each) **50-0115-S**
11b. 5/16"-18 x 2 1/2" (right support) 876A (each) **50-0118**
12. Rocker cover top - Billet Chrome **90-4054±**
13. Right rocker shaft support - billet **90-4053**
14. Left rocker shaft support - billet **90-4052**
15. Rocker cover gasket set - S&S billet rocker cover
(Not shown) **90-4049**



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STEALTH AIR CLEANER REPLACEMENT PARTS



- | | |
|--|-----------------------------|
| 1. Cover, Air Cleaner Airstream | |
| Chrome..... | 170-0118[±] |
| Gloss Black..... | 170-0396 |
| 2. Cover, Air Cleaner, Domed Bobber | |
| Chrome..... | 170-0120[±] |
| WBlack..... | 170-0124 |
| 3. Cover, Air Cleaner, Dished Bobber | |
| Chrome..... | 170-0119[±] |
| WBlack..... | 170-0123 |
| 4. Cover Air Cleaner, Muscle | |
| Chrome..... | 170-0172[±] |
| Gloss Black..... | 170-0462 |
| 5. Lanyard, 6" Stainless Steel..... | 500-0095 |
| 6. Lynch Pin..... | 500-0083 |
| 7. Washer, Fender, Chrome Plated..... | 500-0094[±] |
| 8. Spring, Wave Washer, Stainless Steel..... | 500-0093 |
| 9. Screw, Hex, Hood-pin, ¼-20, UNC..... | 500-0113 |
| 10. Air Cleaner Cover Screw, SHCB, ¾"-18 UNC X .500"..... | 500-0051 |
| 11. Screw, SHC, Flanged Button, ¼-20 UNC x .750"..... | 500-0060 |
| 12. Top Plate, Air Filter, Molded, Plastic..... | 170-0026 |
| 13. Filter, Air, Tapered, | |
| Standard Pleated, Cotton, Stealth Air Cleaner Kit..... | 170-0126 |
| 1" Taller Pleated, Cotton, Stealth Air Cleaner Kit..... | 170-0127 |
| 1" Taller Pleated, Cotton Filter Only..... | 170-0154 |
| 14. Screw, SHCB, ¼-20 UNC X .825"..... | 500-0059 |
| 15. Backplate | |
| Stock CV & EFI, Black, Die Cast, 1991-2016 xl..... | 170-0048 |
| Super E/G, Black, Die Cast, 1991-2003 xl..... | 170-0050 |
| 16. Screw, Backplate Vent, SHCB, ½-16 x 1½", Polished Stainless..... | |
| ..... | 170-0044 |
| 17. Washer, Flat, Nitrile Rubber Coated, .380" x .880" x .024" | |
| each..... | 50-7054 |
| 10 pack..... | 50-7059 |
| 18. Gasket, Backplate | |
| Stock CV Carb & EFI Throttle Body, 1991-2016 xl | |
| (except Throttle by Wire)..... | 106-6022 |
| Super E/G..... | 106-1724 |
| w/ lanyards for use with Muscle Cover..... | 170-0137 |

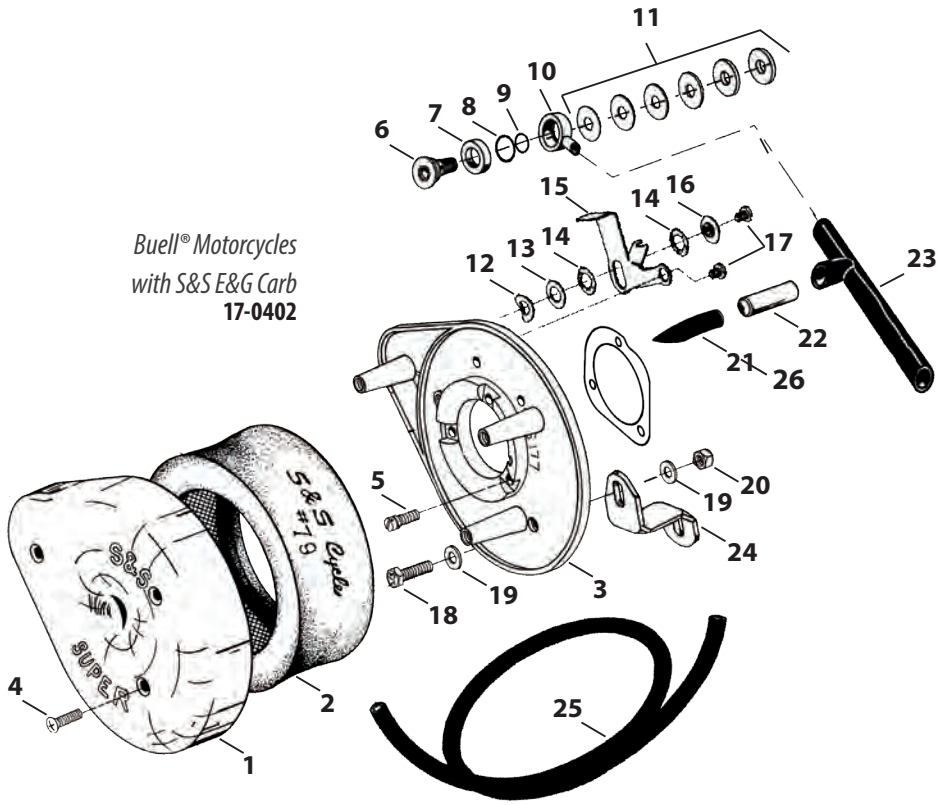
All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS FOR BUELL® MOTORCYCLES WITH STOCK OR S&S CARB

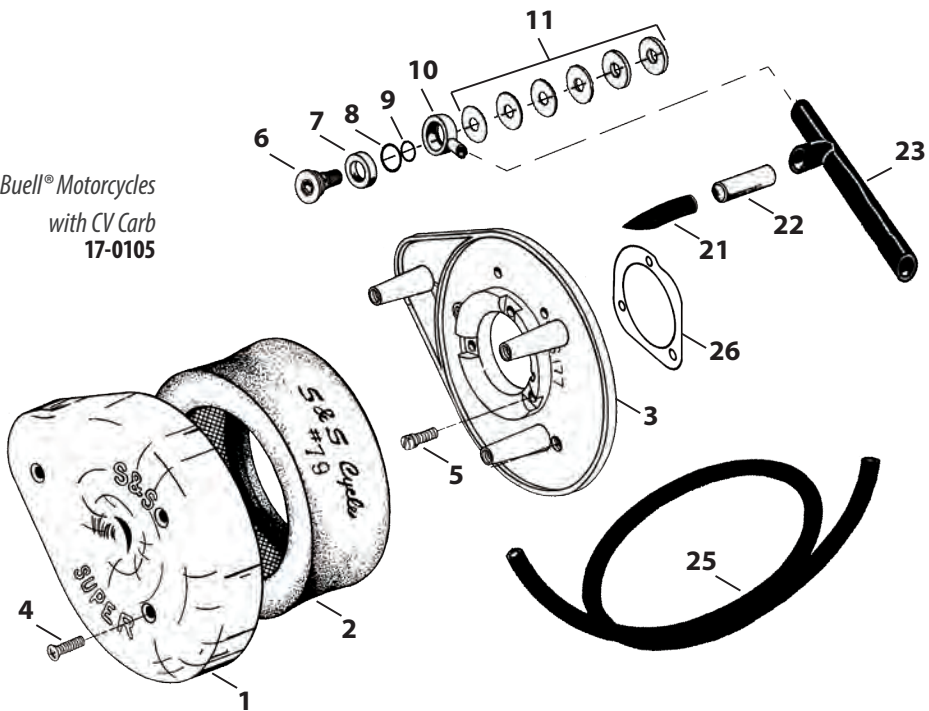
1. Air cleaner cover	
Chrome.....	17-0078[±]
2. Air cleaner element	17-0079
3. Air cleaner backing plate	
Super E & G carburetors	17-0000
Stock carburetors.....	17-0003
4. Cover screw	
Chrome <i>1305 (each)</i>	50-0072[±]
<i>3 pack</i>	50-1052[±]
<i>10 pack</i>	50-0094[±]
Black <i>902 (each)</i>	50-0310-S
<i>3 pack</i>	50-0310
5. Air cleaner backplate screw	
For S&S Super E&G	
Zinc Plated <i>(each)</i>	106-2084
<i>10 pack</i>	106-2105
6. Cap screw, breather & air cleaner mount	17-0338
7. Shim, .620" I.D. x .800" O.D. x .185" <i>(each)</i>	N/A
8. O-ring ½" O.D. x ⅝" I.D. x ¼" CS <i>(each)</i>	50-8270
<i>5 pack</i>	50-8130
9. O-ring ⅜" O.D. x ½" I.D. x ¼" CS <i>11110 (each)</i>	50-8006
<i>10 pack</i>	50-8077
10. Breather fitting <i>(each)</i>	17-0350
<i>2 pack</i>	17-0355
11. Shim kit air cleaner backplate <i>(includes 4 each of .018", .030", .048")</i>	17-0464
Replacement Shims	
½" x 1" x .018 <i>(each)</i>	50-7085
½" x 1" x .030 <i>(each)</i>	50-7086
½" x 1" x .048 <i>(each)</i>	50-7087
½" x 1" x .105 <i>(each)</i>	50-7089
½" x 1" x .125 <i>(each)</i>	50-7090
12. Washer, friction, spring <i>(each)</i>	50-7035
<i>10 pack</i>	50-7058
13. Washer, flat .323" x ⅝" x ⅛" <i>(each)</i>	50-7037
<i>10 pack</i>	50-7061
14. Washer, flat, nylon .323" x ⅝" x .020" <i>(each)</i>	50-7036
<i>10 pack</i>	50-7060
15. Lever, fast idle,	17-0327
16. Washer, flat w/step, brass <i>(each)</i>	50-7007[±]
<i>10 pack</i>	50-7010[±]
17. Screw, PH slotted 10-24 x ¼" <i>(each)</i>	50-0041
<i>10 pack</i>	50-0062
18. Screw, HH, cap, ¼"-28 x ⅞"	50-0074
19. Washer, flat, .281" x .625" x .080" <i>6194, 6245, 6703, 6736, 6228W, 6192</i>	
<i>each</i>	50-7021
20. Locknut - ¼" -28 <i>(each)</i>	50-5010
21. Hose, breather vent.....	17-0365
22. Fitting, hose, Buell air cleaner	17-0336C-S
23. Hose, breather.....	USA 17-0339
24. Bracket, carb support, air cleaner	17-0309
25. Tubing, rubber - ⅜" x ⅝" x 3'	USA N/A
26. Gasket, Backplate, 1991-up xl/bt <i>29062-95B</i>	106-6022

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Buell® Motorcycles
with S&S E&G Carb
17-0402



Buell® Motorcycles
with CV Carb
17-0105

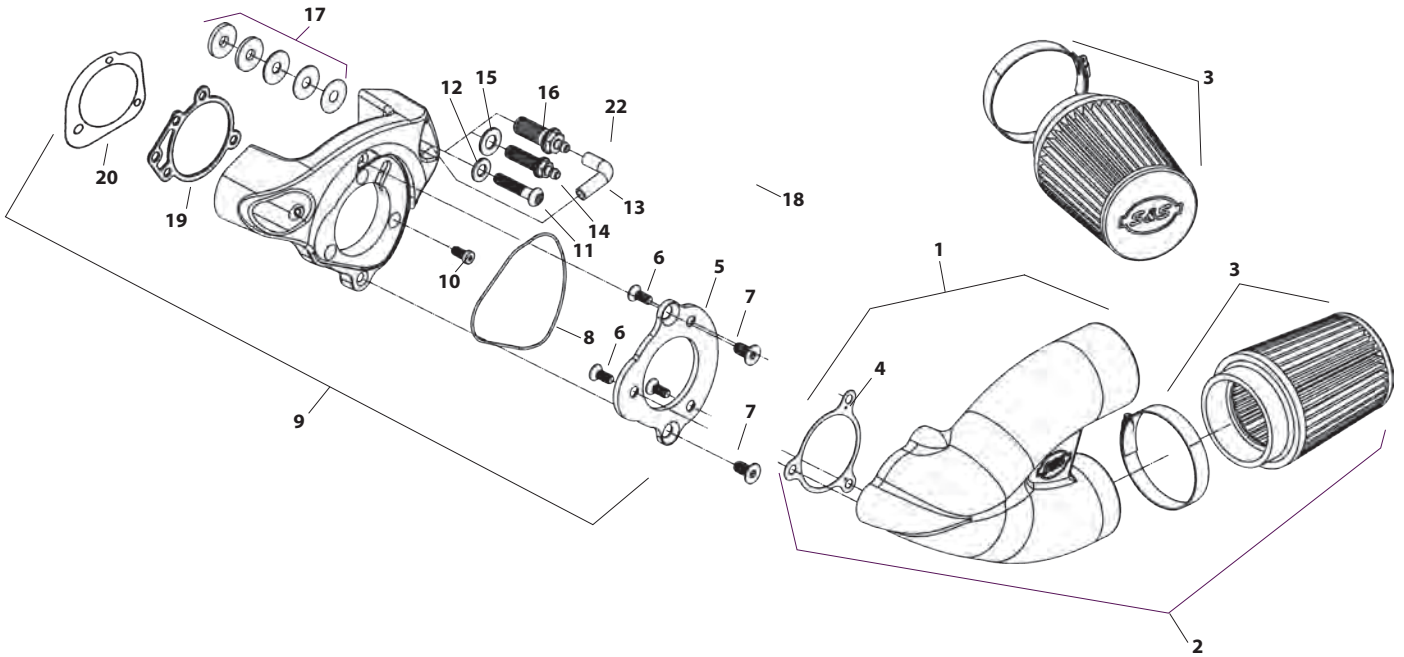


SINGLE BORE TUNED INDUCTION SYSTEM

REPLACEMENT PARTS

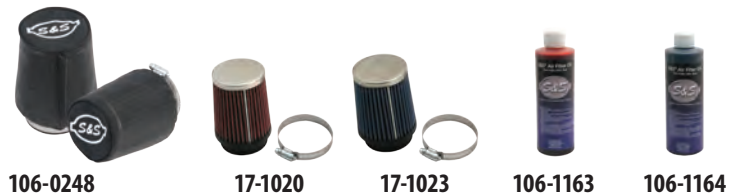
- | | |
|---|--------------------------------|
| 1. Tuned Intake Kit, 2.19" Single Bore | |
| Natural | 106-4968 |
| Gloss Black | 170-0453 |
| Chrome Plated | 106-4970[±] |
| 2. Tuned Intake Assembly, 2.19" Single Bore | |
| Gloss Black | 170-0454 |
| Chrome Plated | 106-4967[±] |
| 3. Air Filter, w/clamp, Stainless Cap – Conical – 2 ⁷ / ₁₆ " I.D. x 4" | |
| Red (each) | 17-1020 |
| Blue (each) | 17-1023 |
| 4. Gasket, Intake – Adapter Plate | 17-1022 |
| 5. Plate, Adapter, 2.19" Single Bore Tuned Intake | |
| Chrome Steel | 17-1014[±] |
| 6. FHSC 1/4–20 x 5/8" (each) | 50-0433 |
| 7. FHSC 3/16–18 x 3/8" (each) | 50-0432 |
| 8. O-Ring, Adapter Plate Bracket | |
| 3 ⁵ / ₈ " O.D. x 3 ¹ / ₂ " I.D. 1/16 CS, Viton (each) | 50-0446 |
| 9. Bracket Kit, 2.19" Single Bore Tuned Intake, Chrome | |
| Super E/G, 1986-'03 xl | 106-4975[±] |
| Stock CV & EFI, 1991-up xl | 106-6026[±] |
| 10. Backplate Screw | |
| Screw, SHC, w/Threadlock, 1/4–20 x 1/2" | 106-2084 |
| 10 pack | 106-2105 |
| 11. Screw, 3/16–18 x 1 1/4, BHC, Chrome (each) | 50-0309-5[±] |
| 12. Flat Washer 3/16" x 1/16" 6320, 70907-07, 6016, 6702 | 50-7034 |
| 13. Hose, Breather, 1/4" I.D., 90° | 19-0178A |
| 14. Screw, Breather Fitting, 3/8–16 x 1 1/4" | 50-0436 |
| 15. Washer, Flat, 3/8" x 13/16" x 1/16", Chrome | 50-7106-5[±] |
| 16. Screw, Breather Fitting, 1/2–13 x 1.25 | 50-0435 |
| 17. Shim Kit | |
| (a) 3/16" I.D. 1986-'90 xl | 17-0314 |
| (b) 1/2" I.D. 1991-up xl | 17-0464 |
| 18. Enrichment Device, S&S Super E & G carbs | USA 11-2084[±] |
| (Use in place of enrichment device on air cleaner backplate) | |
| 19. Gasket, Backplate – E/G/SBEFI (each) | 106-1724 |
| 10 pack | 106-2328 |
| 20. Gasket, Stock carb/Throttle Body 29062-95B | 106-6022 |
| 21. Hardware Kit, 1986-'03 (N/S) | |
| Stock CV & EFI | 500-0018 |
| S&S Super E or G carb. | 17-5099[±] |
| 22. Cap, Canister Purge Fitting | 50-8266-S |
| 23. Hose, Vent, Breather, Cut To Size, .313" x .438" x 24" (N/S) | 106-4982 |

(N/S) = Not Shown





ACCESSORIES

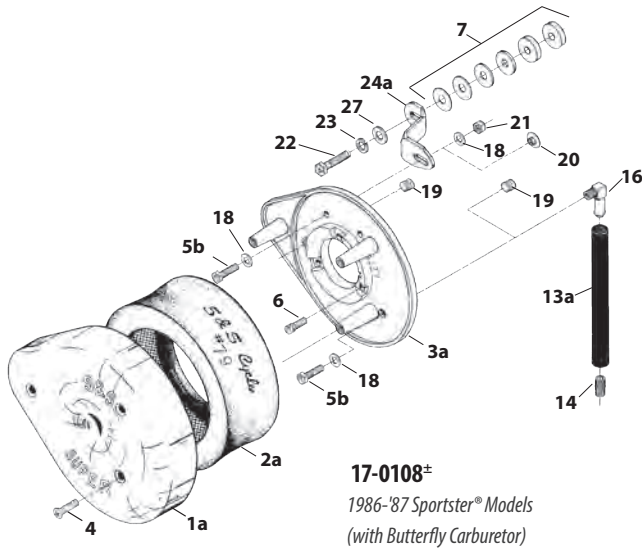
Description	Part #	
Air Filter Oil, 8 oz. Bottle	Red	106-1163
	Blue	106-1164
Nylon Air Filter Cover	each	106-0247
	2 pack	106-0248



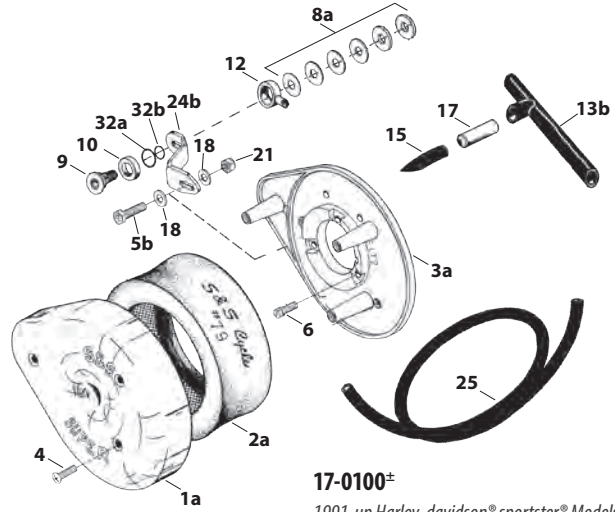
All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS FOR STOCK FUEL SYSTEMS

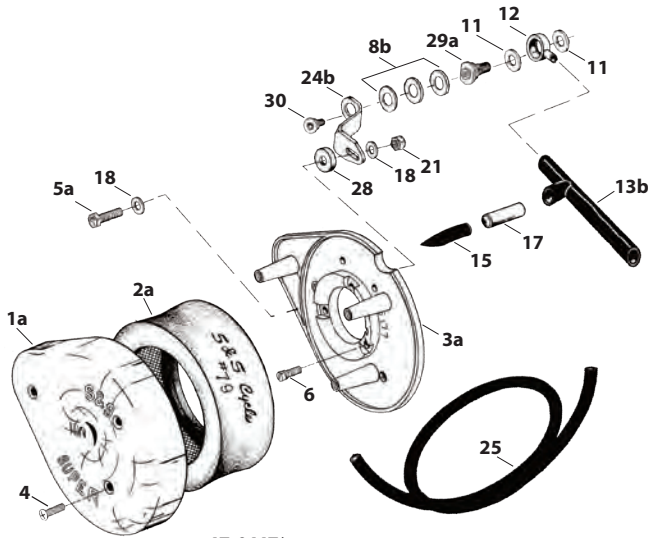
1. Air cleaner cover		
1a. Chrome	17-0078 [±]	
1b. Chrome	17-0378 [±]	
Black	170-0384A	
Slasher	17-0004 [±]	
2. Element		
2a. Foam	17-0079	
2b. Pleated	106-4722	
3. Backplate		
3a. XL 1966-'87	17-0180	
3b. Backplate, 1991-2007 XL	106-0950	
4. Cover screw		
Chrome 1305 (each)	50-0072 [±]	
3 pack	50-1052 [±]	
10 pack	50-0094 [±]	
Black 902 (each)	50-0310-S	
3 pack	50-0310	
5. Screw		
5a. 1999-03 XL, HHCS ¼"-28 x 1-¼"	N/A	
5b. All Others, HHCS ¼"-28 x 7/8"	50-0074	
6. Backplate screw, Zinc Plated (each)	106-2084	
10 pack	106-2105	
7. Shim kit, XL 1966-'87	17-0314	
<i>(Includes 2 each 5/16" x .018", 5/16" x .030", 5/16" x .048", 5/16" x .105" and 4 each 5/16" x .125")</i>		
Replacement shims		
a. 5/16" x .018" (each)	50-7038	
b. 5/16" x .030" (each)	50-7039	
c. 5/16" x .048" (each)	50-7040	
d. 5/16" x .105" (each)	50-7041	
e. 5/16" x .125" (each)	50-7042	
2 pack	50-7042P	
8. Replacement Shims		
8a. 1991-up XL, & Buell® 1994-up		
½" x .018 (each)	50-7085	
½" x .030" (each)	50-7086	
½" x .048" (each)	50-7087	
½" x .105" (each)	50-7089	
½" x .125" (each)	50-7090	
8b. 1999-03 XL		
5/8" x .025" (each)	50-7113	
10 pack	50-7110	
5/8" x .050" (each)	50-7114	
10 pack	50-7111	
5/8" x .075" (each)	50-7115	
10 pack	50-7112	
9. Breather Cap Screw	17-0338	
10. Shim, head vent - .62" I.D. x .80" O.D. x .175" (each)	N/A	
11. Breather screw seal XL 1991-'03 Washer, .520 (each)	50-7055	
10 pack	50-7057	
12. Breather fitting (each)	17-0350	
2 pack	17-0355	
13. Crankcase breather vent hose		
a. XL 1986-'90	17-0113	
b. XL 1991-'93	 17-0339	
14. Vent hose connector, XL 1986-'90	50-8111	
15. Vent hose, with angle cut	17-0365	
16. 90° Elbow fitting (each)	50-8110	
17. Hose fitting	17-0336C-S	
18. Flatwasher, ¼" 6194, 6245, 6703, 6736, 6228W, 6192 (each)	50-7021	
19. Backplate plug, 1/8" -27 NPT (each)	50-8331A	
10 pack	50-1015	
20. Plug, press-in clear plastic	50-8313	
21. Support bracket locknut - ¼"-28 x 7/8" (each)	50-5010	
22. Support bracket screw, 5/16"-18 x 1¼"	50-0110	
23. Lockwasher, 5/16"	50-7032	
24. Support Bracket		
24a. Air Cleaner to head 1986-90 XL	17-0311	
24b. Air Cleaner to head 1991-03 XL	N/A	
25. Rubber tubing - ¼" x 5/8" x 3'	 N/A	
26. Wire tie (N/S)	50-8003	
27. Washer, flat - 3/8" x 7/8" x .146" (each)	50-7053	
28. Shim - ¼" x 3/4" x .200"	50-7024	
29. Screw Vent Fitting		
29a. XL 1993-99	17-0347	
29b. XL 1999-up	17-0345	
30. Screw air cleaner backplate	17-0346	
31. Spring clamps	50-8001	
32. O-ring		
32a. (-014) .500"ID x .625" OD (each)	50-8270	
5 pack	50-8130	
32b. (-012) .375"ID x .500" OD 11110 (each)	50-8006	
10 pack	50-8077	
33. Gasket, backplate (each)	106-1724	
10 pack	106-2328	
34. Adaptor assembly, 1991-up XL	106-1982 [±]	
35. Hose, vent, breather, formed, .250" x .375" x 1.330", 1991-2007 XL		
each	106-0161A	
36. Breather screw, 1991 XL	106-0845	
37. Washer, flat 5/16" x 1/16" x 1/8"	50-7033	
38. Nut, lock, HH, 5/16"-18	50-5021	
39. Bracket, support, air cleaner to head, xl, 1991-up		
Front	17-0305	
Rear	106-1285	
N/S = Not Shown		



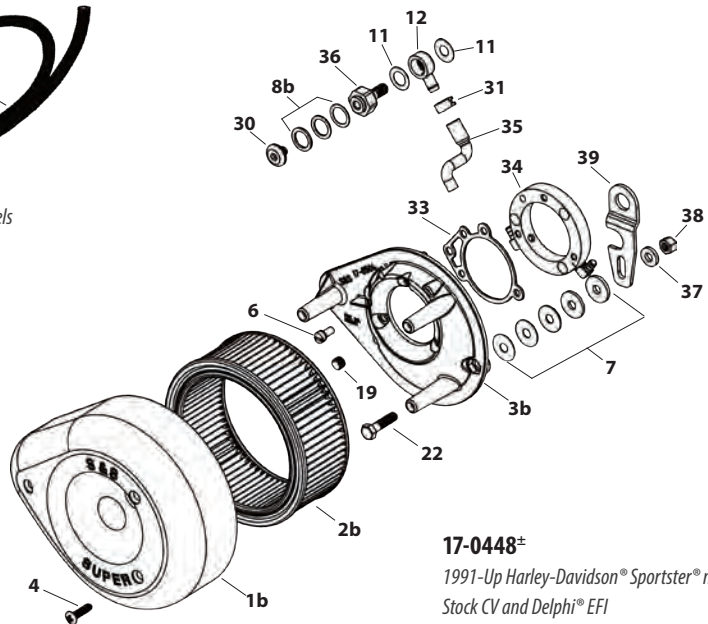
17-0108±
1986-'87 Sportster® Models
(with Butterfly Carburetor)



17-0100±
1991-up Harley-davidson® sportster® Models
(with CV carburetor) (Discontinued)







17-0117±
1991-'03 Harley-Davidson® Sportster® Models
(Discontinued)



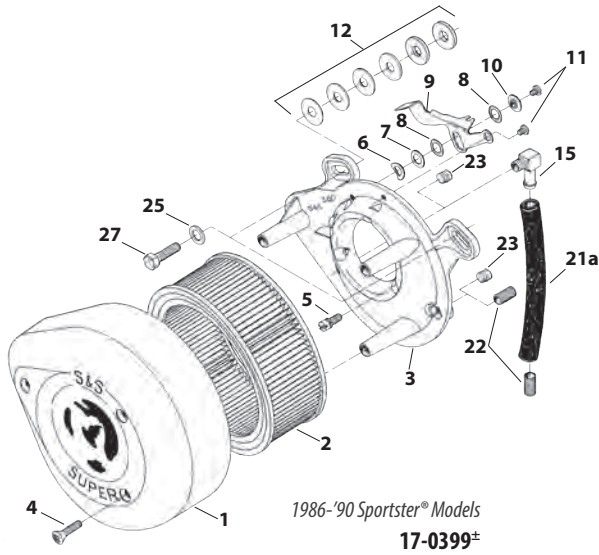
17-0448±
1991-Up Harley-Davidson® Sportster® models
Stock CV and Delphi® EFI

SUPER E AND G AIR CLEANERS REPLACEMENT PARTS FOR 1986-UP HARLEY-DAVIDSON® SPORTSTER® MODELS

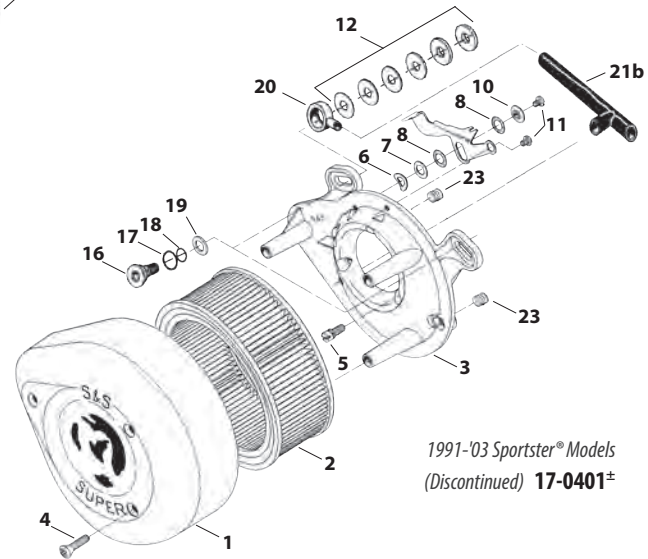
1. Air cleaner cover			
Chrome	.....	17-0378 ±	
Black	.....	170-0384A	
Slasher	.....	17-0004 ±	
2. Element, pleated	.....	106-4722	
Element, pleated carbon	.....	17-0375	
3. Backplate			
XL 1957-'85	.....	17-0330	
XL 1991-'03	.....	17-0336	
XL 1986-'90 <i>Manufactured prior to 1-1-03</i>	.....	17-0380	
XL 2004-'06	.....	17-0361	
4. Cover screw			
Chrome 1305 (each)	.....	50-0072 ±	
3 pack	.....	50-1052 ±	
10 pack	.....	50-0094 ±	
Black 902 (each)	.....	50-0310-S	
3 pack	.....	50-0310	
5. Backplate screw, Zinc Plated (each)	.....	106-2084	
10 pack	.....	106-2105	
6. Fast idle friction washer (each)	.....	50-7037	
10 pack	.....	50-7061	
8. Fast idle nylon washer (each)	.....	50-7036	
10 pack	.....	50-7060	
9. Fast idle lever	.....	17-0329	
10. Fast idle brass washer (each)	.....	50-7007 ±	
10 pack	.....	50-7010 ±	
11. Fast idle lever screw (one required)	.....	50-0041	
10 pack	.....	50-0062	
12. Shim kit			
XL 1986-'90	.....	17-0314	
<i>(Includes two each 5/16" x .018", .030", .048", .105", and four each .125")</i>			
XL 1991-2016	.....	17-0464	
<i>(Includes two each 1/2" x .018", .030", .048", .105", and four each .125")</i>			
13. Shims			
a. XL 1986-'90			
5/16" x .018" (each)	.....	50-7038	
5/16" x .030" (each)	.....	50-7039	
5/16" x .048" (each)	.....	50-7040	
5/16" x .105" (each)	.....	50-7041	
5/16" x .125" <i>(Use on BT 1936-'84 and XL 1957-'85 when insulator block is installed.)</i>	.....	50-7042	
each	.....	50-7042	
2 pack	.....	50-7042P	
b. XL 1991-2016			
5/8" x .025" (each)	.....	50-7113	
10 pack	.....	50-7110	
5/8" x .050" (each)	.....	50-7114	
10 pack	.....	50-7111	
5/8" x .075" (each)	.....	50-7115	
10 pack	.....	50-7112	
Shim, .515" x 1" x .125" (each)	.....	50-7090	
14. Backplate mounting bolt – XL 1957-'85			
5/16"-18 x 1" 3987 (each)	.....	50-0108	
5/16"-24 x 3/4" <i>(Discontinued)</i>	.....	N/A	
15. Elbow fitting (each)	.....	50-8110	
16. Breather screw			
Standard length	.....	17-0338	
17. Breather screw o-ring – 5/8" O.D. (each) 11140, 11273	.....	50-8270	
5 pack	.....	50-8130	
18. Breather screw o-ring – 1/2" O.D. 11110 each	.....	50-8006	
10 pack	.....	50-8077	
19. Breather screw washer	.....	50-7119	
20. Breather fitting (each)	.....	17-0350	
2 pack	.....	17-0355	
21. Crankcase breather hose			
a. XL 1978-'90	.....	17-0113	
b. XL 1991-'06	.....	17-0339	
22. Vent hose connector	.....	50-8111	
23. Backplate plug 1/8"-27 (each)	.....	50-8331A	
10 pack	.....	50-1015	
24. Locknut – 5/16"-18 <i>(Use with support bracket - see #26)</i>	.....	50-5021	
25. Flatwasher – 5/16" x 1/16" 6320, 70907-07, 6016, 6702	.....	50-7034	
26. Support bracket			
XL 1957-'85	.....	17-0393	
XL 2004-2016	.....	17-0305	
27. Mounting bracket bolt – XL 1957-'90 and 2004-'06	.....	50-0110	
28. Lockwasher – 5/8"	.....	50-7032	
29. Flatwasher – 5/16" x 1/8"	.....	50-7033	
30. Wire tie (N/S)	.....	50-8003	
31. Hose clamp (N/S)	.....	50-8002	
32. Air cleaner assembly <i>(Includes: Chrome cover, backplate, filter element, and hardware kit)</i>			
XL 1957-'85	.....	17-0400 ±	
XL 1986-'90	.....	17-0399 ±	
XL 1991-'03	.....	17-0404 ±	
33. Mounting hardware package (N/S) <i>Includes all parts needed to install air cleaners:</i>			
XL 1957-'85	.....	17-0441 ±	
XL 1986-'90	.....	17-0458 ±	
XL 1991-'03	.....	17-0439	
34. Screw vent fitting			
a. BT 1993-'99	.....	17-0347	
b. BT 1999-up	.....	17-0345	
35. Screw, air cleaner to head	.....	17-0346	
36. Washer, silicone coated steel, XL 1991-'06, .520" (each)	.....	50-7055	
10 pack	.....	50-7057	
37. Spring clamps (N/S)	.....	50-8001	
38. Breather conversion kit, XL 1 1/8" carbs (N/S)	.....	17-0487	
<i>Convert early S&S air cleaners for 1991-'03 XL with o-ring breather fittings to new style breather hardware. XL kits include special insulator block, and manifold screws.</i>			

(N/S) = Not Shown

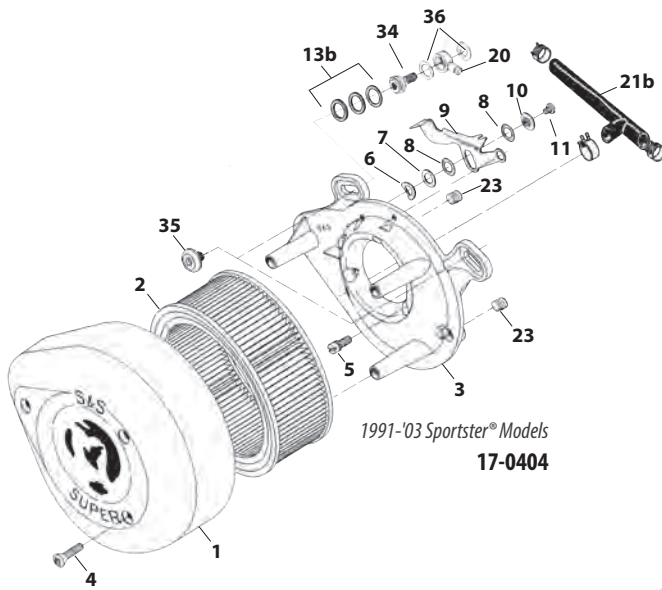
1986–2019 HD® Sportster® Models



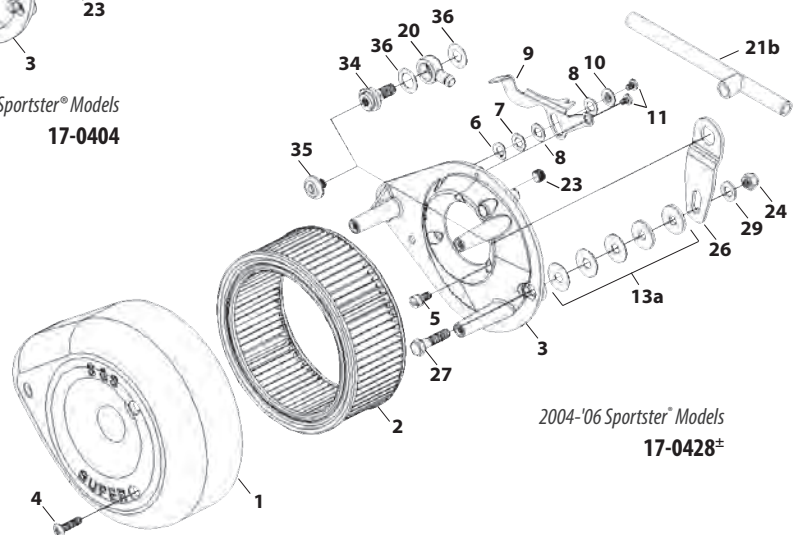
1986-'90 Sportster® Models
17-0399[±]



1991-'03 Sportster® Models
(Discontinued) 17-0401[±]
























1991-'03 Sportster® Models
17-0404

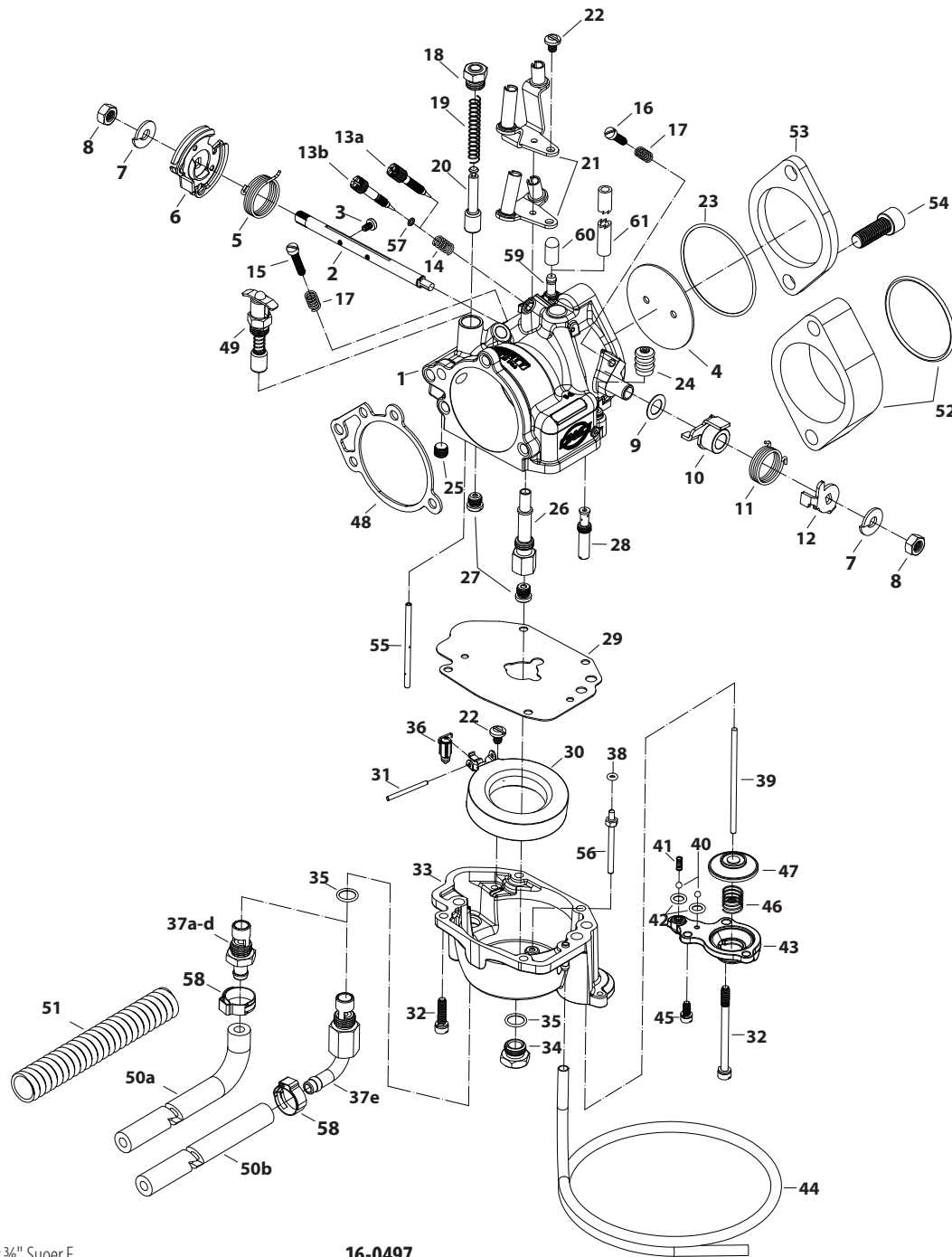


2004-'06 Sportster® Models
17-0428[±]

SUPER E & G CARBURETOR REPLACEMENT PARTS

1. Carb body assembly		
1 $\frac{7}{8}$ " Super E		11-2381±
2 $\frac{1}{4}$ " Super G		11-2391±
2. Throttle shaft		
1 $\frac{7}{8}$ " Super E — Includes two plate screws		11-2383
2 $\frac{1}{4}$ " Super G — Includes two plate screws		11-2483
3. Throttle plate screw 11-2045— (two required) (each)		50-0055-S
10 pack		50-0064
4. Throttle plate		
1 $\frac{7}{8}$ " Super E		11-2055
2 $\frac{1}{4}$ " Super G		11-2355
5. Throttle return spring (each)		11-2382
5 Pack		11-3502
6. Throttle spool		11-2385
7. Throttle shaft lock washer (two required)		50-7031
8. Throttle shaft nut (two required) (each)		11-2350
5 pack		11-2363
9. Throttle shaft nylon washer (each)		50-7050
10 pack		50-7072
10. Pump actuator lever		11-2376
11. Actuator spring (each)		11-2375-S
5 pack		11-3501
12. Pump actuator arm		11-2377
13. Idle mixture screw		
a. Idle mixture screw, brass (each)		11-2354±
5 pack		11-2378±
b. Idle mixture screw only		
each		110-0003
Idle mixture screw w/ 500-0036 o-ring		
each		110-0068±
5 pack		110-0069±
14. Idle mixture screw spring (each)		11-2052
10 Pack		11-2060
15. Idle speed screw (each)		50-0038
10 Pack		50-0150
16. Pump adjustment screw (each)		50-0039
10 Pack		50-0146
17. Idle speed/pump adjuster spring (each)		11-2048
10 pack		11-2053
18. Plunger nut (each)		11-2344±
5 Pack		11-2372±
19. Plunger spring (each)		11-2340
10 Pack		11-2359
20. Fast idle plunger		11-2343
21. Cable guide assembly with screw		
Use with butterfly style cables		11-2339P
Use with constant velocity style cables		11-2338P
22. Cable clamp/float pin screw (each)		50-0041
10 Pack		50-0062
23. O-ring		
1 $\frac{7}{8}$ " Super E (each)		50-8016
10 Pack		50-8094
2 $\frac{1}{4}$ " Super G (each)		50-8015
10 pack		50-8093
24. Bellows seal (each)		11-2266
5 Pack		11-2279
25. Bowl vent plug (each)		50-0105
10 pack		50-0151
26. Main discharge tube		11-2085±
27. Main jet — See Chart on page 278		
28. Intermediate Jets — See Chart on page 277		
Series #94 fits all Super 1 $\frac{7}{8}$ ", 2 $\frac{1}{4}$ " 2 $\frac{1}{4}$ " gas carburetors.		
29. Bowl gasket (each)		11-2386
10 pack		11-2387
30. Float		11-2187
31. Float pin (each)		11-2369
5 Pack		11-2370±
32. Bowl screw		
10-24 x $\frac{3}{4}$ " — Three required (each)		50-0034
10 Pack		50-0063
10-24 x $\frac{2}{8}$ " — One required (each)		50-0040
10 Pack		50-0061
33. Carb bowl (only)		
Carb bowl complete assembly		11-2388±
		11-2388P
34. Bowl plug (each)		11-2090
5 pack		11-2092±
35. Seat o-ring*		
(required with part #11-2465 & #11-2466 only when replaces 360° style fuel inlet.)		
each		50-8009
10 pack		50-8095
36. Needle		
1 $\frac{7}{8}$ " Super E & 2 $\frac{1}{4}$ " Super G		11-2195±
Racing only		11-2197±
37. Seat — Includes O-ring #35		
(Replaces obsolete seats 11-2347 and 11-2348)		
a. 1 $\frac{7}{8}$ " E & 2 $\frac{1}{4}$ " G (Uses part #11-2195± needle)		11-2465
b. Racing only (Uses part #11-2197± needle)		11-2466
c. Racing only — threaded fuel inlet (6AN .157" ID)		
(Uses part #11-2195± needle)		11-2395
d. Permeation Compliant fuel inlet seat Super E or G		106-2011
(Uses part #11-2195± needle)		
38. Ejector nozzle o-ring (each)		50-8011
10 Pack		50-8096
39. Pump pushrod (each)		11-2373
5 Pack		11-2393
40. Check ball — (two required) (each)		50-8090
10 pack		50-8125
41. Check ball spring (each)		11-2374
5 Pack		11-2392
42. Pump cap o-ring — (two required) (each)		50-8012
10 Pack		50-8100
43. Pump cap assembly		11-2389
44. Overflow hose per 24" 27369-76		
(each)		19-0262-S
5 Pack		19-0263
45. Pump cap screw 8-32 — (two required) (each)		50-0042
10 Pack		50-0098
46. Diaphragm spring (each)		11-2275
10 pack		11-2278
47. Diaphragm		11-2282
48. Gasket, backplate (each)		106-1724
10 pack		106-2328
49. Enrichment device (Use with air horn only)		11-2084±
50. Fuel line With 90° bend*19"		
a. Fuel line With 90° bend*19" (Use with part #11-2465 or #11-2466)		N/A
b. Permeation Compliant straight, 311" x .563" x 17.5"		190-0001
(Use with part #106-2011, 90° seat)		
51. Fuel line insulator—12"		19-0172
52. Spacer, Kit, w/ O-ring		
1 $\frac{7}{8}$ " x 1"		16-0057*
2 $\frac{1}{4}$ " x 1"		16-0357*
2 $\frac{1}{4}$ " x 1"		16-0157
*Use with 1" Spacer Block		16-0058
53. Insulator Block, Manifold, w/ O-ring		
1 $\frac{7}{8}$ " x $\frac{1}{4}$ " Super E		16-0491

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.



1 7/8" x 3/8" Suoer E	16-0497
2 1/16" x 1/4" Super G	16-0492
2 1/16" x 3/8" Super G	16-0498
2 1/4" x 1/4" Super D	16-0499
54. Screw	
1" x 3/8"-16 (each)	50-0161
1 1/4" x 3/8"-16 (each)	50-0162
10 pack	50-0177
1 3/8" x 3/8"-16 (each)	50-0163
5 pack	50-0178
2" x 3/8"-16 (each)	50-0164
5 pack	50-0185
2004-'06 Top Carb to Manifold	
1 1/2" x 3/8"-16	50-0354-S
2004-'06 Low Carb to Manifold	
1 1/2" x 3/8"-16	50-0351-S
55. Tube, Fast Idle Pick-Up, Super E/G, .125" x 2.350", Brass	0381F±
56. Tube, Ejector Nozzle, Super E/G, Flared, Brass	106-6124±

57. O-ring, 3mm x 5mm x 1mm (each)	500-0036
10 pack	500-0148
58. Clamp, 5/8" - 7/8"	50-8002
59. Hose, Fitting straight, .040"	16-0134
60. VOES Fitting Cap	50-8372
61. VOES/Oil Return Hose	19-0395

*360° banjo style fuel inlet fitting used on early S&S E&G carbs is no longer available. Replace with one of the inlet/seat fittings listed under #37 on this page. We highly recommend inlet/seat #106-2011.

**CARBURETOR REBUILD KITS
SEE PAGE 278**

VALVE SPRING REPLACEMENT PARTS

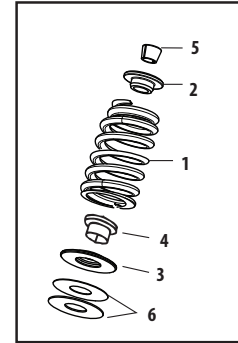
.650" Lift Sidewinder® Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. Spring, Valve .650"	106-5689
2. Collar, Top, Steel	106-5690
3. Collar, Bottom, Steel	106-5691
4. Seal, Valve	
S&S CNC Ported Heads & Stock w/7mm valve stem	106-5688
S&S Super Stock Heads Stock w/5/16 valve stem	
.420" Cast	900-0338
.562" Powder Metal	900-0737
5. Keeper, valve spring	
S&S CNC Ported Heads & Stock w/7mm valve stem	106-5692
S&S Super Stock Heads & Stock w/5/16 valve stem	90-2094-S
6. Valve Spring Shim	
.015" (each)	500-0013
.030" (each)	500-0014

.650" Lift Sidewinder® Valve Springs



.585" Lift Valve Springs



.585" Lift Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. Spring, Valve .585"	900-0444
2. Collar, Top	900-0550
3. Collar, Bottom	
For Stock Heads w/7mm valve stem (includes seal)	900-0590
For CNC Ported Heads w/7mm valve stem	900-0549
For Super Stock Heads	900-0600
4. Seal, valve guide	
For Stock Heads w/7mm valve stem (includes bottom collar)	900-0590
For CNC Ported Heads w/7mm valve stem	106-5688
For Super Stock Heads & Stock w/5/16 valve stem	
.420" Cast	900-0338
.562" Powdermetal	900-0737
5. Keeper, valve spring	
For Stock and CNC Ported Heads	106-5692
For Super Stock Heads & Stock w/5/16 valve stem	90-2094-S
6. Valve spring shim	
For Stock and CNC Ported Heads	
.015"	500-0013
.030"	500-0014
For Super Stock Heads & Stock w/5/16 valve stem	
.015"	90-2086
.030"	90-2087

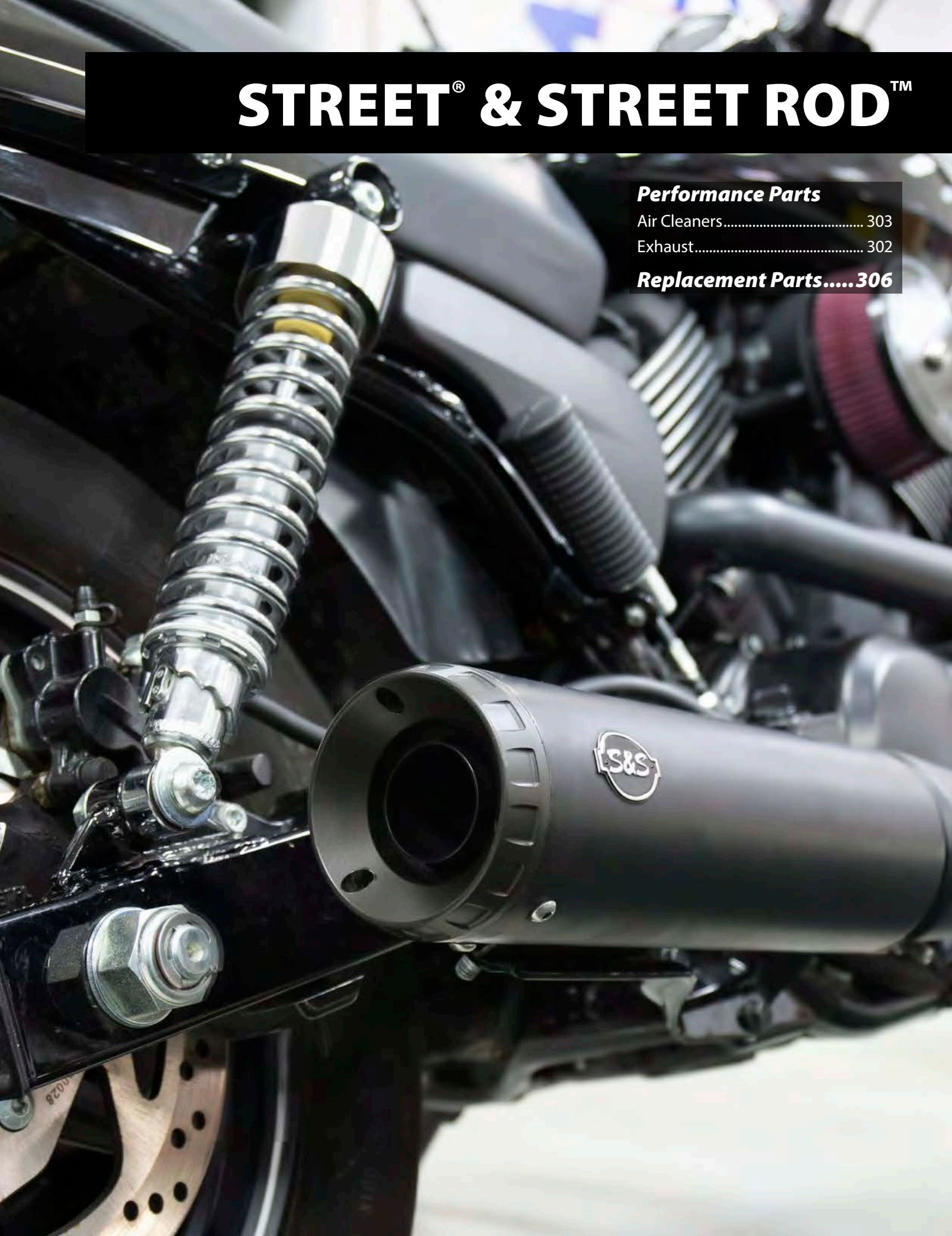
STREET® & STREET ROD™

Performance Parts

Air Cleaners..... 303

Exhaust..... 302

Replacement Parts.....306



GRAND NATIONAL® 4" SLIP-ON MUFFLER

FITMENT

- 2014–2019 Harley-Davidson® Street XG750, XG500, & Street Rod™

FEATURES AND BENEFITS

- 10% increase in HP & torque when coupled with S&S® Stealth Air Cleaner Kit
- Race inspired sound & stainless steel baffle
- Black ceramic finish matches stock header pipe
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!

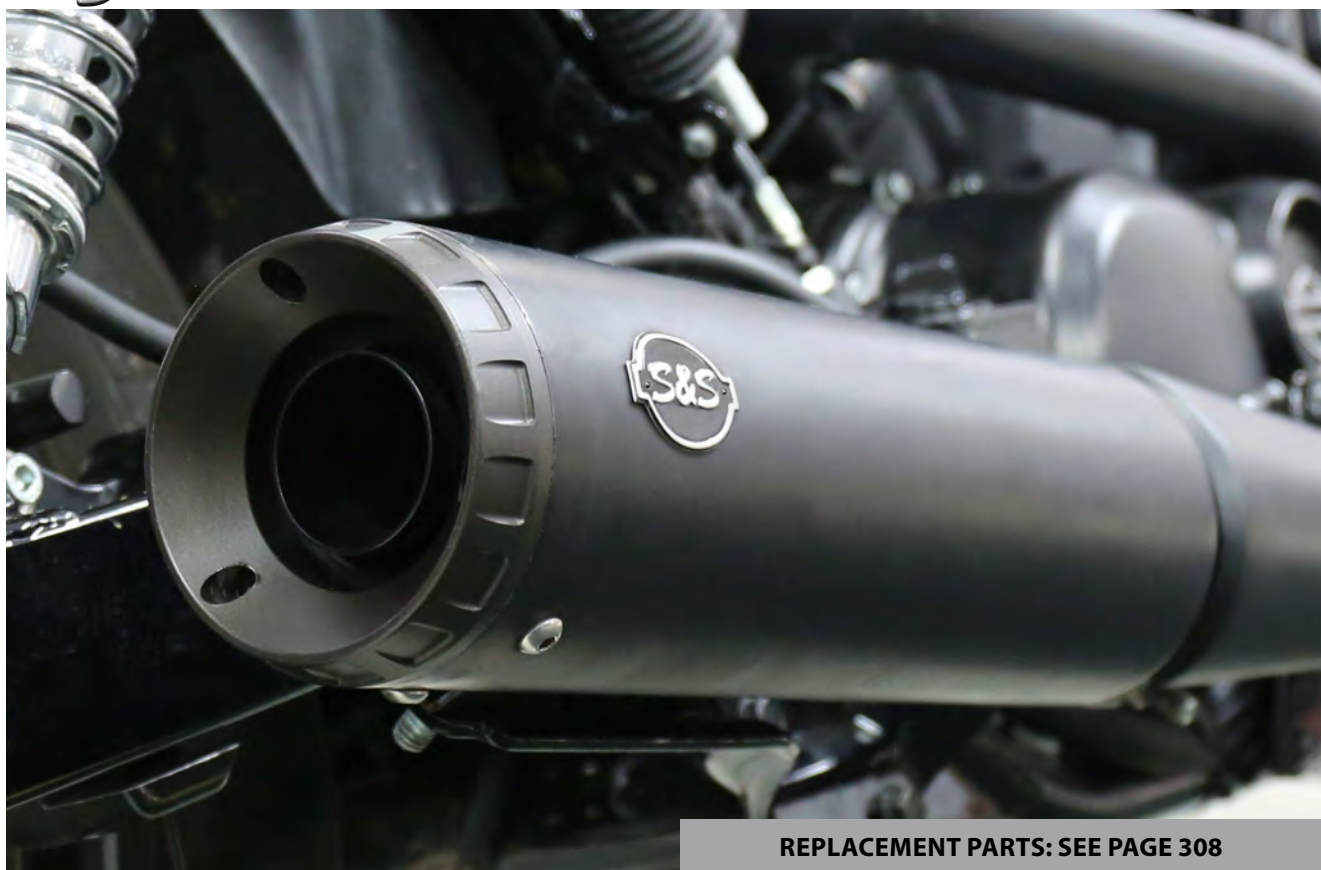


GRAND NATIONAL 4" SLIP-ON MUFFLER FOR 2014–2019 HD® STREET® XG750, XG500 & STREET ROD™

Description	Part #
Grand National 4" Slip-On for 2014-2019 HD Street XG750, XG500 & Street Rod	550-0703

*Qualified Manufacturer Declared Emissions Replacement Part on all 2014–2018 Street Models

Grand National



REPLACEMENT PARTS: SEE PAGE 308

STEALTH AIR CLEANER KITS

2014–2019 STREET XG750 AND XG500

FITMENT

- 2014–2019 Street XG750 and XG500

FEATURES AND BENEFITS

- 6.7% more horsepower and 11.6% more torque (*AC and Stock Muffler*)
- Increased air flow 290 cfm vs. stock 110cfm
- Compatible with S&S Stealth air cleaner covers (*except Airstream*)



MINI TEARDROP STEALTH AIR CLEANER KITS

KIT INCLUDES STEALTH AIR CLEANER KIT 170-0374A WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-22.

Fitment	Fuel System	Finish	Part #
2014–2019 Street XG750 and XG500	Stock Bore	Chrome	170-0445A[±]
		Gloss Black	170-0446A



STEALTH AIR CLEANER KIT FOR 2014–2018 STREET XG750 & XG500 EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-22

Description	Part #
Stealth Air Cleaner Kit for Street	170-0374A



REPLACEMENT PARTS: SEE PAGE 306

STEALTH AIR CLEANER KITS

2017-'19 HARLEY-DAVIDSON® STREET ROD™ MODELS



FITMENT

- 2017-'19 Harley-Davidson® Street Rod™

FEATURES AND BENEFITS

- High-strength synthetic polymer backplate — Designed to reduce heat transfer to intake air
- 210% increase in flow
- Pair with one of many covers (cover not included; see next page for options)
- Cooler, denser air allows for more efficient cylinder fill and better performance
- Pre-filters are available

MINI TEARDROP STEALTH AIR CLEANER KITS

KIT INCLUDES STEALTH AIR CLEANER KIT 170-0414A WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-22.

Fitment	Fuel System	Finish	Part #
2017-'19 Harley-Davidson® Street Rod™ XG750A	Dual Bore	Chrome	170-0443A ±
		Gloss Black	170-0444A



STEALTH AC KIT FOR 2017-'19 HD® STREET ROD™ EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-22

Description	Part #
Stealth Air Cleaner Kit	170-0414A



REPLACEMENT PARTS: SEE PAGE 307

STEALTH AIR CLEANER KIT COVERS INCLUDING THE NEW STEALTH TEARDROP



STEALTH TEARDROP COVER ONLY

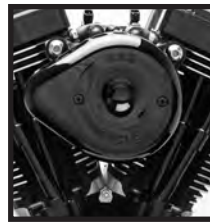
Chrome	170-0530
Gloss Black	170-0531
Slasher – Chrome	170-0532
Slasher – Gloss Black	170-0533



Carbon Fiber



Mini in Chrome



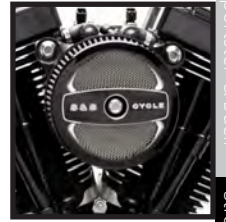
Mini in Gloss Black



Tri-Spoke



Torker



Air 1



Airstream in Chrome



Airstream in Gloss Black



Muscle in Chrome



Muscle in Gloss Black



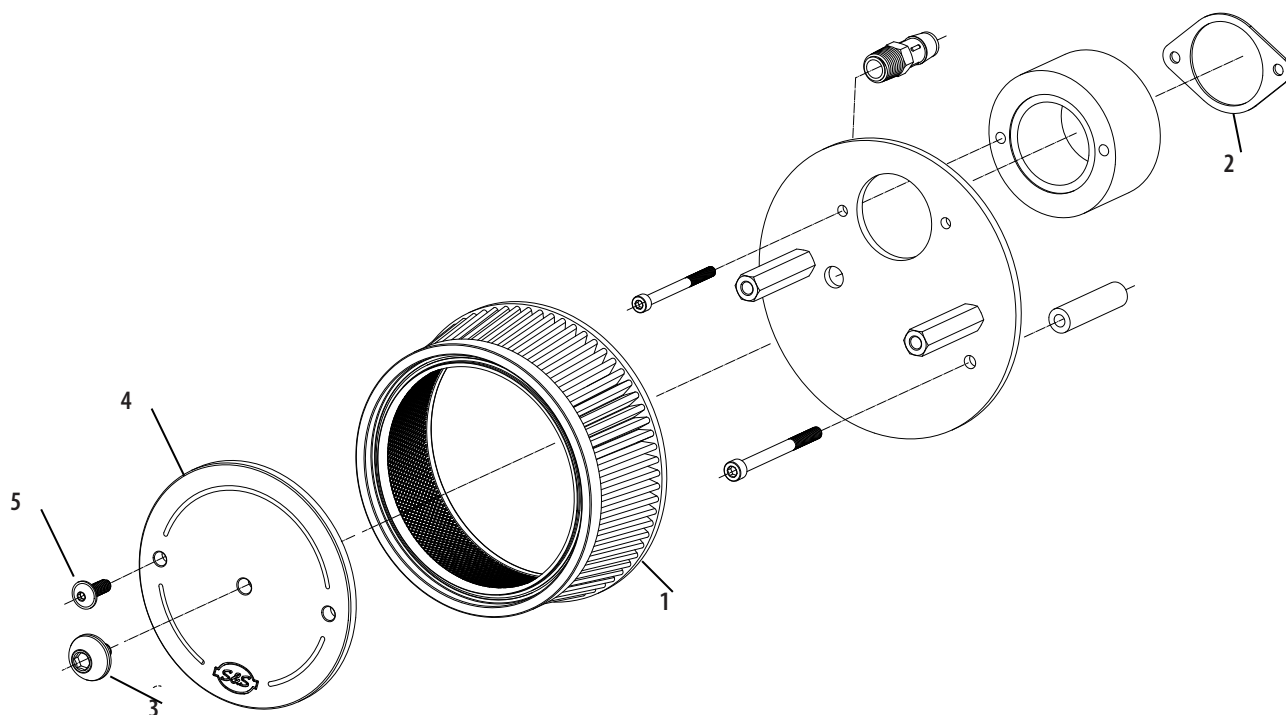
Bobber-dished

Carbon Fiber	Mini		Tri-Spoke	Torker	Air 1	Bobber-Dished	
Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights	Chrome	Wrinkle Black
170-0501	170-0367[±]	170-0366	170-0210	170-0206	170-0214	170-0119[±]	170-0123

Airstream		Muscle		Displacement			Bobber-Domed	
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	111	124	143	Chrome	Wrinkle Black
170-0118[±]	170-0396	170-0121[±]	170-0463	170-0319	170-0321	170-0323	170-0120[±]	170-0124

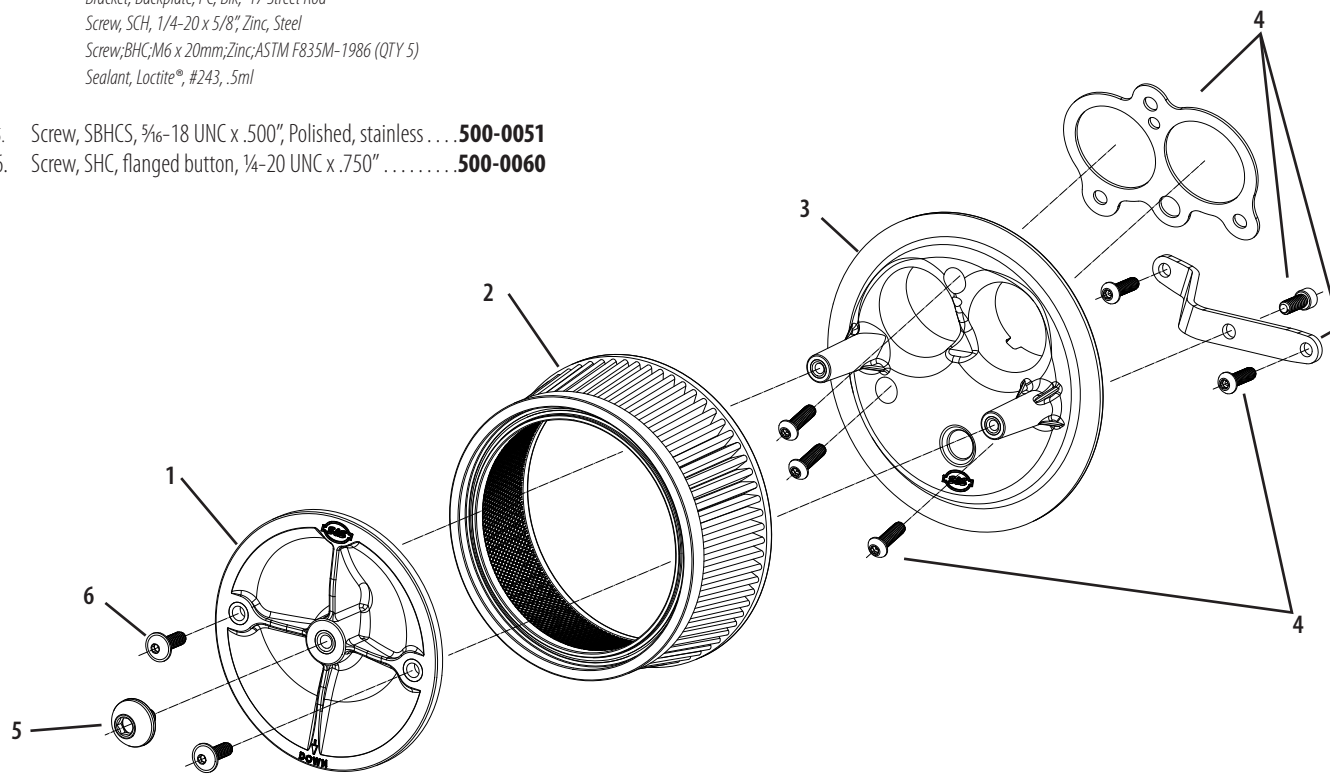
STEALTH AIR CLEANER KIT REPLACEMENT PARTS FOR STREET® MODELS

- 1. Filter, Air, Tprd, StdPlt, 5.500" x 6.000" **170-0126**
- 2. Gasket, Intake, 1.720" **170-0371**
- 3. Screw, SHCB, 5/16-18 x .500", Pol, Stnls Stl **500-0051**
- 4. Plate, Top, Air Filter, S&S® Logo, GIBlk **170-0379**
- 5. Screw, SHC, Flng Btn, 1/4-20 UNC x .750" (2 Req) **500-0060**



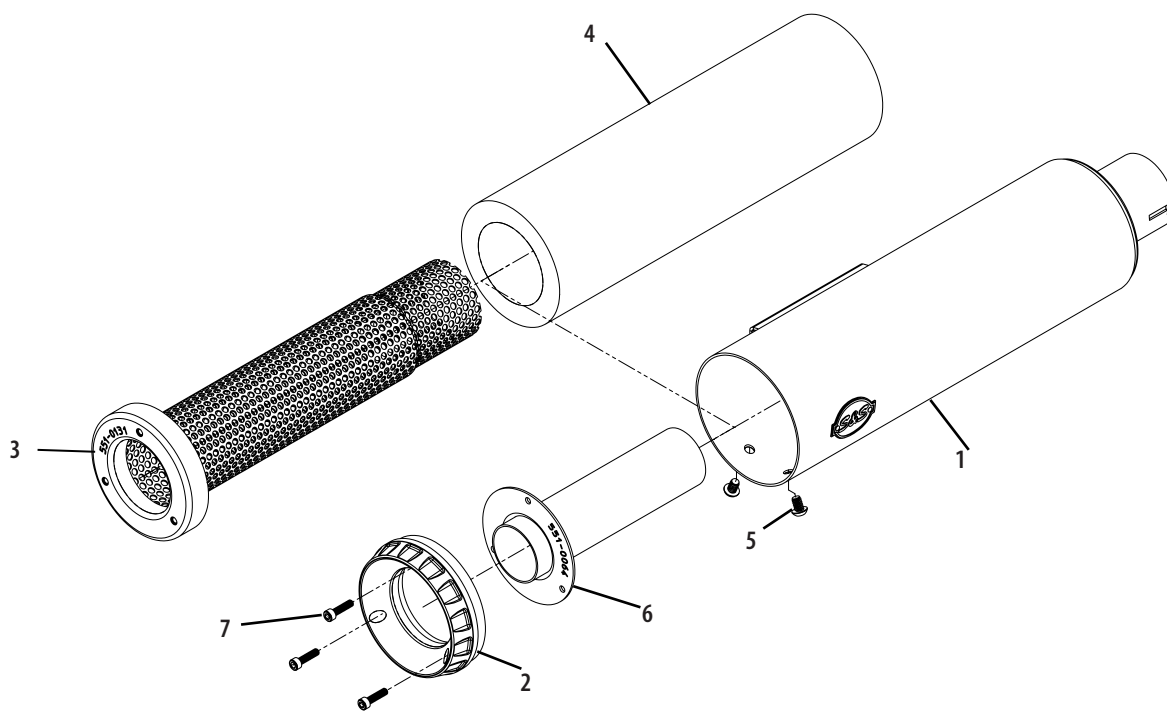
STEALTH AIR CLEANER KIT REPLACEMENT PARTS FOR STREET ROD™ MODELS

- 1. Top plate, filter, air, molded, plastic **170-0026**
 - 2. Filter, air, tapered, standard, pleated, 5.50" X 6.00" **170-0126**
 - 3. Backplate, air cleaner, dual bore, injection molded **170-0415**
 - 4. Hardware Kit, Stealth, 2017 Street Rod™ **500-0690**
- Includes: Gasket, Intake, Dual Bore 2017 Street Rod™*
Bracket, Backplate, PC, Blk, '17 Street Rod
Screw, SCH, 1/4-20 x 5/8", Zinc, Steel
Screw, BHC, M6 x 20mm; Zinc; ASTM F835M-1986 (QTY 5)
Sealant, Loctite®, #243, .5ml
- 5. Screw, SBHCS, 5/16-18 UNC x .500", Polished, stainless **500-0051**
 - 6. Screw, SHC, flanged button, 1/4-20 UNC x .750" **500-0060**



GRAND NATIONAL 4" MUFFLER REPLACEMENT PARTS

- 1. Muffler,Body (shown for placement only)..... **N/A**
- 2. End cap,4" **551-0291**
- 3. Baffle Assembly, 2014-2017 HD® Street® **551-0270**
- 4. Insulation,Muffler,Pillow Pack,13" x 11.5" **551-0276**
- 5. Screw,BHC,High Temp Lock Patch,1/4-20 x 3/8",Stainless Steel
(2 Req)..... **500-0441**
- 6. Baffle, asm, muffler, 4"..... **551-0063**
- 7. SHCS,10-32 x .75" (3 Req)..... **500-0569**



1984-'99 BIG TWINS

Performance Kits

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Mk45 TOURING MUFFLERS

Mk45 4.5" Touring Mufflers are the result of decades of riding, racing and tuning. Combining both a stainless steel baffle and fiberglass packing, they create a deep rumble and improved horsepower and torque, all while adding a unique look with styled aluminum end caps.

FITMENT

- 1995–2016 touring models

FEATURES AND BENEFITS

- 7 horsepower gain*
- Bold 4.5" design — with stainless steel baffle and RaceTEX cartridge packing
- Available in show quality chrome or black ceramic finish
- Choose from S&S® Thruster or Tracer end-cap designs in chrome or black
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!

*Tested with S&S Power Tune® Dual Header and Stealth Air Cleaner Kit



MK45 4.5" TOURING MUFFLERS W/END CAPS

Muffler Body Finish	End Cap Finish & Style	Part #
Chrome	Chrome Thruster	550-0620±
	Black Highlight Machined Thruster	550-0619±
	Chrome Tracer	550-0624±
	Black Highlight Machined Tracer	550-0623±
Black Ceramic	Chrome Thruster	550-0622±
	Black Highlight Machined Thruster	550-0621
	Chrome Tracer	550-0626±
	Black Highlight Machined Tracer	550-0625

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED MOTORCYCLES ORIGINALLY EQUIPPED WITH MUFFLERS CONTAINING CATALYST.

*QUALIFIED MANUFACTURER DECLARED EMISSIONS REPLACEMENT PART ON THE FL TOURING MODELS LISTED BELOW.

CALIFORNIA FL TOURING MODELS:
 FUEL INJECTED MY 1995-2003, 2007, AND 2009-2016;
 CVO MY 2000-2003, AND 2009-2016

49 STATE FL TOURING MODELS:
 CARBURETED MY 1995-2005;
 FUEL INJECTED MY 1995-2005, AND 2007-2016;
 CVO MY 2000-2005, AND 2009-2016



Removable dB reducer

NOTES

SEE SPECIAL NOTES ON PAGE 313 FOR NOISE DISCLAIMERS

REPLACEMENT PARTS: SEE PAGE 401



550-0620±



550-0622±



550-0619±



550-0621



550-0624±



550-0623±



550-0625



550-0626±

4" GRAND NATIONAL® SLIP-ON MUFFLERS

FITMENT

- 1995–2016 Harley-Davidson® touring models with non-catalyst mufflers

FEATURES AND BENEFITS

- Available in show chrome or black ceramic finish
- Show quality chrome or black ceramic finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant w
- Removable dB reducer
- Made in USA!



Removable dB reducer

Grand National

GRAND NATIONAL® 4" MUFFLERS FOR 1995-2016 BIG TWINS

Finish	Part #
Chrome	550-0689 [±]
Black	550-0690

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

*Qualified Manufacturer Declared Emissions Replacement Part on the FL Touring Models Listed Below.

REPLACEMENT PARTS: SEE PAGE 402

1984–1999 Big Twins

SLASH CUT 4" SLIP-ON MUFFLERS

FITMENT

- 1995–2016 Harley-Davidson® touring models with non-catalyst mufflers

FEATURES AND BENEFITS

- Available in show chrome or black ceramic finish
- Show quality chrome or black ceramic finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant w
- Removable dB reducer
- Made in USA!



Removable dB reducer

SLASH CUT 4" TOURING MUFFLERS FOR 1995-2016 BIG TWINS

Finish	Part #
Chrome	550-0691*
Black	550-0692

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst.

*Qualified Manufacturer Declared Emissions Replacement Part on the FL Touring Models Listed Below.

California FL Touring Models:

Fuel Injected MY 1995–2003, 2007, and 2009–2016;

CVO MY 2000–2003, and 2009–2016

49 State FL touring Models:

Carbureted MY 1995–2005;

Fuel Injected MY 1995–2005, and 2007–2016;

CVO MY 2000–2005, and 2009–2016

REPLACEMENT PARTS: SEE PAGE 403

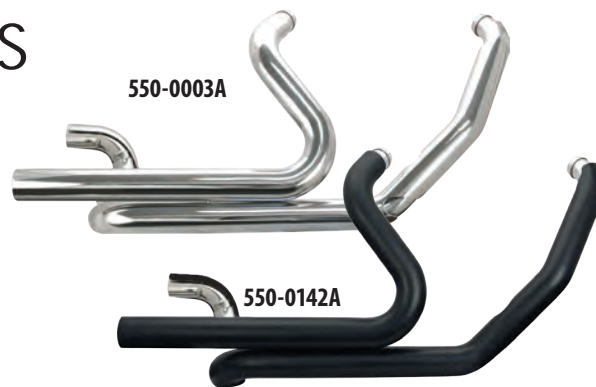
POWER TUNE® DUAL HEADERS

FITMENT

- Non-catalyst equipped Harley-Davidson® touring models†
- 1995 - '08 touring big twins

FEATURES AND BENEFITS

- Adds 8 horsepower over stock header pipes
- Independent dual look with hidden crossover
- Exclusive design moves the rear cylinder header away from the passenger to reduce radiated heat
- Full chrome or black ceramic heat shielding with 220° coverage
- Updated styling to give the bike a modern look
- Oxygen sensor bungs*
- Durable 16 gauge construction
- Spherical inlet design for improved sealing and exhaust gasket durability
- Hardware included to mount crossover pipe
- Compatible with all equal size inlet slip-on mufflers
- Exhaust port gaskets included
- Made in the U.S.A.



POWER TUNE® DUAL HEADERS

Fitment	Finish	Part #
1995-'08* big twins	Chrome	550-0003A‡
	Black	550-0142A

*Has 18mm sensor fittings in the stock locations for 2007-'08 bikes. If not equipped with oxygen sensors, the ports can be used for tuning. Plugs are included if ports are not used.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on EPA pollution controlled vehicles originally equipped with catalyst.

SPECIAL NOTES

It may be necessary to re-jet the carburetor or recalibrate the fuel injection system for best performance when a change is made in the exhaust system.

Dyno results are from tests performed at the S&S® Research and Development facility in Viola, Wisconsin.

Exhaust Noise Disclaimer: Unless noted, S&S exhaust components do not meet U.S. EPA noise standards and may be restricted to closed course competition use. Check local noise ordinances before use.

REPLACEMENT PARTS: SEE PAGE 404

STEALTH AIR CLEANER KITS

FITMENT

- 1993-'99 big twins

NOTES

Fuel injection tuning is not required for this product

FEATURES AND BENEFITS

- Air directional stinger cone in the filter
- Use with any of several S&S designed covers. See PAGE 315
- Or use with your stock Harley-Davidson® Twin Cam 88°, 96™ or 103™ air cleaner cover – the word "sleeper" comes to mind (except 2015 air cleaner covers)
- High flow (1" taller) filter kit available

REPLACEMENT PARTS: SEE 386



Airstream in Chrome

AIRSTREAM COVER IN CHROME PLUS STEALTH AIR CLEANER KIT±

Application	Fuel System	Part #
1993-'99 bt	Stock CV	170-0055
	S&S Super E & G Carbs	170-0062

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



MUSCLE COVER IN CHROME PLUS STEALTH AIR CLEANER KIT±

Application	Fuel System	Part #
1993-'99 bt	Stock CV	170-0103
	S&S Super E & G Carbs	170-0109

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



BOBBER-DISHED COVER IN CHROME PLUS STEALTH AIR CLEANER KIT±

Application	Fuel System	Part #
1993-'99 bt	Stock CV	170-0101
	S&S Super E & G Carbs	170-0107

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



BOBBER-DOMED COVER IN CHROME PLUS STEALTH AIR CLEANER KIT±

Application	Fuel System	Part #
1993-'99 bt	Stock CV	170-0102
	S&S Super E & G Carbs	170-0108

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

STEALTH AIR CLEANER KITS* — NO COVER

Application	Fuel System	Part #
1993-'99 bt	Stock CV	170-0100
	S&S Super E & G Carbs	170-0057

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

*These kits do not contain covers — Choose an S&S cover on PAGE 315



STEALTH AIR CLEANER KITS FOR S&S ENGINES

Fitment	Fuel System	Part #
V111 Long Block 1984-'99 bt (p/n 310-0766)	S&S E or G Carburetor	170-0057
V111 Long Block 1984-'99 bt (p/n 310-0766)	Stock CV/EFI Delphi®	170-0100
V80 Long Block 1984-'99 bt (p/n 310-0233 & 310-0232)	S&S E or G Carburetor	170-0057
V80 Long Block 1984-'99 bt (p/n 310-0233 & 310-0232)	Stock CV/EFI Delphi®	170-0100
1995-1999 S&S Super Stock Engines	S&S Single Bore VFI 52mm Throttle Bodies	170-0287
1995-1999 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	170-0283
1999-2017 EFI big twins	S&S Single Bore VFI 58mm Throttle Bodies	170-0284

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

STEALTH AIR CLEANER KIT COVERS INCLUDING THE NEW STEALTH TEARDROP



STEALTH TEARDROP COVER ONLY

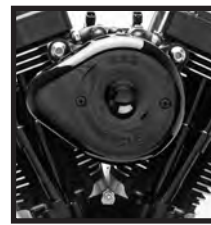
Chrome	170-0530
Gloss Black	170-0531
Slasher – Chrome	170-0532
Slasher – Gloss Black	170-0533



Carbon Fiber



Mini in Chrome



Mini in Gloss Black



Tri-Spoke



Torker



Air 1



Airstream in Chrome



Airstream in Gloss Black



Muscle in Chrome



Muscle in Gloss Black



Bobber-dished



111



124



143

STEALTH COVERS

Carbon Fiber	Mini		Tri-Spoke	Torker	Air 1	Bobber-Dished	
Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights	Chrome	Wrinkle Black
170-0501	170-0367 [±]	170-0366	170-0210	170-0206	170-0214	170-0119 [±]	170-0123

Airstream		Muscle		Displacement			Bobber-Domed	
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	111	124	143	Chrome	Wrinkle Black
170-0118 [±]	170-0396	170-0121 [±]	170-0463	170-0319	170-0321	170-0323	170-0120 [±]	170-0124

CLASSIC TEARDROP AIR CLEANER KIT

FITMENT

- 1984–'99 big twins
- S&S V-Series engines

FEATURES AND BENEFITS

- Uniquely designed backplate has air horn style radiused entryway to reduce turbulence
- Dimpled cover with directional air cone on inside creates smooth path for air
- Great addition to performance exhaust or cams

KIT CONTENTS

- Filter
- Classic Teardrop air cleaner cover
- Backing plate
- All mounting hardware



CLASSIC TEARDROP AIR CLEANER KITS

Model/Engine	Finish	Stock Carb/EFI	S&S Super E/G
1993-'06 carbureted bigtwins	Chrome	17-0450±	17-0404±
	Gloss Black	170-0181A	–
1990 -'92	Chrome	–	17-0399±
1984 - '89	Chrome	–	17-0399±
S&S 4 1/8" Bore Engines	Slasher Chrome	–	17-0416±

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

CLASSIC TEARDROP AIR CLEANER KITS S&S SINGLE BORE EFI±

Model/Engine	Finish	58mm
S&S 4 1/8" Bore Engines	Chrome	106-4668

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS STARTING ON PAGE 388



TEARDROP AIR CLEANER COVERS

Style	Finish	Part #
Mini	Chrome	170-0367±
	Gloss Black	170-0366
Classic Teardrop	Chrome	17-0378±
	Gloss Black	170-0384A
Slasher Teardrop	Chrome	17-0004±
	Gloss Black	170-0419
Nostalgic Teardrop	Polished	17-0071

NOTE

Fuel delivery (carbureted or EFI) may need to be modified to maintain the correct air and fuel mixture.

CARB EXEMPT AIR CLEANER KITS

FITMENT

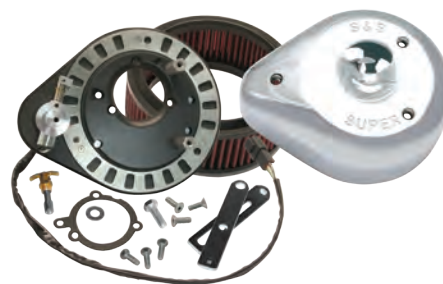
- 50-State emissions compliant S&S V-Series engines

KIT CONTENTS

- Filter
- Cover
- Valve assembly, backplate, sealed air cleaner
- Necessary mounting hardware and o-rings

SEALED AIR CLEANER KITS[±]

Engine	Part #
V96, V100, V113	106-1449
V111, V117, V124	106-3082



106-1449[±]

S&S® sealed air cleaner kit uses a solenoid operated nickel plated rotary valve to keep hydrocarbons from escaping into the atmosphere when the engine is not running, but opens to allow air to enter when the starter button is depressed.

SINGLE BORE TUNED INDUCTION SYSTEM

FITMENT


- 1984-'99 big twin
- S&S V-Series

FEATURES AND BENEFITS

- Bolt-on performance – over twice the filtering area over stock intake system
- Increases horsepower and torque across the rpm range using air column inertia and carefully timed gas dynamic pressure waves
- Smooth intake tract of carefully selected tuned lengths increases performance
- High flow washable and reusable cotton media provides performance, protection, and economy



SINGLE BORE TUNED INDUCTION SYSTEM KITS[±]

Fitment	Fuel Delivery	Finish	Part #
4 1/8" Bore S&S V-Series	S&S Single Bore EFI	Chrome/Red Filters	170-0083
4 1/8" Bore S&S V-Series	S&S Super E/G	Chrome/Red Filters	170-0084
1984-'99 big twins	S&S Single Bore EFI	Chrome/Red Filters	170-0085
1984-'99 big twins	S&S Super E/G	Chrome/Red Filters	170-0086
1984-'06 big twins	Stock CV	Chrome/Red Filters	170-0087
	Specify	Specify	106-5337*

NOTES

Single bore tuned induction will not fit on motorcycles equipped with fairing lower glove boxes.

Tuned induction system does not fit Dyna® Wide Glide® models due to runner to gas tank interference.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

*Use the Configure to Order (CTO) Part # to order different finish and filter color

REPLACEMENT PARTS: SEE PAGE 387

BREATHER CONVERSION KIT

FITMENT

- 1993-'99 big twin

FEATURES AND BENEFITS

- Instead of o-rings, banjo fittings are sealed with durable silicon coated washers

BREATHER CONVERSION KIT

Application	Part #
1993-'99 big twins	17-0486

Breather conversion kit for big twin engines updates earlier S&S air cleaner kits for 1993-'99 big twins to the latest breather hardware.



PRE-FILTERS

FITMENT

- S&S® Stealth Air Filters

FEATURES AND BENEFITS

- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable Nylon
- Promotes longer filter life
- Reduces the risk of water entering air intake system

PRE-FILTERS

Application	Part #
Standard Stealth Air Filter	170-0193
1" Tall Stealth Air Filter	170-0197



170-0197

HIGH FLOW AIR FILTER KITS

FITMENT

- S&S Classic Teardrop air cleaners for Super E & G carbs and S&S EFI throttle bodies

FEATURES AND BENEFITS

- Low restriction filter element comes pre-oiled for true plug and play installation
- 1" wider filtration area provides up to 37% more airflow over standard S&S filters
- Resulting band of exposed filter material imparts a high performance look

KIT CONTENTS

- Wide filter
- Filter spacers

HIGH FLOW AIR FILTERS

Description	Fitment	Part #
High Flow Air Filter Kit <i>(includes spacers)</i>	Classic Teardrop	17-0045
	Stealth, 1" Taller	170-0127*
1" Taller Filter Only		106-4724
	Stealth	170-0154
Spacer	Classic Teardrop & Stealth, 1" Taller	50-5009-S

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE.
Not legal for sale or use on any EPA pollution controlled motor vehicle.



170-0127



17-0045

STANDARD REPLACEMENT FILTERS

STANDARD REPLACEMENT AIR FILTERS

Description	Fitment	Part #
Standard Filter Only	Classic Teardrop	106-4722
	Stealth	170-0126

PERFORMANCE KIT OVERVIEW

FOR HARLEY-DAVIDSON® EVOLUTION® BIG TWIN ENGINES



SIDEWINDER® KITS

S&S 3½" big bore/stroker kits are available from 88" to 103" displacement (See PAGE 320). We recommend the 96" kit for most applications, and it is our most popular. The 96" Sidewinder is also available as a Hot Set Up Kit, which includes the extra performance goodies you need to make the most of the increased displacement. (See PAGE 321).



96" HOT SET UP KITS

The S&S 96" Hot Set Up Kit is built around our most popular 3½" bore Sidewinder® kit. In addition to the standard flywheel assembly, cylinders, and pistons, the 96" Hot Set Up Kit includes S&S a cam shaft, carb, pushrods, and all required hardware and gaskets. The top of the line Hot Set Up Kit also includes S&S Super Stock® cylinder heads. Kits for stock heads include S&S valve springs to accommodate the high lift cam. Configure your own Hot Set Up Kit with the CTO Part #. (See PAGE 321).



89" STOCK BORE STROKER

S&S has been making stock bore stroker kits since the early 1960's. They're still popular today due to the excellent power gains for the money, as well as the easy installation. Stock bore strokers reuse the stock cylinders and crankcase, so the kits are economical to buy. Since they don't require expensive crankcase modifications, they are also economical to install (See PAGE 322). To ensure maximum performance, we suggest the 89" Stroker Hot Set Up Kit that also includes an S&S camshaft, carb, pushrods, and S&S cylinder heads. Configure your own Hot Set Up Kit with the CTO Part #.



80" HOT SET UP KITS

Boost your performance without splitting your crankcases with the 80" Hot Set Up Kit. The kit includes S&S Super Stock® cylinder heads, cam, carb, pushrods and gaskets. Installation is no more difficult than a stock top end job. Purchase pistons of the required oversize separately. (See PAGE 323).

PERFORMANCE KIT SPECIFICATIONS FOR HARLEY-DAVIDSON® EVOLUTION® BIG TWIN ENGINES									
KIT DESCRIPTION	BORE	STROKE	COMPRESSION RATIO				CAMSHAFT	HORSEPOWER	TORQUE
			Stock Heads	Performance Replacement Heads 76cc	Performance Replacement Heads 82cc	S&S® Super Stock® Heads		S&S Heads	
Sidewinder® Kit	3 ½"	*	*	*	*	*	—	*	*
96" Hot Set Up Kit	3 ½"	4 ½"	9.25	10:1	9.5:1	10.2:1	585	99.5	109.9
89" Stroker Kit	3 ½"	4 ½"	9.25	9.4:1	8.9:1	10:1	—	95.0	97.6
89" Stroker Hot Set Up Kit	3 ½"	4 ½"	9.25:1	9.4:1	8.9:1	10:1	561	95.0	97.6
80" Hot Set Up Kit	3 ½"	4 ¼"	—	—	—	10.2:1	561	83.0	85.5

**Specifications depend on kit selected. See PAGE 320.*

PERFORMANCE KIT CONTENTS, OPTIONS AND REQUIREMENTS FOR HARLEY-DAVIDSON® EVOLUTION® BIG TWIN ENGINES											
KIT DESCRIPTION	PACKAGE CONTENTS								MACHINING REQUIRED	CTO OPTIONS	REJETTING OR CALIBRATION CHANGE
	Flywheels	Cylinders	Pistons w/ rings	Pushrods	Camshaft	Valve Springs	Heads w/ springs	Gaskets			
Sidewinder® Kit**		●	●				①	●	③ ④		●
96" Hot Set Up Kit	●	●	●	●	●	●	①	●	③ ④	⑤ ⑥ ⑦	●
89" Stroker Kit	●	⑦	①				①		② ③		●
89" Stroker Hot Set Up Kit	●	⑦	①	●	●	●	①	●	② ③	⑤ ⑥ ⑦	●
80" Hot Set Up Kit		⑦	①	●	●		●	●	②		●

① = Optional
 ② = Bore & hone cylinders
 ③ = Crankcase machining crankpin clearance
 ④ = Crankcase machining for cylinder spigots
 ⑤ = Camshaft selection
 ⑥ = Combustion chamber size selection
 ⑦ = Cylinder & piston set available

**The CTO option column lists only the major items offered. Virtually any option can be selected from our product offerings through the Configure To Order (CTO) program.*

***Specifications depend on kit selected*

SIDEWINDER® KITS

FITMENT

- 1984-'99 carbureted
- 1995-'98 EFI engines

FEATURES AND BENEFITS

- Large displacement at a relatively small price
- Significant increase in horsepower and torque

OPTIONS

- 96" displacements available
- Top end kits for 80" engines and engines with S&S 89" stroker kits
- Valve train items – Cams, tappets, valve springs, rocker arms, rocker covers
- Fuel systems – Manifolds, carburetors, EFI throttle bodies, EFI modules
- Factory installation available



91-7660

COMPLETE S&S® SIDEWINDER® KITS FOR HARLEY-DAVIDSON® EVOLUTION® BIG TWIN ENGINES SPECIFICATIONS

Displacement	Stroke	Compression Ratio	Cylinder Length
96"	4 $\frac{3}{8}$ "	9.75:1	5.565"

COMPLETE S&S® SIDEWINDER® KITS FOR HARLEY-DAVIDSON® EVOLUTION® BIG TWIN ENGINES

Displacement	Natural	WBlack
96"	91-7202*	91-7702*
	91-7660	91-7661

*Denotes big bore Top End Kit only.

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NOTES

Cases must be bored to accept 3 $\frac{3}{8}$ " bore cylinders, and a minor crankcase clearancing operation for the crankpin nut must be performed.

EXTRA PARTS NEEDED:

1977-'89 style pinion gear and oil pump drive gears must be used when installing S&S flywheels in 1990-'99 engines.

96" HOT SET UP KIT®

FITMENT

- 1984-'99 carbureted engines
- 1995-'98 EFI engines

FEATURES AND BENEFITS

- Economical route to a large displacement motor
- Enhance performance with the addition of S&S® Super Stock® cylinder heads
- Includes a 96" Sidewinder® kit with 4½" stroker flywheels assembled with mainshafts and rods, 35/8" bore cylinder and piston kit, an S&S 585 cam, .585" valve springs, adjustable chromoly pushrods, an HL₂T kit, a Super E carb kit, and installation instructions

OPTIONS

- Kits are available with S&S Super Stock® heads or without heads if S&S Performance Replacement heads or stock heads will be used

S&S® 96" HOT SET UP KIT® SPECIFICATIONS							
Displacement	Stroke	Bore	Compression Ratio			Piston Type	Cylinder Length
			Stock Heads	S&S Super Stock Heads	S&S 82cc Performance Replacement Heads		
96"	4½"	3½"	9.75:1	10.1:1	9.5:1	Forged	5.565"

96" HOT SET UP KIT® WITHOUT HEADS FOR HARLEY-DAVIDSON® EVOLUTION® ENGINES

Year Group	Stroke	Fuel Delivery	Cam	Finish	Part #
1984-'92 bt	4½"	Super E	585	WBlack	32-2298
1993-'99 bt	4½"	Super E	585	Natural	32-2297
				WBlack	32-2299

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32-2297

96" HOT SET UP KIT® WITH S&S® SUPER STOCK® HEADS FOR HARLEY-DAVIDSON® EVOLUTION® ENGINES

Year Group	Stroke	Fuel Delivery	Cam	Finish	Part #
1993-'99 bt	4½"	Super E	585	Natural	90-0122
				WBlack	90-0123

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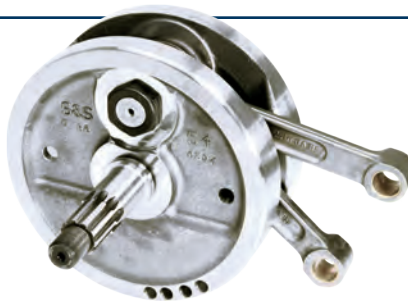


90-0122

NOTES

IMPORTANT: 1977-'89 style pinion gears, spacer, and nut are required when installing S&S flywheel assemblies. For installation in 1990-'99 or scratch built engines, order S&S Pinion Shaft Conversion Kit 33-4148.

89" STROKER KIT



FITMENT

- 1984-'99 carbureted engines
- 1995-'98 EFI engines

FEATURES AND BENEFITS

- Stock, S&S Super Stock® or performance replacement heads can be used with this configuration, depending on which pistons are purchased with the stroker flywheels.
- 89" strokers can be installed in carbureted or fuel injected engines. Note that recalibration of the fuel injection system is required.
- Requires a simple crankcase clearance operation and normal piston fitting.
- Low cost boost in performance - Add S&S 3½" cylinders later for 96" engine

FLYWHEEL ASSEMBLIES FOR S&S® 89" STOCK BORE STROKER KITS FOR HARLEY-DAVIDSON® EVOLUTION® ENGINES

Application	Part #
Carbureted	32-2230
Fuel Injected	32-2146

S&S® 89" STOCK BORE STROKER KITS FOR HARLEY-DAVIDSON® EVOLUTION® ENGINES SPECIFICATIONS

Displacement	Stroke	Bore	Compression Ratio*	Piston Type	Cylinder Length
89"	4⅝"	3½"	9.25:1	Forged	Stock

*Compression ratio with stock heads.

1990 and later installations require 1977 to 1989 pinion shaft gears. Kit 33-4148 includes cam and oil pump drive gears, spacer and nut.



THESE KITS REQUIRES SPECIAL S&S PISTONS. Order the required piston oversize from the chart below.



3½" BORE FORGED STROKER PISTON KITS FOR STOCK HEADS OR S&S PERFORMANCE REPLACEMENT HEADS

Standard	+ .010"	+ .020"	+ .030"
106-5554	106-5555	106-5556	106-5793

Piston kits include set of pistons, rings, wristpins, and clips. Recommended cast piston fitment: Close: 0.0008" – 0.0013" Loose: 0.0020" – 0.0025"

3½" BORE FORGED PISTON KITS FOR S&S® SUPER STOCK® HEADS

Displacement	Stroke	Piston Deck Height	CR	Standard	+0.010"	+0.020"
89" LC	4⅝"	1.1875"	10:1	92-2046	92-2047	92-2048
89" HC	4⅝"	1.1875"	12.2:1	92-2016	–	92-2018

Piston kits include set of pistons, rings, wristpins, and clips. Recommended cast piston fitment: Close: 0.0008" – 0.0013" Loose: 0.0020" – 0.0025"

NOTES

If ordering replacement pistons for an older 89" Stroker Kit, the flywheels will require rebalancing.

S&S Super Stock cylinder heads do not have provision for the stock head temperature sensor. For this reason they are not compatible with fuel injected applications. Fuel injected stroker engines must use stock cylinder heads or S&S performance replacement heads. (See PAGE 350)

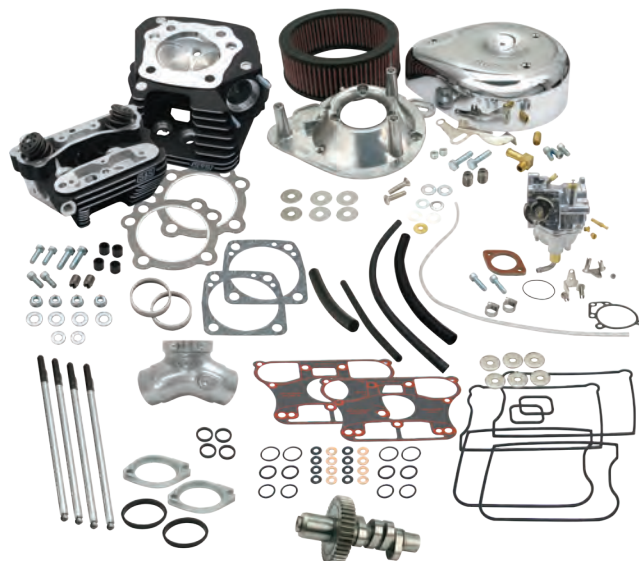
80" HOT SET UP KIT®

FITMENT

- 1984-'99 carbureted engines

FEATURES AND BENEFITS

- Installation is as easy as a stock top-end rebuild
- Flywheel rebalancing is not required
- Yields 80 cubic inches at 10.2:1 compression ratio with included S&S cylinder heads
- Includes S&S Super Stock cylinder head kit with valves and springs installed, manifold with o-rings and flanges, required hardware, top end gaskets, an S&S 561 cam, adjustable chromoly pushrods, an HL₂T kit, a Super E carb kit, and installation instructions
- Pistons of the required oversize must be ordered separately. Pistons fitted to S&S cylinders are also available



S&S® 80" HOT SET UP KIT® FOR HARLEY-DAVIDSON® EVOLUTION® ENGINES SPECIFICATIONS					
Displacement	Stroke	Bore	Compression Ratio	Piston Type	Cylinder Length
80"	4¼"	3½"	10.2:1	Forged	Stock



90-0082

80FLSS HOT SET UP KITS® WITH SUPER STOCK® CYLINDER HEADS FOR CARBURETED HD® EVOLUTION® BIG TWINS

Model Year	WBlack	Natural
1984-'92	90-0083	90-0081
1993-'99	90-0084	90-0082

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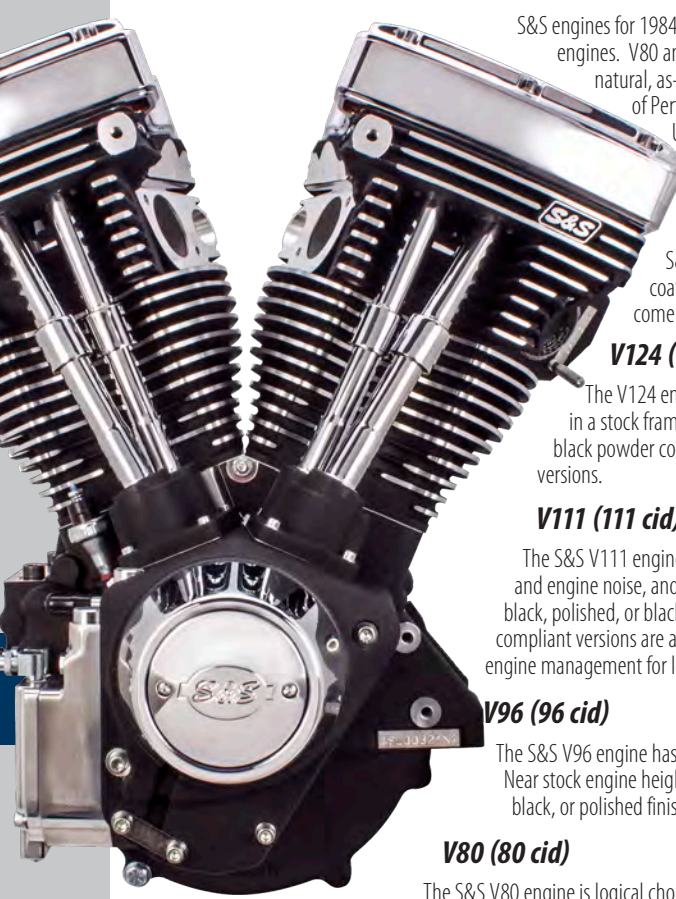
THESE KITS REQUIRES SPECIAL S&S PISTONS. Order the required piston oversize from the chart below.



92-2026

92-2026 SERIES PISTONS FOR S&S® 80" HOT SET UP KITS® 10:1 COMPRESSION					CYLINDER & PISTON KIT	
Standard	+ .0005"	+ .010"	+ .020"	+ .030"	Natural	WBlack
92-2026	92-20265	92-2027	92-2028	92-2029	91-7213	91-7713

ENGINE OVERVIEW



S&S engines for 1984–99 Harley Davidson® big twins with carbureted Evolution® engines are available as complete engines. V80 and V111 engines are also available as long blocks, with no fuel or ignition systems. Choose from natural, as-cast aluminum finish, wrinkle black powder coat, or Black Edition finishes. In addition to the S&S line of Performance Engines, emissions compliant engines are available that meet EPA, CARB, and European Union requirements for certain models.

BLACK EDITION

S&S Cycle's new Black Edition engines combine classic wrinkle black with high gloss black powder coated covers for a subtle contrast and elegant look while still producing the power and reliability you've come to expect.

V124 (124 cid)

The V124 engine first appeared in the S&S Catalog in 2002, and being the biggest engine we make that will fit in a stock frame for this year group, has been the go-to engine for daily rider hot rods. Natural aluminum, wrinkle black powder coat, or polished finishes. Available as a complete engine only in performance and emissions compliant versions.

V111 (111 cid)

The S&S V111 engine was engineered to be the ultimate sport touring engine. The shorter stroke produces less vibration and engine noise, and it increases engine life. The 111 cid produces plenty of power. Available in natural aluminum, wrinkle black, polished, or black edition finishes. Performance versions are available as long blocks or complete engines. Emissions compliant versions are available as complete engines only. Super E carbs and HI-4N ignition modules are recommended engine management for long blocks.

V96 (96 cid)

The S&S V96 engine has been a popular choice with performance riders and builders since it was introduced in the mid-1990s. Near stock engine height makes it easy to install, and there's plenty of power to pass. Available in natural aluminum, wrinkle black, or polished finishes. Complete engines only. Performance and emissions compliant versions are available.

V80 (80 cid)

The S&S V80 engine is logical choice for riders who just want to repower their trusty Evolution® powered Harley-Davidson® big twin. With slightly more power than a stock 80" engine, the V80 offers great engine life, low vibration, and trouble free operation. Natural aluminum or wrinkle black powder coat finishes. Available as a complete engine or as a long block, without fuel or ignition systems. Super E carbs and HI-4N ignition modules are recommended engine management for long blocks.

V124 ENGINES

FITMENT

- 1984–'99 carbureted chassis
- Custom chassis designed for Harley-Davidson® Evolution® engines

FEATURES AND BENEFITS

- Long piston stroke and high performance gear driven cam result in large horsepower increase over stock engine
- 1.671" diameter crankpin
- .927" wristpin
- Piston cooling jets
- Large fin pack – heads and cylinders
- Press together crankshaft
- 3 Piece Flywheel
- HVHP oil pump
- Electric compression release – easy starting under any circumstance
- Natural, Wrinkle Black (WBlack) powder coat, and polished finish. Diamond cut black powder coat, fully polished, and diamond cut fully polished finishes are available, but have longer lead times
- Chrome gearcover, tappet covers, and rocker covers

CARBURETED ENGINES

- S&S Super G carburetor with slotted Slasher air cleaner cover
- Super Stock® ignition system

FUEL INJECTION ENGINES

- Single bore EFI throttle body with S&S Classic Teardrop air cleaner
- Closed loop fuel system, dual oxygen sensors provide air-fuel ratio feedback for correct fuel delivery under any condition
- Included S&S ProTune II software provides base fuel maps for most aftermarket exhaust systems

NOTE: **EFI models available by special order



31-9886

S&S® V124 ENGINE SPECIFICATIONS					
Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
124"	4 1/8"	4 5/8"	640	S&S forged	10.8:1

NOTES

If an aftermarket exhaust or intake system is used, the fuel maps must be modified. It is highly recommended that this tuning be done by a certified S&S® VFI tuning center. S&S VFI tune files can also be found on our web page and are available for many common exhaust systems.

V124 ENGINES[±]

Chassis Style	Fuel Delivery	Ignition	Warranty Period	Finish	Part #
1984-'99 Carb	S&S® Super G Carb	Super Stock®	2 Year	Black Edition	310-0925
				Natural	31-9860
				WBlack	31-9885
				Polished	31-9886
CTO	Specify	Specify	Varies	Specify	319-0008

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V111 ENGINES

FITMENT

- 1984–'99 carbureted chassis
- Custom chassis designed for Evolution® engines

FEATURES AND BENEFITS

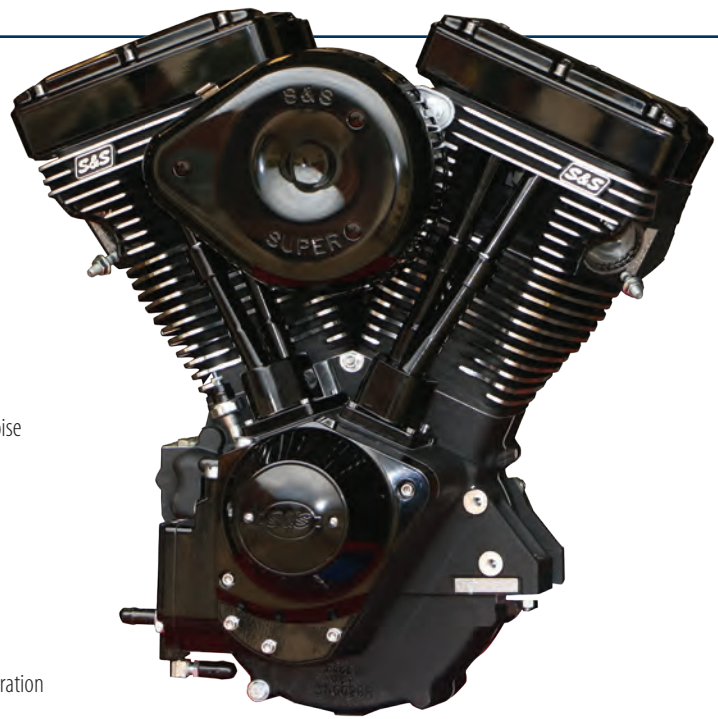
- Short stroke produces less vibration and longer engine life
- Large cooling fins - increases cooling efficiency
- HVHP (High Volume High Pressure) oil pump
- S&S 585 cam and lightweight single coil valve springs minimize valve train noise
- S&S forged rocker arms
- Shorter than stock height engine makes installation easy
- Chrome plated rocker covers, tappet guides, and gearcover

CARBURETED ENGINES (1984–'99)

- S&S Super E carburetor with Classic Teardrop air cleaner

Super Stock® ignition system

- Protects engine with a 3-step break-in rev-limiter during first 24-hours of operation
- Initially configured for electric start, however, it is kick-start capable
- Two-year warranty




S&S® V111 ENGINE SPECIFICATIONS					
Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
111"	4 1/8"	4 1/8"	585	S&S forged	9.8:1

COMPLETE ENGINE REBUILD GASKET KITS

S&S Engine Family	Year Group	Bore Size	Part #
V-Series	1984-'99	4 1/8"	106-0964 USA

V111 ENGINES±

Chassis Style	Fuel Delivery	Ignition	Warranty	Finish	Part #
1984-'99 Carb	S&S Super E Carburetor	Super Stock®	2 Year	Black Edition	310-0828
				Natural	106-5703
				WBlack & Chrome	106-5704
				Polished	310-0385
	Specify	Specify	Varies	Natural or WBlack Finish	319-0008

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V96 ENGINES

FITMENT

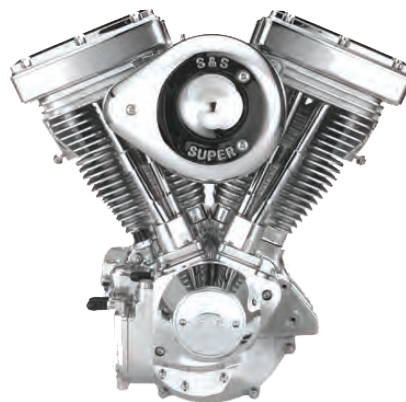
- 1984–'99 carbureted chassis
- Custom chassis designed for Evolution® engines

FEATURES AND BENEFITS

- Nearly stock height engine makes installation easy (+.015")
- S&S Super E carburetor with Classic Teardrop air cleaner cover
- S&S 585 cam and lightweight single coil valve springs reduce engine noise
- S&S forged rocker arms
- Chrome plated rocker covers, tappet guides, and gearcover

Super Stock® ignition

- Protects engine with a 3-step break-in rev-limiter during first 24 hours of operation
- Initially configured for electric start, however it may be switched to kick-start mode using diagnostic cable and software
- Two-year warranty



31-9955

S&S® V96 ENGINE SPECIFICATIONS					
Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
96"	3⅜"	4⅝"	585	S&S flat top forged	9.5:1

COMPLETE ENGINE REBUILD GASKET KITS

S&S Engine Family	Year Group	Bore Size	Part #
V-Series	1984-'99	3⅜"	106-0992 USA

V96 ENGINES±

Chassis Style	Fuel Delivery	Ignition	Warranty	Natural Finish	WBlack Finish	Polished Finish
1984-'99 Carb	S&S Super E Carb	Super Stock®	2 Years	31-9955	31-9956	31-9957

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V80 ENGINES

FITMENT

- 1984-1999 carbureted

FEATURES & BENEFITS

- Adjustable pushrods
- Standard forged rocker arms
- High performance hydraulic lifters
- .585" lift single coil valve springs
- Flat top cast pistons
- 508 cam
- Performance replacement heads

OPTIONS

- Complete engine with an S&S Super E carb and ignition or basic engines without carb, ignition or oil



310-0233

S&S® V80 ENGINE SPECIFICATIONS					
Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
80"	3½"	4¼"	508	Cast	8.4:1

V80 ENGINES±

Chassis Style	Fuel Delivery	Ignition	Warranty	Natural Finish	WBlack Finish
1984-1999	Super E	Super Stock	2 years	310-0237	310-0238*

*EFI Compatible

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V-SERIES LONG BLOCKS

Why rebuild that old stock engine? Upgrade, and replace it with an all-new S&S® V111 or V80 engine. Get a 2-year warranty and a lot more power!

FITMENT

- 1984-'99 Harley-Davidson® big twin chassis and custom frames designed for Evolution® big twin engines.

FEATURES AND BENEFITS

- Save time – Replacement is faster than rebuilding.
- Save money – Fuel and ignition systems not included, use the carburetor, air cleaner, and aftermarket ignition you may already have.
- Specially machined cylinder heads allow use of stock length manifolds. Use your existing carb (*re-jetting is required*)
- EFI compatible - Calibration required (*must use aftermarket module or add-on tuner*).
- Premium S&S Components - S&S cylinder heads, S&S 585 valve springs, forged rocker arms
- Made in the USA!

V111

- Easy Installation – Actually shorter than a stock engine. No clearance problems.
- More Power – 111 cubic inches at 9.8:1 compression – runs great on pump gas.
- Superior Cooling – S&S big-fin cylinders with more fin area, and exclusive oil jets to cool the bottom of the pistons.
- S&S HVHP oil pump.

For maximum performance, the following fuel and ignition products are recommended



310-0766

CARBURETED APPLICATIONS

- S&S Super E Carb Kit - 11-0419
- S&S HI-4N Ignition Module Only - 550-0501
- S&S HI-4N Ignition, complete Kit - 550-0502

SUGGESTED ACCESSORIES

- Stealth Air Cleaner Kits. See PAGE 314

V-SERIES LONG BLOCK ENGINES*

Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio	Warranty	Finish	Part #
V111	4 1/8"	4 1/8"	585	Forged	9.8:1	2 Year	WBlack	310-0766
							Black Edition	310-0829
V80	3 1/2"	4 1/4"	508	Cast	8.4:1	2 Year	WBlack	310-0233
							Natural	310-0232

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49-STATE EPA ENGINES

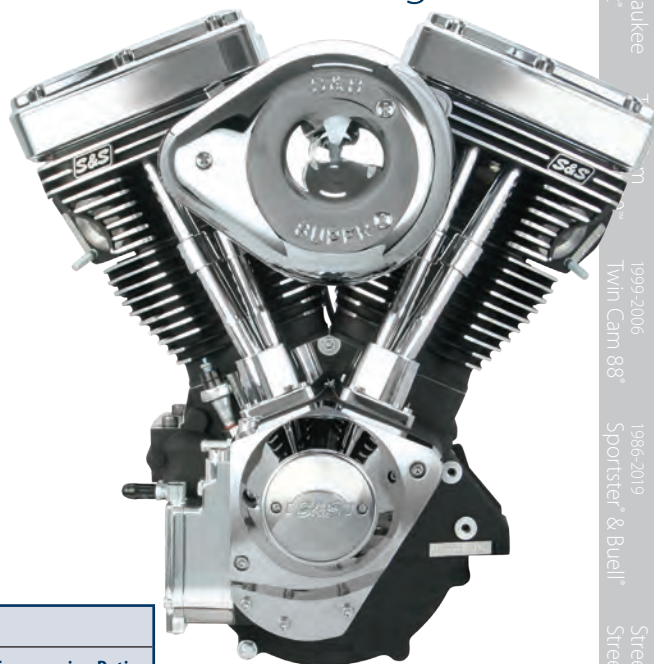
Certified for “new build” bikes, S&S offers two options for 49-state EPA engine packages.

FITMENT

- Aftermarket frames with motor mounts for 1984–’99 big twins

FEATURES AND BENEFITS

- 49-state emissions legal
- S&S Delphi[®] style EFI with Classic Teardrop air cleaner cover
- Chrome gearcover, tappet covers, and rocker covers
- Includes all required certification, documentation and labels
- Two-year warranty



S&S[®] V-SERIES 49-STATE EPA ENGINE SPECIFICATIONS

Engine Name	Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
V124ei	124"	4 1/8"	4 5/8"	543	S&S Forged	9.0:1
V111ei	111"	4 1/8"	4 1/8"	543	S&S Forged	9.0:1

V-SERIES 49-STATE EPA ENGINES[±]

Engine Name	Chassis Style	Fuel Delivery	Warranty	Finish	Part #
V124ei	1984-'99 carb	EFI	2 years	Black	310-0664
				Polished	310-0665
V111ei	1984-'99 carb	EFI	2 years	Black	310-0661

NOTE

These engines are not to be used in a previously certified vehicle or a custom motorcycle built from a previously certified vehicle.

S&S 49-state engine packages are only available through S&S dealers and select distributors.

Requirements for bikes built with S&S EPA certified engine packages:

Vehicles must have a maximum N/V ratio* of no greater than 43.3 for V-Series engines.

Maximum vehicle curb mass for V124E and V111E engines is 1058 lbs.

Exhaust system selected must create back pressure within the specified limits. Min. 3" H2O, Max. 21" H2O

*Engine rpm divided by miles per hour in top gear.

50-STATE LEGAL ENGINES

FITMENT

- V96R - 1984–'98 carbureted, non catalyst bikes
- V111ci - 1984–'99 style custom big twin chassis

V96R FEATURES AND BENEFITS

- Nearly stock height engine makes installation easy
- S&S Super E carburetor with Classic Teardrop air cleaner
- S&S forged roller rocker arms
- Chrome rocker covers
- No certification problems – documentation and compliance stickers included
- Exempt from emissions tampering regulations under CARB EO# D-355-5 when used in 1984-1998 carbureted, non-catalyst, big twin powered models

V111CI FEATURES AND BENEFITS

- 50-state emissions legal
- S&S Super E or G carburetor with Classic Teardrop air cleaner cover
- Chrome gearcover, tappet covers, and rocker covers
- Super Stock® ignition system protects engine with a low rev-limiter during first 24 hours of operation
- Initially configured for electric start, however, it is kick start capable
- Carbon canister
- Vapor valve
- Non-permeable installation tubing
- Instructions and all required documentation
- Two-year warranty



S&S® V-SERIES 50-STATE LEGAL ENGINE SPECIFICATIONS						
Engine Name	Displacement	Bore	Stroke	Camshaft	Piston Type	Compression Ratio
V96R	96"	3¾"	4¾"	520	S&S Forged	10.1:1

V-SERIES 50-STATE LEGAL ENGINES

Engine Name	Chassis Style	Fuel Delivery	Ignition	Warranty Period	Finish	Part #
V111ci	1984-'99 carb	S&S EFI	S&S VFI	2 years	Wrinkle Black	310-0673
V96R	1984-'98 carb	Super E Carb	Super Stock®	2 years	Wrinkle Black	31-9156±*
					Natural	31-9155±*
V80R	1984-'98 carb	Super E Carb	Super Stock®	2 years	Wrinkle Black	31-9150

Exempt from emissions tampering regulations under CARB EO# D-355-5 when used in 1984-1998 carbureted, non-catalyst, big twin powered models

NOTES

V96R

Gearing must be stock or have an N/V Ratio*lower than stock.

A stock non-catalyst exhaust system must be used.

The stock evaporative system must be retained and connected to the engine as shown in the manual.

S&S® replacement engines are only for use as a replacement engine in 1984-'98 Harley-Davidson motorcycles originally equipped with a carbureted, non-catalyst, big twin Evolution® engine. They may not be used in any new or previously registered custom motorcycles.

*Engine rpm divided by miles per hour in top gear.

This replacement engine is only legal when used to replace a stock 80" Evolution® engine. CARB compliance stickers must be affixed to frame.

V111C/V124C

Vehicles must have a maximum N/V ratio*of no greater than 43.3 for V-Series engines.

Maximum vehicle curb mass for V111ci engines is 1058 lbs.

Exhaust system selected must create back pressure within the specified limits. Min. 3" H2O, Max. 21" H2O

Builder must return the included agreement form and required photographs of the vehicle to S&S before a manufacturer's statement of origin (MSO) for the engine can be issued.

Until the MSO is issued, the vehicle is not considered to be certified and the MSO is required to title a custom vehicle.

Maximum fuel capacity is five gallons.

*Engine rpm divided by miles per hour in top gear.

SHORT BLOCK ASSEMBLIES

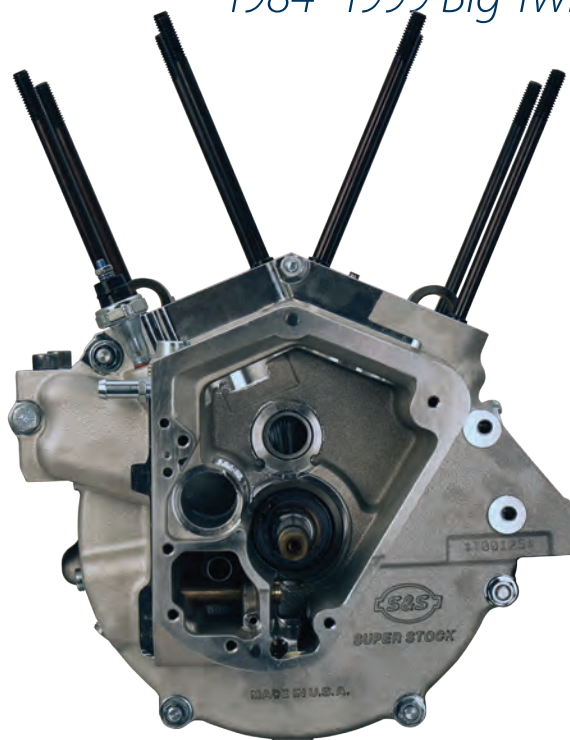
Replace your entire stock lower end with an S&S Short Block assembly! A rock solid S&S flywheel assembly, installed in a set of bullet proof S&S Super Stock® crankcases.

FITMENT

- 1984-'99 Carbureted and Fuel Injected 80" Evolution big twin

FEATURES AND BENEFITS

- Stock 3½" bore and 4¼" stroke
- Premium quality U.S. made S&S components
- Compatible with all stock and most aftermarket parts
- Full one year parts warranty
- Includes certificate of origin for new crankcases



SHORT BLOCK ASSEMBLIES[±]

Chassis Style	Bore	Stroke	Warranty Period	Finish	Part #
1984-'91 big twins	3 ½"	4 ¼"	One year parts only	Natural	310-0780A
1992-'99 big twins				WBlack	310-0801A
				Natural	310-0781A
				WBlack	310-0802A

1977-'89 style pinion gears, spacers, and nuts are required when installing S&S flywheel assemblies.

For installation in 1990-'99 or scratch built engines, order S&S Pinion Shaft Conversion Kit

Exempt from emissions tampering regulations under CARB EO# D-355-19



PINION SHAFT CONVERSION KIT

Fitment	Part #
1990 -up big twins	33-4148

SUPER STOCK® ALTERNATOR STYLE CRANKCASES

FITMENT

- 1984–'99 big twins under 4" bore



FEATURES AND BENEFITS

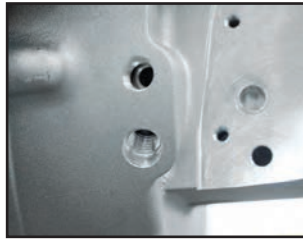
- Relocated cam chest oil pick-up increases gear case scavenging and virtually eliminates oil carry-over at sustained high speeds
- Machined to accept the stock oil filter assembly used on 1992–'99 big twins
- A ported breather passageway and a machined breather window allows the air/oil mist to flow from the flywheel cavity to the cam chest of the engine with the least possible restriction
- Crankcase venting can be achieved via two crankcase breathers, the cylinder heads, or both. We recommend using both crankcase breathers in engines larger than 95"
- Clearanced for strokes as long as 5"
- Compatible with stock 1984–'99 flywheel assemblies, primary covers and gearcovers, making them perfect for stock replacement or high performance applications
- Machined for installation of a crank position sensor. This allows the cases to be used in stock EFI applications and also allows easy installation of S&S IST® Ignition and VFI Fuel Injection. A plug kit is included for applications that do not use a crank position sensor
- Exempt from emissions tampering regulations under CARB EO# D-355-8 when used with stock bore cylinders for 3½" Bore (stock)

OPTIONS

- Available for stock, 3⅝", and 3⅜" bore applications with deck heights as much as ¾" taller than 3½" stock

KIT CONTENTS

- Crankcase assembly
- All required hardware, fittings, and bearings



Two crankcase breather holes allows increased flexibility.



Relocated oil scavenge pick-up reduces oil carry-over by increasing oil scavenge efficiency.

NOTE

All S&S crankcases manufactured after June 1, 2008 do not have case interlock groove and ring and do not use case alignment studs. Case mating surface is flat, and cases are aligned with alignment dowels.

REPLACEMENT PARTS: SEE PAGE 370

SUPER STOCK® ALTERNATOR CRANKCASES FOR 1984-'99 BIG TWIN±

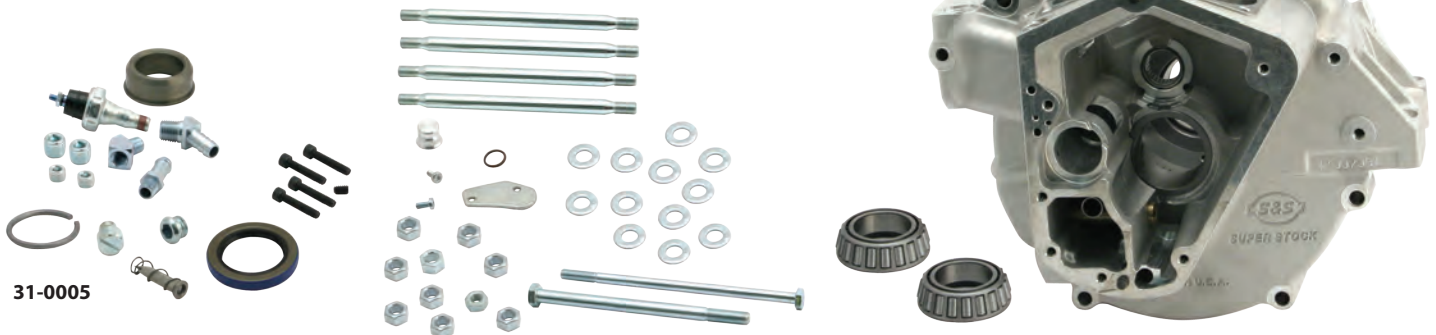
Crankcase Style	Finish	3½" Bore (Stock)	3⅝" Bore	Notes
1992-'99	Natural	31-0005*** 24469-83C, 24469-83A	31-0077^{USA}	1, 3, 4
	WBlack	31-0055*** 24571-93, 24569-95	31-0078^{USA}	
1984-'91	Natural	31-0000*** 24469-83C, 24469-83A	31-0001	2, 3, 4
	WBlack	31-0052*** 24473-85C	31-0053**	
Special Order**		31-0002*	31-0002	

1. 1992-'99 style oil pump. 2. 1984-'91 style oil pump. 3. Machined for 1984-'99 alloy primary.
4. Machined for stock or S&S EFI crank position sensor. Stock diameter only.

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE.

Not legal for sale or use on any EPA pollution controlled motor vehicle.

***Exempt from emissions tampering regulations under CARB EO# D-355-8 when used with stock bore cylinders



SPECIAL APPLICATION CRANKCASES

FITMENT

- 1984-'99 big twins – 4" bore and over
- S&S 4", 4 $\frac{1}{8}$ " bore V-Series engines

FEATURES AND BENEFITS

- Cam chest is moved outward .250" to allow crankcases to handle large cylinder bore sizes
- Relocated cam chest oil pick-up increases gear case scavenging and virtually eliminates oil carry-over at sustained high rpm
- Machined to accept the stock oil filter assembly used on 1992-'99 big twins
- A ported breather passageway and a machined breather window allows the air/oil mist to flow from the flywheel cavity to the cam chest of the engine with the least possible restriction
- Crankcase venting can be achieved via two crankcase breathers, the cylinder heads, or both! We recommend using both crankcase breathers in engines larger than 95"
- Clearanced for strokes as long as 5"
- Machined for installation of a crank position sensor. This allows the cases to be used in EFI applications and also allows easy installation of S&S IST® Ignition and VFI Fuel Injection. A plug kit is included for applications that do not use a crank position sensor

KIT CONTENTS

- Crankcase assembly
- All required hardware, fittings, and bearings

NOTE

All S&S crankcases manufactured after June 1, 2008 do not have case interlock groove and ring and do not use case alignment studs. Case mating surface is flat, and cases are aligned with alignment dowels.

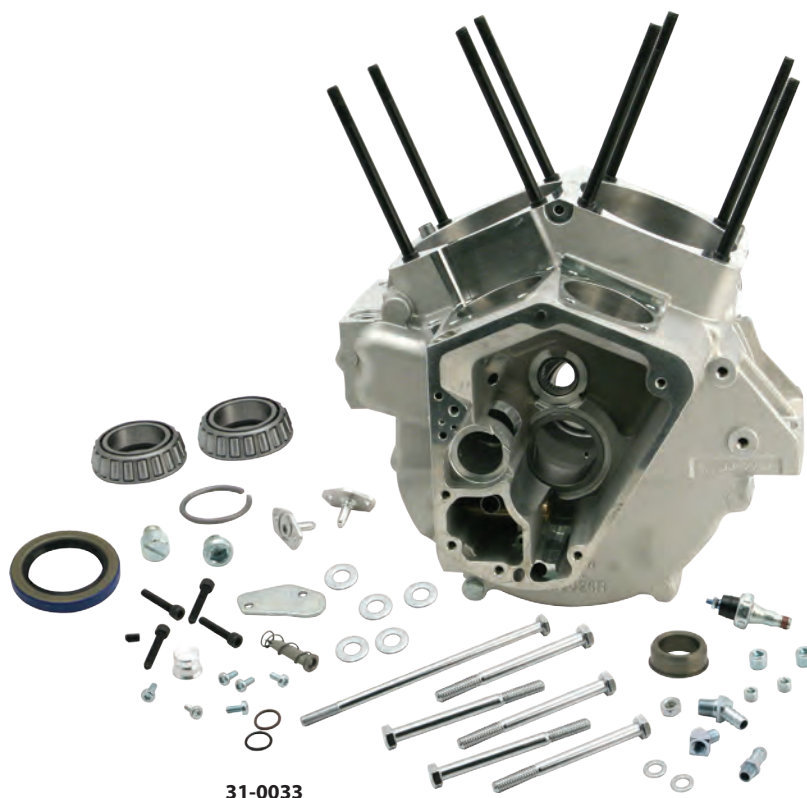
REPLACEMENT PARTS: SEE PAGE 372

SPECIAL APPLICATION ALTERNATOR CRANKCASES FOR 1984-'99 BIG TWIN*

Crankcase Style	Bore	Deck Height	Natural	WBlack	Polished
1984-'99*	4"	5.875"	31-0047 ^{USA} ₂	31-0051 ^{USA} ₂	-
1984-'99*	4 $\frac{1}{8}$ "	6.000"	31-0033 ^{USA} ₃	31-0037 ^{USA} ₃	31-0039 ^{USA} ₃
Special Order	Specify	Specify	31-0015 **	31-0015 **	31-0015 **

*1992-'99 style oil pump, machined for 1984-'99 alloy primary, machined for stock or S&S EFI crank position sensor. Stock diameter only.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



31-0033

REPLACEMENT FLYWHEEL ASSEMBLIES

FITMENT

- 1984–'99 big twins

FEATURES AND BENEFITS

- Drive side flywheels have special keyed 6° large diameter taper that provides more contact area, increasing strength
- Standard S&S tapered crankpin and pinion shaft are used for ease of service
- Flywheels for EFI applications are machined with timing notches compatible with factory crank position sensors

KIT CONTENTS

- Assembled:
 - Flywheels
 - Crankpin
 - Connecting rods



**TRYING TO IDENTIFY AN S&S® FLYWHEEL?
SEE FLYWHEEL I.D. CHART PAGE 538**

FLYWHEELS FOR 1984-'99 CARBURETED BIG TWINS

Stroke	8½" Diameter (stock)	8¼" Diameter
4¼"	32-2239 23906-90, 23906-93B, 23906-90A	—
Special Order**	32-2015**	32-2015**

**Use this special order Part # to order flywheels assembled or unassembled, or balanced or unbalanced.

FLYWHEELS FOR 1995-'98 EFI BIG TWINS

Stroke	Part #
4¼"	32-2145 23941-95

NOTES

IMPORTANT: 1977-'89 style pinion gears, spacers, and nuts are required when installing S&S flywheel assemblies. For installation in 1990-'99 or scratch built engines, order S&S Pinion Shaft Conversion Kit 33-4148.

S&S flywheels are no longer available machined for stock Harley-Davidson® main shafts.

4¼" stroke assembly is balanced for stock HD® 80" pistons.

4½" stroke assembly is balanced for S&S stock bore and 3½" bore stroker pistons.

Use special order Part # for flywheels balanced to other pistons or rods.

All S&S crankcases for 1984-'99 big twin engines are machined to accept a crank position sensor (CPS), and can be used with these flywheels.

REPLACEMENT FLYWHEELS FOR V-SERIES ENGINES



32-2239

REPLACEMENT FLYWHEEL ASSEMBLIES FOR S&S V-SERIES ENGINES

Engine	Stroke	Diameter	Part #
V124*(3-piece)	4½"	8¼"	320-0477[±]
V117*(3-piece)	4¾"	8¼"	320-0363[±]
V111*(3-piece)	4½"	8¼"	320-0420[±]
V96	4½"	8½"	32-2230
V96 (IST)*	4½"	8½"	32-2146
V80	4¼"	8½"	32-2239
1984-1999 Carbureted (non 4½" Bore)	Specify	Specify	32-2015**

*Left side flywheel is notched for crank position sensor.

**Use this special order Part # to order flywheels assembled or unassembled, balanced or unbalanced.

NOTE

IMPORTANT: 1977-'89 style pinion gears, spacers, and nuts are required when installing S&S flywheel assemblies. For installation in 1990-'99 or scratch built engines, order S&S Pinion Shaft Conversion Kit 33-4148.

HIGH VOLUME HIGH PRESSURE (HVHP) BILLET OIL PUMPS

FITMENT

- 1984-'99 big twins
- S&S V-Series engines

FEATURES AND BENEFITS

- No thicker than a stock pump
- Gears with fewer, but larger teeth provide increased oil volume for both supply and return sides of the pump
- Supply gears are 9% wider than stock and standard S&S oil pumps
- 28% wider than stock return gears ensure proper crankcase scavenging, reduce drag on the flywheels, and eliminate oil carryover
- Increased scavenging capacity results in:
- Less oil in the crankcase
- Less oil carryover
- Equipped with a stock length oil pump drive shaft

OPTIONS

Pump Only Kits:

- Complete oil pump assembly
- Oil pump driveshaft
- Miscellaneous hose fittings and plugs
- Paper gaskets
- Mounting hardware

Pump And Gear Kits:

- For stock 1984-'89 engines or engines with S&S flywheel assemblies
- Everything in the "pump only" kits
- Oil pump drive shaft gear
- Oil pump pinion shaft gear
- Steel breather gear and shim kit



31-6208

HIGH VOLUME HIGH PRESSURE OIL PUMP KITS FOR 1984-'99 BIG TWINS

Year Group	Cover Type	Pump Only Kit	Pump w/ Gear Kit*
1984-'91	Universal	31-6214	31-6307
1992-'99	Universal	31-6208 ^{USA 2,3}	31-6302
	Standard	31-6209	31-6298

*Pinion shaft gears included in these kits fit stock 1984-'89 pinion shafts and S&S pinion shafts for 1984-'99. Will not fit stock 1990-'99 straight pinion shafts. Standard style covers have feed and return holes in the stock locations. The universal cover has a number of oil feed and return options, allowing maximum flexibility for customized applications.



The gear tooth profile and the extra gear width of the HVHP oil pump work together to maintain higher oil pressure and to scavenge additional oil from the crankcase.

REPLACEMENT PARTS: SEE PAGE 379

STANDARD BILLET OIL PUMPS

FITMENT

- 1984-'99 big twins

FEATURES AND BENEFITS

- Machined with an oil pressure relief bleed off valve to maintain consistent oil pressure from the time the engine is started to the time it's shut off
- Oil pressure regulation bypass route allows excess oil not used by the engine to return directly to the supply side of the pump, reducing foaming and cavitation
- No thicker than a stock pump
- Increased scavenging capacity results in:
 - Less oil in the crankcase
 - Less oil carryover
- Equipped with a stock length oil pump drive shaft

OPTIONS

Pump Only Kits

- Complete oil pump assembly
- Oil pump driveshaft
- Miscellaneous hose fittings and plugs
- Paper gaskets
- Mounting hardware

Pump And Gear Kits

- For stock 1984-'89 engines or engines with S&S flywheel assemblies.
- Everything in the "pump only" kits
- Oil pump drive shaft gear
- Oil pump pinion shaft gear
- Steel breather gear and shim kit



31-6203

OIL PUMP KITS FOR 1984-99 BIG TWINS

Year	Cover Type	Pump Only Kit	Pump & Gear Kits
1984-'91	Universal	31-6203 ^{USA}	*31-6295 ^{USA}
1992-'99	Standard	31-6206 ^{USA}	*31-6296 ^{USA}
	Universal	31-6205 ^{USA 1}	—

*Pinion shaft gears included in these kits fit stock 1984-'89 pinion shafts and S&S pinion shafts for 1984-'99. Will not fit stock 1990-'99 straight pinion shafts. Standard style covers have feed and return holes in the stock locations. The universal cover has a number of oil feed and return options, allowing maximum flexibility for customized applications.

REPLACEMENT PARTS: SEE PAGE 378

NOTE

Chrome Plating the Pump — It is extremely difficult to chrome plate an oil pump without getting chrome in the passageways, cavities or on the machined surfaces where the gears, check ball, and pressure valve operates. Chrome in these areas as well as on the gasket surfaces impairs the pumps performance by altering the operating tolerances machined into the parts. In addition, abrasive particles of chrome may break loose causing damage to the pump and the engine. Because of this, S&S does not recommend chrome plating the pump body or cover. S&S voids its warranty if these parts are chrome plated.

BILLET FILTER BRACKET

FITMENT

- 1993-'99 big twins w/ stock crankcases
- S&S crankcases for 1984-'99 big twins

FEATURES AND BENEFITS

- Includes oil line fittings and has provisions to plumb an oil cooler



Description	Part #
S&S Billet Filter Bracket	31-4105

STEEL ROTARY BREATHER GEARS

FITMENT

- 1984-'99 big twins

FEATURES AND BENEFITS

- Abrasive particles are less likely to get imbedded in a steel gear body than a plastic one
- A welded-in screen prevents particles from entering the gear cavity and damaging either the gears or oil pump
- Larger diameter holes means improved air flow and oil scavenging from the flywheel cavity
- Improved breather window timing increases flywheel cavity vacuum and crankcase oil scavenging
- Slotted scavenge hole increases breather pocket oil scavenging for less carryover



S&S
exclusive
BREATHER VALVE
US PATENT 6,899,066

33-4250

Breather gear kits include breather gear and steel end play shim kit.

OPTIONS

- Available in standard and +0.030" for use in engines with damaged breather bores

BREATHER GEAR KITS FOR 1984-'99 BIG TWINS

Year	Standard Size	+ .030"
1984-'99	33-4250	33-4260

BREATHER GEARS ONLY FOR 1984-'99 BIG TWINS

Year	Standard Size	+ .030"
1984-'99	33-4241 25310-82A, 25313-77B, 25311-90	33-4242

BREATHER GEAR SPACING SHIM KIT

Description	Part #
Fits stock 1979-'82 and all S&S steel breather gears <i>Includes one of each: .100", .110", .120", .130", .140", .150", .160", .170"</i>	33-4249

BREATHER GEAR SPACING SHIMS*

Thickness	Part #
+ .100"	33-4200
+ .110"	33-4201 25320-79
+ .120"	33-4202 25322-79
+ .130"	33-4203 25325-79, 25320-82
+ .140"	33-4204 25322-82, 25327-79
+ .150"	33-4205 25325-82
+ .160"	33-4206 25327-82
+ .170"	33-4207

*These shims must be used with steel breather gears only.

CRANKCASE BREATHER REED VALVES FOR LARGE DISPLACEMENT ENGINES

OPTIONS

- Available in standard size or +.030" for use in engines with damaged breather bores

CRANKCASE BREATHER REED VALVES FOR 1993-'99 BIG TWINS

Application	Standard Size	+ .030"
1993-'99	31-2096	31-2100



S&S
exclusive
BREATHER REED VALVE
US PATENT 6,899,066

NOTE

The crankcase reed valve should not be used in 1984 to 1992 crankcase breathing engines. It is only intended for head breathing applications.

BILLET GEARCOVERS

FITMENT

- 1984–'92 big twins with standard ignition

KIT CONTENTS

- Billet gearcover
- Gaskets
- Mounting hardware
- Instructions

BILLET GEARCOVERS AND IGNITION COVERS±

Application	Finish	Part #
1984-'92*	Chrome Plated	106-4211

*Gearcover has internal breather passage that is used to vent crankcase.



REPLACEMENT PARTS: SEE PAGE 366

CAST GEARCOVERS

FITMENT

- 1984–'92 big twins

FEATURES

- Machined from tough 356-T6 aluminum castings – *the same material used to make S&S crankcases*
- Inner cast aluminum cover and a decorative bolt-on outer cover
- Will accept either points or electronic ignition systems

KIT CONTENTS

- Cast gearcover and gaskets
- Mounting hardware

CAST GEARCOVERS AND IGNITION COVERS

Application	Finish	Flangeless Tall
1984-'92 big twins *	Natural	31-0203

*Gearcover has internal breather passage that is used to vent crankcase.



REPLACEMENT PARTS: SEE PAGE 366

IGNITION COVERS

FITMENT

- S&S engines with "cone" style gearcovers



IGNITION COVER

Description	Part #
Chrome	31-0332

CYLINDERS WITH PISTONS KIT

- Cylinders with piston kits include fitted pistons and cylinders, head gaskets, base gaskets, and exhaust gaskets
- Cylinder kits with pistons are honed to fit the pistons included



910-0224

S&S® 4 1/8" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART				
Displacement	Stroke	Cylinder Length	Piston Type	Compression Ratio
111"	4 1/8"	4.764"	Forged	9.7:1
117"	4 3/8"	4.889"		10.2:1
124"	4 5/8"	5.014"		10.8:1

4 1/8" BORE CYLINDERS WITH PISTONS FOR 124", 117", & 111" KIT

Displacement	Cylinders w/Pistons (Set)		
	Natural	WBlack	Polished
111"	910-0219	910-0359	910-0424
117"	910-0290	910-0225	910-0228
124"	910-0229	910-0224	910-0230



91-7521

S&S® 4" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART					
Displacement	Stroke	Cylinder Length	Piston Type	Compression Ratio	
				92cc Heads	84cc Heads
100"	4"	4.745"	Forged	9.1:1	9.6:1
107"	4 1/4"	4.870"		9.5:1	10.2:1
113"	4 1/2"	4.995"		10.1:1	10.7:1

4" BORE CYLINDERS WITH PISTONS FOR 113", 107", & 100" KIT

Displacement	Cylinders w/Pistons (Set)		
	Natural	WBlack	Polished
100"	91-7011	—	—
107"	91-7021	91-7521	91-7066
113"	91-7111	91-7611	91-7067



S&S® 3 5/8" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART								
Displacement	Stroke	Cylinder Length	STOCK HEADS		S&S SUPER STOCK® HEADS			
			Piston Type	Compression Ratio	Piston Type	Compression Ratio		
						Standard Compression	Intermediate Compression	High Compression
88"	4 1/4"	5.375"	Flat Topped	9:1	Domed	9.4:1	10.1:1	12.3:1
96"	4 5/8"	5.565"		9.75:1		10.1:1	10.9:1	13.2:1
103"	5"*	5.750"		10.5:1		10.9:1	11.8:1	14.2:1

*Small Diameter Flywheels

3 5/8" BORE CYLINDERS WITH PISTONS FOR 96" & 88" KIT

Displacement	Stock Heads (Flat Topped Pistons)		S&S Super Stock® Heads (Domed Pistons)				
	Cylinders w/ Pistons		Cylinders w/ Standard Compression Pistons			Cylinders w/ Intermediate Compression Pistons	
	Natural	WBlack	Natural	WBlack	Polished	Natural	WBlack
88"	91-7002	91-7502	91-7009	—	—	91-7052	91-7552
96"	91-7202	91-7702	91-7207	91-7707	91-7152	91-7054	91-7554

CONTINUED
CYLINDER & PISTON KITS



91-7715

S&S® 3½" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART						
Displacement	Piston Type	Stroke	Cylinder Length	COMPRESSION RATIO		
				Stock Heads	S&S 76cc Performance Replacement Heads	S&S Super Stock® Heads
FLAT-TOPPED PISTONS FOR STOCK OR S&S PERFORMANCE REPLACEMENT CYLINDER HEADS						
80"	Cast/Flat-topped	4¼"	5.550" (Stock)	8.5:1	8.8:1	–
89"	Forged Flat-topped	4¾"	5.550" (Stock)	9.25:1	9.4:1	–
SPECIAL DOMED PISTONS FOR S&S SUPER STOCK® CYLINDER HEADS						
80"	Forged/Super Stock® Domed	4¼"	5.550" (Stock)	–	–	10:1
89" LC	Forged/Super Stock® Domed	4¾"	5.550" (Stock)	–	–	10:1
89" HC	Forged/Super Stock® Domed	4¾"	5.550" (Stock)	–	–	12.5:1

3½" BORE CYLINDERS WITH PISTONS KIT FOR STOCK HEADS, S&S PERFORMANCE REPLACEMENT HEADS AND S&S SUPER STOCK® HEADS

Displacement	Cylinders w/ Pistons for S&S Super Stock® Heads		Cylinders w/ Pistons for Stock Heads and S&S Performance Replacement Heads	
	Natural	WBlack	Natural	WBlack
80"	91-7213	91-7713	910-0179 <small>16510-83A</small>	910-0182 <small>16512-86A</small>
89"	–	–	91-7211	91-7711
89" LC	–	91-7715	–	–

91-7504* Call for Pricing

NOTES

Stock crankcases must be machined to accommodate the large spigot diameter of 3½" bore cylinders.

PISTON REPLACEMENT PARTS: SEE PAGE 342

All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.



CYLINDERS

- Cylinder sets without pistons are bored slightly under normal size and are not honed.
- Include dowel pins

4 1/8" BORE CYLINDERS



Displacement		Natural	WBlack	Polished
111"	Set	910-0284	910-0358	910-0246
117"	Set	910-0267	910-0261	-
124"	Set	910-0270	910-0258	910-0273

4" BORE CYLINDERS

Displacement		Natural	WBlack	Polished
100"	Set	91-7010	-	-
107"	Set	91-7020	-	-
113"	Set	91-7110 	91-7610	91-7064 



Recommended Piston Fitment: Close: .0020"-.0025" Loose: .0037"-.0045"

3 5/8" BORE CYLINDERS

Displacement		Natural	WBlack
88"	Set	91-7000	91-7500
96"	Set	91-7200 	91-7700 

*Small Diameter Flywheels Recommended Piston Fitment: Close: .0015"-.0020" Loose: .0035"-.0045"

3 1/2" BORE CYLINDERS

Displacement		Natural	WBlack
80"	Set	91-7210 	91-7710 
89"			



91-7504* Call for Pricing

NOTES

S&S 4 1/8" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0005" for correct clearance.

Stock crankcases must be machined to accommodate the large spigot diameter of 3 5/8" bore cylinders.

PISTON KITS

- Piston kits include set of pistons, rings, wristpins, and clips



4 1/8" BORE FORGED PISTON KITS FOR HOT SET UP KITS®

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"	+ .030"
124" & 117" Stock Heads 10cc Dished	1.050"	Up To 4 5/8"	920-0046	920-0047	920-0050	920-0053
124", 117" & 111" -Stock or S&S Heads Flat Top	1.050"	Up To 4 5/8"	106-3491A	106-3872A	106-3964A	920-0094

NOTE

S&S 4 1/8" pistons are machined to such close tolerances that it is not necessary to measure the piston. Additionally, the low friction coating on the piston skirt makes taking measurements very difficult. Therefore, hone cylinders to nominal diameter +/- 0.0005" for correct clearance.

4" BORE FORGED PISTON KITS

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"	+ .030"
Retro 100"	1.200"	4"	92-1420	92-1421	92-1422	-
100"		4"	92-1400	92-1401	92-1402	92-1403
107"		4 1/4"	92-1400	92-1401	92-1402	92-1403
113"		4 1/2"	92-1410	92-1411	92-1412	92-1413
116"		4 5/8"	92-1420	92-1421	92-1422	-

Recommended Piston Fitment: Close: 0.0020"-0.0025" Loose: 0.0037"-0.0045"

FORGED 3 5/8" BORE FLAT TOPPED PISTON KITS FOR STOCK STYLE HEADS

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"	+ .030"	+ .040"
88"	1.200"	4 1/4"	92-1900	92-1901	92-1902	92-1903	92-1904
93"		4 1/2"					
98"*		4 3/4"*					
96"		4 5/8"					
103"*		5"*					

*Small Diameter Flywheels Recommended Piston Fitment: Close: 0.0015"-0.0020" Loose: 0.0035"-0.0040"

3 5/8" BORE STANDARD COMPRESSION PISTON KITS FOR S&S SUPER STOCK® HEADS

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"	+ .030"	+ .040"
88"	1.200"	4 1/4"	92-1060 USA	92-1061	92-1062	92-1063	92-1064
93"		4 1/2"					
96"		4 5/8"					
103"*		5"*						92-1080	92-1081	92-1083	92-1084

3 5/8" BORE INTERMEDIATE COMPRESSION PISTON KITS FOR S&S SUPER STOCK® HEADS

88"	1.200"	4 1/4"	92-1110	92-1111	92-1112	-	-
93"		4 1/2"					
96"		4 5/8"					
103"*		5"*					

*Small Diameter Flywheels Recommended Piston Fitment: Close: 0.0023"-0.0025" Loose: 0.0035"-0.0045"

1984–1999 Big Twins

CONTINUED PISTON KITS

3½" BORE CAST FLAT-TOPPED REPLACEMENT PISTON KITS FOR STOCK HEADS OR S&S PERFORMANCE REPLACEMENT HEADS

Displacement	Deck Height	Stroke	Standard	+0.010"	+0.020"
80"	1.3750"	4¼"	920-0015 21940-83	920-0026 21942-83	920-0027 21943-83

No replacement wristpins are available. Recommended Cast Piston Fitment: Close 0.0010"–0.0015" Loose 0.0020"–0.0025"

3½" BORE FORGED FLAT TOPPED STROKER PISTON KITS FOR STOCK OR S&S PERFORMANCE REPLACEMENT HEADS

Displacement	Deck Height	Stroke	Standard	+0.010"	+0.020"	+0.030"
89"	1.1875"	4⅝"	106-5554	106-5555	106-5556	106-5793

Recommended Piston Fitment: Close .0020"–.0025" Loose .0030"–.0035" May require rebalancing if replacing old 92-2040 series pistons.

3½" BORE FORGED DOMED PISTON KITS FOR S&S® SUPER STOCK® HEADS

Displacement	Deck Height	Stroke	Standard	+0.005"	+0.010"	+0.020"	+0.030"
80"	1.3750"	4¼"	92-2026	92-20265	92-2027	92-2028	92-2029
89" LC	1.1875"	4⅝"	92-2046	92-20465	92-2047	92-2048	–
89" HC			92-2016	–	92-2017	92-2018	–

Recommended Piston Fitment: Close .0020"–.0025" Loose .0030"–.0035"

REPLACEMENT PARTS FOR PISTONS

PISTON RINGS, MOLY FACED

Bore	Deck Height	Standard	+0.005"	+0.010"	+0.020"	+0.030"	+0.040"	+0.060"
4⅞"	1.050"	940-0014	–	940-0012	940-0013	940-0017	–	–
4"	1.200"	94-1300X	–	94-1301X	94-1302X	94-1303X	–	–
3⅝"	1.200"	94-1210X	–	94-1211X	94-1212X	94-1213X	94-1214X	94-1216X
3½" Cast Flat-Topped*	1.3750"	94-2216X	–	94-2217X	94-2218X	–	–	–
3½" Forged Flat-Topped	1.1875"	94-2206X 22334-78A, 22334-78B, 21920-83	–	94-2207X 22335-78A, 22335- 78B, 21922-83	94-2208X 22336-78B, 21923-83	94-2209X 22337-78B, 21924-83	–	–
3½" Forged Domed	1.3750"	94-2216X	94-22165X 21921-83	94-2217X	94-2218X	94-2219X	–	–
	1.1875"							

*No replacement wristpins are available



WRISTPINS

Bore	Description	Part #
4⅞"	.927" x 2.825" long 3	94-9277
4"	.792" x 2.825" long 1,2	94-9256
3⅝"		
3½"		

KEEPERS

Bore	Description	Part #
4⅞"	Keeper 22097-99	each 94-9278-5
		2 pack 94-9278-2
		4 pack 106-2304
4"	Keeper 22589-83A	each 94-9254-5
		2 pack 94-9254-2
		4 pack 94-9254

All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

CAMSHAFTS

RECOMMENDED APPLICATIONS FOR S&S CAMS

OES: Original Equipment Specification (OES) A bolt-in replacement cam with stock cam timing is designed for riders with stock engines. Does not require tuning. Bolt-in stock. Equivalent to HD® L-Grind

490LR: Hydraulic Bolt-In. Designed for broad power range improvement. Good choice for heavy bikes and trailer towing. Increases low and mid range performance. Works well with stock compression ratio and stock exhaust. No valve spring change required. Basic rpm Idle-5000.

490MR: Hydraulic Bolt-In Street performance for heavier bikes that are slightly modified. Can be used with stock compression or increased up to 9.5:1. Complements exhaust and intake modifications. No valve spring change required. Basic rpm 1500-5500.

508: Bolt-in cam intended for stock engines with less than 10:1 compression ratio. Quiet valve-train with excellent low/mid range torque for touring and 2 up riding.

510V: Bolt-in cam that works well with stock or ported heads. Improved ramp design results in low valve train noise. Meant for engines up to 96" and 10:1 compression ratio. 3000-5000 rpm.

520: A replacement part for S&S emissions certified engines, this is a short duration emissions cam with very little overlap to reduce emissions of unburned hydrocarbons. Requires high lift springs and normal clearance checks. 1000-4500 rpm (80"-96").

543: A replacement cam for newer S&S 4 1/8" bore V-series emissions certified engines for OE and custom applications. High lift, short duration and no overlap. Requires high lift springs and normal clearance checks. 1000-4000 rpm (111"-124").

561: For 80"-96" engines at 9.5:1–10.5:1 compression ratio. Provides strong midrange power. 3000-5500 rpm.

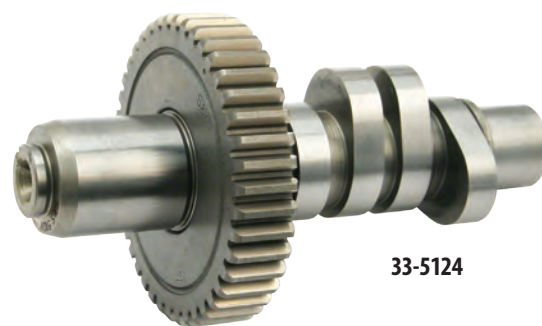
585V: A versatile cam for 80" to 96" engines with 10:1-10.5:1 compression, and larger engines with 9.5:1-10:1 compression ratios. 3500-6000 rpm.

600: An exceptional cam in any large displacement engine with 9.5:1 to 10.5:1 compression. 3500-6000 rpm.

631: For high rpm applications, an excellent choice for all street and racing engines with 11:1 and higher compression ratios. Great performance cam, but expect more "wear and tear" on valve train components. Valve spring spacing and other normal clearancing checks required. 4500-6500 rpm.

640: For large displacement motors with compression ratios of 10.5 - 11.5:1, or smaller motors with 11:1-12:1 compression ratio. Does not require as much compression as the 631 and provides a more linear power delivery. 3000-6000 rpm.

675: Designed for use with S&S special application cylinder heads, but can be used with other cylinder heads with appropriate valve springs. Intended for large displacement competition engines of 120 cubic inches or more, and 11:1 or greater compression. 4500-6500 rpm.



33-5124

CAMS FOR 1984-'99 BIG TWIN ENGINES

Cam Name	Part #
OES	330-0290
490LR	330-0371
490MR	330-0373
508	330-0093
510V	33-5124
520	33-5073 ^{USA 1,2}
543	330-0181
561	33-5076
585V	33-5109
600	33-5058
631	33-5080
640	33-5108
675	33-5133

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTE

S&S can do a special order cam. Contact your S&S Customer Service Representative for more information.

S&S CAM SPECIFICATIONS FOR 1984 - '99 BIG TWIN ENGINES

Cam Name	Valve Timing Open/Close		Valve Duration		Valve Lift	Lift @ TDC		Spring Spacing Required	Tappet Type Required	
	Intake	Exhaust	Intake	Exhaust		Intake	Exhaust			
	Open BTDC/Close ABDC	Open BBDC/Close ATDC								
OES	2.0°/34.0°	36.0°/4.0°	216.0°	220.0°	.475"	0.060"	0.060"	No	Hydraulic	
490LR	12°/34°	41°/15°	226°	236°	.490"	.146"	.157"	No	Hydraulic	
490MR	19°/37°	46°/16°	236°	242°	.490"	.184"	.162"	No	Hydraulic	
508	11°/25°	50°/5°	217°	235°	.508"	.141"	.110"	No	Hydraulic	
510V	20°/38°	52°/20°	238°	252°	.510"	.187"	.178"	No	Hydraulic	
520	0°/40°	50°/2°	220°	232°	.520"	.086"	.094"	Yes	Hydraulic	
543*	Front	-26°/52°	49°/-1°	206°	228°	.543"	.017"	.083"	Yes	Hydraulic
	Rear	-25°/44°	33°/-10°	199°	203°	.543"	.018"	.053"	Yes	Hydraulic
546	5°/55°	52°/5°	240°	237°	.546"	.126"	.106"	Yes	Hydraulic	
561	32°/40°	50°/26°	252°	256°	.560"	.252"	.210"	Yes	Hydraulic	
585V	20°/45°	60°/20°	245°	260°	.585"	.186"	.180"	Yes	Hydraulic	
600	20°/55°	60°/20°	255°	260°	.600"	.192"	.184"	Yes	Hydraulic	
631	34°/61°	66°/29°	275°	275°	.630"	.281"	.221"	Yes	Solid or Hydraulic	
640	25°/60°	65°/20°	265°	265°	.640"	.222"	.192"	Yes	Hydraulic	
675	25°/64°	70°/25°	269°	275°	.675"	.235"	.209"	Yes	Hydraulic	

*Emissions cams front and rear do not have identical timing. Negative values are due to special timing for reduced emissions.

REPLACEMENT PINION GEARS

FITMENT

- 1984-'89 big twins
- 1990-'99 engines with S&S flywheel assembly



33-4145

1984-'89 BIG TWIN STYLE PINION GEAR SELECTION CHART

Color Code	Size	HD® Part #	S&S Part #
Orange	Biggest	24040-78	33-4141
White		24041-78	33-4142
Yellow		24042-78	33-4143
Red	Average	24043-78	33-4144
Blue		24044-78	33-4145
Green		24045-78	33-4146
Black	Smallest	24046-78	33-4147

NOTES

If the stock gear is unmarked and the size is unknown or you are scratch building an engine and have no gear, we recommend that you order a gear in the middle of the size range. These sizes were used more often and should provide adequate gear clearance under most circumstances. When in doubt, use a gear from the middle to the small side of the range, because a combination of looser fitting smaller gears is less likely to cause binding and premature wear. Consult the chart for the size and appropriate Part # required. If you wish to achieve optimum cam gear to pinion gear fit, consult your factory service manual for instructions on fitting these gears before making a selection. Some sizes, particularly those on and near the ends of each range, are available on a limited basis because they are the extremes.

S&S® does not offer a replacement pinion shaft for 1990-'99 big twin engines that accepts a stock pinion gear, oil pump drive gear, gear spacer and pinion gear nut, because experience has shown that the design is not strong enough for performance applications. For this reason, we recommend and sell only the pre-1990 style pinion shaft for big twins. To make the change easier, S&S offers a conversion package consisting of a pinion gear, spacer, nut and oil pump drive gear for big twin engines.

PINION SHAFT GEAR KITS

PINION SHAFT GEAR KITS FOR 1984-'89 BIG TWINS

Color Code	Size	S&S Part #
Yellow	Biggest	33-4185
Red	Average	33-4148
Blue		33-4181
Black	Smallest	33-4180

Note - All S&S Pinion Shaft Gear Kits must be used with 1973-'99 style 24 tooth oil pump drive shaft gear such as S&S part # 33-4230. Use these kits when installing an S&S flywheel assembly in a 1990-'99 engine.

INDIVIDUAL COMPONENTS

Description	S&S Part #
Pinion Shaft Gear Spacer	33-4289
Pinion Shaft Gear Nut 24023-54	33-4244
Pinion Shaft Oil Pump Drive Gear* 6 teeth 26349-73, 26349-73A	33-4232
Oil Pump Drive Gear** 24 teeth 26345-73	33-4230

*Requires S&S part #33-4230 or 26345-73 drive shaft drive gear. Fits 1984-'89 stock and 1984-'99 S&S pinion shafts.

**Requires S&S part #33-4232, part #33-4237 or 26349-73, 26349-73A pinion shaft drive gear.



33-4244

33-4230

33-4232

33-4289

TAPPET GUIDES

FITMENT

- 1984–1999 bt
- S&S V-Series engines
- S&S Special Application crankcases with .250" offset cam chest



106-5428

BILLET TAPPET GUIDES FOR S&S V-SERIES ENGINES & S&S SA CRANKCASES

Tappet Guide	CRANKCASE STYLE		
	Stock/Super Stock®		Special Application
	Polished	Chrome	Chrome
Set	106-6459	106-5428±	106-3005±

CAST TAPPET GUIDES FOR S&S V-SERIES ENGINES & S&S SA CRANKCASES

Tappet Guide	CRANKCASE STYLE			
	Stock/S&S Super Stock®		Special Application	
	Natural	WBlack	Natural	WBlack
Set	33-5301	33-5324	33-5309	33-5325

NOTE

S&S® engines for 1984-'99 chassis with larger than 3³/₁₆" bores are typically built using special crankcases such as S&S Special Application cases which have an offset right side gear cavity for more tappet guide to cylinder clearance. S&S offers special tappet guides machined to compensate for the change in pushrod angle caused by the cam chest offset of these cases.

HIGH PERFORMANCE HYDRAULIC TAPPETS

FITMENT

- 1984–'99 big twins
- S&S V-Series engines

FEATURES AND BENEFITS

- .123" larger in diameter than the "raceless" roller axles currently used by some manufacturers
- Improved inner race-roller design allows use of more, and larger bearings to increase load-carrying surface area, further reducing stress and wear in the critical roller area
- Redesigned plunger assembly better withstands forces associated with heavy-duty valve springs and cams typically used in high-performance applications
- Improved metering device precisely controls oil delivery to top end, ensuring rapid lifter pump-up and reducing possibility of oil starvation to bottom end
- Each lifter body and plunger assembly is selective-fit and then leak down tested to ensure correct operation.

OPTIONS

- Tappets are available with the HL₂T Limited Travel Kit for improved cold starts and high rpm valve timing accuracy.

KIT CONTENTS

- Four hydraulic tappets



33-5352

HIGH PERFORMANCE HYDRAULIC TAPPETS

Description	Part #
Without HL ₂ T Kit 18523-86A	33-5352
With HL ₂ T Kit	33-5353

EXTRA PARTS NEEDED:

S&S tappets with HL₂T Kit require the use of adjustable pushrods.

Because of close tolerances, tappets in set part #33-5353 may require slightly longer bleed down time than conventional tappets. At temperatures of 65°F and above, however, bleed-down should take 20 minutes or less using 20W50 engine oil.

HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL₂T)

FITMENT

- 1984–'99 big twins
- All S&S tappets

FEATURES AND BENEFITS

- Designed to limit the range of travel of the hydraulic tappet plunger
 - Easier starting
- Low noise and positive valve train activation
- More horsepower at higher RPMs



HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL₂T)

Description	Part #
Set of four spacers (fits tappets with .612" I.D.)	33-5338 18526-89A

EXTRA PARTS NEEDED:

Adjustable pushrods must be used with HL₂T kit in order to obtain proper plunger position. S&S HL₂T kit will not fit the late stock replacement tappets HD#18523-86B for 1984-'99 big twins. These tappets have a smaller bore size and a larger spring diameter than earlier versions.

Part #33-5338 fits tappets with .612" I.D.

Milwaukee
Twin Cam
96-/103-/110"
1999-2006
Twin Cam 88"
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod®
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

TIME-SAVER ADJUSTABLE PUSHRODS



FEATURES AND BENEFITS

- Eliminates the need to disassemble the top end and remove the rocker arms to change pushrods or camshafts
- Reduce installation time by 75% - Hence the name Time Saver
- Larger 9mm diameter chrome moly tubing provides superior strength and minimizes pushrod flex
- Single adjuster end provides pushrod lengths from 9.5" to 11.5" for stock height and taller engines
- Kit includes set of four pushrods and installation instructions

TIME-SAVER ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Set	930-0052

QUICKEE ADJUSTABLE PUSHRODS

FITMENT

- 1984-'99 big twin

FEATURES AND BENEFITS

- Easy to install – no need to remove rocker covers
- Adjustable to work with all stock and aftermarket cams
- Works with stock pushrod covers



When a Quickee adjustable pushrod is collapsed, it can easily be installed or removed from an assembled engine.

REPLACEMENT PARTS: SEE PAGE 347

QUICKEE ADJUSTABLE PUSHRODS

Application	Displacement	Part #
1984 - '99 big twin	80" - 98", 113", 117", 124"	93-5120 [†]
	107", 111" & S&S 88"	93-5123

[†]Will not fit in an 88" engine which is .175" shorter. The rear intake pushrod is too long.



93-5120

STANDARD ADJUSTABLE PUSHRODS

FITMENT

- 1984–'99 big twins

FEATURES AND BENEFITS

- Made out of 7/16" O.D. chromoly steel tubing for strength and durability
- Adjustable to work with all stock or aftermarket cams
- Compatible with solid and hydraulic lifters



93-5076

PUSHROD SETS FOR 1984-'99 BIG TWINS

Displacement	Cylinder Length	Part #
100"*	4.745"	93-5090
88", 107"*	5.375" (-.175")/4.870*	93-5017
93", 113"*	5.500" (-.050")/4.995*	93-5018
80", 89", 96"	5.550" (Stock)	93-5076
98"	5.625" (+.075")	93-5019
103"	5.750" (+.200")	93-5020

*These are S&S 4" bore engines using +.500" deck crankcases. Cylinder lengths are .500" shorter.

PUSHROD SETS FOR 1984-'99 4 1/8" BORE BIG TWINS

Displacement	Cylinder Length	Part #
111"	4.764"	93-5017
117"	4.889"	93-5018
124"	5.014"	93-5019

NOTE: Crankcases used in S&S 4 1/8" bore engines have 6.000" cylinder deck height. The increased deck height effects the cylinder length. Do not use cylinder lengths in this chart to select pushrods for engines built in crankcases with stock, 5.375" deck height.

REPLACEMENT PARTS: SEE PAGE 347

NON-ADJUSTABLE PUSHRODS



FITMENT

- 1984-'99 Harley-Davidson® Evolution big twin engines

FEATURES AND BENEFITS

- Replaces stock pushrods perfectly
- 7/16" high strength chromoly steel tubing for increased strength
- Pushrods are marked with stock color code and valve position for easy installation

NON-ADJUSTABLE PUSHRODS

Description	Part #
Pushrods Only	930-0041

PUSHROD COVERS AND RELATED PARTS

PUSHROD REPLACEMENT PARTS

Item Description		Part #
S&S Pushrod Cover Kit* (includes Top and bottom covers, Cover cap, Cover spring, & Spring washers)	Stock Height	93-4039
	1" or more taller than stock	93-4038
Top Cover 1,2,3 17935-66T, 17935-79B	each	93-4016
Bottom Cover 17938-83	each	93-4015
Cover Cap 1,2,3 17945-36B	each	93-4017
Cover Spring 1,2,3 17947-36	each	93-4018
Cover Cap Washer 6762B	each	50-7131
Bottom Cover Washer	each	50-7051
Top O-ring	each	50-8039
Middle O-ring	each	50-8038
Bottom O-ring	each	50-8037
Quad Seal 11133A	each	50-8064-S
Pushrod O-ring Kit	each	93-4022
Ball End 1,2,3	Fits S&S adjustable with 7/16"-32 threads. (Manufactured after 2-1-1996)	each 93-5002
Adjusting Unit Locknut	Fits S&S adjustable pushrods with early stock 7/16"-32 threads	each 33-5333
	Fits S&S adjustable pushrods with 7/16"-32 threads. (Manufactured after 2-1-1996)	each 93-5003-S



PUSHROD COVER KEEPER SETS FOR 1984-'99 BIG TWINS

Length	Application	Part #
2.400" 17950-48		93-4070
2.500"		93-4100
2.600"	79", Retro 100"	93-4101
2.800" 17950-86		93-4115
2.900"		93-4102
3.000"	100"	93-4103
3.100"	88", 107", 110", 111", 113"	93-4104
3.200"	93", 89", 96", 117"	93-4105
3.330" 17949-40, 17950-66	98", 124"	93-4106
3.500"	103"	93-4107
3.625"		93-4108
4.250"		93-4109*



All S&S pushrod keepers are chromed steel, except part #93-4109. Keeper part #93-4109 is intended for unusually tall engines. It is manufactured of unchromed stainless steel to prevent rust or peeling after it is trimmed to the required length.

*Custom extra long stainless steel 4.250", customer to cut to required length
Keepers are sold in sets of four. Keeper length for stock Harley-Davidson® with 80" engines is 3.330"

All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

SIDEWINDER® .650" LIFT VALVE SPRINGS

FITMENT

- 1984-'99 Evolution® with stock heads

FEATURES AND BENEFITS

- Works well with cams up to .650" lift
- Manufactured from ultra clean high silicon Kobe alloy wire then micro shot peened and nitrided
- CNC machined 9° locks
- High performance conical single wire spring
- Chromoly forged retainers

KIT CONTENTS

- Valve keepers, Top & Bottom collars, Springs, Shims



S&S® .650" LIFT VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.650"	1.860"	178 lb.	376 lb.	6500

.650" LIFT VALVE SPRING KIT

Description	Part #
1984-'99 Evolution® with stock heads	900-0050

NOTE

S&S recommends roller rocker arms be used with lifts over .585"

STREET PERFORMANCE .585" VALVE SPRINGS

FITMENT

- 1984-'99 Evolution® with stock heads
- All S&S Super Stock® heads

FEATURES AND BENEFITS

- Single coil reduce the risk of valve float
- Suitable for high performance applications
- Accommodates camshaft lift to 0.585"

KIT CONTENTS

- Springs, Top & Bottom Collars, Keepers, Shims



900-0593

S&S® STREET PERFORMANCE .585" VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift
.585"	1.850"	135 lb.	325 lb.

STREET PERFORMANCE .585" SPRING KIT

Description	Part #
1984-'99 big twins with stock heads	900-0593
All S&S Super Stock® heads	900-0595

VALVE SPRING REPLACEMENT PARTS STARTING ON PAGE 367

FORGED ROCKER ARMS

FITMENT

- 1984-up big twins

FEATURES AND BENEFITS

ROLLER ROCKER ARMS

- Extremely durable rollers reduce valve side thrusting with high lift cams
- Superior wear and fatigue resistance even in the most demanding applications
- ¾" long bushings provide 50% more bushing support area than ½" long bushings

STANDARD ROCKER ARMS

- ¾" long bushings provide 50% more bushing support area than ½" long bushings

KIT CONTENTS

- 2 front and 2 rear rocker arms



FORGED ROLLER ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms (1.625:1)	900-4065A

Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance. New rocker arm shafts are recommended for maximum performance and rocker life.



STANDARD FORGED ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms (1.625:1)	900-4119A

New rocker arm shafts are recommended for maximum performance and rocker life.



90-4036

ROCKER ARM SHAFTS

Description	Part #
Set of 4	90-4036 17611-83B
Individual	90-4006 17611-83B

New rocker arm shafts are recommended for maximum performance and rocker life.



90-4104

REPLACEMENT PARTS FOR FORGED ROCKER ARMS

Rocker Arm Type	Description	Part #
Roller	Front exhaust or rear intake rocker arm	900-4065FA
	Rear exhaust or front intake rocker arm	900-4065RA
Standard	Front exhaust or rear intake rocker arm	900-4119FA 17375-83A
	Rear exhaust or front intake rocker arm	900-4119RA 17360-83A
Roller	Rebuild kits (rebuilds 4 rocker arms)	90-4104
Roller & Standard	Rocker arm bushing (¾" long)	90-4014

NOTES

- S&S roller rocker arms are recommended for use with cams having more than 0.585" of lift.
- Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance.
- New rocker arm shafts are recommended for maximum performance and rocker life.

All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

PERFORMANCE REPLACEMENT CYLINDER HEADS

FOR 3-1/2" AND 3-5/8" BORE

FITMENT

- 1984–'99 big twins
- Stock displacement
- Stock bore strokers
- Big bore engines up to 96"



106-4570

FEATURES AND BENEFITS

- Compatible with stock or other flat topped pistons
- Heads can be decked .060" if higher compression is desired
- Port design increases flow, while maintaining velocity specifically designed for stock and small displacement engines
- Compatible with up to .585" lift cams with TDC lifts of .252" intake and .210" exhaust
- Stock diameter ports allows installation of original intake manifolds and exhaust
- Stock temperature sensor location for EFI equipped engines
- High compression is 76cc, low compression is 82cc in chamber

KIT CONTENTS

- Two complete heads with valves and springs

PERFORMANCE REPLACEMENT CYLINDER HEADS

Finish	Low Compression 82cc*	High Compression 76cc
Natural	106-3466	106-6059
WBlack	106-4570 <small>16696-92A</small>	106-6064
Polished	106-4575	–

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.
 *Used on V96 engines with flat top pistons

Engine Size	S&S® Performance Replacement		Stock HD®
	High Compression 76cc	Low Compression 82cc	
96"	10:1	9.5:1	9.75:1
89"	9.4:1	8.9:1	9.25:1
80"	8.8:1	8.4:1	8.5:1

Cylinder Head Type	Valve Diameter		.600" Lift Flow @ 10"	
	Intake	Exhaust	Intake	Exhaust
Stock HD®	1.840"	1.610"	125cfm	98cfm
S&S Performance Replacement	1.900"	1.605"	142cfm	109cfm
S&S® Super Stock®	2.000"	1.605"	158cfm	122cfm

GASKET KITS FOR S&S PERFORMANCE REPLACEMENT CYLINDER HEADS

Bore Size	Part #
3½"	90-1905
3⅝"	90-1906

NOTE

S&S recommends that all clearances be checked with high lift cams, especially if the heads have been decked to increase compression.

REPLACEMENT PARTS: SEE PAGE 380

SUPER STOCK™ CYLINDER HEADS

FOR 3-1/2" AND 3-5/8" BORE

FITMENT

- 1984–'99 big twin with 3½" or 3⅝" bore
 (not compatible with stock or flat top pistons)

FEATURES AND BENEFITS

- Machined with a stock bolt pattern
- Larger, more open combustion chamber presents less resistance to air flow around the valves
- 2.000" intake valves and 1.605" exhaust valves
- Special "cast to shape" intake ports with a special directional fin for improved air flow
- Precision CNC machined from heat treated aircraft quality aluminum castings

KIT CONTENTS

- Complete head assembly with valves and S&S .650" lift springs

! ADDITIONAL PARTS (REQUIRED)

Super Stock® Pistons	
3½" bore.....	See PAGE 342
3⅝" bore.....	See PAGE 341
Gasket Kit.....	See chart

REPLACEMENT PARTS: SEE PAGE 381



90-1504

ASSEMBLED S&S® SUPER STOCK™ HEAD KITS

Finish	Part #
Natural	90-1004 <small>USA</small>
WBlack	90-1504 <small>USA</small>
Polished	90-1091 <small>USA</small>

GASKET KITS FOR S&S SUPER STOCK™ CYLINDER HEADS

Bore Size	Part #
3½"	90-1905
3⅝"	90-1906

SUPER STOCK™ CYLINDER HEADS FOR 4" BORE S&S ENGINES

FITMENT

- 4" bore S&S V-Series engines

FEATURES AND BENEFITS

- Special S&S 4" bore bolt pattern
- Machined for S&S manual or electric compression releases
- 2.000" intake valves and 1.605" exhaust valves
- Special "cast-to-shape" intake ports with a special directional fin for improved air flow
- Precision CNC machined from heat treated aircraft quality aluminum castings

KIT CONTENTS

- 2 fully assembled cylinder heads with S&S valve springs (.640" or .585" lift)
- Threaded plugs to seal compression release holes



90-1015

ASSEMBLED S&S® SUPER STOCK® HEAD KITS FOR 4" V-SERIES ENGINES

Description	Valve Springs	FINISH		
		Natural	WBlack	Polished
84cc	.650" lift	90-1015	-	-
93cc	.650" lift	90-1009 ^{USA} ₂	90-1509 ^{USA} ₂	90-1070
	.585" lift	90-1280	90-1281	90-1282

NOTES

Due to expanded stud pattern, these heads will not fit on stock Evolution® engines
84cc heads are stock on 100" engines
93cc heads are stock on 107" and 113" engines

EXTRA PARTS NEEDED:

Gasket Kit For S&S® 4" Bore Heads 90-1909

REPLACEMENT PARTS: SEE PAGE 382

CYLINDER HEADS FOR 4-1/8" BORE V-SERIES ENGINES

FITMENT

- 4 1/8" bore S&S V-Series engines

FEATURES AND BENEFITS

- Redesigned cooling fins – reduces mechanical noise
- 2.00" intake - 1.605" exhaust
- Complete head with .650 springs



90-1362

91cc 4 1/8" BORE S&S® REPLACEMENT CYLINDER HEADS

Finish	Part #
Natural	90-1360 ^{USA} ₃
WBlack	90-1361 ^{USA} ₃
Polished	90-1362 ^{USA} ₃

GASKET KITS

FOR S&S SUPER STOCK™ CYLINDER HEADS

Bore Size	Part #
4 1/8"	90-1910 ^{USA} ₃

90-1013*

NOTE

Replacement heads for existing engines with the old fin profile are available as complete front or rear head assemblies only, by special order.

REPLACEMENT PARTS: SEE PAGE 381

HEAD BOLTS WITH WASHERS

HEAD BOLT INFORMATION CHART

Length w/ Washer	Washer Thickness	Head Bolt w/Washer	Washers Only
1.690"	.250"	93-3028	50-7091
1.840"	.150"	93-3027	50-0418-S
1.920"	.250"	93-3036	50-7091
2.070"	.150"	93-3031	50-0418-S
2.220"	.250"	93-3038	50-7091
2.370"	.150"	93-3032	50-0418-S
3.134"	.250"	93-3029	50-7091
3.284"	.150"	93-3030	50-0418-S
3.501"	.250"	93-3037*	50-7091
3.651"	.150"	93-3033*	50-0418-S

*Drilled & tapped deeper to allow shortening for custom lengths.



HEAD BOLT WASHERS

Thickness	Part #
	50-0418-S
.250"	50-7091

HEAD BOLTS FOR HARLEY-DAVIDSON® 1984-'99 BIG TWINS

Displacement	Cylinder Length	Cylinder Head Type	w/Washer	Long Bolt w/Washer	Head Bolt Kit
S&S® 89 / HD® 80	5.550"	S&S + Late 1985-'91 HD	93-3027	93-3030	93-3010
		1991-99 HD	93-3036	93-3030	93-3014
S&S V96	5.565"	S&S + Late 1985-'91 HD	93-3027	93-3030	93-3010
		1991-99 HD	93-3036	93-3030	93-3014
S&S V100	4.745"	S&S	93-3027	93-3037	93-3010
S&S V103	5.750"	S&S + Late 1985-'91 HD	93-3036	93-3037	93-3015
		1991-99 HD	93-3038	93-3037	93-3016
S&S V107	4.870"	S&S	93-3038	93-3037	93-3016
S&S V113	4.995"	S&S	93-3032	93-3033	93-3013
S&S V111	4.763"	S&S	–	93-3030	93-3070
S&S V117	4.888"	S&S	–	93-3030	93-3070
S&S V124	5.013"	S&S	–	93-3033	93-3072

CALCULATING CUSTOM HEAD BOLT LENGTHS SEE PAGE 541



50-0333

Dress up your engine with these magnetic chrome head bolt covers. Easy installation, no tools, no messy adhesives. A powerful magnet holds cover in place, yet allows easy removal. Chrome plated steel looks great on any engine, but is a must for polished engines. For S&S head bolts only.

CHROME HEAD BOLT COVERS±

Set of 4	50-0333
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Milwaukee
Eight
2007-2010
Twin C
96-7/10
2014-2019
Street Rod
1984-1999
1926-1984
Vintage Engines
Indian &
Victory Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

BILLET AND DIE-CAST ROCKER COVERS

FITMENT

- 1984–'99 big twins
- S&S 4 1/8" Bore

FEATURES AND BENEFITS

- OEM-style "umbrella" fittings are included with billet rocker boxes for 1993–'99 big twin engines with cylinder head venting.
- Cast rocker boxes use an exclusive one way valve, which is built into the rocker cover gasket to control oil carry over in "head breathing" engines.
- S&S billet rocker covers are available in two finishes: show quality chrome or unfinished. Unfinished is ideal for powder coating and other custom cosmetic treatments. Die-cast covers are available in chrome finish only.
- Installation on stock and most comparable sized engines can be performed without removing the engine from the frame.

KIT CONTENTS

- 2 covers
- All necessary gaskets, o-rings, and mounting hardware



DIE-CAST ROCKER COVER KITS & REPLACEMENT GASKET KIT

Application	Description	Part #
1984-'99 big twins	Chrome Die-Cast Rocker Cover Kit 1,2	90-4095±
	Replacement Gasket Kit	90-4091
S&S 4 1/8" Bore Engines	Chrome Die-Cast Rocker Cover Kit	90-4110±
	Replacement Gasket Kit	90-4111



S&S billet rocker covers

BILLET ROCKER COVER KITS & REPLACEMENT GASKET KIT

Description	Part #
Chrome Billet Rocker Cover Kit	90-4050±
Unfinished Billet Rocker Cover Kit	90-4055
Replacement Gasket Kit	90-4049

NOTES

In spite of the similarities between different S&S billet and cast rocker covers, not all parts are interchangeable. See PAGE 384 & PAGE 385 for correct Part #s.

The performance-oriented design of the billet rocker boxes permits valve lifts up to .710" with stock or S&S Super Stock® heads, and up to .810" with S&S Special Application heads. S&S roller rocker arms are recommended for high lift cams. Cast rocker boxes may require some minor clearancing, and it is recommended that they be ordered either polished or unfinished, so that clearancing may be done without disturbing chrome plated surfaces.

S&S billet rocker covers accept valve springs up to 1.660" O.D. without modification. Cast rocker boxes may require minor clearancing. Cylinder heads must be set up correctly for high-lift cams, and it remains the builder's responsibility to confirm all clearances.

Kits include front and rear cover assemblies with base and top cover, rocker shaft supports, gaskets and o-rings, and instructions.

REPLACEMENT PARTS: SEE PAGE 384 & 385

MANIFOLDS FOR CARBURETED ENGINES

FITMENT

- 1984–'99 big twins
- S&S and other butterfly carbs
- CV carbs

FEATURES AND BENEFITS

- Fits stock or S&S heads
- Available for stock engines and engines with longer or shorter cylinders
- Other lengths are available by special order
- Provision for VOES lines, MAP sensors, and cylinder head vents in 4 1/8" bore engines

CV MANIFOLDS FOR 1984-'99 BIG TWINS

Displacement	Cylinder Length	Size Number	Part #
80", 89", 96"	5.550"	410	160-1736
88"	5.375"	397	160-1733
93"	5.500"	406	160-1734
100"	*4.745"	387	160-1732
107"	*4.870"	397	160-1733
113"	*4.995"	406	160-1734
Special Order	Specify	Specify	169-1725A**

*Cylinder lengths reflect the use of S&S SA crankcases with +.500 deck height in S&S 4" bore engines.



160-1628
Big twins with stock or S&S Super Stock® ignition



16-2588
Engines with S&S IST® ignition (MAP Sensor ready manifold)



16-2594
S&S 4 1/8" bore engines with Super Stock ignition



160-1736
CV style carbs

NOTE

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may damage the manifold. See PAGE 365.

SEE PAGE 355 FOR U-RINGS FOR CONSTANT VELOCITY CARBS

MANIFOLDS FOR CARBURETED 1984-'99 EVOLUTION® AND S&S ENGINES WITH STOCK OR S&S SUPER STOCK™ IGNITION – VOES FITTING

Displacement	Cylinder Length	Size Number	S&S ES, LS, Super A, B, E, Tillotson®, Bendix®, Keihin®	Super G	Super D
88"	5.375"	397	160-1626	16-2526	–
93"	5.500"	406	160-1627	16-2527	–
80", 89", 96"	Stock (5.550")	410	160-1628	16-2528	16-3528
103"	5.750"	426	160-1632	16-2532	16-3532
107"	*5.375"	397	160-1626	16-2526	–
111"	4.763"	398	160-1760	–	–
113"	*5.500"	406	160-1627	16-2527	–
Special Order	Specify	Specify	169-1639**	16-2539**	–

*Cylinder lengths reflect the use of S&S SA crankcases with +.500 deck height in S&S 4" bore engines.

SPECIAL INTAKE MANIFOLDS FOR CARBURETED S&S® ENGINES FOR 1984-'99 BIG TWINS (REQUIRING MAP SENSOR MACHINING)

Displacement	Cylinder Length	Size Number	Super E	Super G	Super D
Evolution and S&S Engines with Intelligent Spark Technology (IST®) Ignition – MAP Sensor Port					
80", 89", 96"	5.550"	410	160-1718	16-2588	–
107"	4.870"	397	160-1643	–	–
111"	4.763"	398	160-4487	16-2604	–
113"	4.995"	406	–	16-2606^{USA}	–
117"	4.888"	408	–	16-2603	–
124"	5.013"	417	–	16-2598	16-3593
Special Order	Specify	Specify	169-1639**	16-2539**	–
4 1/8" Bore S&S Engines with Super Stock® Ignition – Extra Vacuum Fitting					
111"	4.763"	398	160-1760	16-2594	–
117"	4.888"	408	–	16-2595	–
124"	5.013"	417	–	16-2596	16-3592
Special Order	Specify	Specify	–	16-2539**	–

REPLACEMENT PARTS FOR MANIFOLDS

Description	Part #
Manifold Fitting VVES Rubber Cap 3/16" I.D. x 5/16" O.D. x 1/2"	50-8372
Manifold Vacuum Fitting	16-0136-5

U-RINGS FOR CONSTANT VELOCITY CARBS

Description	Part #
U-ring, 40-42mm 27002-89	16-0242
U-ring, 44-48mm	16-0241



16-0136-5



50-8372



16-0241



16-0242

MANIFOLDS FOR SINGLE BORE EFI ENGINES

FITMENT

- Stock or S&S Hot Set Up Kit® equipped 1995–'98 big twins with S&S 52mm or 58mm throttle bodies, stock or S&S heads
- S&S V-Series engines

NOTE

The included S&S style o-ring, part #16-0235, must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Stock o-rings may damage the manifold.

SINGLE BORE EFI MANIFOLDS

Displacement	Cylinder Length	Size Number	Part #
80", 89", 96"	5.550"	410	16-5141
V107"	4.763"	398	16-5136
V111"	4.763"	398	16-5136
V124"	5.013"	417	16-5139

Manifolds include the required S&S style o-ring.



16-5141

MANIFOLD CONVERSION KIT

MANIFOLD CONVERSION SELECTION CHART

Application	Cylinder Length	Size No.	S&S ES, LS, Super B, Super E Tillotson®, Bendix®, Keihin®
1984-'89 big twin	5.550"	410	160-1658

REPLACEMENT PARTS

Description	Part #	
Manifold	160-1628	
Flanges	Front 27009-86A <i>each</i>	16-0232
	<i>5 pack</i>	16-0600
	Rear 27010-86A <i>each</i>	16-0233
	<i>5 pack</i>	16-0601
Set (Front & Rear)	106-3516	
O-Rings	<i>each</i>	16-0235
	<i>10 pack</i>	16-0243
0.350" Spacers	50-7044	



NOTES

S&S rigid mount manifolds are designed to improve intake tract air flow.

These manifolds may change the way a stock carburetor and air cleaner assembly fit. This means that these components may require shimming and/or a slight change in mounting bracketing.

S&S manifold conversion kits for Harley-Davidson® Evolution® are designed to fit stock displacement engines.

Series #16-1600 manifolds included in Manifold Conversion Kits are machined with a 1 7/8" throat and will fit stock Keihin® butterfly carburetors, all S&S 1 3/4" and 1 7/8" carbs, and any other carburetors with the same mounting bolt pattern.

S&S style o-rings must be used with these manifolds. S&S o-rings are slightly thinner to accommodate the larger S&S port diameter. Use of stock o-rings may damage the manifold.

BLACK SUPER E & G CARBURETORS

FEATURES AND BENEFITS

- Exclusive black coating — heat and chemical resistant
- Offered in standard venturi or increased venturi diameter — specially machined for 7% more flow

BLACK CARBURETORS FOR 1985-2005 BIG TWINS

Fitment	Description	Part #
Increased venturi diameter <i>(7% more flow)</i>	Super E Carb	110-0099
	Super G Carb	110-0100
Standard venturi diameter	Super E Carb	110-0133
	Super G Carb	110-0138

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTE

These black carb kits do not include air cleaners. Air cleaner options are available starting on PAGE 314.



SUPER E & G COMPLETE CARBURETOR KITS

FITMENT

- 1984-'99 big twins

FEATURES AND BENEFITS

- Four fuel delivery ports — Better throttle response
- O-ring sealed idle mixture screw
- Increased air flow for more power
- Adjustable accelerator pump for quick throttle response and easy starting
- Utilization of the factory dual cable system ensures safe operation
- Direct replacement and high quality fit and finish — less down time and better performance
- Variable position enrichment starting system

SUPER E & G COMPLETE CARBURETOR KITS

Fitment	Super E	Super G
1993-'99 big twin	11-0419	11-0434
1984-'92 big twin	11-0407	11-0427

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

SUPER E & G PARTIAL KIT (NO MANIFOLD)

Fitment	Super E	Super G
1993-'99 big twin	11-0442	-
1984-'92 big twin	11-0440	-
1993-'99 big twin	-	11-0446

Does not include intake manifold. Partial kit designed for engines with longer/shorter than stock cylinders. Manifold is ordered separately. See PAGE 354

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

SUPER E & G CARBURETOR ONLY

Fitment	Super E	Super G
All Years & Models	11-0420	11-0421

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

KIT CONTENTS

- Super E or G carburetor
- S&S intake manifold (For engines with stock length cylinders)
- Classic Teardrop air cleaner kit
- Mounting hardware
- Gaskets, seals and hoses
- Instructions



11-0419



As the throttle plate opens, it exposes more of these holes to engine vacuum and delivers more fuel as rpm increases. When you run out of holes in the intermediate system, the main jet comes in and handles fuel delivery for the higher rpm.

REPLACEMENT PARTS: SEE PAGE 398

OPTION

Optional cruise control adapter kits allows riders to keep factory cruise feature.



CRUISE CONTROL ADAPTER KIT

Fitment	Part #
1998-'99 big twin	11-2927

NOTES

S&S® does not recommend polishing or chrome plating Super E & G carbs. Our repair department has seen many carbs with plugged passages due to polishing compounds, and some carbs that have been destroyed because the polishing or chrome plating had altered critical machined surfaces.

Recommended for closed circuit use only—S&S Super E & G carbs shown are not approved for use on motor vehicles operated on California public highways, or in other states where similar pollution laws may apply. The user shall determine the suitability of the product for his or her use and shall assume all risk and liability in connection therewith.

TWO CABLE THROTTLE ASSEMBLIES

The S&S two cable throttle assemblies are high quality "pull open – pull close" type throttles designed for use on any two cable carburetor installations on bikes with 1" O.D. handlebars. A special soft plastic material used to mold the grips makes them look and feel exactly like stock grips. There are four different assemblies available to make installation on most chassis easy.

TWO CABLE THROTTLE REQUIRED

S&S Super E and G carburetors require the use of a two cable, pull open–pull closed throttle assembly. Any chassis including 1980 and earlier stock models equipped with a single cable throttle mechanism requires conversion to a two cable, pull open–pull closed type. S&S offers high quality two cable throttle assemblies for this purpose. Stock big twin models from 1981 to present have a two cable throttle and should not require changing. Super E and G Carb kits for 1990 and later models come with the new longer throttle cable guide bracket which allows the use of the stock CV style throttle cables.



NOTE

The chart on this page is used only when using throttle cable bracket part #11-2339. This bracket is standard on all S&S Super E & G carburetor kits for big twins 1989 and earlier and all kits for Harley-Davidson® Sportster® models with the exception of the kit for 2004-'05 models. Carburetor kits for 1990 and later big twin models come with the longer cable bracket part #11-2338 for use with stock CV throttle cables. Super E and G carburetors ordered for big twin models 1981 and later are being shipped with the correct throttle cable bracket to fit the stock cables. Big twin carbs that are not year specific will be shipped with both cable brackets. All Sportster models 1988-'03 will still require conversion to butterfly style cables.

THROTTLE CABLE APPLICATION CHART

Application	Fastening Method	Length Total Housing	Length Vinyl Housing	Open Side	Close Side
FX and FL models 1985 and earlier* Big Twin models 1995 and earlier*	Threaded	36"	32"	19-0432	19-0433
To 1995 Harley-Davidson® Softail® (FXSTC, FXST, FLSTC, FLSTF) 1986-'94 FXR, 1993-'95 Dyna®	Threaded	39"	35"	19-0434	19-0435
To 1995 All FLT models	Threaded	48"	44"	19-0462	19-0463
To 1995 custom application	Threaded	42"	38"	19-0446	19-0447
1996-'99 Softail (FXSTS, FXSTC, FLSTC, FLSTF) 1996-'99 Dyna®	Snap-in	39"	35"	19-0438	19-0439
1996-'99 All FLT models	Snap-in	48"	44"	19-0464	19-0465
1996-'99 custom application	Snap-in	42"	38"	19-0440	19-0441

*1980 and earlier must be converted to dual cable throttle assembly
1998 and later required Harley-Davidson® throttle assembly #71831-96.

REPLACEMENT PARTS

Description	Part #
S&S Universal Throttle Cable	106-3520
Throttle Grip Clamp Set 1985-'95	106-3519
Top Throttle Grip Clamp only	19-0222
Bottom Throttle Grip Clamp only	19-0220
Throttle Grip Clamp Screw <i>(Fits S&S throttle assemblies: Part #19-0448, #19-0449, #19-0482, #19-0450, #19-0229)</i>	50-0043
Throttle Grip Set	106-3521
Right Hand Grip only	19-0225
Left Hand Grip only	19-0226
Cable Adjuster <i>(Fits S&S throttle assembly part #19-0229)</i>	19-0223
Cable Adjuster Jam Nut <i>(Fits S&S throttle assembly part #19-0229)</i>	19-0227
Handlebar Spacing Sleeve 4" x 1" O.D. – converts 7/8" handlebars to 1" O.D.	19-0235



All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

JETS & CARB REBUILD KITS FOR S&S SUPER E & G CARBURETORS

For those who need to rejet their carburetor because of engine modifications, exhaust modifications, or changes in altitude, we have extra jet kits available which are designed to cover most jetting situations.

DEALER JET KITS[±]

Description	Part #
S&S Carb Parts Kit (Contains needed parts to maintain S&S Super E and G carburetors)	11-3103
S&S Jet Kit (Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)	11-3102

JET PACKS[±]

Description	Part #
Low Range Jet Pack – For jetting most stock and moderate performance engines. Includes one each intermediate jets (.025", .0265", .028", .0295") one each main jets (.062", .064", .066", .068", .070", .072", .074").	11-7270
High Range Jet Pack – For jetting some stock and all performance engines. Includes one each intermediate jets (.0295", .031", .032", .033") and one each main jets (.072", .074", .076", .078", .080", .082", .084").	11-7271
Master Jet Pack – For jetting all Super B, E, and G equipped engines. Includes one each intermediate jets (.025", .0265", .028", .0295", .031", .032", .033") and one each main jets (.062", .064", .066", .068", .070", .072", .074", .076", .078", .080", .082", .084").	11-7272

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION[±]

Size	QTY	Part #	Size	QTY	Part #
.025	each	11-0250	.032	each	11-0320
	3 pack	11-7107		3 pack	11-7112
.0265	each	11-0265	.033	each	11-0330
	3 pack	11-7108		3 pack	11-7113
.028	each	11-0280	.036	each	11-0360
	3 pack	11-7109		3 pack	11-7114
.0295	each	11-0295	.040	each	11-0400
	3 pack	11-7110		3 pack	11-7115
.031	each	11-0310	Blank	each	11-0000
	3 pack	11-7111			

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

1.....	.025"	4.....	.033"
2.....	.028"	5.....	.036"
3.....	.031"	6.....	.040"



11-3103[±]



11-3102[±]



11-7272[±]



106-3517[±]

NOTES

No returns or exchanges on jets.

Refer to Section 10: Racing for the S&S fuel and turbo carburetors.

MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION±

Size	QTY	Part #	Size	QTY	Part #
.040	each	11-4040	.080	each	11-4080
	5 pack	11-7220		5 pack	11-7240
.042	each	11-4042	.082	each	11-4082
	5 pack	11-7221		5 pack	11-7241
.044	each	11-4044	.084	each	11-4084
	5 pack	11-7222		5 pack	11-7242
.046	each	11-4046	.086	each	11-4086
	5 pack	11-7223		5 pack	11-7243
.048	each	11-4048	.088	each	11-4088
	5 pack	11-7224		5 pack	11-7244
.050	each	11-4050	.090	each	11-4090
	5 pack	11-7225		5 pack	11-7245
.052	each	11-4052	.092	each	11-4092
	5 pack	11-7226		5 pack	11-7246
.054	each	11-4054	.094	each	11-4094
	5 pack	11-7227		5 pack	11-7247
.056	each	11-4056	.096	each	11-4096
	5 pack	11-7228		5 pack	11-7248
.058	each	11-4058	.098	each	11-4098
	5 pack	11-7229		5 pack	11-7249
.060	each	11-4060	.100	each	11-4100
	5 pack	11-7230		5 pack	11-7250
.062	each	11-4062	.102	each	11-4102
	5 pack	11-7231		5 pack	11-7251
.064	each	11-4064	.104	each	11-4104
	5 pack	11-7232		5 pack	11-7252
.066	each	11-4066	.106	each	11-4106
	5 pack	11-7233			
.070	each	11-4070	.110	each	11-4110
	5 pack	11-7235		5 pack	11-7255
.072	each	11-4072	.115	each	11-4115
	5 pack	11-7236		5 pack	11-7256
.074	each	11-4074	.120	each	11-4120
	5 pack	11-7237		5 pack	11-7257
.076	each	11-4076			
	5 pack	11-7238			
.078	each	11-4078			
	5 pack	11-7239			

MAIN JET AIR BLEED KIT± (One Jet Each Size)

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518

S&S® CARBURETOR REBUILD KITS

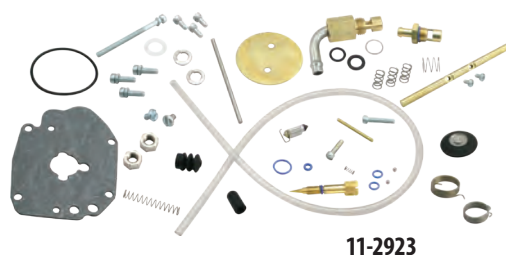
To insure that you continue to get the utmost in performance from your S&S carburetor, we have put together a series of rebuild kits that are designed to provide the proper parts to return a worn carburetor to top shape. We have assembled different types of kits to cover the different degrees of rebuild necessary.

MASTER REBUILD KITS

Master rebuild kits contain a body rebuild kit, accelerator pump rebuild kit (Super E and G only), all new fasteners, springs, idle mixture screw, seat, and needle assembly. Everything needed to completely rebuild one carburetor.

MASTER REBUILD KIT±

Description	Part #
Super E	11-2923
Super G	11-2924



BODY REBUILD KITS

Body rebuild kits for Super E and G carbs also contain throttle shaft nuts, nylon washers, accelerator pump o-ring, and accelerator pump boot. Body rebuild kits for Super E and G carbs do not contain throttle shaft bushings since these carbs have stainless steel throttle shaft bushings already installed.

BODY REBUILD KIT±

Description	Part #
Super E	11-2906
Super G	11-2907

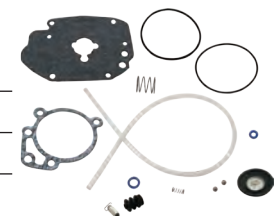


BASIC REBUILD KIT

A gasket and seal kit for low mileage Super E & G carbs. Perfect to reassemble carbs taken apart for inspection and cleaning.

BASIC REBUILD KIT±

Description	Part #
Super E & G	110-0067



ACCELERATOR PUMP REBUILD KITS

Accelerator pump rebuild kits contain diaphragm, diaphragm spring, check balls, check ball spring, pump pushrod, and required hardware and o-rings.

ACCELERATOR PUMP REBUILD KIT

Description	Part #
Super E & G	11-2918



COMPRESSION RELEASES

FITMENT

- S&S cylinder heads with compression release machining

OPTIONS

MANUAL RELEASE:

Activated by a cable similar to a choke control, this slick system can be used with any style rocker cover.

ELECTRIC RELEASE:

Solenoid operated, this system automatically opens and closes when the starter button is pressed and released. Convenient and simple, this is the best setup for big displacement high compression bikes. Requires S&S die cast rocker covers.


COMPRESSION RELEASE KITS

Description	Part #
Electric	90-4915

TOOLS AND ACCESSORIES

Description	Part #
S&S Two-Piece Socket Kit: <i>Allows in-frame installation of S&S compression releases and protects wiring from damage during installation.</i>	53-0045
S&S Compression Release Hole Plug	90-4916

REPLACEMENT PARTS

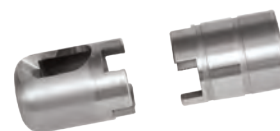
Description	Part #
Silicone Solenoid Caps	55-1009
Wiring Harness  _{2,3}	55-1010
Electric Compression Release Assembly	90-4914



90-4915



55-1009



53-0045



90-4916

NOTES

S&S rocker covers must be used with electric compression releases due to clearance requirements for the solenoids.

Rocker covers must be removed when installing S&S® compression releases. If lack of frame clearance prevents removal of rocker covers, engine must be removed from frame for compression release installation.


In most cases, S&S compression releases can be installed while the engine is in the frame with the special S&S two-piece socket kit, part #53-0045.

If cylinder heads are machined for S&S compression releases, but compression releases are not used, special plug part #90-4916 (two required) must be installed to seal the machined hole.

Stock cylinder heads cannot be machined for S&S compression releases because there is not enough material in critical areas.

HIGH OUTPUT COILS

HIGH OUTPUT COILS

S&S High Output 3.0Ω Single Fire Coil	Part #
<i>The perfect complement for S&S IST ignition systems. This single fire coil is actually two separate coils in a single package. Coil impedance is 3Ω per coil.</i>	55-1571
S&S High Output 0.5Ω Single Fire Coil  ₄	55-1576
<i>High output 0.5Ω single fire coil for S&S IST ignition.</i>	



55-1571



55-1576

HI-4N PERFORMANCE IGNITION

FITMENT

- 1984-1999 big twins

FEATURES AND BENEFITS

- One piece machined aluminum housing reduces vibration and improves heat dissipation and reliability
- Improved kick start algorithm designed to start as easily as points
- BCD switches with solid detent and legible marking allow easy and repeatable adjustments of mode, advance rate, and rev limit
- Single-fire and dual-fire function built into a single module
- Flexible wiring harness makes installation easier
- Initial timing marks allow precise adjustment and reinstallation
- Sensor covers integrated into housing to provide protection during installation



550-0502

HI-4N PERFORMANCE IGNITION

Fitment	Part #
Ignition only	550-0501
Kit Includes S&S® HI-4N Ignition, Single-Fire Coil, and 8.8mm double silicone, premium quality spark plug wires	550-0502

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

SUPER STOCK™ IGNITIONS

FITMENT

- V-Series engines
- V80, V92, V96, V100, V107, V111, V113, V117, V124, V145

FEATURES & BENEFITS

- New updated modules can be set to kick-start or electric-start mode by an S&S dealer using the Super Stock diagnostic cable and software
- Electric-start mode allows the pre-ignition cranking to be set anywhere from 1 to 4 engine revolutions (only available with current modules – earlier modules cannot be updated)

- Pre-programmed ignitions are custom tailored for a specific S&S engine – no need for adjustments
- Single fire operation – requires a single fire coil for single spark plug applications
- Dual plugged applications require a pair of two tower coils or a single four tower coil
- Minimum 3.0Ω primary resistance
- Overload and short circuit protected
- VOES switches to less aggressive curve under load or hard acceleration
- 6300 rpm rev-limiter
- 24-hour break-in rev-limiter – prevents damage during break-in
- Data logging diagnostic capabilities



SUPER STOCK® IGNITION MODULE AND KITS

Engine	Kit	Module
V80	550-0140	550-0139
V96	55-1354	55-1344
V100, V107, V113	55-1355	55-1345
V111, V117, V124	55-1356	55-1346

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTE – Only modules and kits with the above Part #s have the updated features.

SUPER STOCK® IGNITION KIT REPLACEMENT PARTS

Description	Part #
Pick-up Cup and Mounting Screw	55-1247 [±]
Connector Kit	55-1249 ^{USA}
VOES Switch with Hardware	55-1248 ^{USA}
VOES Hose, 9"	19-0395 ^{USA}
VOES Manifold Fitting	16-0136-S
VOES Hose Tee	50-8124-S
Optional Parts	
S&S Single Fire Coil (3.0Ω)	55-1571

NOTES

S&S Super Stock ignition systems are available in complete ignition kits and as replacement modules. S&S single fire ignition coils are available separately.

Keep in mind that the curves are preset for a specific S&S engine, and that modules intended for one engine may not yield optimum results when used on another configuration.

INNER PRIMARY BEARING RACE

FITMENT

- All 1991-'06 big twins (except '06 Dyna®)



FEATURES AND BENEFITS

- Will not "walk" on transmission mainshaft
- Prevents costly damage to mainshaft seal, output gear & output gear bearing
- Simple to install

INNER PRIMARY BEARING RACE

Fitment	Part #
All 1991-'06 big twins (except '06 Dyna®)	56-5089

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S INNER BEARING RACE INSTALLER, SEE PAGE 512

GATES® HIGH STRENGTH FINAL DRIVE BELTS

S&S final drive belts by Gates are available with 14mm pitch in 1½" and 1⅞" widths. See the chart below and match the width and number of teeth required for your vehicle. You can find this information in the vehicle service manual.



SECONDARY DRIVE BELTS (14MM PITCH)

Teeth	1½" Wide	1⅞" Wide
125	106-0357	–
126	–	106-0348
127	–	106-0349
128	106-0358	106-0350
130	106-0359	106-0351
132	106-0360	106-0352
133	106-0361	106-0353
135	106-0362	106-0354
136	–	106-0355
139	106-0363	106-0356
149	106-1338	106-2695
156	–	106-2827

BELTS AVAILABLE BY SPECIAL ORDER (14MM PITCH)

Tooth Count	1.181" (30mm) Width*	1.25" Width*
125	•	
126	•	•
127	•	•
128	•	
130	•	
131	•	•
132	•	
133	•	
135	•	
136	•	•
137	•	•
139	•	
140	•	•
149	•	
150	•	•
151	•	•
152	•	•
156	•	

*Minimum order required: 1.181" (30mm) – 16 belts; 1.25" – 17 belts.

ATTENTION CUSTOM BIKE MANUFACTURERS!

SPECIAL ORDER BELTS FROM S&S® AND GATES®

Special belt sizes, private brand labeling, and assistance with belt drive design, are available to custom performance OEM's and aftermarket bike builders, through S&S. These products and services are available for licensed motorcycle manufacturers only, and a minimum order quantity may be required.

Drive belts with your company name imprinted on them are a perfect way to show off your brand. Any belt size currently available in the S&S catalog, as well as the special ordered sizes, can be specially branded. Minimum order quantities would apply.

Whether you're designing a completely new chassis, or simply need a replacement belt, S&S can help you find the belt you're looking for. Through the combined efforts of Gates and S&S, S&S can now provide customers with the technical assistance they need for designing new secondary belt drive systems. In addition, S&S can help you determine required tooth count for your existing chassis design, based on the pulley center-to-center distances and pulley tooth counts.

All belts have a 14mm tooth pitch, and are made of the super strong Gates Carbon X3N material. Belts are available in three standard widths of 1.125", 1.5" and 1.181" (30mm), but can be special ordered in nearly any width for a nominal charge. If you want a belt with a special tooth count, they are also available (see the special order chart for availability).

Contact your S&S Customer Support Representative for more information.

GASKETS

REBUILD GASKET KITS FOR S&S V-SERIES 1984-'99 ENGINES AND HOT SET UP KIT®

4 1/8"	106-0964
4"	106-1020
3 5/8"	106-0992
3 1/2"	310-0928

TOP END GASKET KITS V-SERIES 1984-'99

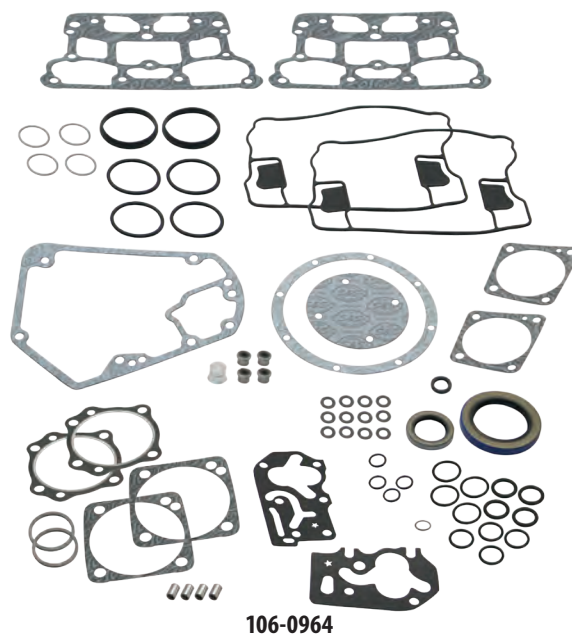
4 3/8"	90-9511
4 1/8"	90-9506
4"	90-9503
3 5/8"	90-9502
3 1/2"	900-0974

CYLINDER HEAD GASKET KITS V-SERIES 1984-'99

4 1/8"	.043" Micropore	90-1910
4"	.045" Micropore	90-1909
3 5/8"		90-1906
3 1/2"	.030" Layered Steel	90-1905
3 1/2"		900-0532

HEAD GASKETS V-SERIES 1984-'99

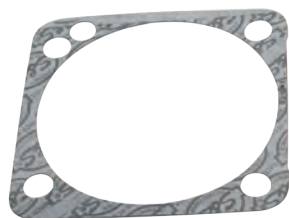
4 1/8"	.043" Micropore	each	93-1047-S
		2 pack	930-0100
		10 pack	93-1073
4"	.043" Micropore	each	93-1040-S
		2 pack	930-0087
		10 pack	93-1071
3 5/8"	.045" Micropore	each	93-1037-S
		2 pack	930-0091
		10 pack	93-1052
3 5/8"	.0625" Micropore	each	93-1016-S
		2 pack	930-0097
		10 pack	93-1053
3 1/2"	.045" Micropore 16770-84D, 16770-84F	each	93-1011-S
		2 pack	930-0098
		10 pack	93-1024
3 1/2"	.0625" Micropore 10773-85, 16770-84D, 16770-84F	each	93-1313-S
		10 pack	93-1051
3 1/2"	.030" Layered Steel	each	900-0530



106-0964



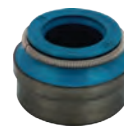
93-1047-S



93-1048-S



106-5029



900-0338

1984-1999 Big Twins

BASE GASKETS AND O-RINGS V-SERIES 1984-'99

4 $\frac{3}{8}$ "	.018" Micropore	2 pack	93-1082
4 $\frac{1}{8}$ "	.018" Micropore	each	93-1048-S
		2 pack	930-0099
		10 pack	93-1074
4"	.018" Micropore	each	93-1031-S
		2 pack	930-0094
		10 pack	93-1067
3 $\frac{5}{8}$ "	.018" Micropore	each	93-1033-S
		2 pack	930-0093
		10 pack	93-1064
3 $\frac{1}{2}$ "	.018" Micropore	each	93-1035-S
		2 pack	930-0092

EXHAUST GASKETS

1984-up Big Twins 65324-83B, 65324-83A	each	106-5029
	10 pack	93-1072

VALVE GUIDE SEALS

1984-'02 Big Twin and 1986-'00 Sportster Models	each	900-0338
	8 pack	90-2158

ROCKER BOX GASKET KITS AND INDIVIDUAL GASKETS

S&S Billet Rocker Boxes

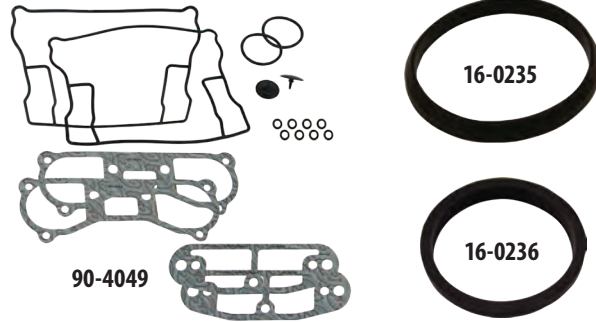
Gasket Kit	90-4049	
O-ring, (-223), 1.625" ID x 1.875" OD, Viton	50-8044	
Valve Cover Seal 26856-89, 26856-89A	90-4030	
Gasket, Rocker Cover, S&S® Billet, O-ring, 1984-'99	90-4048	
Gasket, Bottom, Rocker Cover, 1984-99 bt	each	900-0538
	2 pack	900-0592

S&S Die Cast Rocker Boxes - S&S 4 $\frac{1}{8}$ " Bore Engines

Gasket Kit	90-4111	
O-ring, (-223), 1.625" ID x 1.875" OD, Viton	50-8044	
Gasket, Bottom, Rocker Cover, 4-1/8" 1984-up 16719-99B	each	90-4071-S
	2 pack	90-4071
	10 pack	90-4099
Gasket, Rocker Cover, S&S® Die Cast, O-ring, 1984-up	90-4079	

S&S Die Cast Rocker Boxes - 3 $\frac{1}{2}$ ", 3 $\frac{3}{8}$ " and 4" Bore Engines

Gasket Kit	90-4091	
O-ring, (-223), 1.625" ID x 1.875" OD, Viton	50-8044	
Gasket, Bottom, Rocker Cover, 1984-99 bt	each	900-0538
	2 pack	900-0592
Gasket, Rocker Cover, S&S® Die Cast, O-ring, 1984-up	90-4079	



Stock Rocker Boxes

Gasket Kit, Rubber, 1984-'91 17038-90	90-4046
Gasket Kit, Rubber, 1992-'99	90-4047
Gasket, Top, Rocker Cover, Rubber, 1992-'99 bt 17356-92	90-4045
Gasket, Middle Outer, Rocker Cover, Rubber, 1992-'99 bt 17355-92	90-4044

LOWER END GASKETS AND SEALS

Gear Cover Gasket For 1970-'99 25225-93A, 25225-93B, 25225-70C, 25257-80	each	31-2107
	10 pack	106-0232
Camshaft Oil Seals, 1970-'99 83162-51	each	31-4022
Set (includes Front & Rear) 18633-48	each	33-5302
	10 pack	33-5313
Tappet Cover Gasket	each	33-5302F
	10 pack	33-5313F
Rear 18633-48B, 18633-48D	each	33-5302R
	10 pack	33-5313R

PUSHROD O-RINGS

O-ring, Kit, Pushrod Cover, 1984-'99 bt, 1986-2003 xl	93-4022	
Top O-ring 11293, 11157, 11101, 11190	50-8039	
Middle O-ring 11132A	50-8038	
Bottom O-ring 11145A	50-8037	
Oil Jet O-ring - S&S 4 $\frac{1}{8}$ " Bore Engines	each	50-8270
	5 pack	50-8275

SPROCKET SHAFT SEAL

1970-up BT 12026B	each	31-4010
	5 pack	31-4110

OIL PUMP GASKETS

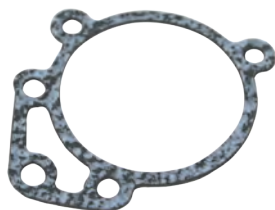
S&S Standard Cast and Billet Oil Pumps

1936-'91 Standard	31-6271
1992-'99 Standard	31-6273
See PAGE 378 for Standard Oil Pump Master Rebuild Kits	

CONTINUED GASKETS



106-6022



106-1724

S&S High Volume High Pressure (HVHP) Oil Pumps

1984-'91 Big Twin HVHP 31-6306	31-6308
1992-'99 Big Twin HVHP	31-6299

See PAGE 379 for High Volume High Pressure Oil Pump Master Rebuild Kits

Oil Pump Drive Shaft Seal

S&S Standard Cast and Billet Oil Pumps 26227-58	31-6005
S&S High Volume High Pressure (HVHP) Oil Pumps	31-6064-S

FUEL SYSTEM GASKETS

Manifold Seals

S&S Manifold O-Ring	each	16-0235
	10 pack	16-0243
Stock Manifold O-ring 26995-86B, 26995-86A, 26992-99	each	16-0236
	10 pack	16-0244
Cap, Rubber, Manifold, Fitting		50-8372

CLASSIC TEARDROP AIR CLEANER

Back Plate Gasket	each	106-1724
	10 pack	106-2328
Vent Seal Washers, Silicone Coated Steel	1/2" each	50-7054
	10 pack	50-7059

STEALTH AIR CLEANER

Back Plate gasket		
Stock CV Carb & EFI Throttle Body, 1991-up xl/bt 29062-95B	106-6022	
Super E/G	each	106-1724
	10 pack	106-2328
Muscle Air Cleaner (includes lanyards)	170-0137	
Vent Seal Washers, Nitrile Rubber Coated, .520" x .880" x .024"	each	50-7055
	10 pack	50-7057

TUNED INDUCTION

Back Plate gasket		
Gasket, Backplate - E/G/SBEFI	each	106-1724
	10 pack	106-2328
Gasket, S&S SBEFI 58mm		106-4662
Gasket, Stock Carb/Throttle Body 29062-95B		106-6022
Adaptor Plate Gasket		17-1022
Adaptor Plate Bracket O-ring	(each)	50-0446

SINGLE BORE EFI THROTTLE BODY

Back Plate gasket		
52mm	each	106-1724
	10 pack	106-2328
58mm	each	106-4662
O-ring, Throttle Body to Manifold		50-7967-S
Air Temp Sensor Gasket		16-5009-S
IAC O-ring		50-8149-S
Fuel Injector O-ring, Top		50-8264-S
Fuel Injector O-ring, Bottom		50-8265-S
Fuel Rail Inlet O-ring 27237-95	each	50-8137-S

TRANSMISSION GASKETS

O-ring, (-114), .625" ID x .812" OD, Vitron 11270	50-8033
O-ring, Quad Seal, (-031), 1.734" X 1.875", Nitrile 11165	50-8045
Seal, Transmission Output Shaft, 2.255" x 3.388" x .25012067B	56-3033

PRIMARY GASKETS

Gasket, Primary Cover, 1990-'99 Softail® and Dyna®	56-4049
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170-0137

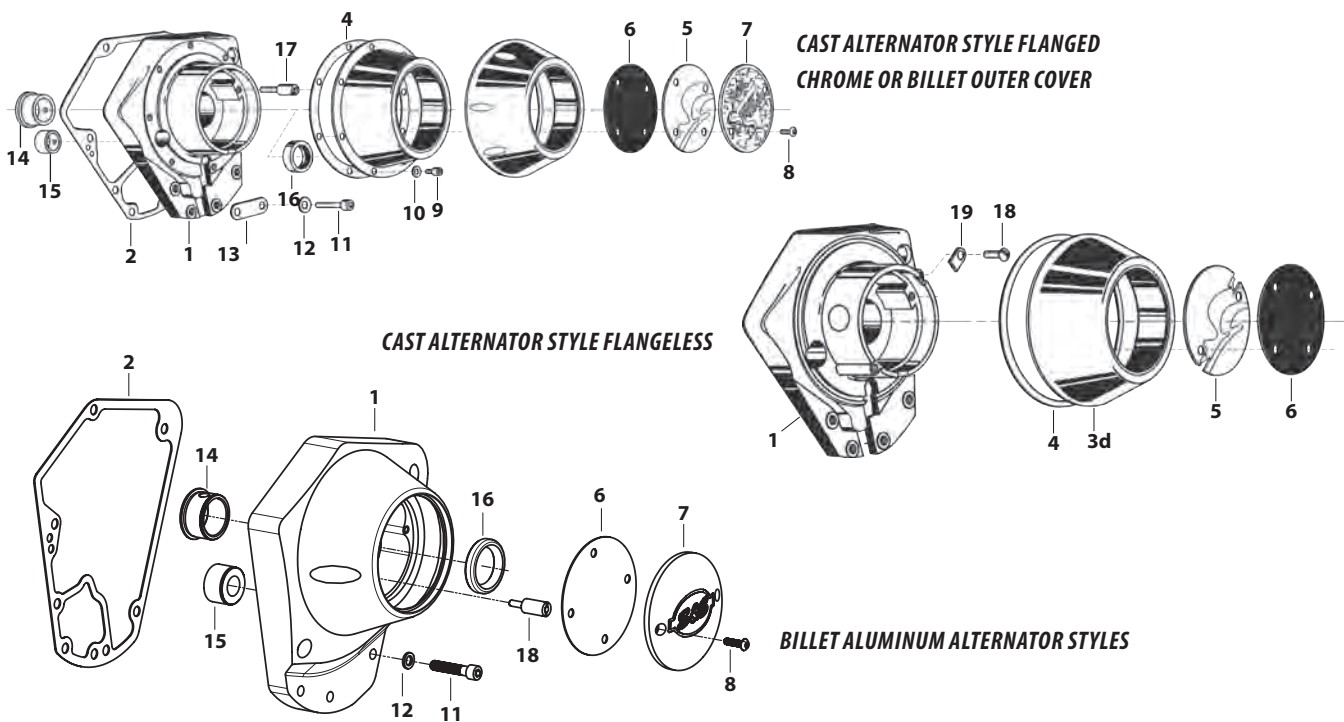
All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

Milwaukee
Eight™
2007-2017
Twin Cam
96"/103"/110"
1999-2006
Twin Cam 88"
1986-2019
Sportster® & Buell™
2014-2019
Street &
Street Rod™
1984-1999
Evolution®
1926-1984
Vintage Engines
Victory® Models
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

GEARCOVER KIT REPLACEMENT PARTS

- | | |
|---|------------------------------|
| 1. Gearcover assembly | N/A |
| 2. Gasket, gearcover
25225-93A, 25225-93B, 25225-70C, 25257-80
each | 31-2107 |
| 10 pack | 106-0232 |
| 3. Outer cover for cast gearcovers - 1984-'99 BT | |
| a. Flanged type - steel, chrome | N/A |
| b. Flanged type - steel, black | N/A |
| c. Flanged type - billet | N/A |
| d. Flangeless type - chrome | 31-0238[±] |
| e. Flangeless type - black | N/A |
| 4. Gasket, outer cover - 1984-'99 BT | |
| Flanged type (each) | 31-0218 |
| 5 pack | 31-0256 |
| Flangeless type (each) | 31-0237 |
| 5 pack | 31-0261 |
| 5. Ignition cover, inner - 1984-'99 BT | |
| Flangeless type | 31-0235 |
| 6. Gasket, ignition cover - 1984-'99 BT 32591-80, 32591-70
each | 31-0225 |
| 7. Ignition cover, outer - 1984-'99 BT | |
| Die-cast (HD® #32524-83) | N/A |
| Billet, Chrome with S&S Logo | 31-0332[±] |
| 8. Screw, RSH - 8-32 x 1/2" (replaces stock rivets)
Stainless Steel (each) | 50-0048 |
| Chrome (each) | 50-0266-S[±] |
| 9. Screw, SH
10-24 x 1/4" for steel cover (each) | N/A |
| 10-24 x 3/8" - chrome for billet cover 4091 (each) | 50-0023[±] |
| 10. Washer, flat .192" x 3/16" x .035"
each | 50-7009 |
| 11. Screw, SH 1/4"-20 x 1 1/4" - 4740A, 3482A
Zinc (each) | 50-0008 |
| Chrome (each) 4740A | 50-0257-S[±] |
| 12. Washer, flat
1/4" x .474" x .050" (each) | 50-7020 |
| 1/4" Flat washer, chrome, billet covers
each | 50-7017[±] |
| 12 pack | 50-7013[±] |
| 13. Wire harness clip 38711-93 | 31-2029 |
| 14. Cam bushing, gearcover
1984-'99 BT 25581-70 | 31-4019 |
| 15. Pinion shaft bushing, gearcover
1984-'99 BT 25582-93, 25582-73 | 31-4031 |
| 16. Gearcover oil seal 1984-'99 BT
(each) | 31-4022 |
| 17. Screw, timing mechanism 32606-82
each | 31-0224 |
| 2 pack | 31-0224P |
| 18. Screw, standard panhead 8-32 x 3/8"
each | 50-0004 |
| 19. Clip, outer cover (each) | 31-0233 |

N/A = No longer available



All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

VALVE SPRING REPLACEMENT PARTS

.650" Lift Sidewinder® Valve Springs

(Stock, Super Stock® and Performance Replacement Cylinder Heads)

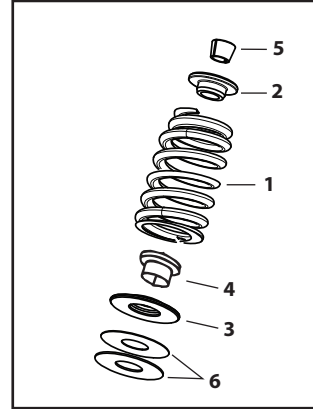
1. Spring, Valve .650" **106-5689**
2. Collar, Top, Steel **106-5690**
3. Collar, Bottom, Steel (each) **106-5691**
4. Valve Seal
 .420" Cast **900-0338**
 .562" Powder Metal **900-0737**
5. Valve Keeper 18229-83 (each) **90-2094-S**
 8 pack **50-7166**
6. Valve Spring Shim
 .015" (each) **500-0013**
 .030" (each) **500-0014**

.585" Lift Street Performance Valve Springs

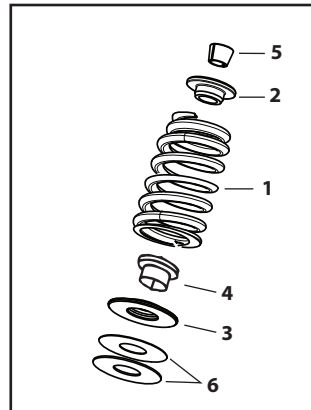
(Stock, Super Stock® and Performance Replacement Cylinder Heads)

1. Spring **900-0444**
2. Collar, top, steel (each) **N/A**
3. Collar, bottom, steel **N/A**
4. Valve Seal
 .420" Cast **900-0338**
 .562" Powder Metal **900-0737**
5. Valve Keeper 18229-83 (each) **90-2094-S**
 8 pack **50-7166**
6. Valve spring shim
 .015" (each) **90-2086**
 5 pack **50-7161**
 .030" (each) **90-2087**
 5 pack **90-2198**

.650" Lift Sidewinder® Valve Springs

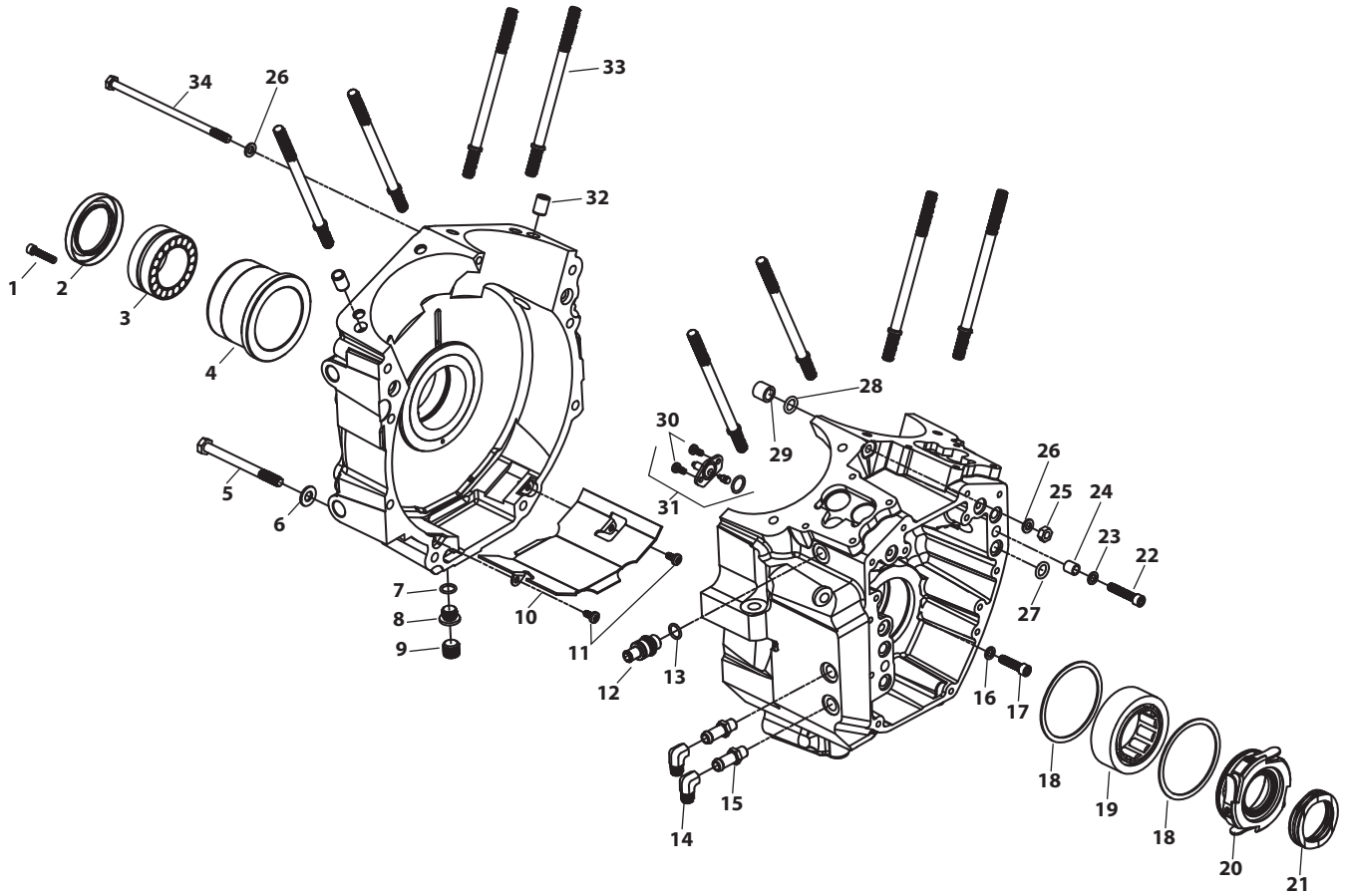


.585" Lift Street Performance Valve Springs



2 CAM V-SERIES CRANKCASE REPLACEMENT PARTS FOR 1984-'99 BIG TWIN ENGINES

- | | | | |
|---|----------------------|---|----------------------|
| 1. Screw, SHCS, 10–24 x 1", Alloy Steel 2720 | 50-0044 | 20. Valve, Assembly, Breather Reed, 2003–2010 bt | 310-0742 |
| 2. Seal, Left, Main Bearing, 1.750" x 2.507" x .3130", 1970-up bt
12026B | 31-4010 | 21. Wave Spring, 2"OD X 1.6"ID X .375" | 50-8404 |
| 3. Bearing, Assembly, Left, Main 9028 | 31-4013 | 22. Screw, SHCS, ¼-20 x 1¼", Zinc 4740A, 3482A | 50-0008 |
| 4. Insert, Left, Main Bearing | N/A | 23. Washer, Flat, .260" x .425" x .060", Chrome, Steel | 50-7017 [±] |
| 5. Screw, HHC, Gr8, ⅜-18 x 3½", Zinc, Steel 3427 | 50-0117 | 24. Pin, Dowel, .275" x .397", Steel (4 pack) | 500-0219 |
| 6. Washer, Flat, .344" x .688" x .065", Zinc, Steel
6320, 70907-07, 6016, 6702 | 50-7034 | 25. Nut, HH, ¼-28 UNC–2B x .226", Zinc, Steel 7683 | 50-5011 |
| 7. O-ring, (-013), .437" ID x .565" OD, Viton® 11105, 11273 | 50-8008 | 26. Washer, .261" x .474" x .050", Annealed, Stainless Steel | 50-7020 |
| 8. Plug, Drain, w/ O-ring, Magnetic, ½-20, Zinc, Steel | 50-8335 | 27. O-ring, (-110), .375" ID x .562" OD, Viton® 11301
each | 50-8066-S |
| 9. Plug, Pipe, ¾ Taper, ¼-18 NPTF x .460", Zinc, Steel
765 | 50-8330 | 28. O-ring, (-015), .562" ID x .068" OD, Black, Viton® 26432-76A
each | 50-8034-S |
| 10. Plate, Baffle, Crankcase, 1999-up bt | 31-0119-S | 2 pack | 50-8034 |
| 11. Screw, PH, 10–24 x ⅜", Zinc, Steel, ASTM-A307 | 50-0050 | 29. Pin, Dowel, .557" x .500", Black, Steel 16574-99A, 16573-83, 16573-83A | 50-8023 |
| 12. Fitting, Vent, ⅜", Plated, 1999–2006 bt | 50-0454 | | 50-0054-S |
| 13. O-ring, (-013), .437" ID x .565" OD, Viton® 11105, 11273 | 50-8008 | 30. Screw, Torx Panhead, 8–32 x ⅜", Zinc, Steel 68042-99 | 50-0054-S |
| 14. Fitting, Pipe, 90°, Male/Female, ⅜-27 NPTF x .500", Zinc Plated, Steel
26338-68, 26561-84A, 26561-81A, 26338-68A | 106-2682 | 31. Jet, Kit, Piston Cooling, 4⅛" 1984-'99 bt, 1999-up bt, (2 pack)
22307-99 | 31-2026 |
| 15. Fitting, Hose, Straight, ⅜-27 NPTF x .500", Zinc, Steel | 50-8115 | 32. Pin, Dowel, .437" x .610", Steel 16595-99A | 50-8177 |
| 16. Washer, Flat, .260" x .425" x .060", Chrome, Steel | 50-7017 [±] | 33. Stud, Cylinder Base, ⅜-16 UNC x 6.070", Black, Steel | 31-2325-S |
| 17. Screw, SHCS, ¼-20 x 1", Zinc, ASTM A574-92A 852 | 50-0084 | | 50-0090 |
| 18. Retaining Ring, Internal, 2.731" x .031" x .158", Steel, SAE 1070-1090
35114-02 | 50-8160-S | | |
| 19. Bearing, Right, Main, S&S Crankcases 1999-'06 bt, 2000-up Bal bt, 2003-up NB bt
24604-00D | 31-4085 | | |

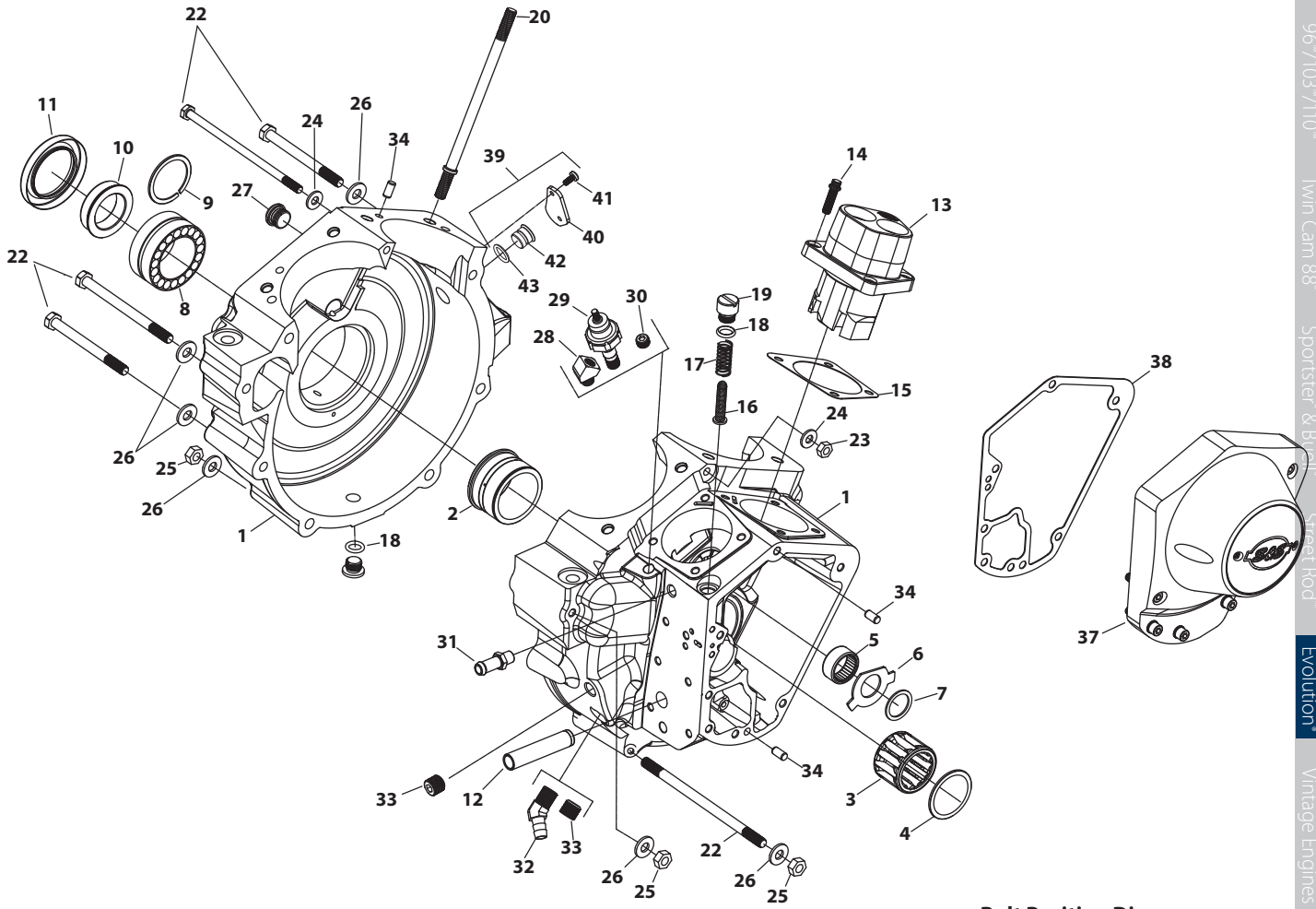


SUPER STOCK® CRANKCASE REPLACEMENT PARTS

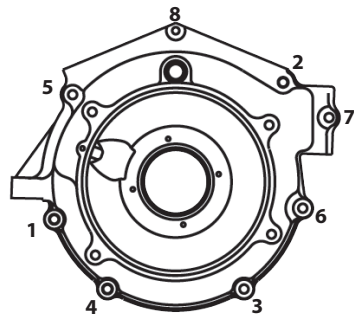
FOR BIG TWIN ENGINES OF LESS THAN 4" CYLINDER BORE

1. Crankcase assembly, half	N/A
2. Race, right main bearing, All S&S BT	
Standard (24599-93, 24599-58A, 24599-58B)	31-4004
+ .005" O.S. (HD# 24601-58B)	31-4007
+ .030" O.S.	31-4030
3. Right main bearing assembly BT	
White 24626-87A	31-4005
Green 24628-87A	31-4016
Red 24641-87A	31-4017
Blue 24643-87A	31-4018
4. Retaining ring, main bearing BT	
11177A (each)	50-8057
5 pack	50-1004
5. Cam needle bearing assembly BT	
9058	31-4009
6. Washer, cam lock – BT	
25550-57A (each)	33-5201
5 pack	33-5213
7. Cam thrust washer – BT	
.050" 25550-36 (each)	33-5200
.055" 25551-36 (each)	33-5202
.060" 25552-36 (each)	33-5203
.065" 25553-36 (each)	33-5204
.070" 25554-36 (each)	33-5205
.075" (each)	33-5206
.080" (each)	33-5207
.090" (each)	33-5209
8. Left Timken® main bearing assembly 1984-'99	
S&S BT cases 9028	31-4013
9. Timken Main Bearing Spacers, 1984-'99 BT	
.0995" – .1005" 9124	31-4071
.1015" – .1025" 9125	31-4072
.1035" – .1045" 9126	31-4073
.1055" – .1065" 9127	31-4074
.1075" – .1085" 9128	31-4075
.1195" – .1205" 9134	31-4076
10. Spacer, drive sprocket, 1984-'99 S&S BT cases	
Standard 24002-70	31-4011
11. Seal, sprocket shaft oil 1936-'99 S&S BT cases	
12026B (each)	31-4010
5 pack	31-4110
12. Bushing, oil pump shaft – 24641-36	31-4008
13. Tappet guide – Shown for reference only (not included)	
14. Screw, 12 pt. DHH 1/4" – 20 x 7/8" 3770	
Each	50-0068
5-pack	50-0068P
15. Gasket, tappet guide – 1948-'99 BT	
Front 18634-48C (each)	33-5302F
10 pack front	33-5313F
Rear 18633-48B, 18633-48D (each)	33-5302R
10 pack rear	33-5313R
Set (each front & rear)	33-5302
10 pack set	33-5313
16. Crankcase oil screen – 1948-'99 BT 24981-70, 24981-66	
(each)	31-2010
5 pack	31-7008
17. Crankcase oil screen spring – 1948-'99 BT	
24982-66, 24982-70 (each)	31-2011-S
18. O-ring, drain plug and cover screw	
11105, 11273 (each)	50-8008
10 pack	50-8078
19. Cover screw – 1948-'99 S&S BT 26263-80, 26362-36	
each	31-6021
5 pack	31-7005
20. Cylinder stud	
1984-up BT 16837-85C (each)	31-2321-S
8 pack	31-2321
21. Crankcase hardware Kits (N/S – include studs, screws, nut & washers)	
Zinc Plated	106-4908
Chrome	106-4909±
22. Crankcase studs and screws	
(Position 1, 2, 3, & 4) Alignment Stud,	
5/16" – 24 x 5 3/4" 3506, 24806-36	31-2003
(Position 5 & 6) Screw, HHCS, 5/16" – 18 x 3 1/2"	50-0117
(Position 7) Screw HHCS, 5/16" – 24 x 5"	
Zinc 3430	50-0119
Chrome (each)	50-0253-S±
(Position 8) Screw HHCS, 1/4" – 28 x 5 1/2" (each)	
Zinc	50-0090
Chrome (each)	50-0252-S±
23. Nut, Hex – 1/4" – 28 7683	50-5011
24. Washer, flat – 1/4" x 5/8" x 1/16" (each)	
Zinc (6194, 6245, 6703, 6736, 6228W, 6192)	50-7021
Chrome	50-7104-S±
25. Nut, hex – 5/16" – 24 (each)	
Zinc 7833, 7883	50-5023
26. Washer, flat – 5/16" x 1 1/16" x 1/16"	
6320, 70907-07, 6016, 6702	50-7034
27. Plug, timing hole 720	31-2005
28. Fitting, 45° 1/8" x 1/8" pipe male/female	50-8112
29. Oil pressure switch 26561-84	
(Includes: switch, nut, lock washer.)	31-2016
30. Plug, SH pipe – 1/8" – 27 (each)	50-8331A
10 pack	50-1015
31. Fitting, hose – 1/8" – 27 pipe male	50-8115
32. Fitting, 45° hose – 1/4" pipe male x 3/8" male hose	50-8113
33. Plug, SH pipe, 1/4" – 18, 1965-'69 S&S BT 765	
(each)	50-8330
34. Dowel pin, .250" diameter x 1/2" 358, 366	
(each)	50-8022
2 pack	50-8022-2
5 pack	50-8105
35. Screw, SHC – 10-24 x 1" (Stator) (N/S) 2720	
each	50-0044
36. Screw, SHS – 10-24 x 5/16" – (Stator plug clamp) (N/S)	
each	50-0045
37. Gearcover – Shown for reference only (not included)	
38. Gearcover gasket 1970-up S&S BT	
25225-93A, 25225-93B, 25225-70C, 25257-80	31-2107
39. CPS hole plug kit	106-2997
40. Cover, CPS hole	31-2056-S
41. Screw, Torx, 8-32 x 3/8"	50-0054-S
42. CPS hole plug	106-1189
43. O-ring (each)	50-8270
5 pack	50-8275

(N/S) = Not Shown



Bolt Position Diagram





























Milwaukee
Twin Cam
96°/103°/110°
2007-2017
1999-2006
Twin Cam 88°
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod®
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
Appendix
& Index



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SPECIAL APPLICATION CRANKCASE REPLACEMENT PARTS

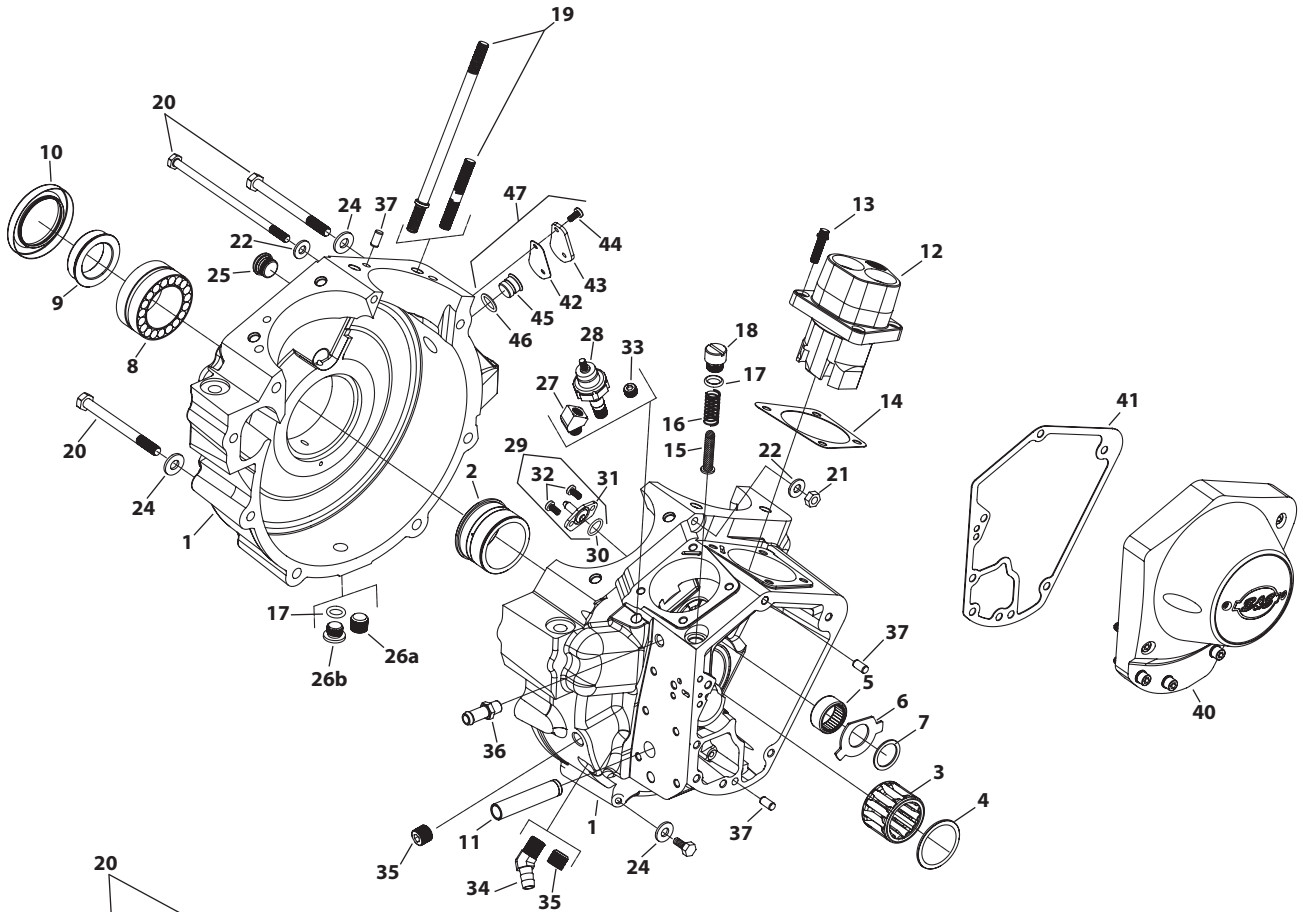
FOR BIG TWIN ENGINES WITH 4", 4-1/8" AND 4-3/8" CYLINDER BORE

1. Crankcase assembly, half **N/A**
2. Race, right main bearing, for 1936-'99 big twin
Standard #24599-93, 24599-58A, 24599-58B)
.....  **31-4004**
+ .005" O.S. 24601-58B) **31-4007**
3. Right main bearing assembly BT
White 24626-87A **31-4005**
Green 24628-87A **31-4016**
Red 24641-87A **31-4017**
Blue 24643-87A **31-4018**
4. Retaining ring, main bearing BT 11177A
each **50-8057**
5 pack **50-1004**
5. Cam needle bearing assembly BT9058
.....   **31-4009**
6. Washer, cam lock - 1984-'99 BT (HD# #25550-57A)
each  **33-5201**
5 pack  **33-5213**
7. Cam thrust washer - 1984-'99 BT
.050" 25550-36 (each)  **33-5200**
.055" 25551-36 (each)  **33-5202**
.060" 25552-36 (each)  **33-5203**
.065" 25553-36 (each)  **33-5204**
.070" 25554-36 (each)  **33-5205**
.075" 25555-36 (each)  **33-5206**
.080" 25556-36 (each)  **33-5207**
.090" 25558-36 (each)  **33-5209**
8. Left Timken® main bearing assembly
1984-'99 S&S BT cases 9028  **31-4013**
9. Spacer, drive sprocket
1984-'99 S&S BT cases 24002-70  **31-4011**
10. Seal, sprocket shaft oil 1936-'99 S&S BT cases
12026B (each)  **31-4010**
5 pack  **31-4110**
11. Bushing, oil pump shaft - All S&S BT cases
Standard 24641-36  **31-4008**
12. Tappet guide assembly (See PAGE 345)
13. Screw, 12 pt. DHH 1/4" -20 x 7/8" 3770 **50-0068**
4 pack **50-0068P**
14. Gasket, tappet guide - 1984-'99 BT
Front 18634-48C (each)  **33-5302F**
10 pack front  **33-5313F**
Rear 18633-48B, 18633-48D (each)  **33-5302R**
10 pack rear  **33-5313R**
Set (each front & rear) 18633-48  **33-5302**
10 pack set  **33-5313**
15. Crankcase oil screen - 1984-'99 BT
24981-70, 24981-66 (each) **31-2010**
5 pack **31-7008**
16. Crankcase oil screen spring - 1984-'99 big twin
24982-66, 24982-70 (each) **31-2011-S**
17. Cover screw o-ring - 1984-up S&S BT 11105, 11273
each **50-8008**
10 pack **50-8078**
18. Cover screw - 1984-'99 S&S BT 26263-80, 26362-36
each **31-6021**
5 pack **31-7005**
19. Cylinder stud
1984-up BT with +.500" cases 16832-86C
each  **31-2331-S**
8 pack  **31-2331**
20. Crankcase Hardware

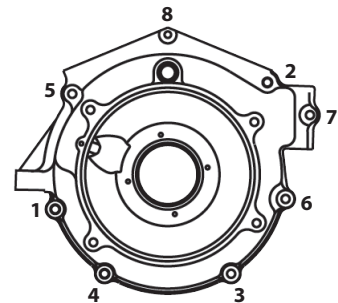
Special Application Crankcases (For Engines With 4" Cylinder Bore or Greater)
4" and 4 1/8" Bore Cases Manufactured Before 6-1-08

- (Positions 1 - 4)
Alignment Stud, 5/16" -24 x 6 1/16" 24809-30 **31-2034**
- (Positions 5 & 6)
Screw, HHCS, 5/16" -18 x 3 1/2" 3427 **50-0117**
Screw, HHCS, 5/16" -18 x 3 1/2" chrome (each) **50-0254-S[±]**
- (Position 7)
Screw HHCS, 5/16" -24 x 5"
Zinc 3430 **50-0119**
Chrome (each) **50-0253-S[±]**
- (Position 8)
Screw HHCS, 1/4" -28 x 5 1/2" (each) **50-0090**
Screw HHCS, 1/4" -28 x 5 1/2" Chrome (each) **50-0252-S[±]**
- 4" and 4 1/8" Bore Cases Manufactured After 6-1-08
(Positions 1-7)
1936-'69 S&S BT cases & S&S BT SA cases
Screw, HHCS, 5/16" -18 x 3 1/2" zinc 3427 **50-0117**
Screw, HHCS, 5/16" -18 x 3 1/2", chrome (each) **50-0254-S[±]**
- (Position 8)
Screw HHCS, 1/4" -28 x 5 1/2" zinc (each) **50-0090**
Screw HHCS, 1/4" -28 x 5 1/2" Chrome (each) **50-0252-S[±]**
- 4 3/8" Bore Cases Manufactured Before 6-1-08
(Positions 1 - 4) Alignment Stud
Alignment Stud, 5/16" -24 x 6 1/16" 24809-30 **31-2034**
- (Positions 5 & 6)
Screw, HHCS, 5/16" -18 x 3 1/2" 3427 **50-0117**
(Position 7)
Screw HHCS, 5/16" -24 x 5"
Zinc 3430 **50-0119**
Chrome (each) **50-0253-S[±]**
- (Position 8) All S&S BT cases Special Application
Screw, HHCS, 1/4" -28 x 6", zinc (each) **50-0020**
- 4 3/8" Bore Cases Manufactured After 6-1-08
(Positions 1-7) 1936-'69 S&S BT cases & S&S BT SA cases
Screw, HHCS, 5/16" -18 x 3 1/2", zinc 3427 **50-0117**
Screw, HHCS, 5/16" -18 x 3 1/2", chrome (each) **50-0254-S[±]**
- (Position 8) All S&S BT cases Special Application
Screw, HHCS, 1/4" -28 x 6", zinc (each) **50-0020**
21. Nut, Hex - 1/4"-28 7683 **50-5011**
22. Washer, .261" x .474" x .050"
Zinc (each) **50-7020**
Chrome (each) **50-7105-S[±]**
23. Nut, hex - 5/16"-24
Zinc 7833, 7883 **50-5023**
(for Special Application Cases Manufactured Before 6-1-08)
24. Washer, flat - 5/16" x 1 1/16" x 1/16" 6320, 70907-07, 6016, 6702 **50-7034**
25. Plug, timing hole 720  **31-2005**
26. Drain plug - Manufactured before 5-1-2000
3/8"-18 NPT. **31-2006**
Manufactured after 5-1-2000
1/2"-20 **50-8335**
27. Fitting, 1/8" x 1/8" pipe male/female **50-8112**
28. Oil pressure switch 26561-84
(Includes: 1 each switch, nut, lock washer.)  **31-2016**
29. Piston Oiler Jet Kit 22307-99 includes #30 (1), #31 (1), #32 (2)
2 pack **31-2026**
30. O-ring, (-014), .500" ID x .625" OD
each **50-8270**
10 pack **50-8130**
31. Jet, Assembly, Piston Cooling 22371-99, 22307-99 (each) **31-2025B**

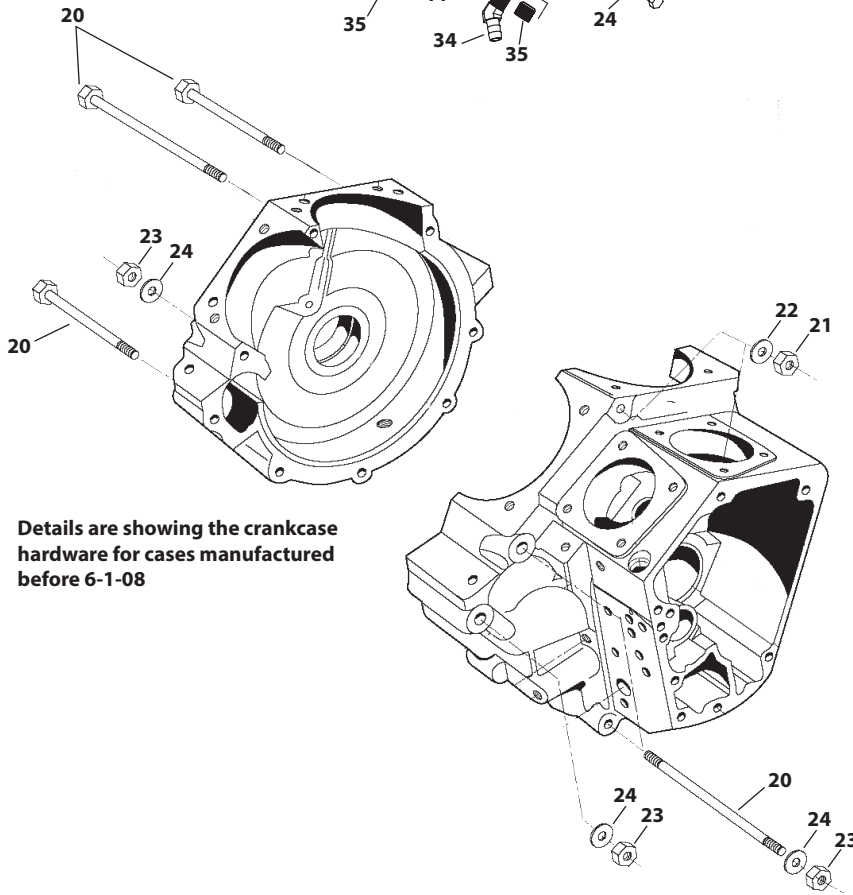
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BOLT POSITION DIAGRAM






Details are showing the crankcase hardware for cases manufactured before 6-1-08



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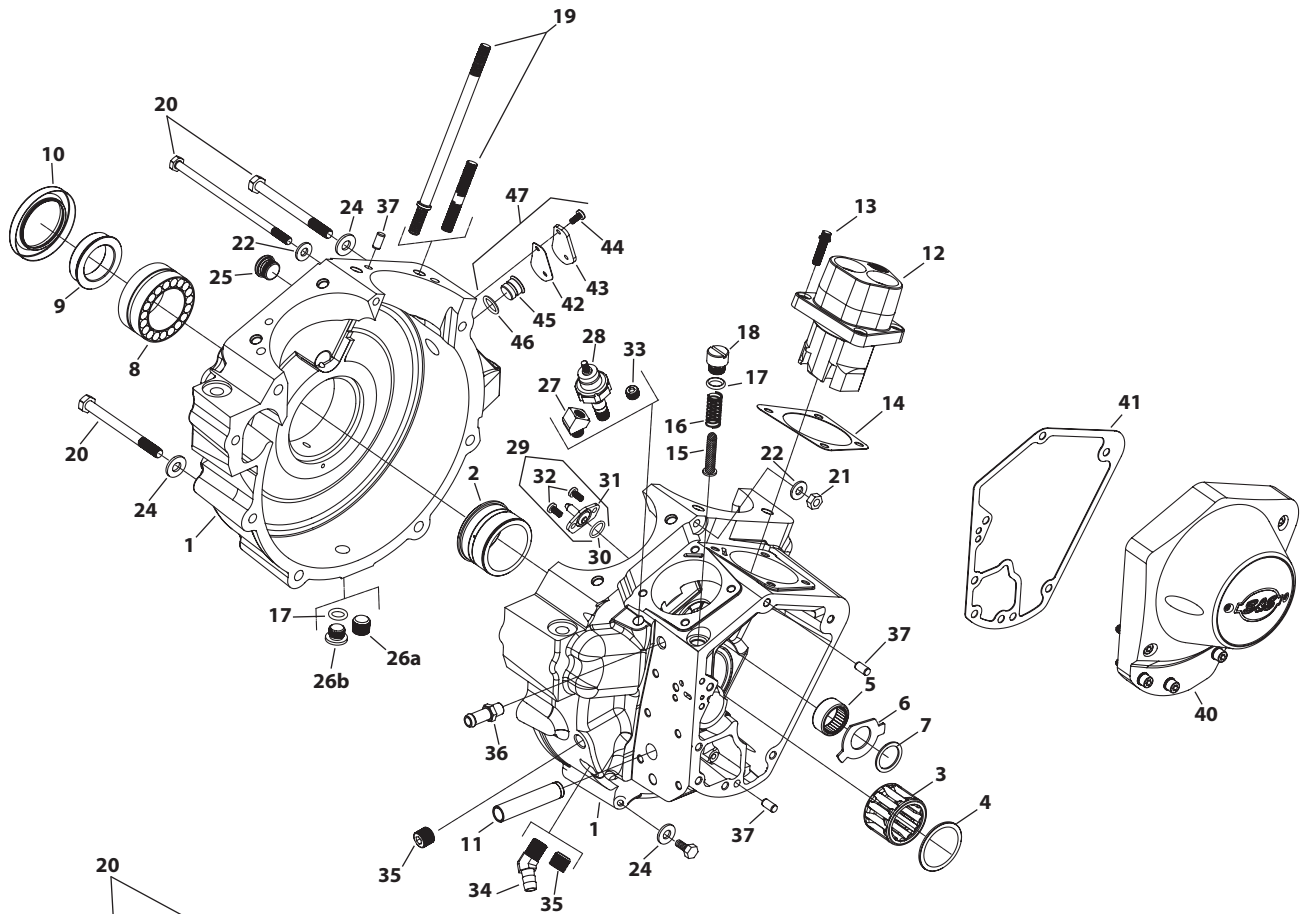
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SPECIAL APPLICATION CRANKCASE REPLACEMENT PARTS FOR BIG TWIN ENGINES WITH 4", 4-1/8" AND 4-3/8" CYLINDER BORE

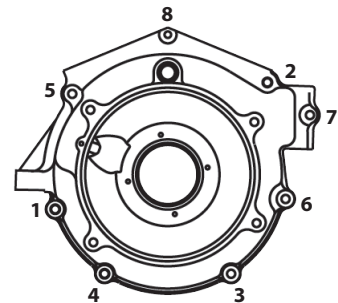
32. Screw, Torx Panhead, 8-32 x 3/8", Zinc, Steel 68042-99 each	50-0054-S
33. Plug, SH pipe - 1/8"-27 45830-48 (each)	50-8331A
10 pack	50-1015
34. Fitting, 45° hose - 1/4" pipe male x 3/8" male hose	 50-8113
35. Plug, SH pipe, 1/4"-18, 1965-'69 S&S BT 765	 50-8330
36. Fitting, hose - 1/8"-27 pipe male	 50-8115
37. Dowel pin, .250" diameter x 1/2" (1970-up S&S BT) 358, 366 each	50-8022
2 pack	50-8022-2
5 pack	50-8105
38. Screw, SHC - 10-24 x 1" (Stator) (N/S) 2720 each	50-0044
39. Screw, SHS - 10-24 x 5/16" - (Stator plug clamp) (N/S) each	50-0045
40. Gearcover (See PAGE 337)	
41. Gearcover gasket 1970-up S&S BT 25225-93A, 25225-93B, 25225-70C, 25257-80	31-2107
42. Gasket, CPS hole (obsolete)	N/A
43. Cover, CPS hole	31-2056-S
44. Screw, Torx, 8-32 x 3/8" 68042-99 (each)	50-0054-S
45. CPS hole plug	106-1189
46. O-ring (each)	50-8270
5 pack	50-8275
47. CPS hole plug kit	106-2997

(N/S) = Not Shown

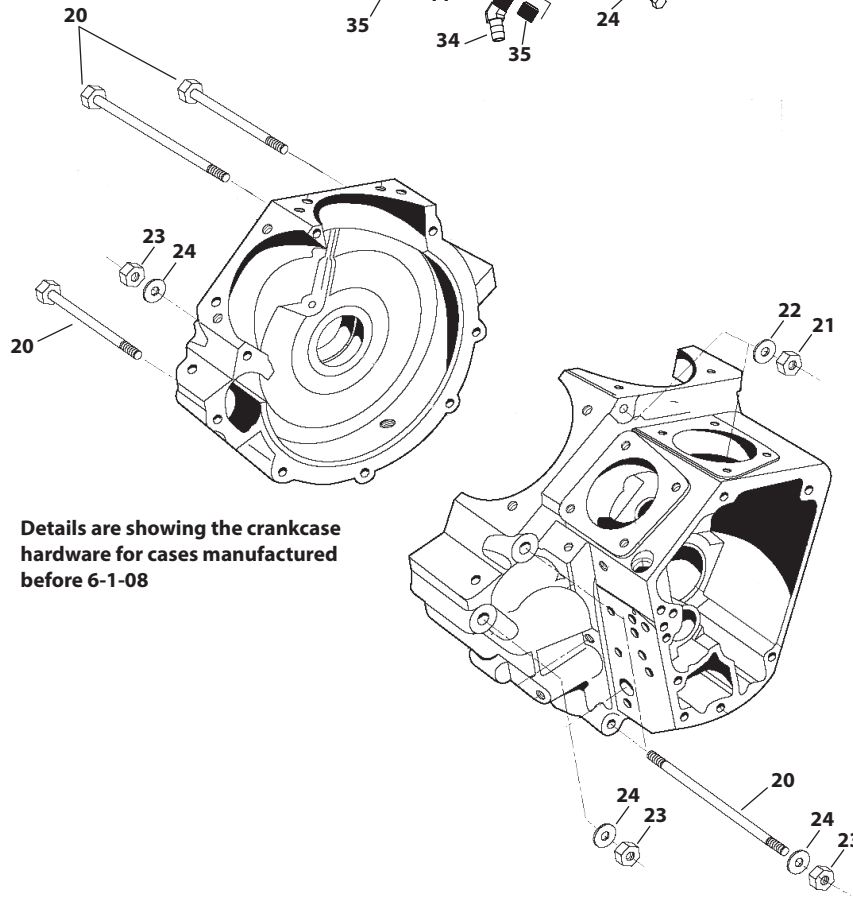
N/A = No longer available



BOLT POSITION DIAGRAM

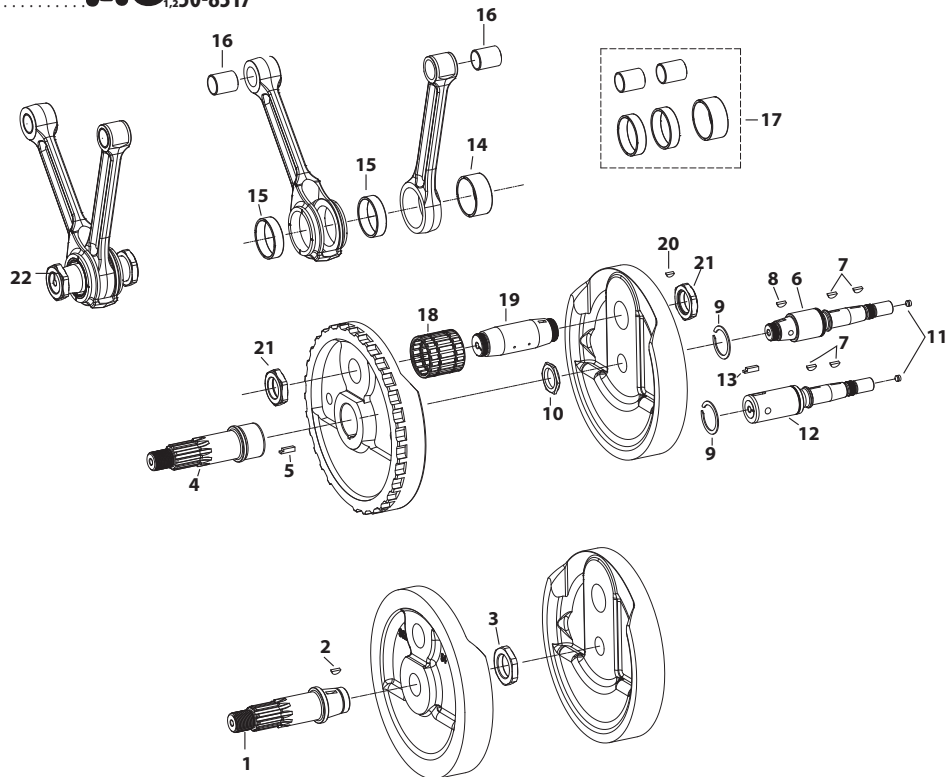


Details are showing the crankcase hardware for cases manufactured before 6-1-08



FLYWHEEL REPLACEMENT PARTS FOR V96, V107 AND V113

- | | |
|---|------------------|
| 1. Sprocket Shaft, 1984–1999 w/ S&S SE/SL flywheels
(includes #2 & 3) | 33-2004 |
| 2. Key (each) | 50-8225-S |
| 3. Sprocket Shaft Nut | 33-2033 |
| 4. Sprocket Shaft, 1984–'99 w/ S&S SGX/SF/SM flywheels
(includes #5) | 33-2009 |
| 5. Key (each) | 50-8227 |
| 6. Pinion Shaft (includes #7, 8, 9, 10, 11)
1984–1986 Stock Flywheels, L1981–99 S&S BL/SL/SM flywheels
Stock or S&S® Super Stock® Cases
Standard | 33-2027 |
| + .001" | 33-2028 |
| 1984–1999 S&S BL/SL/SM flywheels S&S SA cases + .250"
Standard | 33-2040 |
| 7. Key, pinion & oil pump (each) | 50-8221-S |
| 5 pack | 50-1008 |
| 8. Pinion Shaft Key 11218 (each) | 50-8222-S |
| 5 pack | 50-1009 |
| 9. Bearing Retaining Ring 11177A (each) | 50-8057 |
| 5 pack | 50-1004 |
| 10. Pinion Shaft Nut | 33-2034 |
| 11. Meter Plug
.0625" hole | 50-8316± |
| .0925" hole | 50-8317± |
| 12. Pinion Shaft (+.250" longer) (includes #7, 9, 13)
1984–1999 S&S SG flywheels/SA crankcases | N/A |
| 13. Pinion Shaft Key | 50-8234 |
| 14. Front Rod Bushing, 1941–1999 all S&S flywheels 24356-36A | 34-4005 |
| 15. Rear Rod Bushing 24345-36A (each) | 34-4006 |
| 16. Wristpin Bushing 24334-36 | 34-4007 |
| 17. Race and Bushing Set (includes #14, 15, 16) | 34-4040 |
| 18. Cage and Bearing Set (std.) 24346-87A, 24385-40B | 34-4010 |
| 19. Crankpin (includes #20, 21), late 1981–1999 all S&S flywheels
Standard 23961-80A | 34-2102 |
| .001" OS 23974-87 | 34-2103 |
| .002" OS 23975-87 | 34-2105 |
| .003" OS | 34-2106 |
| 20. Crankpin Key, late 1981–1999 all S&S flywheels 11218
each | 50-8222-S |
| 5 pack | 50-1009 |
| 21. Crankpin Nut, late 1981–1999 all S&S flywheels
23967-54A, 23969-83, 23901-81, 23981-98 | 34-2104 |
| 22. Connecting Rod Assembly, 1984–'99 all big twins
(includes #14, 15, 16, 18, 19, 20, 21)
Heavy Duty 24281-80, 24281-83 | 34-7013 |



NOTES

S&S rods with their beefier than stock construction are slightly heavier than stock connecting rods. Therefore, rebalancing the flywheels is recommended when S&S rods are used in stock replacement applications. We realize that rebalancing is an inconvenience, but we did not want to sacrifice rod strength. In addition, given the variations in stock and aftermarket components available to engine builders, flywheel rebalancing is a desirable step in any major engine overhaul.

We recommend and sell only the pre-1990 big twin shaft. Since the S&S pinion shafts are of the earlier design, they will not accept the late style stock pinion gear, oil pump drive gear, gear spacer and pinion gear nut – to make it easier to install S&S flywheels.

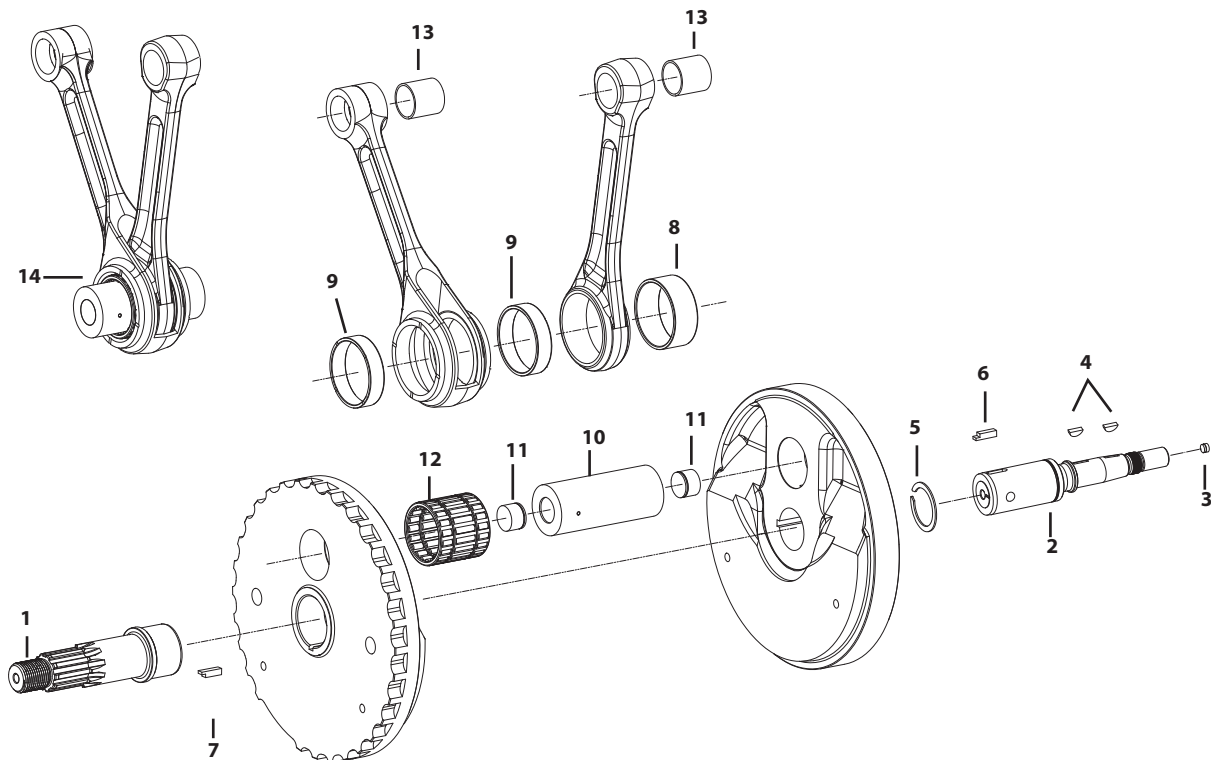
1989–'99 big twin engines: S&S offers a conversion package consisting of earlier style pinion gear, spacer, nut, and oil pump drive gear to fit the S&S pinion shaft. S&S offers pinion and oil pump drive gears to fit the S&S pinion shaft for Harley-Davidson® Sportster® models.

Crankpins must be measured prior to final honing of bearing races to ensure proper clearance. (Inquire about S&S flywheel rebuild program if adequate measurement equipment is not available.) Dimensions shown are nominal.

All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

FLYWHEEL REPLACEMENT PARTS FOR V111, V117 AND V124

1. Sprocket Shaft, 1984-'99 bt (includes key) **33-2009**
2. Pinion Shaft (+.250" longer) (includes #7, 9, 13)
1984-1999 S&S SG flywheels/SA crankcases **33-2047**
3. Meter Plug
.0625" hole **USA 50-8316±**
.0925" hole **USA 50-8317±**
4. Key, pinion & oil pump 11218 **50-8221-5**
5 pack **50-1008**
5. Bearing Retaining Ring 11177A **50-8057**
5 pack **50-1004**
6. Pinion Shaft Key **50-8234**
7. Key **50-8227**
8. Front Rod Race **USA 34-4008**
9. Rear Rod Race **USA 34-4013**
10. Crankpin (std.) **106-6239**
11. Crankpin Plug (each) **106-5256**
2 pack **50-8329-2**
12. Race/Bearing Set **340-0028**
13. Wristpin Bushing,
1984-'99 bt, straight bushing **USA 34-4012**
14. Connecting Rod Set
1984-'99 bt, straight wristpin ends **N/A**



NOTES

Due to different crankpin diameters, S&S® connecting rod assemblies cannot be used with stock Harley-Davidson® flywheels.

S&S flywheels for S&S V111, V117 AND V124 engines are pressed together as opposed to using the traditional tapered shafts and crankpin. Assembly and truing requires special equipment.

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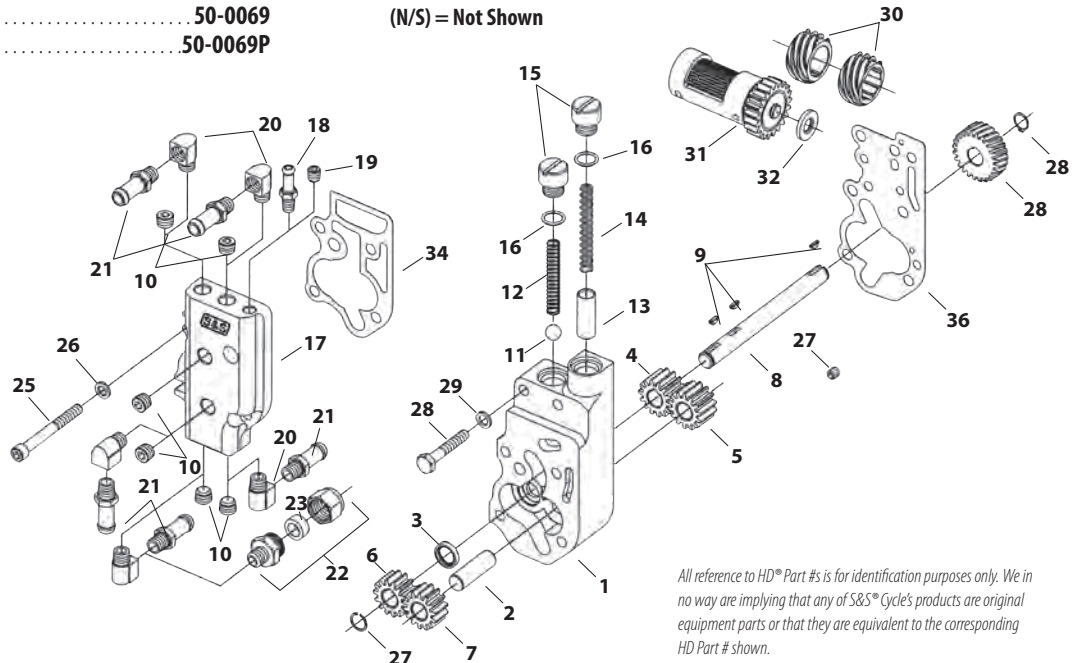
STANDARD OIL PUMP KIT REPLACEMENT PARTS

1. Pump body assembly		
Fits 1984-'91 31-6042.....	31-6050	
Fits 1992-'99 31-6043.....	31-6051	
2. Shaft, idler 26327-68.....	USA 31-6004	
3. Seal, drive shaft 26227-58.....	USA 31-6005	
4. Gear, return drive 26315-68A.....	USA 31-6013	
5. Gear, return idler 26317-68A.....	USA 31-6014	
6. Gear, supply drive 26328-74, 26320-36.....	USA 31-6015	
7. Gear, supply idler 26326-62A.....	USA 31-6016	
8. Shaft, drive 26346-70.....	USA 31-6011	
9. Key, drive shaft 26347-15 (each)	50-8220-S	
10 pack.....	50-8229	
10. Plug, 1/8"-27 45830-48 (each)	50-8331A	
10 pack.....	50-1015	
11. Check ball valve 8866, 8873.....	USA 50-8091	
12. Spring, check valve 26363-36, 26363-56, 26262-80 (each)	31-6022	
10 pack.....	31-6092	
13. Relief valve 26400-82, 26400-82B.....	31-6082	
14. Spring, relief valve 26207-83 (each)	31-6018	
10 pack.....	31-6084	
15. Screw, check valve & relief valve cover 26263-80, 26362-36		
each.....	31-6021	
5 pack.....	31-7005	
16. O-ring 11105, 11273 (each)	50-8008	
10 pack.....	50-8078	
17. Pump cover assembly		
a. Pre-1992 (Top or bottom fittings; accepts pressure gauge)		
31-6041.....	31-6059	
b. Pre-1992 (Custom bottom fittings only) 31-6045.....	31-6060	
c. 1992-'99 (Universal).....	31-6061	
d. 1992-'99 (Bottom fittings or central supply fitting).....	31-6062	
18. Fitting, front chain hose.....	50-8116	
19. Plug, pipe 1/6"-27 x 1/4" pipe.....	USA 50-8332	
20. Elbow, supply/return		
26338-68A, 26561-81A, 26561-84A, 26338-68.....	106-2682	
5 pack.....	50-1007	
21. Fitting, supply/return hose.....	USA 50-8115	
22. Return fitting, compression 63523-92, 63523-62		
.....	USA 50-8120	
23. Seal, tubing, 3/8" x 1/2" O.D. x 1/4".....	50-8271	
24. Plug, 1/4"-20 (each)	50-0069	
2 pack.....	50-0069P	

25. Screws, mounting - 1984-'99		
a. 1/4"-24 x 1-1/2" (HHCS).....	50-0082	
b. 1/4"-24 x 2-1/4" (HHCS) 5430W.....	50-0088	
c. 1/4"-20 x 1-1/2" (HHCS).....	50-0080	
d. 1/4"-20 x 2-1/4" (SHCS) 4717A.....	50-0078	
e. 1/4"-20 x 1-1/2" (SHCS) 4718A.....	50-0079	
26. Washer, 1/4" (each)	50-7017	
12 pack.....	50-7013	
27. Retaining ring 695-36, 26348-36 (each)	50-8058	
10 Pack.....	50-8106	
28. Retaining ring, external 11002 (each)	50-8059	
10 Pack.....	50-8107	
29. Gear, pump drive, 24T 26345-73.....	33-4230	
30. Gear, pinion shaft pump drive - 1984-'89		
26349-73, 26349-73A.....	33-4232	
31. Gear, steel breather valve		
Standard 25310-82A, 25313-77B, 25311-90.....	33-4241	
+ .030".....	33-4242	
32. Shim, steel breather kit - 8 pack (includes one of each thickness)	33-4249	
a. +.100" thick.....	33-4200	
b. +.110" thick 25320-79.....	33-4201	
c. +.120" thick 25322-79.....	33-4202	
d. +.130" thick 25325-79, 25320-82.....	33-4203	
e. +.140" thick 25322-82, 25327-79.....	33-4204	
f. +.150" thick 25325-82.....	33-4205	
g. +.160" thick 25327-82.....	33-4206	
h. +.170" thick.....	33-4207	
33. Gasket rebuild kit (N/S) Includes key and retaining ring		
a. 1984-'91.....	31-6271	
b. 1992-'99.....	31-6273	
34. Master rebuild kit - (N/S)		
Includes: gasket rebuild kit, seal, retaining ring, relief valve spring, check valve spring, check valve, ball, and cover screw o-rings		
a. 1984-'91.....	31-6275	
b. 1992-'99.....	31-6278	
35. Drill jig, oil pump (N/S).....	53-0013	

Oil pump mounting hardware kit (N/S)	
1984-91 (Includes # 25a, 25b, 25c, 25d, 26).....	31-6288
1992-99 (Includes # 25d, 25e, 26).....	31-6290
Hardware Kit, Oilpump Cover (N/S)	
1984-91 (Includes #10, 18, 19, 20, 21, 22).....	31-6283 [±]
1992-99 (Includes #10, 20, 21, 22).....	31-6286 [±]

(N/S) = Not Shown



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HIGH VOLUME HIGH PRESSURE OIL PUMP REPLACEMENT PARTS

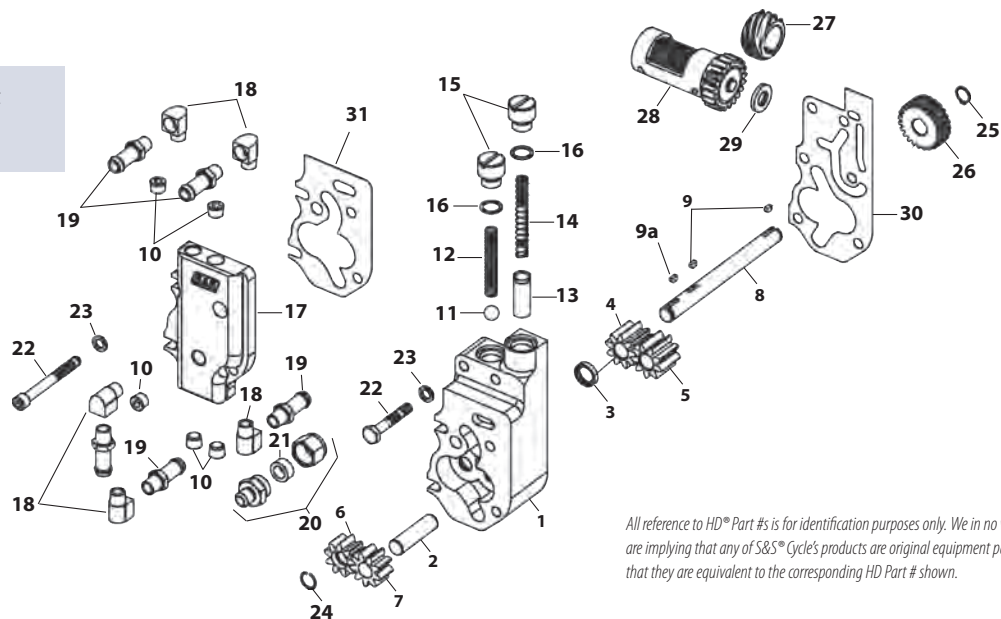
1. Pump body assembly
Fits 1984-'91 **31-6097**
Fits 1992-'99 **31-6078**
2. Shaft, idler **31-6080-S**
3. Seal, drive shaft (each) **31-6064-S**
4. Gear, return drive, HVHP **31-6075**
5. Gear, return idler, HVHP **31-6083**
6. Gear, supply drive, HVHP **31-6074**
7. Gear, supply idler, HVHP **31-6081**
8. Shaft, drive 26346-70 **USA_{1,2,3} 31-6011**
9. Key, drive shaft (each) **50-8228-S**
- 9a. Key, Woodruff, .094" x .313" x .311", Steel 26347-15
each **50-8220-S**
10 pack **50-8229**
10. Plug, 1/8"-27 45830-48 (each) **50-8331**
10 pack **50-1015**
11. Check ball valve (HD® #8866, 8873)
..... **USA_{1,2,3} 50-8091**
12. Spring, check valve 26363-36, 26363-56, 26262-80
each **31-6022**
10 pack **31-6092**
13. Relief valve 26400-82, 26400-82B **31-6082**
14. Spring, relief valve 26207-83 (each) **31-6018**
10 pack **31-6084**
15. Screw, check valve & relief valve cover 26263-80, 26362-36
each **31-6021**
5 pack **31-7005**
16. O-ring 11105, 11273 (each) **50-8008**
10 pack **50-8078**
17. Pump cover assembly
1984-'91 (Universal) **31-6098**
1992-'99 (Universal) **31-6079**
1992-'99 (Standard Style) **31-6094**
18. Elbow, supply/return 26338-68A, 26561-81A, 26561-84A, 26338-68
each **106-2682**
5 pack **50-1007**
19. Fitting, supply/return hose **USA_{1,2,3} 50-8115**
20. Return fitting, compression 63523-92, 63523-62 **USA_{1,2,3} 50-8120**
21. Seal, tubing 3/8" x 1/2" O.D. x 1/4" **50-8271**

22. Screws, mounting
a. 1/4"-20 x 1-1/2" (SHCS) 4718A **50-0079**
b. 1/4"-20 x 1-1/2" (HHCS) **50-0080**
c. 1/4"-20 x 2-1/2" (SHCS) **50-0086**
23. Washer, 1/4" (each) **50-7017**
12 pack **50-7013**
24. Retaining ring 695-36, 26348-36 (each) **50-8058**
10 Pack **50-8106**
25. Retaining ring, external 11002 (each) **50-8059**
10 Pack **50-8107**
26. Gear, pump drive, 24T 26345-73 **33-4230**
27. Gear, pinion shaft pump drive 1954-'89
26349-73, 26349-73A **33-4232**
28. Gear, steel breather valve
Standard 25310-82A, 25313-77B, 25311-90
+.030" **33-4241**
..... **33-4242**
29. Shim, steel breather kit
8 pack (Includes one of each thickness) **33-4249**
+.100" thick **33-4200**
+.110" thick 25320-79 **33-4201**
+.120" thick 25322-79 **33-4202**
+.130" thick 25325-79, 25320-82 **33-4203**
+.140" thick 25322-82, 25327-79 **33-4204**
+.150" thick 25325-82 **33-4205**
+.160" thick 25327-82 **33-4206**
+.170" thick **33-4207**
30. Gasket rebuild kit
Includes key and retaining ring (N/S)
1984-'91 BT HVHP 31-6306 **31-6308**
1992-'99 BT HVHP **31-6299**
31. Master rebuild kit (N/S)
Includes gasket rebuild kit, seal, retaining ring, relief valve
spring, check valve spring, check valve, ball, and cover screw
o-rings.
1984-'91 BT HVHP **31-6309**
1992-'99 BT HVHP **31-6300**

- Hardware Kit, Oilpump Cover (N/S)
(Includes # 10, 18, 19, 20) **31-6285±**
- Oilpump Mounting Hardware Kit (N/S)
(Includes # 22a, 22b, 22c, 23) **31-6301**








(N/S) = Not Shown






NOTE HVHP oil pump gaskets are not interchangeable with standard S&S or stock oil pump gaskets.




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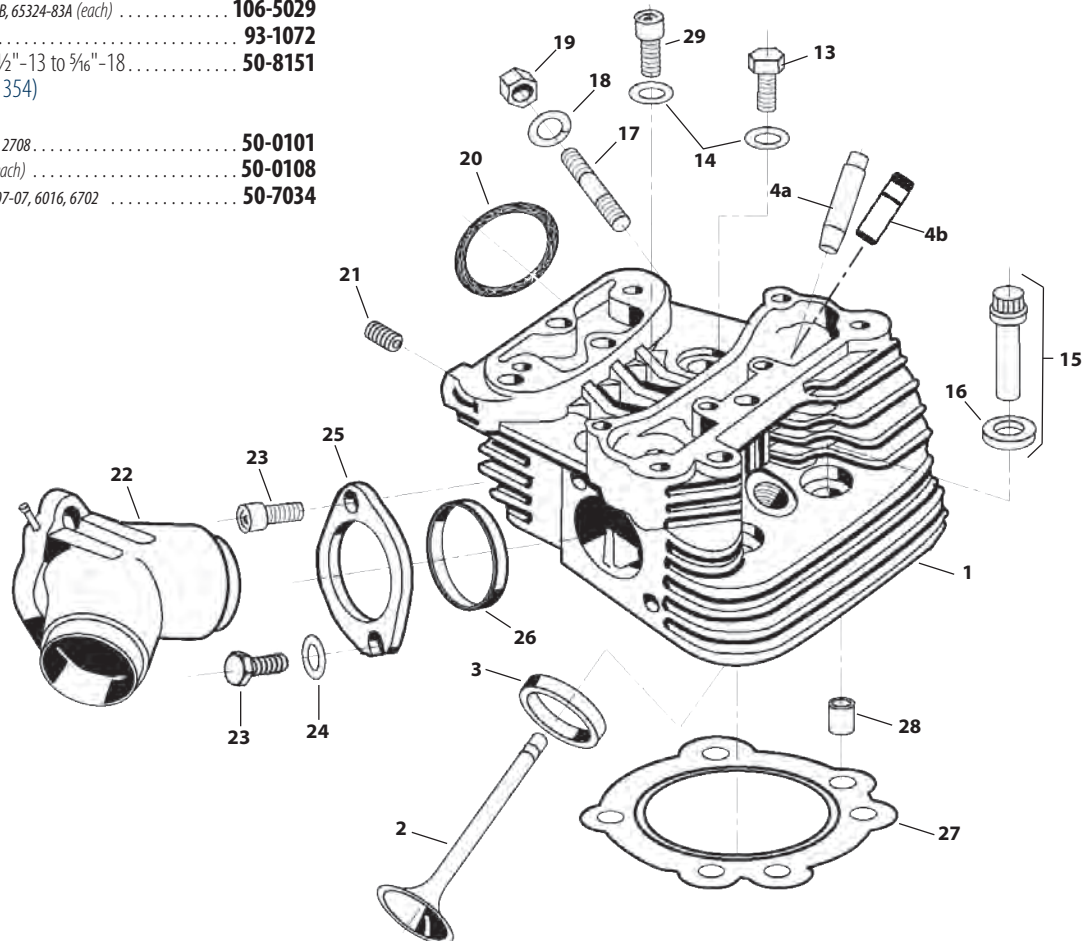
PERFORMANCE REPLACEMENT HEAD REPLACEMENT PARTS FOR 1984-'99 BIG TWIN ENGINES

1. Cylinder head (See cylinder heads on PAGE 350)
2. Valve
 - Intake - 1.900" diameter..... **90-2139**
 - Exhaust - 1.575" diameter..... **90-2026**
3. Valve seats
 - Intake - 1.900" diameter..... **90-2138**
 - Exhaust - 1.605" diameter..... **90-2003**
- 4a. Valve guide - Cast - intake or exhaust
 - Standard Diameter .5625/.5620 18112-92
..... **90-2210**
 - + .001" Diameter .5635/.5630 18130-83C
..... **90-2211**
 - + .002" Diameter .5645/.5640 18133-83A, 18133-83D
..... **90-2212**
 - + .003" Diameter .5655/.5650 18131-83C
..... **90-2213**
 - + .030" Diameter .5925/.5920
..... **90-2219**
- 4b. Valve Guide - Powder Metal - Intake/Exhaust
 - Standard..... **900-0553**
 - + .001..... **900-0554**
 - + .002..... **900-0555**
 - + .003..... **900-0556**
13. Head mount bolt - 3/8" - 16 x 1 1/4" 4716W
 each.....  **50-0168**
14. Flat washer - 3/8"
 - Zinc (each).....  **50-7051**
 - Chrome (each)..... **50-7106-S²**
15. Head bolt assembly - Includes head bolt washer. (See PAGE 352)
16. Head bolt washer
 - .150" (each)..... **50-0418-S**
 - .250" (each)..... **50-7091**
17. Exhaust port stud 16715-83 (each)..... **50-0493**
 5 pack..... **50-1028**
18. Lock washer - 5/16"..... **50-7032**
19. Nut, HH - 5/16" - 24 7833, 7883..... **50-5023**
20. Exhaust pipe gasket 65324-83B, 65324-83A (each)..... **106-5029**
 10 pack..... **93-1072**
21. Thread conversion insert, 1/2" - 13 to 5/16" - 18..... **50-8151**
22. Intake manifold (See PAGE 354)
23. Screw, manifold mounting
 - SH 5/16" - 18 x 1" 3201WA, 2708..... **50-0101**
 - HH 5/16" - 18 x 1" 3987 (each)..... **50-0108**
24. Washer, flat - 5/16" 6320, 70907-07, 6016, 6702..... **50-7034**

25. Flange, manifold mounting
 - Front 27009-86A (each).....  **16-0232**
 - 5 pack.....  **16-0600**
 - Rear 27010-86A (each).....  **16-0233**
 - 5 pack.....  **16-0601**
 - Set of Two..... **106-3516**
26. O-ring, manifold 
 - Stock manifolds 26995-86B, 26995-86A, 26992-99 (each)..... **16-0236**
 - 10 pack..... **16-0244**
 - S&S manifolds (each)..... **16-0235**
 - 10 pack..... **16-0243**
27. Head gasket, 1984-'99 big twin (No o-rings required)
 - 3 1/2" Bore
 - .045" thick 16770-84D, 16770-84F (each)..... **93-1011-S**
 - 10 pack..... **93-1024**
 - .0625" thick 16770-84D, 16770-84F, 10773-85 (each)..... **93-1313-S**
 - 10 pack..... **93-1051**
 - 3 3/8" Bore
 - .045" thick (each)..... **93-1037-S**
 - 10 pack..... **93-1052**
 - .062" thick (each)..... **93-1016-S**
 - 10 pack..... **93-1053**
28. Alignment dowel 16574-99A, 16573-83, 16573-83A (each)..... **50-8023**
 10 pack..... **50-8109**
29. Temp Sensor Hole Plug Screw, SHCS, 3/8" - 16 x 1" (each)..... **50-0161**

TOP END REBUILD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

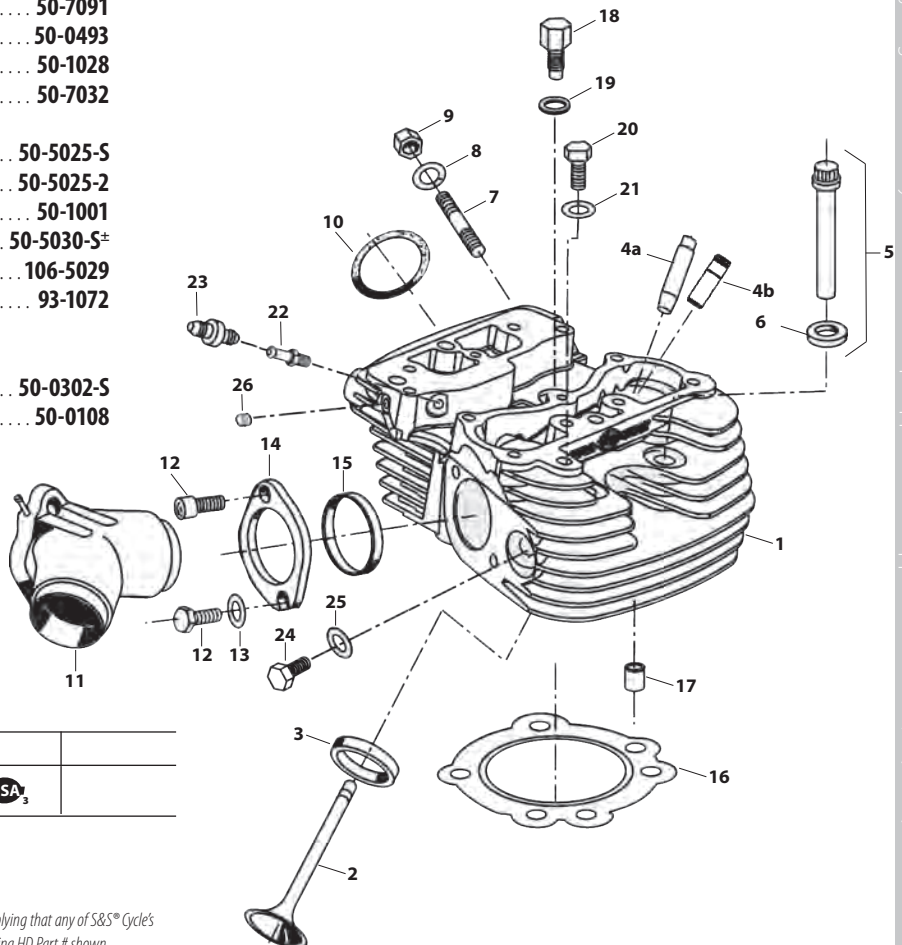
S&S Engine Family	Year Group	Bore Size	Part #
V-Series	1984-'99	3 3/8"	90-9502 
V-Series	1984-'99	3 1/2"	90-9507



SUPER STOCK® CYLINDER HEADS REPLACEMENT PARTS FOR S&S 4-1/8" V-SERIES

1. Cylinder head - All S&S 4 1/8" bore (See PAGE 351)
2. Valve
Intake
2.000" diameter **90-2000**
2.000" diameter + .085" stem length **90-2004**
Exhaust
1.605" diameter **90-2001**
3. Valve seat
Intake - 2.000" diameter **USA 1,2,3 90-2002**
Exhaust - 1.605" diameter **USA 1,2,3 90-2003**
- 4a. Valve guide - Cast - Intake/Exhaust (see valve guide diameter chart)
Standard Diameter .5625/.5620 18112-92 **USA 1,2,3 90-2210**
+ .001" Diameter .5635/.5630 18130-83C **USA 1,2,3 90-2211**
+ .002" Diameter .5645/.5640 18133-83A, 18133-83D **USA 1,2,3 90-2212**
+ .003" Diameter .5655/.5650 18131-83C **USA 1,2,3 90-2213**
+ .030" Diameter .5925/.5920 **USA 1,2,3 90-2219**
- 4b. Valve Guide - Powder Metal - Intake/Exhaust
Standard **900-0553**
+ .001 **900-0554**
+ .002 **900-0555**
+ .003 **900-0556**
5. Head bolt assembly (Includes head bolt washer)
111" (Includes washer .100") **93-3030**
117" (Includes washer .250") **93-3037**
124" (Includes washer .250") **93-3037**
6. Head bolt washer
.150" (each) **50-0418-5**
.250" (each) **50-7091**
7. Exhaust port stud 16715-83 (each) **50-0493**
5 pack **50-1028**
8. Lock washer - 3/16" **50-7032**
9. Nut, flanged - 3/16"-24 7593
Zinc (each) **50-5025-5**
2 pack **50-5025-2**
5 pack **50-1001**
Chrome (each) **50-5030-S±**
10. Exhaust pipe gasket (each) 65324-83B, 65324-83A **106-5029**
10 pack **93-1072**
11. Intake manifold (See Manifolds on PAGE 354)
12. Manifold mounting screw
SH - 5/16" - 18 x 3/4" 3275 (each) **50-0302-5**
HH - 5/16" - 18 x 1" 3987 (each) **50-0108**

13. Flat washer - 5/16" 6320, 70907-07, 6016, 6702 **50-7034**
14. Manifold mounting flange
Front 27009-86A (each) **USA 16-0232**
5 pack **USA 16-0600**
Rear 27010-86A (each) **USA 16-0233**
5 pack **USA 16-0601**
Set of Two **106-3516**
15. Manifold o-ring (each) **16-0235**
10 pack **16-0243**
16. Head gasket - All S&S SSW+ - 4 1/8" Bore, Micropore
each **93-1047-5**
10 pack **93-1073**
17. Alignment dowel, base and head 16595-99A (each) **50-8177**
4 pack **50-8177-4**
18. Plug, HH - 14mm (Use when compression releases are not installed)
each **90-4916**
2 pack **90-4916-2**
19. Washer, compression - 14mm - .507" x .705" x .047" **50-7094**
20. Head mount bolt 3/8"-16 x 1 1/4" 4716W **50-0168**
21. Flat washer - 3/8" **USA 1,2,3 50-7051**
22. Vent hose fitting,
Front, 1/16"-27 pipe **USA 3 50-8117**
Rear, 1/8"-27 pipe **USA 1,2,3 50-8115**
23. Check Valve **50-8122**
24. Screw, HHC, 3/16"-18 x 3/8" (each) **50-0106**
25. Washer, flat, .319" x .545" x .42" (each) **50-7026**
26. Plug, Pipe, 3/4 Taper, 1/16"-27 NPTF x .156" **50-8332**















TOP END REBUILD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

Engine Family	Year Group	Bore Size	Part #
V-Series	1984-'99	4 1/8"	90-9506 USA 3

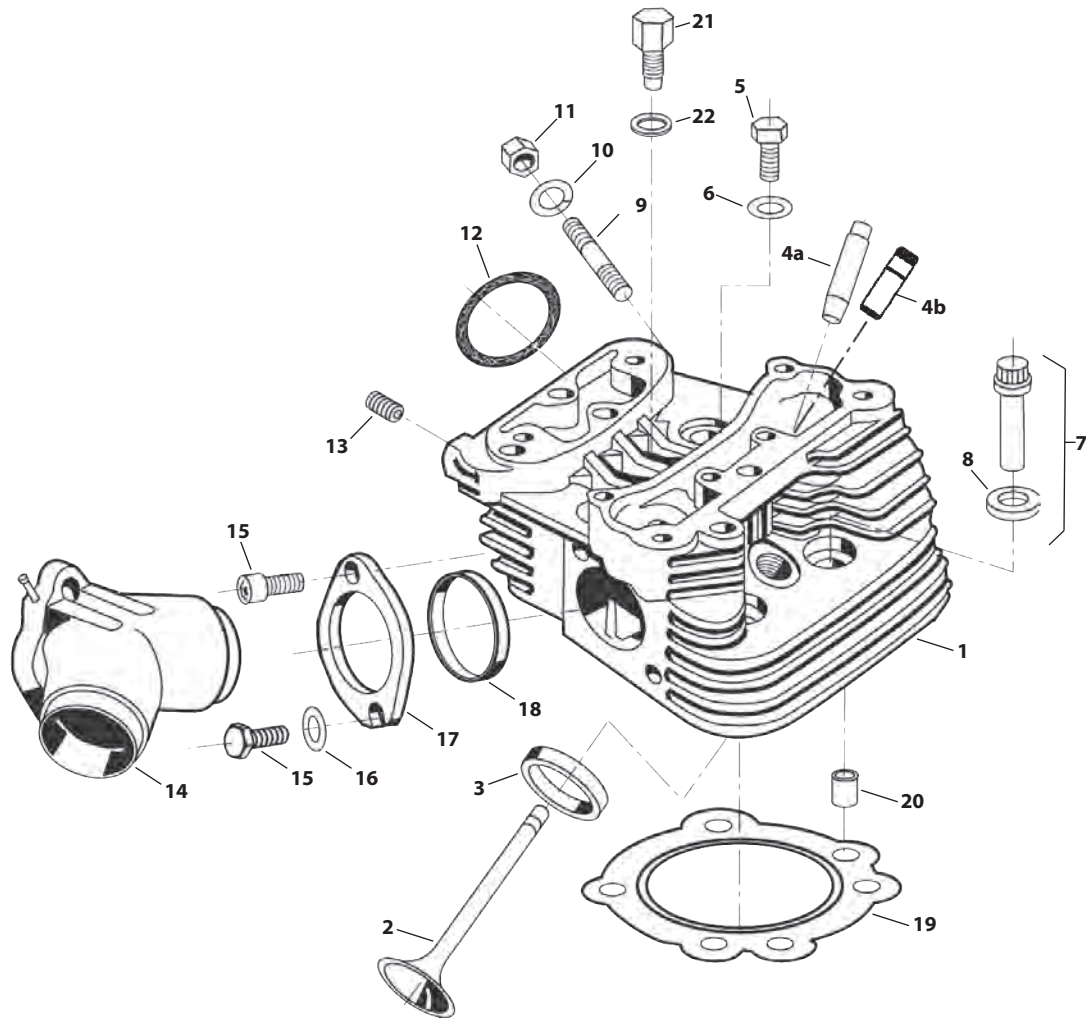
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SUPER STOCK® CYLINDER HEAD REPLACEMENT PARTS



FOR 1984-'99 BIG TWIN 3-5/8" TO 4" BORE

- | | |
|---|--|
| 1. Cylinder head (See PAGE 350 & PAGE 351) | |
| 2. Valves | |
| Intake | |
| 2.000" diameter..... | 90-2000 |
| 2.000" diameter+.085" stem length..... | 90-2004 |
| 2.000" diameter+.005" stem diameter..... | 90-2029 |
| Exhaust | |
| 1.605" diameter..... | 90-2001 |
| 1.605" diameter+.005" stem..... | 90-2030 |
| 3. Valve seats | |
| Intake - 2.000" diameter..... |  90-2002 |
| Exhaust - 1.605" diameter..... |  90-2003 |
| 4a. Valve guide - intake or exhaust | |
| Standard Diameter .5625/.5620 18112-92 | |
| ..... | 90-2210 |
| +.001" Diameter .5635/.5630 18130-83C..... |  90-2211 |
| +.002" Diameter .5645/.5640 18133-83A, 18133-83D..... |  90-2212 |
| +.003" Diameter .5655/.5650 18131-83C..... |  90-2213 |
| +.030" Diameter .5925/.5920..... |  90-2219 |
| 4b. Valve Guide - Powder Metal - Intake/Exhaust | |
| Standard..... | 900-0553 |
| +.001..... | 900-0554 |
| +.002..... | 900-0555 |
| +.003..... | 900-0556 |
| 5. Head mount bolt - 3/8" - 16 x 1 1/4" 4716W | |
| each..... | 50-0168 |
| 6. Flat washer - 3/16" | |
| Zinc (each)..... |  50-7051 |
| Chrome (each)..... | 50-7106-S* |
| 7. Head bolt assembly - Includes head bolt washer (See PAGE 352) | |
| 8. Head bolt washer | |
| .150" (each)..... | 50-0418-S |
| .250" (each)..... | 50-7091 |
| 9. Exhaust port stud 16715-83 (each)..... | 50-0493 |
| 5 pack..... | 50-1028 |
| 10. Lock washer - 5/16" (each)..... | 50-7032 |
| 11. Nut, HH - 5/16" - 24 7833, 7883 (each)..... | 50-5023 |
| 12. Exhaust pipe gasket 65324-83B, 65324-83A (each)..... | 106-5029 |
| 10 pack..... | 93-1072 |
| 13. Thread conversion insert 1/2"-13 to 5/16"-18..... | 50-8151 |
| 14. Intake manifold (See PAGE 354) | |
| 15. Screw, manifold mounting | |
| SH - 5/16" - 18 x 1" 3201WA, 2708 (each)..... | 50-0101 |
| HH - 5/16" - 18 x 1" 3987 (each)..... | 50-0108 |
| 16. Washer, flat - 5/16" 6320, 70907-07, 6016, 6702(each)..... | 50-7034 |
| 17. Flange, manifold mounting | |
| Front 27009-86A (each)..... |  16-0232 |
| 5 pack..... |  16-0600 |
| Rear 27010-86A (each)..... |  16-0233 |
| 5 pack..... |  16-0601 |
| Set..... | 106-3516 |
| 18. O-ring, manifold (each)..... | 16-0235 |
| 10 pack..... | 16-0243 |
| 19. Head gasket 3 1/2" Bore | |
| .045" thick (no o-rings required) 16770-84D, 16770-84F | |
| each..... | 93-1011-S |
| 10 pack..... | 93-1024 |
| .0625" thick (no o-rings required) 10773-85, 16770-84D, 16770-84F | |
| each..... | 93-1313-S |
| 10 pack..... | 93-1051 |
| 3 3/8" Bore .045" thick (no o-rings required) (each)..... | 93-1037-S |
| 10 pack..... | 93-1052 |
| .062" thick (no o-rings required) (each)..... | 93-1016-S |
| 10 pack..... | 93-1053 |
| 4" Bore | |
| .045" thick (each)..... | 93-1040-S |
| 10 pack..... | 93-1071 |
| .070" diameter 26432-76A..... | 50-8034-S |
| 20. Alignment dowel 16574-99A, 16573-83, 16573-83A (each)..... | 50-8023 |
| 10 pack..... | 50-8109 |
| Dowel pin - 1/4" diameter x 1/2" - 4" bore 358, 366 (each)..... | 50-8022 |
| 2 pack..... | 50-8022-2 |
| 5 pack..... | 50-8105 |
| 21. Plug, HH - 14mm (each)..... | 90-4916 |
| 2 pack..... | 90-4916-2 |
| 22. Washer, compression release- 14mm | |
| .507" x .705" x .047" (each)..... | 50-7094 |

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TOP END REBUILD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

S&S Engine Family	Year Group	Bore Size	Part #
V-Series	1984-'99	4"	90-9503 
V-Series	1984-'99	3 5/8"	90-9502 

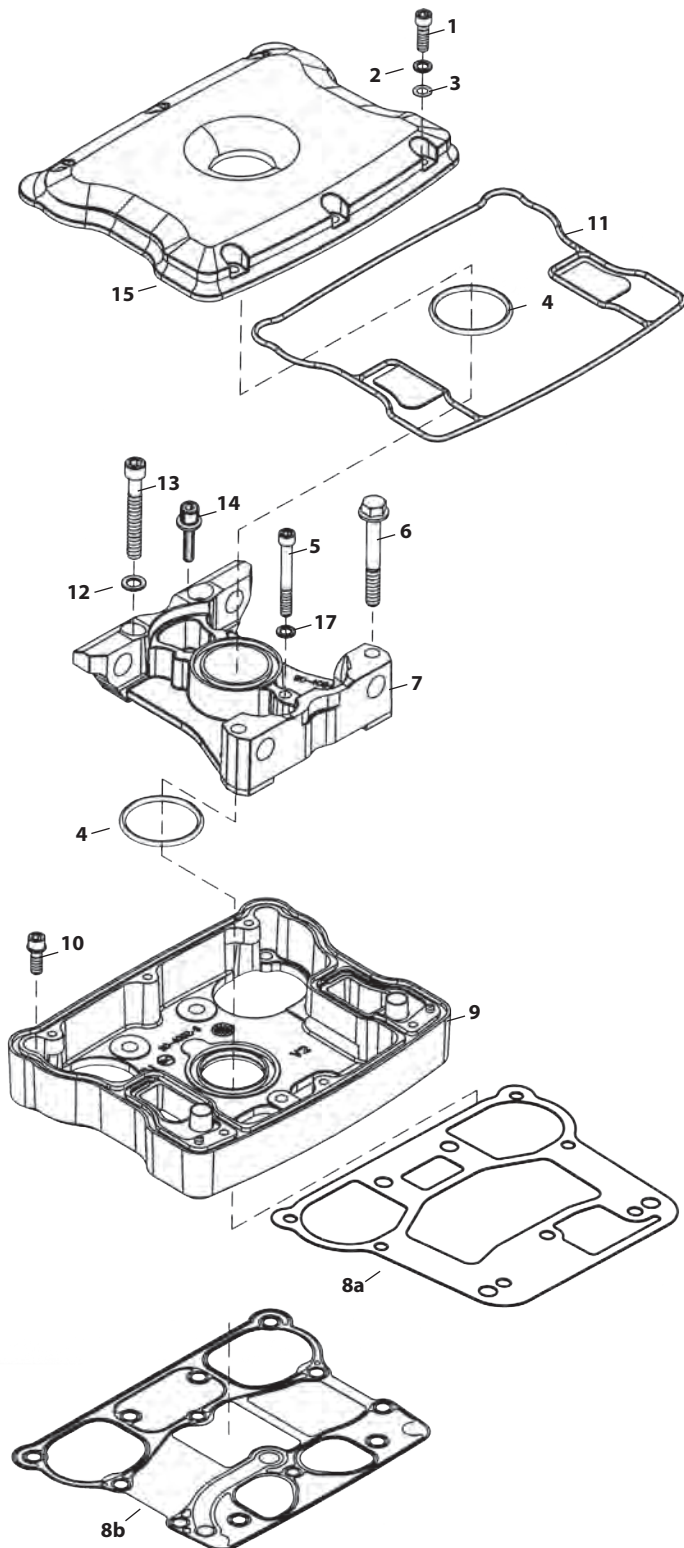
All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

DIE-CAST ROCKER COVER REPLACEMENT PARTS

FOR 1984-'99 BIG TWINS & S&S 4-1/8" BORE ENGINES

1. Screw, socket head 1/4"-20 x 3/4" 4069A (each) **50-0067**
2. Washer, flat 1/4" (each) **50-7017**
12 pack **50-7013**
3. Washer, rubber coated 1/4" (each) **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
4. Seal, o-ring (Included in gasket set see #16 below.) **50-8044**
5. Screw, SH 1/4"-20 x 2" 25794-36 **50-0013**
6. Screw, hex flange head 5/16"-18 x 2 1/4" 3501 **50-0123**
7. Support, rocker arm **90-4140**
8. Gasket, rocker housing, 1984-'99 bt
a. Gasket, Bottom, Rocker Cover, 1984-'99 bt
each **900-0538**
2 pack **900-0592**
b. S&S 4 1/8" Bore 16719-99B (each)  **90-4071-S**
2 pack  **90-4071**
10 pack  **90-4099**
9. Housing, rocker, chrome
1984-'99 bt **900-0790±**
S&S 4 1/8" Bore **900-4283±**
10. Screw, 1984-'99 bt, SHCS 1/4"-20 x 1" 4741A (each) **50-0092-S**
4 pack **50-0092P**
S&S 4 1/8" Bore, SHCS 5/16"-18 x 1" **50-0125-S**
11. Seal, rocker cover (Included in gasket set see #16 below.) **90-4079**
12. Washer, flat 5/16" (each)  **50-7026**
13. Screw, SH 5/16"-18 x 2 1/4" (each) **50-0115-S**
14. Screw, socket head, 1/4"-20 x 1" (S&S 4 1/8" bore only) 4741A
each **50-0092-S**
4 pack **50-0092P**
15. Cover, rocker, chrome **900-0706±**
16. Gasket Set (N/S)
1984-'99 bt **90-4091**
S&S 4 1/8" Bore **90-4111**
17. Washer, flat, .261"x.474"x.050" Annealed, Stainless Steel
each **50-7020**

(N/S) = Not Shown

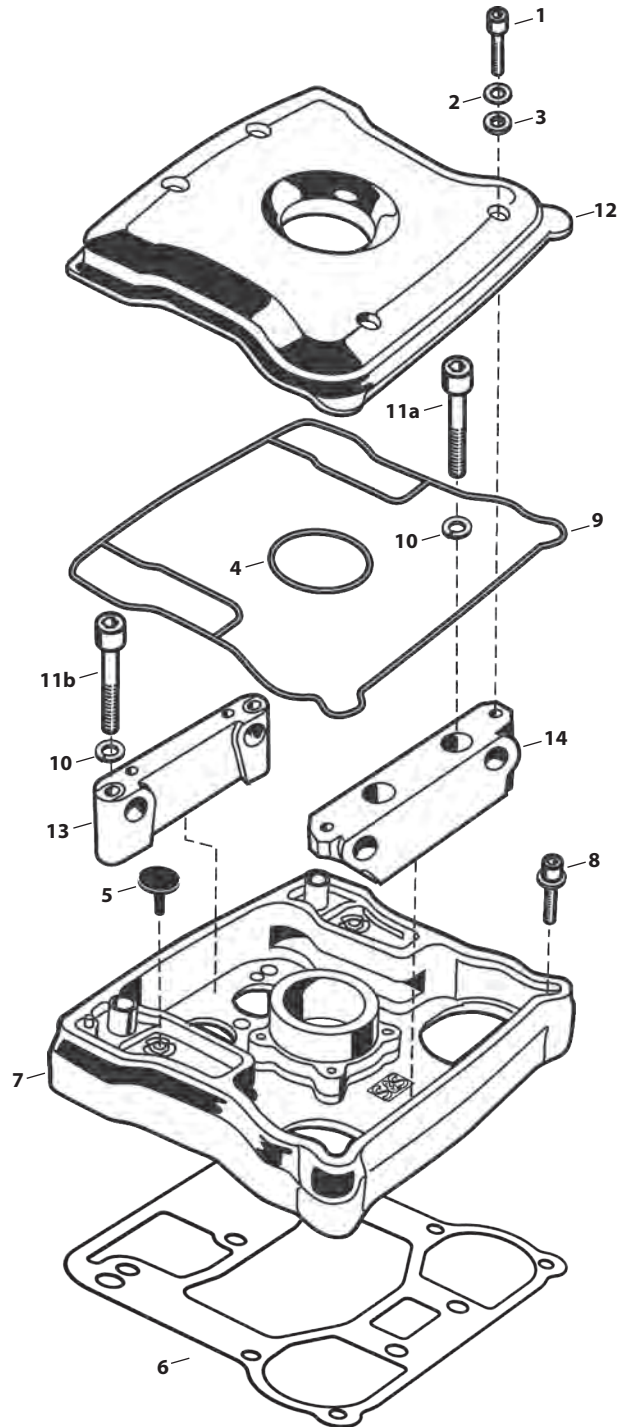


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BILLET ROCKER COVER REPLACEMENT PARTS FOR 1984-'99 BIG TWIN ENGINES

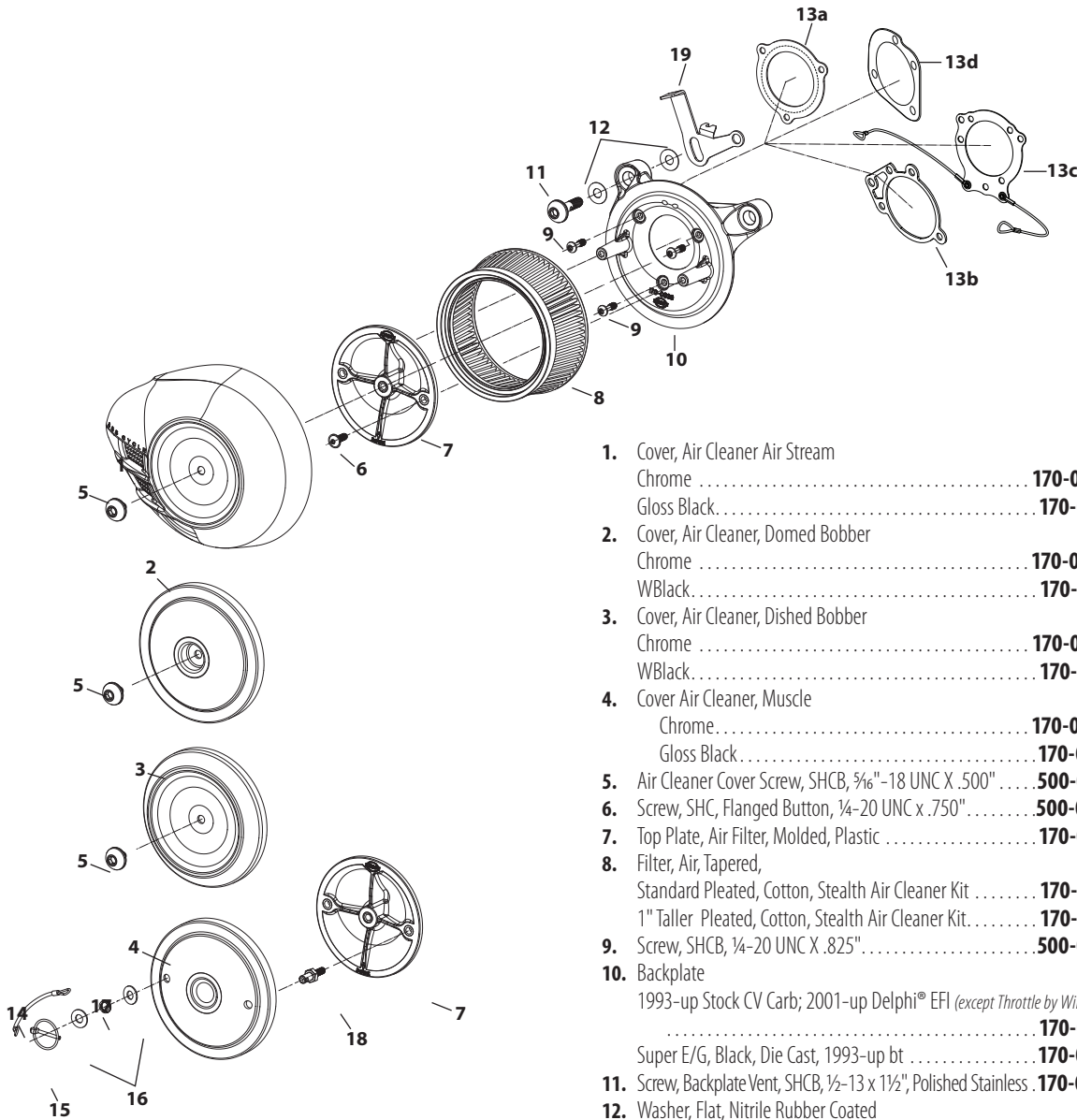
1. Screw, SH - 1/4" - 20 x 3/4" 4069A (each) **50-0067**
2. Washer, flat - 1/4" (each) **50-7017**
12 pack **50-7013**
3. Washer, flat - 1/4" rubber covered (each) **50-7015**
8 pack **50-7015-8**
12 pack **50-7015-12**
4. O-ring - 1 5/8" I.D. x 1 7/8" O.D. x 1/8" CS Viton®
(Included in gasket set - See #16 below.)
5. Rocker cover umbrella valve cover - 1992-'99 big twin
(Included in gasket set. See #16 below.)
26856-89, 26856-89A **90-4030**
6. Gasket, Bottom, Rocker Cover, 1984-99 bt (each) **900-0538**
2 pack **900-0592**
7. Rocker cover base - billet
Chrome **90-4051±**
Natural **90-4056**
8. Screw, SH w/washer - 1/4" - 20 x 1" 4741A (each) **50-0092-S**
4 pack **50-0092P**
9. Rocker cover o-ring gasket - S&S billet rocker cover
(Included in gasket set. See #16 below.)
10. Washer, flat - 5/16" (each) **50-7026**
11. Bolt, rocker support - socket head
a. 5/16" - 18 x 2-1/4" (left support) **50-0115-S**
each **50-0115-S**
b. 5/16" - 18 x 2-1/2" (right support) 876A
each **50-0118**
12. Rocker cover top - billet
Chrome **90-4054±**
13. Right rocker shaft support - billet **90-4053**
14. Left rocker shaft support - billet **90-4052**
15. Rocker cover gasket set - S&S billet rocker cover - (N/S) **90-4049**
16. Rocker cover hardware kit - (N/S) **90-4050A**

(N/S) = Not Shown



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STEALTH AIR CLEANER KIT REPLACEMENT PARTS



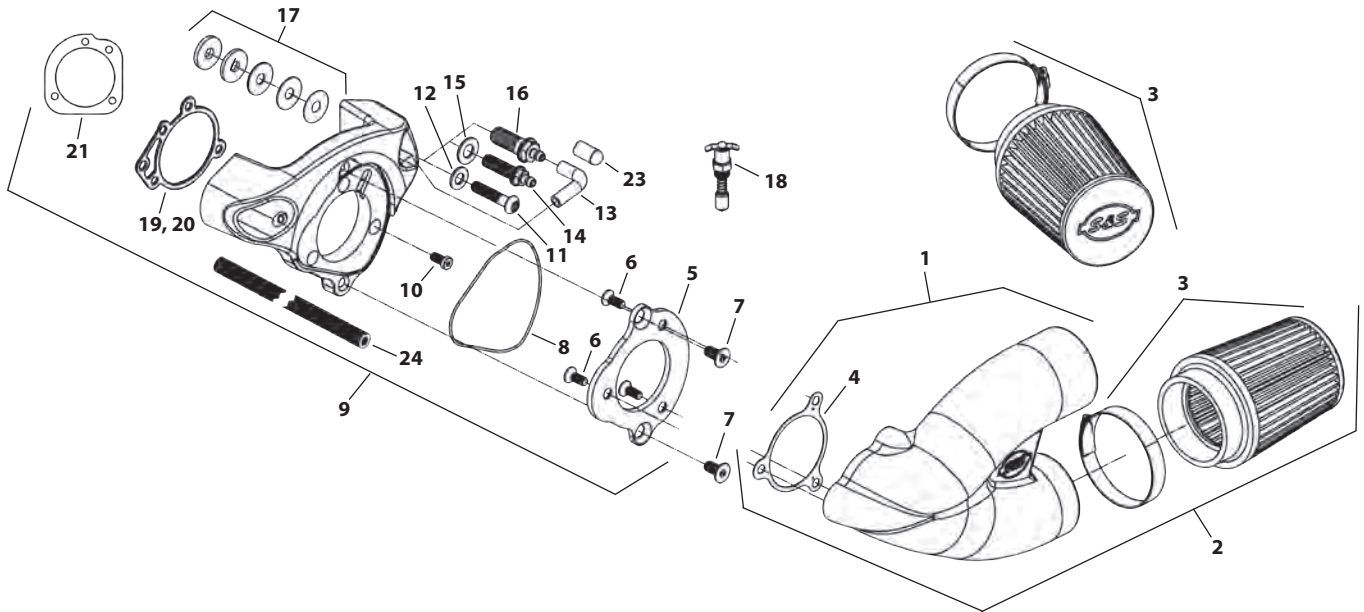
- | | |
|---|-----------------------------|
| 1. Cover, Air Cleaner Air Stream | |
| Chrome | 170-0118[±] |
| Gloss Black | 170-0396 |
| 2. Cover, Air Cleaner, Domed Bobber | |
| Chrome | 170-0120[±] |
| WBlack | 170-0124 |
| 3. Cover, Air Cleaner, Dished Bobber | |
| Chrome | 170-0119[±] |
| WBlack | 170-0123 |
| 4. Cover Air Cleaner, Muscle | |
| Chrome | 170-0172[±] |
| Gloss Black | 170-0462 |
| 5. Air Cleaner Cover Screw, SHCB, 5/16"-18 UNC X .500" | 500-0051 |
| 6. Screw, SHC, Flanged Button, 1/4-20 UNC x .750" | 500-0060 |
| 7. Top Plate, Air Filter, Molded, Plastic | 170-0026 |
| 8. Filter, Air, Tapered, | |
| Standard Pleated, Cotton, Stealth Air Cleaner Kit | 170-0126 |
| 1" Taller Pleated, Cotton, Stealth Air Cleaner Kit | 170-0127 |
| 9. Screw, SHCB, 1/4-20 UNC X .825" | 500-0059 |
| 10. Backplate | |
| 1993-up Stock CV Carb; 2001-up Delphi® EFI (except Throttle by Wire) | 170-0021 |
| Super E/G, Black, Die Cast, 1993-up bt | 170-0049 |
| 11. Screw, Backplate Vent, SHCB, 1/2-13 x 1 1/2", Polished Stainless | 170-0044 |
| 12. Washer, Flat, Nitrile Rubber Coated | |
| .520" x .880" x .024" BT 1993-'99 & xl 1991-'06 (each) | 50-7055 |
| 10 pack | 50-7057 |
| .380" x .880" x .024" BT 1999-'06 (each) | 50-7054 |
| 10 pack | 50-7059 |
| 13. Gasket, Backplate | |
| a. Throttle by Wire, .0625" Thick, 2008-up bt | 160-0035 |
| b. Super E/G | 106-1724 |
| c. Stock CV Carb & EFI Throttle Body, Throttle by Wire, Lanyard style, 1991-up xl/bt | |
| ..... | 170-0137 |
| d. Stock CV Carb & EFI Throttle Body, 1991-up xl/bt (except Throttle by ... | |
| Wire) 29062-95B | 106-6022 |
| 14. Lanyard, 6" Stainless Steel | 500-0095 |
| 15. Lynch Pin | 500-0083 |
| 16. Washer, Fender, Chrome Plated | 500-0094[±] |
| 17. Spring, Wave Washer, Stainless Steel | 500-0093 |
| 18. Screw, Hex, Hood-pin, 1/4-20, UNC | 500-0113 |
| 19. Lever, Enrch, Super E/G, Stealth, Short | 17-0327 |

All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

SINGLE BORE TUNED INDUCTION SYSTEM REPLACEMENT PARTS

1. Tuned Intake Kit, 2.19" Single Bore
Natural **106-4968**
Gloss Black..... **170-0453**
Chrome Plated..... **106-4970[±]**
2. Tuned Intake Assembly, 2.19" Single Bore
Gloss Black..... **170-0454**
Chrome Plated..... **106-4967[±]**
3. Air Filter, with Clamp
Stainless Cap – Conical – 2⁷/₁₆" I.D. x 4"
Red (each) **17-1020**
Blue (each) **17-1023**
4. Gasket, Intake – Adapter Plate
2.19" Single Bore Tuned Intake **17-1022**
5. Plate, Adapter, 2.19" Single Bore Tuned Intake
Chrome Steel **17-1014[±]**
6. FHSC 3/4-20 x 3/8" **50-0433**
7. FHSC 5/16-18 x 5/8" **50-0432**
8. O-Ring, Adapter Plate Bracket
3⁵/₈" O.D. x 3¹/₂" I.D. 1/16 CS, Viton® **50-0446**
9. Bracket Kit, 2.19" Single Bore Tuned Intake
Super E/G, S&S V124 - Chromed **106-4973[±]**
Super E/G, 1984-'99 BT - Chromed **106-4974[±]**
Single VFI, S&S V124 - Chromed **106-4976[±]**
Single VFI, 1984-'99 BT - Chromed **106-4977[±]**
Stock carb, Delphi® EFI, 1984-'99 BT - Chromed **106-4978[±]**
10. Backplate Screw
Screw, SHC, w/Threadlock, 1/4-20 x 1/2" **106-2084**
10 pack **106-2105**
11. Screw, 5/16-18 x 1 1/4, BHC, Chrome **50-0309-S[±]**
12. Flat Washer 5/16" x 1/16" 6320, 70907-07, 6016, 6702 **50-7034**
13. Hose, Breather, 1/4" I.D., 90° **19-0178A**
14. Screw, Breather Fitting, 3/8-16 x 1 1/4" **50-0436**
15. Washer, Flat, 3/8" x 13/16" x 1/16", Chrome **50-7106-S[±]**
16. Screw, Breather Fitting, 1/2-13 x 1.25 **50-0435**
17. Shim Kit
a. 5/16" I.D. 1984-'92 BT **17-0314**
b. 1/2" I.D. 1993-'99 BT **17-0464**
18. Enrichment Device, S&S Super E & G carbs
(Use in place of enrichment device on air cleaner backplate) .. **11-2084[±]**
19. Gasket, Backplate - E/G/SBEFI **106-1724**
10 pack **106-2328**
20. Gasket, S&S SBEFI 58mm **106-4662**
21. Gasket, Stock carb/Throttle Body 29062-95B **106-6022**
22. Hardware Kit, 1984-'99 - (N/S)
Stock Carb & S&S Single Bore EFI **17-5098**
S&S Super E or G Carb **17-5099[±]**
S&S 124 V-Series **500-0016**
23. Canister Purge Fitting Cap (each) **50-8266-S**
24. Breather Vent Hose **106-4982**

(N/S) = Not Shown





ACCESSORIES

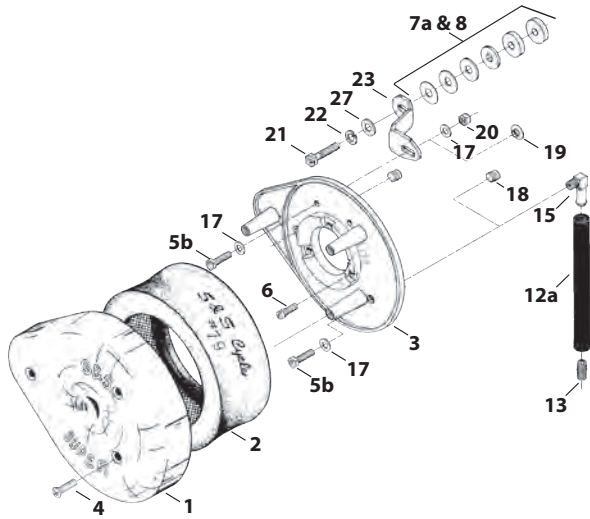
Description	Part #
Air Filter Oil, 8 oz. Bottle	Red 106-1163
	Blue 106-1164
Nylon Air Filter Cover	each 106-0247
	2 pack 106-0248

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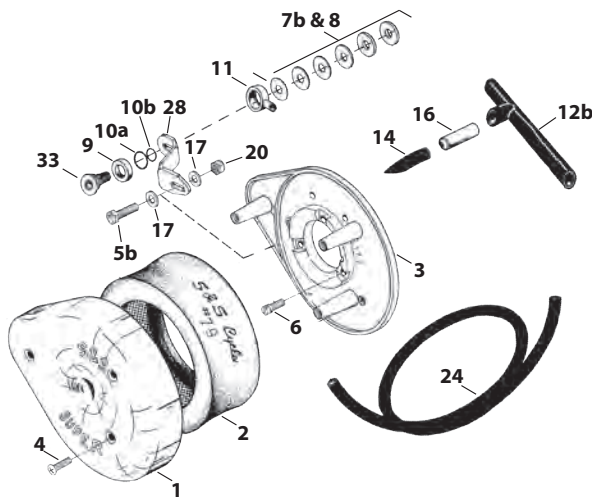
AIR CLEANER REPLACEMENT PARTS FOR STOCK FUEL SYSTEMS

1. Air cleaner cover		
Chrome	17-0078±	
Black	17-0075	
2. Element	17-0079	
3. Backplate		
BT 1966-'89	106-0907	
BT 1993-up	17-0003	
4. Cover screw 1305 (each)	50-0072	
3 pack	50-1052	
10 pack	50-0094	
Black 902 (each)	50-0310-S	
3 pack	50-0310	
5. Screw HHCS ¼"-28 x 7/8"	50-0074	
6. Backplate screw		
Zinc Plated (each)	106-2084	
10 pack	106-2105	
7. Shim kit		
a. BT 1966-'89 (Includes 2 each 5/16" x .018", 5/16" x .030", 5/16" x .048", 5/16" x .105" and 4 each 5/16" x .125")	17-0314	
b. BT 1993-'99 (Includes 2 each 1/2" x .018", 1/2" x .030", 1/2" x .048", 1/2" x .105", and 4 each 1/2" x .125")	17-0464	
8. Replacement shims		
BT 1966-'89		
a. 5/16" x .018" (each)	50-7038	
b. 5/16" x .030" (each)	50-7039	
c. 5/16" x .048" (each)	50-7040	
d. 5/16" x .105" (each)	50-7041	
e. 5/16" x .125" (each)	50-7042	
BT 1993-up		
f. 1/2" x .018" (each)	50-7085	
g. 1/2" x .030" (each)	50-7086	
h. 1/2" x .048" (each)	50-7087	
i. 1/2" x .105" (each)	50-7089	
j. 1/2" x .125" (each)	50-7090	
BT 1999-up, All 2002-up EFI BT		
k. 5/8" x .025" (each)	50-7113	
10 pack	50-7110	
l. 5/8" x .050" (each)	50-7114	
10 pack	50-7111	
m. 5/8" x .075" (each)	50-7115	
10 pack	50-7112	
9. Shim, head vent - .62" I.D. x .80" O.D. x .175"		
10. O-ring		
a. (-014), .500" ID x .625" OD, Nitrile (each)	50-8270	
5 pack	50-8275	
b. (-012), .375" ID x .500" OD, Viton® 11110 (each)	50-8006	
10 pack	50-8077	
11. Breather fitting (each)	17-0350	
2 pack	17-0355	
12. Crankcase breather vent hose		
a. BT 1984-'92	17-0113	
b. BT 1993-'99	17-0339	
13. Vent hose connector,		
BT 1984-'92	50-8111	
14. Vent hose, with angle cut	17-0365	
15. 90° Elbow fitting (each)	50-8110	
16. Hose fitting	17-036C-S	
17. Flatwasher, ¼" 6194, 6245, 6703, 6736, 6228W, 6192 each	50-7021	
18. Backplate plug, 1/8" -27 NPT 45830-48		
each	50-8331A	
10 pack	50-1015	
19. Plug, press-in clear plastic	50-8313	
20. Support bracket locknut - ¼"-28 x 7/8"		
each	50-5010	
21. Support bracket screw - 5/16"-18 x 1 1/4"	50-0110	
22. Lockwasher, 5/16"	50-7032	
23. Support bracket, Air cleaner to head		
BT 1984-'99	17-0311	
24. Rubber tubing - ¼" x 5/8" x 3'	N/A	
25. Wire tie (N/S)	50-8003	
26. Hardware kit, air cleaner mounting (N/S)		
BT 1984-'99	17-0244	
27. Washer, flat - 3/8" x 7/8" x .146"		
each	50-7053	
28. Carb support bracket -		
BT 1999-up & EFI Softail® 2001	17-0308	
29. Shim - ¼" x 3/4" x .200"	50-7024	
30. Screw vent fitting		
a. BT 1993-'99	17-0347	
b. BT 1999-up	17-0345	
31. Screw air cleaner backplate	17-0346	
32. Spring clamps (N/S)	50-8001	
33. Breather cap screw	17-0338	
34. Breather screw seal		
a. BT 1993-'99, All 2002 EFI BT - Washer .520 (each)	50-7055	
10 pack	50-7057	
b. BT 1999-up, All 2002 EFI BT - Washer .380 (each)	50-7054	
10 pack	50-7059	

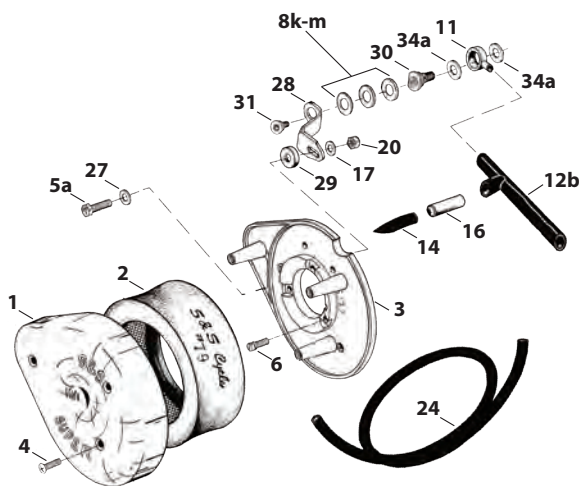
FI = fuel injected
(N/S) = Not Shown



**1984-'89 BIG TWIN
(WITH BUTTERFLY CARBURETOR) 17-0108**



**1993-'99 BIG TWIN
(WITH CV CARBURETOR) (OBSOLETE) 17-0100**



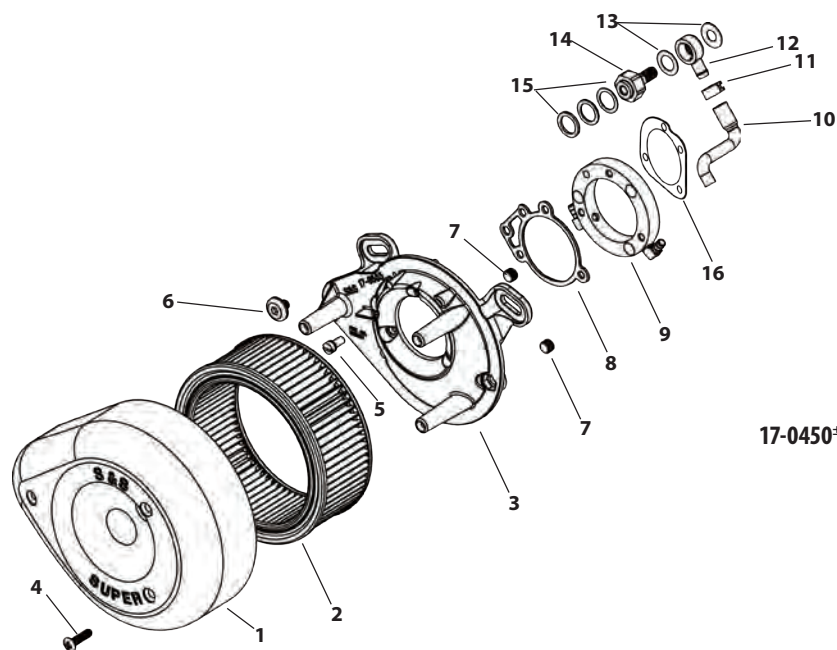
**1993-'06 CARBURETED BIG TWIN MODELS,
2001 EFI SOFTAIL® MODELS, AND 2002-UP ALL EFI MODELS
(EXCEPT 2006-UP DYNA®) (OBSOLETE)
17-0117**

CONTINUED

AIR CLEANER REPLACEMENT PARTS FOR STOCK FUEL SYSTEMS

1993-UP (EXCEPT 2008-UP TOURING MODELS) BT STOCK CV AND DELPHI® SINGLE BORE EFI

1. Air cleaner cover		9. Adaptor assembly	
Chrome	17-0378[±]	1993-'99 bt.	106-0881
Gloss Black.....	170-0384A	10. Hose, vent, breather, formed,	
Slasher	17-0004[±]	.250" x .375" x 1.825", 1993-'07 BT.....	17-0364A
2. Element, pleated.....	106-4722	11. Clamp, spring, 3/16"	50-8001
3. Backplate		12. Banjo fitting (each)	17-0350
1993–2007 BT.....	106-0907	2 pack.....	17-0355
4. Cover screw 1305 (each).....	50-0072	13. Washer, silicone coated steel	
3 pack.....	50-1052	1993-up BT, 1/2" (each)	50-7055
10 pack.....	50-0094	10 pack.....	50-7057
Black 902 (each).....	50-0310-S	1999-up BT, 1/2" (each)	50-7054
3 pack.....	50-0310	10 pack.....	50-7059
5. Backplate screw		14. Breather screw,	
Zinc Plated (each)	106-2084	1993-'98 BT.....	106-0845
10 pack.....	106-2105	1999-up BT	17-0348
6. Screw, air cleaner backplate	17-0346	15. Replacement shims	
7. Backplate plug 1/8"-27 45830-48		5/8" x .025" (each)	50-7113
each.....	50-8331A	10 pack.....	50-7110
10 pack.....	50-1015	5/8" x .050" (each)	50-7114
8. Gasket, backplate (each)	106-1724	10 pack.....	50-7111
10 pack.....	106-2328	5/8" x .075" (each)	50-7115
		10 pack.....	50-7112
		16. Backplate Gasket 29062-958	106-6022



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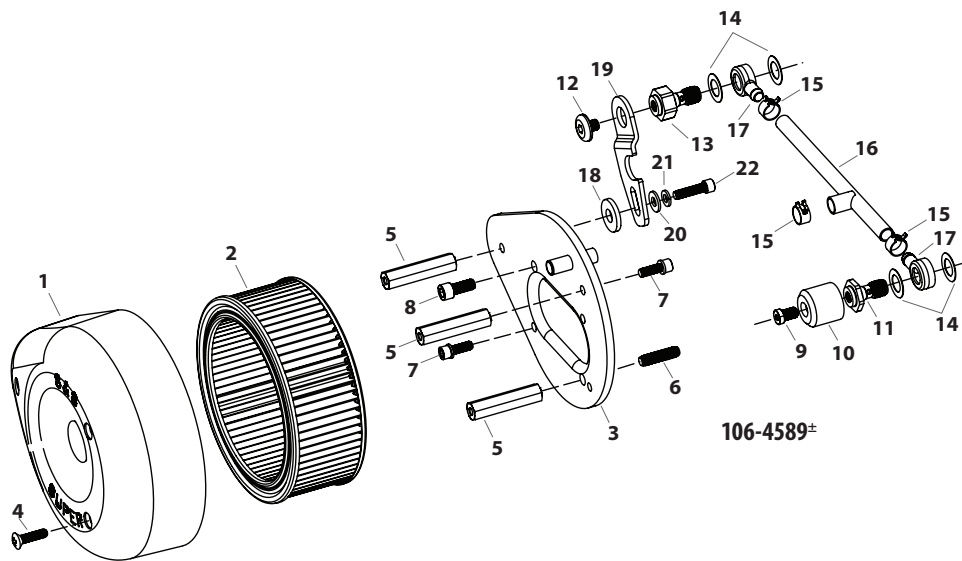
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AIR CLEANER REPLACEMENT PARTS FOR STOCK FUEL SYSTEMS

REPLACEMENT PARTS FOR S&S AIR CLEANER FOR MAGNETI MARELLI® EFI 1995-'01 BIG TWIN

- | | | | |
|---|-----------|--|-------------|
| 1. Cover | 17-0378± | 13. Screw, Breather, +.250" (Rear Head)
1995-'98, 1/2 -13 UNC | 106-0845 |
| 2. Filter | 106-4722 | 1999-'01 | 17-0348 |
| 3. Backplate, Assembly, Air Cleaner, Stock EFI, | | 14. Washer, flat, Nitrile Rubber Coated, Cold Rolled Steel
1995-'98, .520" x .880" x .024" | |
| 4. Screw, PHIL/OH 1/4-20x1" 1305
each | 50-0072 | each | 50-7055 |
| 3 pack | 50-1052 | 10 pack | 50-7057 |
| 10 pack | 50-0094 | 1999-'01, .380" x .880" x .024" | |
| 5. Spacer, 1/2" Hex, Threaded | N/A | each | 50-7054 |
| 6. Stud, Fully Threaded, 1/4-20 x 1.25", Zinc Plated
1995-'98 | N/A | 10 pack | 50-7059 |
| 1999-'01 | N/A | 15. Clamp Spring, 9/16" | 50-8001 |
| 7. SHCS, 1/4-20 x 3/4" SEMS (each) | 50-0066 | 16. Hose, Vent Breather,
Epichlorohydrin Polymer | USA 17-0339 |
| 8. Screw, SHCS,
1995-'98, 1/4-20 x 3/4", SEMS 4069A
each | 50-0067 | 17. Banjo Fitting (each) | 17-0350 |
| 1999-'01, 5/16-18 x 3/4" 3275
each | 50-0302-5 | 2 pack | 17-0355 |
| 9. Screw, LSHC 5/16-24, x 1/2" Stainless Steel
Front Head | 106-2023 | 18. Spacer .406" x .975" x .250" (each) | 50-7140-5 |
| 10. Cover, Breather Screw, Front Head
Chrome, Aluminum | 106-2022± | 19. Bracket, Support, Air Cleaner To Head
Nickel Plated | 106-1285 |
| 11. Screw, Backplate Vent, Front Head
1995-'98, 1/2-13 | 17-0347 | 20. Washer, Flat, .281" x .625" x .080", Zinc, Steel
6194, 6245, 6703, 6736, 6228W, 6192 (each) | 50-7021 |
| 1999-'01, 5/16-18 | 17-0345 | 21. Washer, Lock, .250" 7035, 7036 | 50-7019 |
| 12. Screw, Backplate, Rear Head, Socket Panhead
5/16 - 24 x .360", Zinc, Alloy Steel | 17-0346 | 22. Screw, SHCS, 1/4-20 x 1 1/4" 4740A, 3482A (each) | 50-0008 |

N/A = No longer available



All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS

FOR S&S® SINGLE BORE EFI

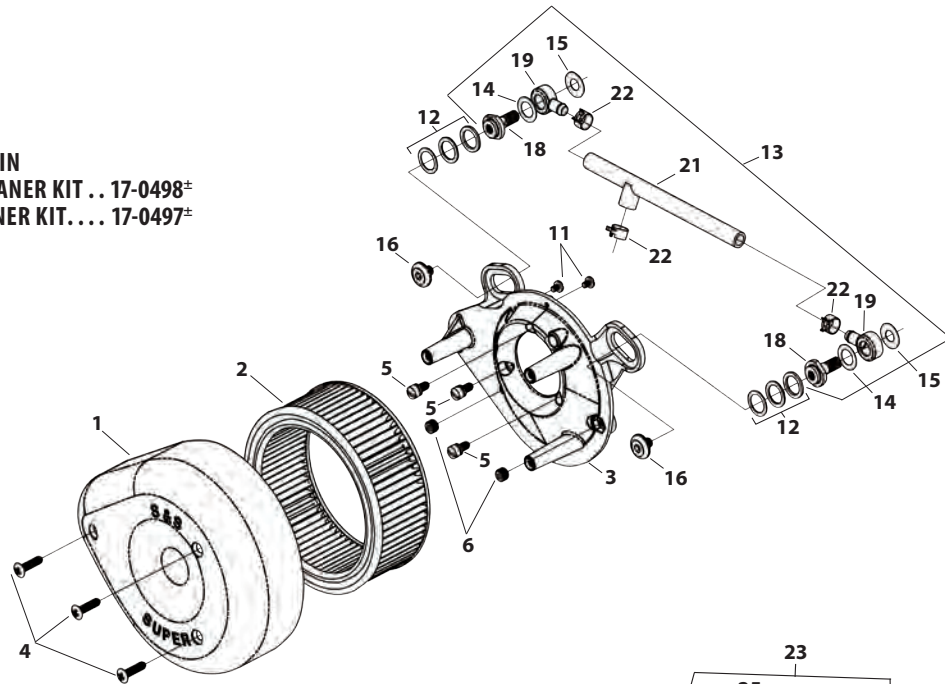
1. Air Cleaner Cover		
Slasher (slotted chrome)	17-0004±	
Chrome	17-0378±	
Gloss Black (includes black screws)	170-0384A	
2. Element, pleated	106-4722	
3. Backplate SBFFI		
BT 1999-up	17-0120	
S&S 4-1/8" bore engines	17-0380	
4. Screw, oval 1/4-20 x .1305 (each)	50-0072	
3 pack	50-1052	
10 pack	50-0094	
5. Backplate screw		
Zinc Plated (each)	106-2084	
10 pack	106-2105	
Black 902 (each)	50-0310-S	
3 pack	50-0310	
6. Pipe plug, 1/8, air cleaner backplate (each)	50-8331A	
10 pack	50-1015	
7. Mounting bracket bolt, hex 5/16-18 x 1 1/4	50-0110	
8. Flat washer, 5/16" x 1/16" 6320, 70907-07, 6016, 6702	50-7034	
9. Shim, .850" x .325" x .400"	USA 50-7027	
10. Shim kit for 4 1/8" bore	17-0314	
Individual shims:		
5/16" x .018" (each)	50-7038	
5/16" x .030" (each)	50-7039	
5/16" x .048" (each)	USA 50-7040	
5/16" x .105" (each)	50-7041	
5/16" x .125" (each)	50-7042	
11. Screw, cable guide & air cleaner backplate		
10-24 x 1/4" (each)	50-0041	
10 pack	50-0062	
12. Shims, individual		
5/8 x 7/8 x .025 (each)	50-7113	
10 pack	50-7110	
5/8 x 7/8 x .050 (each)	50-7114	
10 pack	50-7111	
5/8 x 7/8 x .075 (each)	50-7115	
10 pack	50-7112	
13. Breather Hardware for 1999-up BT	17-0455	
(not included in air cleaner kit)		
14. Silicone washer, 1/2" ID (each)	50-7055	
10 pack	50-7057	
15. Silicone washer, 3/8" ID (each)	50-7054	
10 pack	50-7059	
16. Screw, wide head, 5/16-24 x .36	17-0346	
17. Air cleaner hardware kit (N/S)		
BT 1999-up	17-0482	
S&S 4-1/8" bore engines	17-0481	
18. Breather vent fitting		
BT 1993-'99	17-0347	
19. Breather fitting (each)	17-0350	
2 pack	17-0355	
20. Check Valve	50-8122	
21. Hose, Vent Breather, Epichlorohydrin Polymer	17-0339	
22. Clamp Spring, 9/16"	50-8001	
23. Breather hardware for 4 1/8" bore	31-2104	
(Not included in air cleaner kit)		
24. Clamp Spring, .660"	50-8076-S	
25. Hose one	50-8263-S	
26. Hose two	50-8262-S	
27. Clamp Spring, .440"	50-8143-S	
28. Hose, Cut To Size, 1875" x 6", Black, Rubber	50-8142AS	

(N/S) = Not Shown

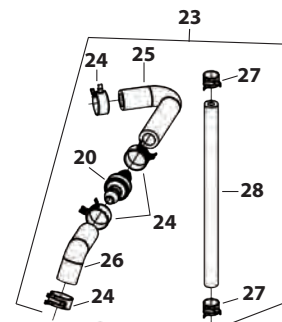
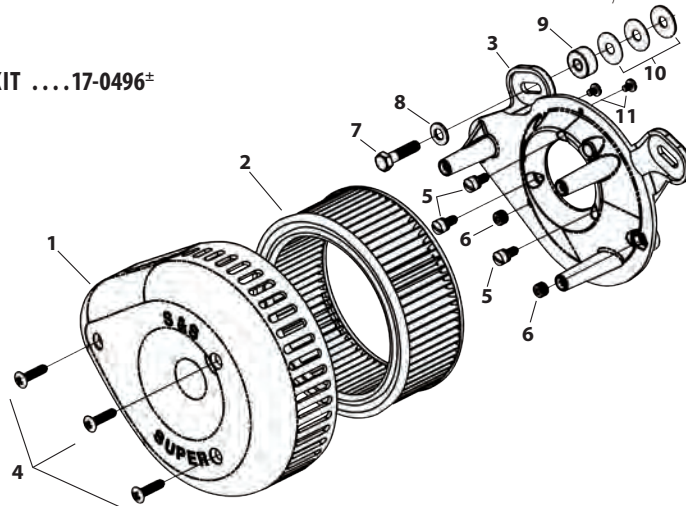
NOTE

Breather hardware not included in these air cleaner kits.

**1995½ - '99 BIG TWIN
TEARDROP AIR CLEANER KIT .. 17-0498±
SLASHER AIR CLEANER KIT.... 17-0497±**



**S&S 4¼" BORE ENGINES
SLASHER AIR CLEANER KIT17-0496±**



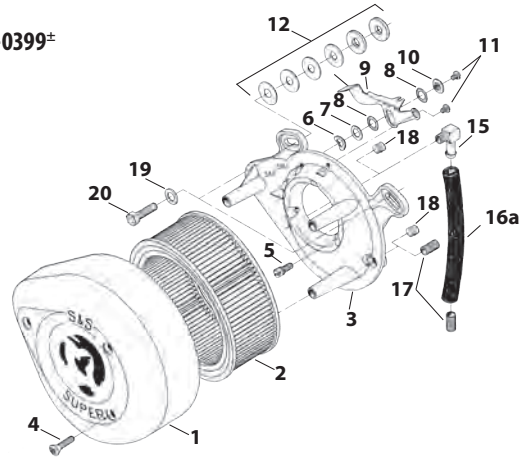
SUPER E & G AIR CLEANERS REPLACEMENT PARTS

FOR 1984-'99 BIG TWINS

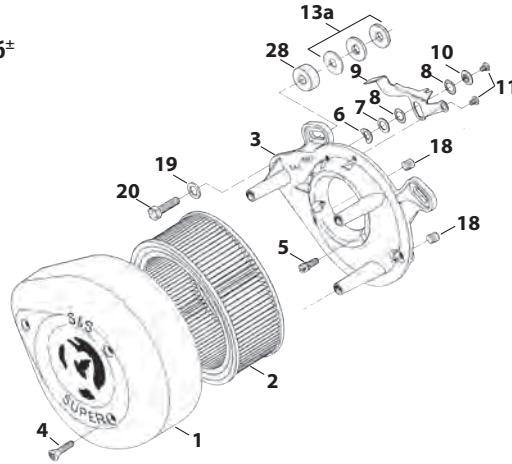
- | | | |
|--|------------------------------------|--|
| 1. Air cleaner cover – | | |
| Chrome | 17-0378[±] | |
| Gloss Black | 170-0384A | |
| Slasher | 17-0004[±] | |
| 2. Element, pleated..... | 106-4722 | |
| Element, pleated carbon | 17-0375 | |
| 3. Backplate | | |
| BT 1993-'99..... | USA_{1,2} 17-0336 | |
| BT 1984-'92, S&S 4 $\frac{1}{8}$ " Bore Manufactured | | |
| Prior to 1-1-03 | 17-0380 | |
| 4 $\frac{1}{8}$ " Bore – Manufactured | | |
| After 1-1-03 | USA 17-0387 | |
| 4. Cover screw 1305 (each) | 50-0072 | |
| 3 pack | 50-1052 | |
| 10 pack | 50-0094 | |
| Black 902..... | 50-0310-S | |
| 3 pack | 50-0310 | |
| TÜV style (each) | 50-0347-S | |
| 5. Backplate screw, Zinc (each) | 106-2084 | |
| 10 pack | 106-2105 | |
| 6. Fast idle friction washer (each) | 50-7035 | |
| 10 pack | 50-7058 | |
| 7. Fast idle steel washer (each) | 50-7037 | |
| 10 pack | 50-7061 | |
| 8. Fast idle nylon washer (each) | 50-7036 | |
| 10 pack | 50-7060 | |
| 9. Fast idle lever | USA_{1,2,3} 17-0329 | |
| 10. Fast idle brass washer (each) | 50-7007[±] | |
| 10 pack | 50-7010[±] | |
| 11. Fast idle lever screw (one required for current backplate) (each) | 50-0041 | |
| 10 Pack | 50-0062 | |
| 12. Shim kit | | |
| BT 1984-'92 | 17-0314 | |
| (Includes two each $\frac{5}{16}$ " x .018", $\frac{5}{16}$ " x .030", $\frac{5}{16}$ " x .048", $\frac{5}{16}$ " x .105", | | |
| and four each $\frac{5}{16}$ " x .125") | | |
| BT 1993-'99..... | 17-0464 | |
| (Includes two each $\frac{1}{2}$ " x .018", $\frac{1}{2}$ " x .030", $\frac{1}{2}$ " x .048", $\frac{1}{2}$ " x .105", | | |
| and four each $\frac{1}{2}$ " x .125") | | |
| 13. Shims | | |
| a. BT 1984-'92, S&S 4 $\frac{1}{8}$ " Bore | | |
| $\frac{5}{16}$ " x .018" (each) | 50-7038 | |
| $\frac{5}{16}$ " x .030" (each) | 50-7039 | |
| $\frac{5}{16}$ " x .048" (each) | USA 50-7040 | |
| $\frac{5}{16}$ " x .105" (each) | 50-7041 | |
| $\frac{5}{16}$ " x .125" (each) | 50-7042 | |
| b. BT 1993-'99 | | |
| $\frac{5}{16}$ " x .025" (each) | 50-7113 | |
| 10 pack | 50-7110 | |
| $\frac{5}{16}$ " x .050" (each) | 50-7114 | |
| 10 pack | 50-7111 | |
| $\frac{5}{16}$ " x .075" (each) | 50-7115 | |
| 10 pack | 50-7112 | |
| 14. Elbow fitting (each) | 50-8110 | |
| 15. Breather fitting (each) | 17-0350 | |
| 2 pack | 17-0355 | |
| 16. Crankcase breather hose | | |
| a. BT 1984-'92 | 17-0113 | |
| b. BT 1993-'99..... | USA_{1,2} 17-0339 | |
| 17. Vent hose connector | 50-8111 | |
| 18. Backplate plug $\frac{1}{8}$ "-27 (each) | 50-8331A | |
| 10 pack | 50-1015 | |
| 19. Flatwasher – 5/16" x 1/16" 6320, 70907-07, 6016, 6702 | 50-7034 | |
| 20. Mounting bracket bolt – $\frac{5}{16}$ "-18 x 1 $\frac{1}{4}$ " | | |
| 1984-'92, S&S 4 $\frac{1}{8}$ " Bore | 50-0110 | |
| 21. Wire tie (N/S) | 50-8003 | |
| 22. Hose clamp (N/S) | 50-8002 | |
| 23. Air cleaner assembly | | |
| Includes: Chrome cover, backplate, filter element, and hardware kit. | | |
| BT 1984-'92..... | 17-0399[±] | |
| BT 1993-'99 | 17-0404[±] | |
| BT 1984-'05, 4 $\frac{1}{8}$ " Bore | 17-0416[±] | |
| 24. Mounting hardware package (N/S) | | |
| Includes all parts needed to install following style air cleaners: | | |
| BT 1984-'92..... | 17-0458[±] | |
| BT 1993-'99..... | 17-0436[±] | |
| BT 1984-'05, 4 $\frac{1}{8}$ " Bore | 17-0460[±] | |
| 25. Screw vent fitting, BT 1993-'99 | 17-0347 | |
| 26. Screw, air cleaner to head | 17-0346 | |
| 27. Washer, .520" silicone coated steel, BT 1993-'99 (each) | 50-7055 | |
| 10 pack | 50-7057 | |
| 28. Shim, .850" x .325" x .400" | | |
| S&S 4 $\frac{1}{8}$ " Bore | 50-7027 | |
| 29. Spring clamps (N/S) | USA 50-8001 | |
| 30. Thread insert 1/2"-13 to $\frac{5}{16}$ "-18 (N/S) (Used on 1992 big twins) | 50-8151 | |
| 31. Breather conversion kit BT (N/S) | 17-0486 | |
| Convert early S&S air cleaners for 1993-'99 BT with o-ring breather fittings to new style breather hardware. | | |

(N/S)= Not Shown

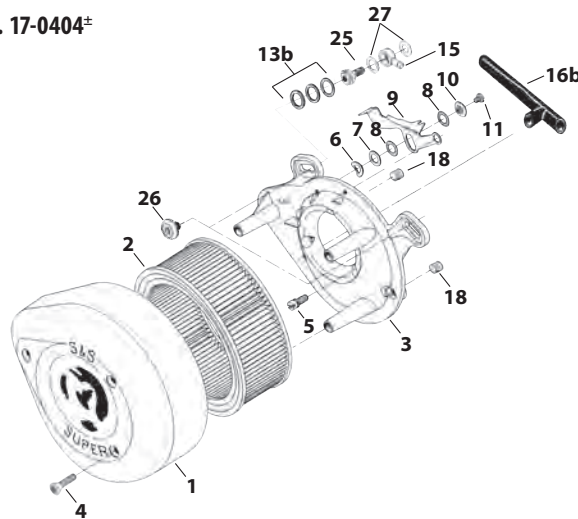
1984-'92 BIG TWIN..... 17-0399±



1984-'05 BIG TWIN
4 1/8" BORE 17-0416±



1993-'99 BIG TWIN 17-0404±

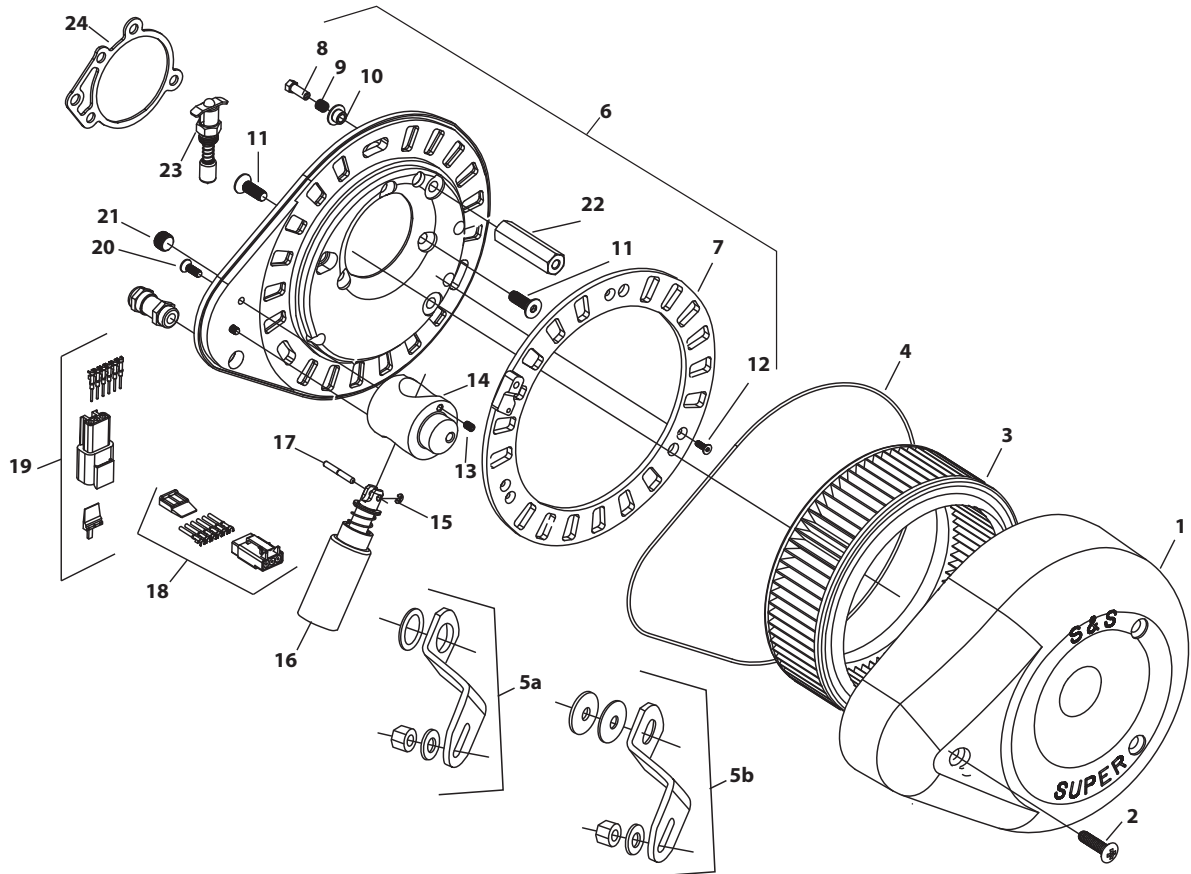


CARB EXEMPT AIR CLEANER REPLACEMENT PARTS

FOR S&S SUPER E OR G CARBS



- | | | | |
|--|----------------------------|--|----------------------------|
| 1. Cover, air cleaner teardrop, chrome..... | 17-0378[±] | 7. Valve assembly, backplate, sealed air cleaner..... | N/A |
| 2. Screw, phil/oval head ¼ - 20 x 1 1305 (each)..... | 50-0072 | 8. Pin, guide, stainless (each)..... | 17-0086 |
| 3 pack..... | 50-1052 | 9. Spring, 5.2 lb/in .24" OD x .208" ID x .25 stainless (each).... | 50-0489 |
| 10 pack..... | 50-0094 | 10. Washer, flat with .18" step .192" x.500" x .030" (each).... | 106-5772 |
| 3. Filter, air, sealed air cleaner..... | 106-1451 | 11. Screw, FHSC, ¼-20 x ¾" zinc (each)..... | 50-0491 |
| 4. O-ring, 7.613" x 7.753" x .070" Viton®..... | N/A | 12. Screw, FHSC 5-40 x ¾" stainless (each)..... | 106-1098 |
| 5. Bracket Kit, head to backplate..... | N/A | 13. Screw, SHS set cup point, 8-32 x ¼" stainless (each)..... | 106-1648 |
| a. V96, V100, V113..... | 106-5209 | 14. Housing, solenoid, aluminum..... | N/A |
| Includes: | | 15. Retaining ring, external E-type ½ shaft stainless..... | 106-3391 |
| Bracket, V96, V100, V113..... | N/A | 16. Solenoid assembly, pull dual coil 12v..... | N/A |
| Washer, Flat, .281" x .625" x .080", Zinc, Steel | | 17. Pin, dowel, grooved .094" x 1" stainless..... | 106-3275 |
| 6194, 6245, 6703, 6736, 6228W, 6192 (each)..... | 50-7021 | 18. Connector, kit, style DTM, 3-position male..... | N/A |
| Shim, .625" x .880" x .050", Stainless Steel (each)..... | 50-7114 | 19. Connector, kit, style DTM, 3-position female..... | N/A |
| 10 pack..... | 50-7111 | 20. Screw, FHSC, 8-32 x ½", stainless 1601 (each)..... | 50-0353-S |
| Nut, Lock, HH, Gr5, ¼-20..... | N/A | 21. Plug, SH pipe, ⅛-27, NPT, zinc 45830-48 (each)..... | 50-8331A |
| b. V111, V117, V124..... | 106-5210 | 10 pack..... | 50-1015 |
| Includes: | | 22. Stand-off..... | N/A |
| Bracket, V111, V117, V124..... | 17-0311 | 23. Enrichment device..... | 11-2084[±] |
| Washer, Flat, .281" x .625" x .080", Zinc, Steel | | 24. Gasket, backplate (each)..... | 106-1724 |
| 6194, 6245, 6703, 6736, 6228W, 6192 (each)..... | 50-7021 | 10 pack..... | 106-2328 |
| Shim, .325" x 1" x .048", Stainless Steel..... | 50-7040 | | |
| Shim, .325" x 1" x .105", Stainless Steel..... | 50-7041 | | |
| Nut, Lock, HH, Gr5, ¼-20..... | N/A | | |
| 6. Backplate Assembly (Backplate assembly includes #7-22)..... | 106-1450 | | |

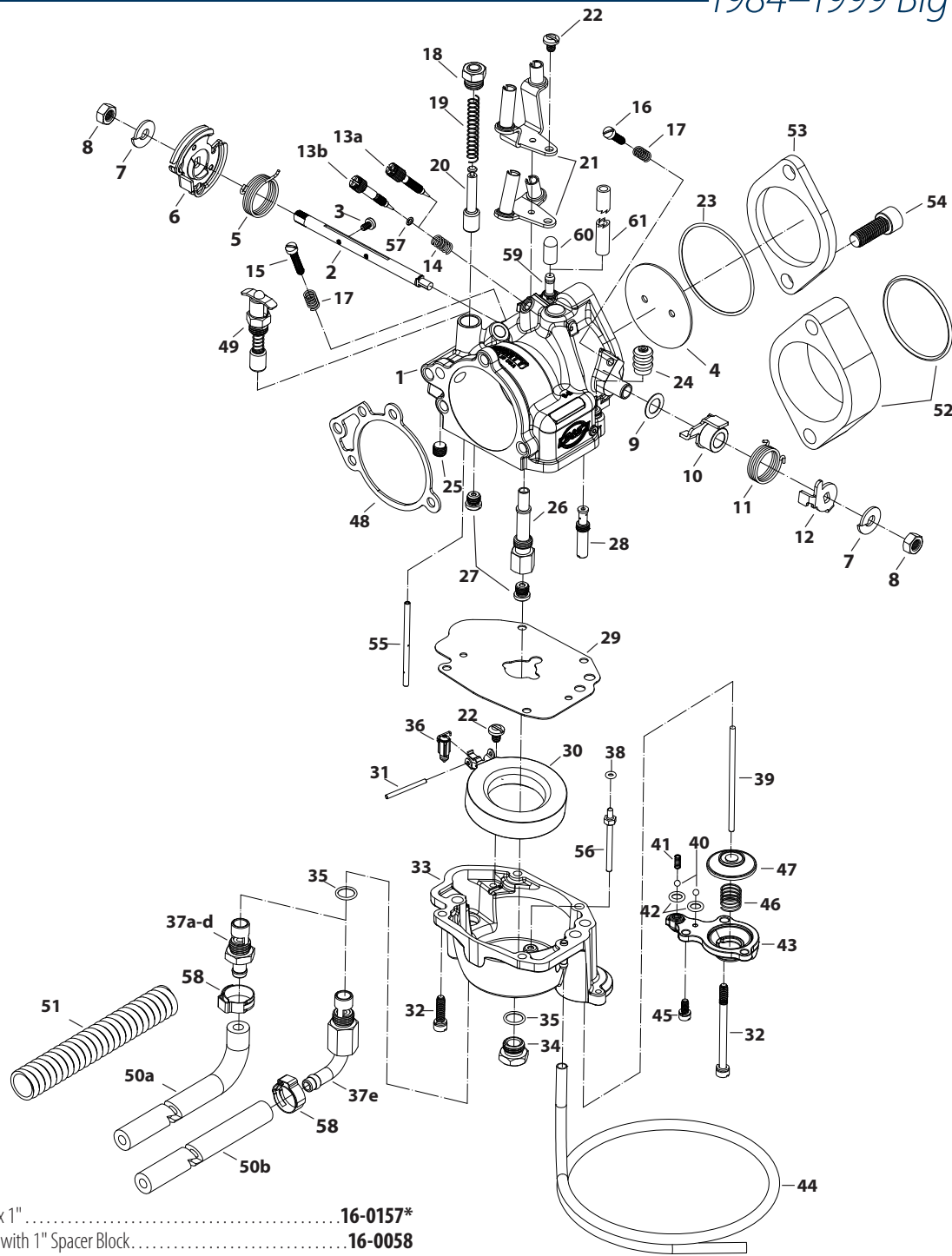
N/A = No longer available



All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

SUPER E & G CARBURETOR REPLACEMENT PARTS

- | | | | |
|---|----------------|--|--|
| 1. Carb body assembly | | | |
| 1 $\frac{7}{8}$ " Super E..... | 11-2381 \pm | | |
| 2 $\frac{1}{4}$ " Super G..... | 11-2391 \pm | | |
| 2. Throttle shaft | | | |
| 1 $\frac{7}{8}$ " Super E — Includes two plate screws..... | 11-2383 | | |
| 2 $\frac{1}{4}$ " Super G — Includes two plate screws..... | 11-2483 | | |
| 3. Throttle plate screw 11-2045- (two required) (each)..... | 50-0055-S | | |
| 10 pack..... | 50-0064 | | |
| 4. Throttle plate | | | |
| 1 $\frac{7}{8}$ " Super E..... | 11-2055 | | |
| 2 $\frac{1}{4}$ " Super G..... | 11-2355 | | |
| 5. Throttle return spring (each)..... | 11-2382 | | |
| 5 Pack..... | 11-3502 | | |
| 6. Throttle spool..... | 11-2385 | | |
| 7. Throttle shaft lock washer (two required)..... | 50-7031 | | |
| 8. Throttle shaft nut (two required) (each)..... | 11-2350 | | |
| 5 pack..... | 11-2363 | | |
| 9. Throttle shaft nylon washer (each)..... | 50-7050 | | |
| 10 pack..... | 50-7072 | | |
| 10. Pump actuator lever..... | 11-2376 | | |
| 11. Actuator spring (each)..... | 11-2375-S | | |
| 5 pack..... | 11-3501 | | |
| 12. Pump actuator arm..... | 11-2377 | | |
| 13. Idle mixture screw | | | |
| a. Idle mixture screw, brass (each)..... | 11-2354 \pm | | |
| 5 pack..... | 11-2378 \pm | | |
| b. Idle mixture screw only | | | |
| each..... | 110-0003 | | |
| Idle mixture screw w/ 500-0036 o-ring | | | |
| each..... | 110-0068 \pm | | |
| 5 pack..... | 110-0069 \pm | | |
| 14. Idle mixture screw spring (each)..... | 11-2052 | | |
| 10 Pack..... | 11-2060 | | |
| 15. Idle speed screw (each)..... | 50-0038 | | |
| 10 Pack..... | 50-0150 | | |
| 16. Pump adjustment screw (each)..... | 50-0039 | | |
| 10 Pack..... | 50-0146 | | |
| 17. Idle speed/pump adjuster spring (each)..... | 11-2048 | | |
| 10 Pack..... | 11-2053 | | |
| 18. Plunger nut (each)..... | 11-2344 \pm | | |
| 5 pack..... | 11-2372 \pm | | |
| 19. Plunger spring (each)..... | 11-2340 | | |
| 10 Pack..... | 11-2359 | | |
| 20. Fast idle plunger..... | 11-2343 | | |
| 21. Cable guide assembly with screw | | | |
| Use with butterfly style cables..... | 11-2339P | | |
| Use with constant velocity style cables..... | 11-2338P | | |
| 22. Cable clamp/float pin screw (each)..... | 50-0041 | | |
| 10 Pack..... | 50-0062 | | |
| 23. O-ring | | | |
| 1 $\frac{7}{8}$ " Super E (each)..... | 50-8016 | | |
| 10 Pack..... | 50-8094 | | |
| 2 $\frac{1}{4}$ " Super G (each)..... | 50-8015 | | |
| 10 Pack..... | 50-8093 | | |
| 24. Bellows seal (each)..... | 11-2266 | | |
| 5 pack..... | 11-2279 | | |
| 25. Bowl vent plug (each)..... | 50-0105 | | |
| 10 Pack..... | 50-0151 | | |
| 26. Main discharge tube..... | 11-2085 \pm | | |
| 27. Main jet — See PAGE 358 | | | |
| 28. Intermediate Jets — See PAGE 358 | | | |
| Series #94 fits all Super 1 $\frac{7}{8}$ ", 2 $\frac{1}{4}$ " 2 $\frac{1}{4}$ " gas carburetors. | | | |
| 29. Bowl gasket (each)..... | 11-2386 | | |
| 10 Pack..... | 11-2387 | | |
| 30. Float..... | 11-2187 | | |
| 31. Float pin (each)..... | 11-2369 | | |
| 5 pack..... | 11-2370 \pm | | |
| 32. Bowl screw | | | |
| 10-24 x $\frac{3}{4}$ " — Three required (each)..... | 50-0034 | | |
| 10 Pack..... | 50-0063 | | |
| 10-24 x $\frac{23}{8}$ " — One required (each)..... | 50-0040 | | |
| 10 Pack..... | 50-0061 | | |
| 33. Carb bowl (only)..... | 11-2388 \pm | | |
| Carb bowl complete assembly..... | 11-2388P | | |
| 34. Bowl plug (each)..... | 11-2090 | | |
| 5 pack..... | 11-2092 \pm | | |
| 35. Seat o-ring* (required with part #11-2465 & #11-2466 only when replaces 360° style fuel inlet) | | | |
| each..... | 50-8009 | | |
| 10 Pack..... | 50-8095 | | |
| 36. Needle | | | |
| 1 $\frac{7}{8}$ " Super E & 2 $\frac{1}{4}$ " Super G..... | 11-2195 \pm | | |
| Racing only..... | 11-2197 \pm | | |
| 37. Seat — Includes O-ring #35 | | | |
| (Replaces obsolete seats 11-2347 and 11-2348) | | | |
| a. 1 $\frac{7}{8}$ " E & 2 $\frac{1}{4}$ " G (Uses part #11-2195 \pm needle)..... | 11-2465 | | |
| b. Racing only (Uses part #11-2197 \pm needle)..... | 11-2466 | | |
| c. Racing only — threaded fuel inlet (6AN.157" ID) | | | |
| (Uses part #11-2195 \pm needle)..... | 11-2395 | | |
| d. Permeation Compliant fuel inlet seat Super E or G | | | |
| (Uses part #11-2195 \pm needle)..... | 106-2011 | | |
| 38. Ejector nozzle o-ring (each)..... | 50-8011 | | |
| 10 Pack..... | 50-8096 | | |
| 39. Pump pushrod (each)..... | 11-2373 | | |
| 5 pack..... | 11-2393 | | |
| 40. Check ball — (two required) (each)..... | 50-8090 | | |
| 10 Pack..... | 50-8125 | | |
| 41. Check ball spring (each)..... | 11-2374 | | |
| 5 pack..... | 11-2392 | | |
| 42. Pump cap o-ring — (two required) (each)..... | 50-8012 | | |
| 10 Pack..... | 50-8100 | | |
| 43. Pump cap assembly..... | 11-2389 | | |
| 44. Overflow hose per 24" 27369-76 (each)..... | 19-0262-S | | |
| 5 pack..... | 19-0263 | | |
| 45. Pump cap screw 8-32 — (two required) (each)..... | 50-0042 | | |
| 10 Pack..... | 50-0098 | | |
| 46. Diaphragm spring (each)..... | 11-2275 | | |
| 10 Pack..... | 11-2278 | | |
| 47. Diaphragm..... | 11-2282 | | |
| 48. Gasket, backplate (each)..... | 106-1724 | | |
| 10 Pack..... | 106-2328 | | |
| 49. Enrichment device (Use with air horn only)..... | 11-2084 \pm | | |
| 50. Fuel line With 90° bend*19" | | | |
| a. Fuel line With 90° bend*19" (Use with part #11-2465 or #11-2466) | | | |
| ..... | N/A | | |
| b. Permeation Compliant straight, 311" x .563" x 17.5" | | | |
| (Use with part #106-2011, 90° seat)..... | 190-0001 | | |
| 51. Fuel line insulator — 12"  | | | |
| ..... | 19-0172 | | |
| 52. Spacer, Kit, w/ O-ring | | | |
| 1 $\frac{7}{8}$ " x 1"..... | 16-0057* | | |
| 2 $\frac{1}{4}$ " x 1"..... | 16-0357* | | |



- 2¼" x 1" **16-0157***
- *Use with 1" Spacer Block **16-0058**
- 53.** Insulator Block,Manifold,w/ O-ring
- 17⁄8" x ¼" Super E **16-0491**
- 17⁄8" x ¾" Super E **16-0497**
- 2¼" x ¼" Super G **16-0492**
- 2¼" x ¾" Super G **16-0498**
- 2¼" x ¼" Super D **16-0499**
- 54.** Screw
- 1" x ¾" -16 (each) **50-0161**
- 1¼" x ¾" -16 (each) **50-0162**
- 10 Pack **50-0177**
- 1¾" x ¾" -16 (each) **50-0163**
- 5 pack **50-0178**
- 2" x ¾" -16 (each) **50-0164**
- 5 pack **50-0185**
- 55.** Tube, Fast Idle Pick-Up, Super E/G, .125" x 2.350", Brass **0381F±**
- 56.** Tube, Ejector Nozzle, Super E/G, Flared, Brass **106-6124±**

- 57.** O-ring, 3mm x 5mm x 1mm (each) **500-0036**
- 10 Pack **500-0148**
- 58.** Clamp, 5⁄8" - 7⁄8" **50-8002**
- 59.** Hose, Fitting straight, .040" **16-0134**
- 60.** VOES Fitting Cap **50-8372**
- 61.** VOES/Oil Return Hose **19-0395**

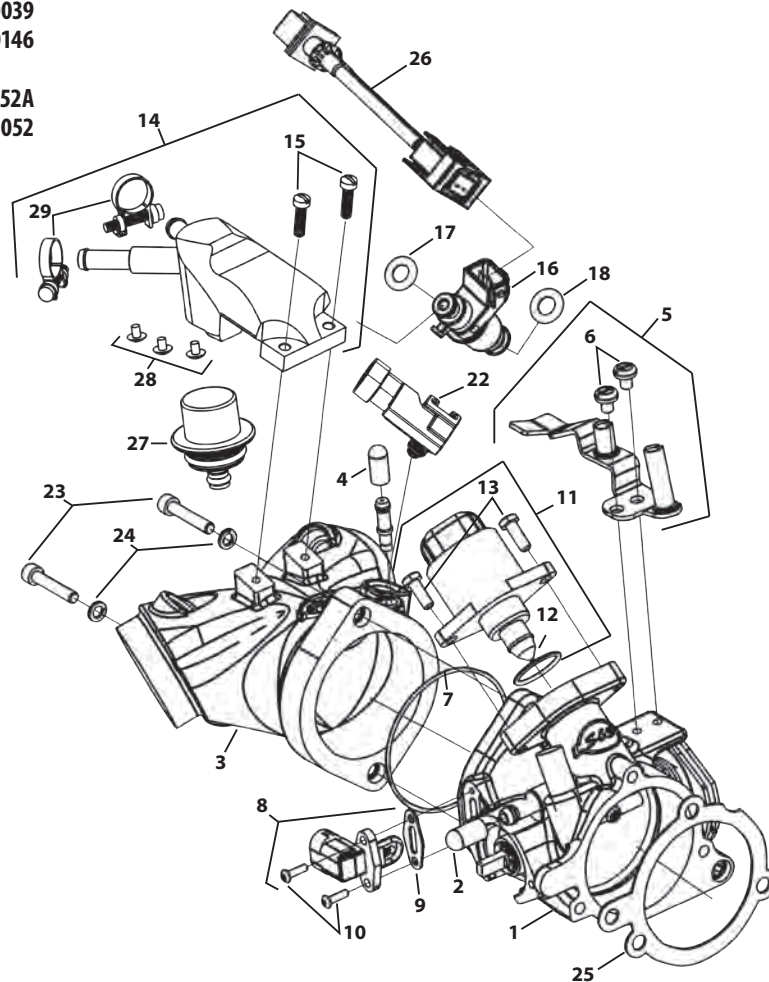
*360° banjo style fuel inlet fitting used on early S&S E&G carbs is no longer available. Replace with one of the inlet/seat fittings listed under #37 on this page. We highly recommend inlet/seat #106-2011.

CARBURETOR REBUILD KITS
PAGE 358

SINGLE BORE EFI THROTTLE BODY AND RELATED REPLACEMENT PARTS

- | | | | |
|---|------------------|---|------------------|
| 1. Throttle body
52mm 1995-'99..... | 16-5101 | 17. O-ring, injector top, black | 50-8264-S |
| 58mm 1995-'99..... | 106-3954 | 18. O-ring, injector bottom, orange | 50-8265-S |
| 2. Cap, canister purge (each) | 50-8266-S | 20. Screw, TP sensor & fuel rail (each) | 50-0358-S |
| 3. Manifold (See PAGE 355) | | 23. Screw, throttle body to manifold (each)..... | 50-0359-S |
| 4. Cap, rubber, manifold, fitting | 50-8372 | 24. Washer, lock, .200" x .334" x .047", Stainless Steel
Throttle body to manifold | 50-7000 |
| 5. Throttle cable guide packet with hardware | 55-5084 | 25. Gasket, backplate
52mm (each)..... | 106-1724 |
| 6. Screw, cable guide & air cleaner backplate (each) | 50-0041 | 10 Pack | 106-2328 |
| 10 Pack | 50-0062 | 58mm (each)..... | 106-4662 |
| 7. O-ring, throttle body to manifold | 50-7967-S | 26. Harness, injector adapter kit, 1995-'99 | 55-5074 |
| 8. Intake air temperature sensor packet with hardware
27270-95..... | 55-5041± | 27. Pressure regulator, 1995-'99 | 16-5297 |
| 9. Gasket, IAT | 16-5009-S | 28. Screw, pressure regulator, 6-32 x 3/16", 1995-'99..... | 50-0279-S |
| 10. Screw, M3, IAT..... | 50-0357-S | 29. Clamps, Hose, 1/2" diameter, smooth, 1995-'99 | 50-8352 |
| 11. Idle air control motor SS EFI packet with hardware - 1995-'99
27628-01, 27628-01A..... | 55-5085± | 30. Plug, assembly, MAP sensor hole, 1995-'99 (N/S)..... | 50-8350 |
| 12. O-ring, IAC..... | 50-8149-S | 31. O-ring, MAP plug, 1995-'99 (N/S) (each)..... | 50-8133-S |
| 13. Screw, 10-24, IAC, 1995-'99
each | 50-0356-S | | |
| 14. Fuel rail kit
1995-'99 (Fuel inlet tube included) (N/S) | 16-5207 | | |
| 15. Screw, rail, 1995-'99 (each)..... | 50-0039 | | |
| 10 Pack | 50-0146 | | |
| 16. Fuel injector
1 pack | 55-5052A | | |
| 2 pack | 55-5052 | | |

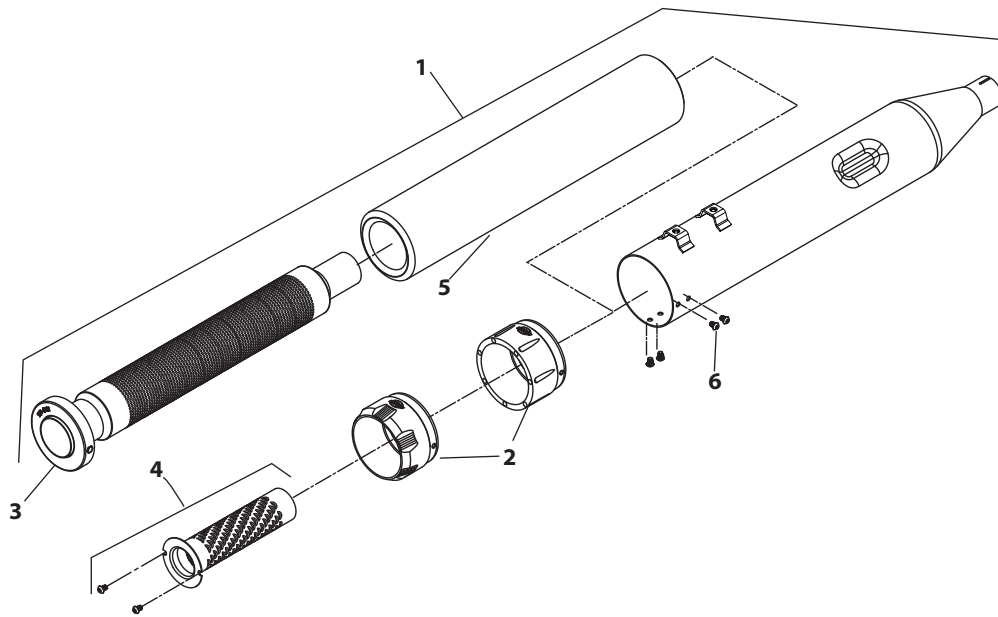
(N/S)= Not Shown



All reference to HD® Part #s is for identification purposes only. We in no way are implying that any of S&S® Cycle's products are original equipment parts or that they are equivalent to the corresponding HD Part # shown.

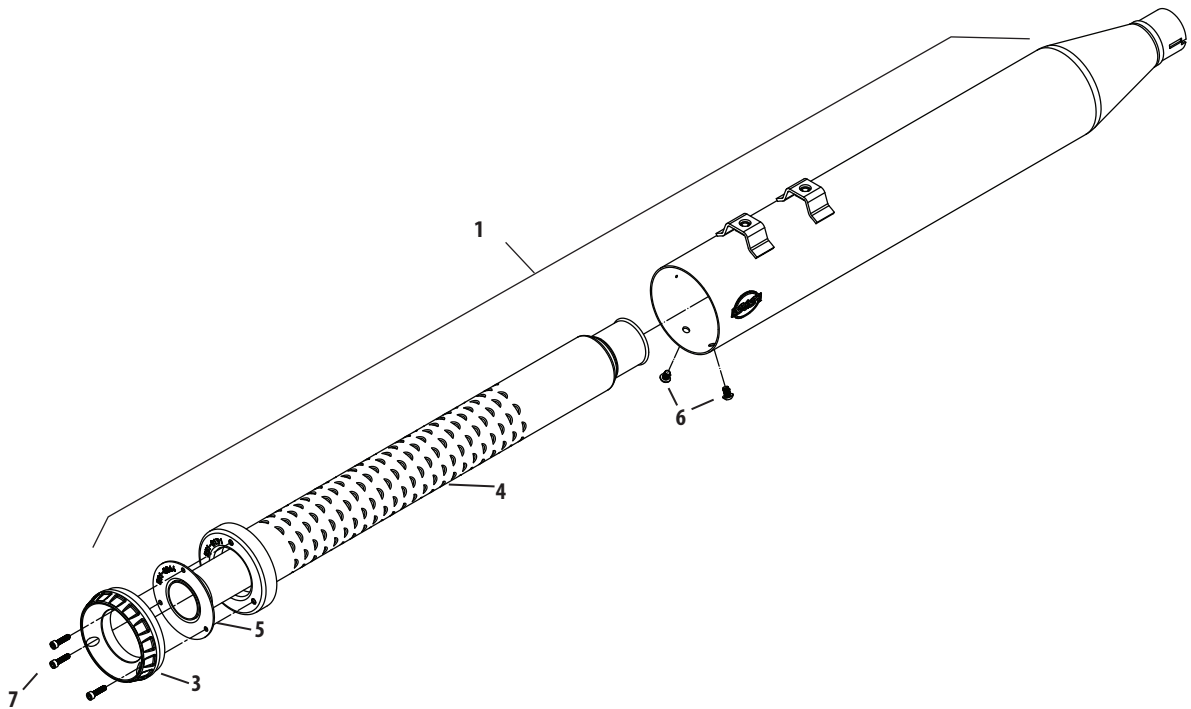
Mk45 4 1/2" MUFFLER REPLACEMENT PARTS

- 1. 4.5" Muffler Assembly
 - Left, Chrome **551-0020**±
 - Right, Chrome **551-0021**±
 - Left, Black **551-0022**
 - Right, Black **551-0023**
- 2. End Cap
 - Thruster, Chrome **550-0634A**±
 - Thruster, Highlighted Machined **550-0629A**
 - Tracer, Chrome **550-0636A**±
 - Tracer, Highlighted Machined **550-0632A**
- 3. Main Baffle Assembly, 4.5" Muffler **551-0007**
- 4. dB reducer **551-0226**
- 5. Insulation, 4.5" Muffler **551-0003**
- 6. Button Head Cap Screw, Stainless, 1/4"-20X3/8" **500-0441**
- 7. Hardware Kit, Muffler Clamps And Screws (N/S) **551-0027**



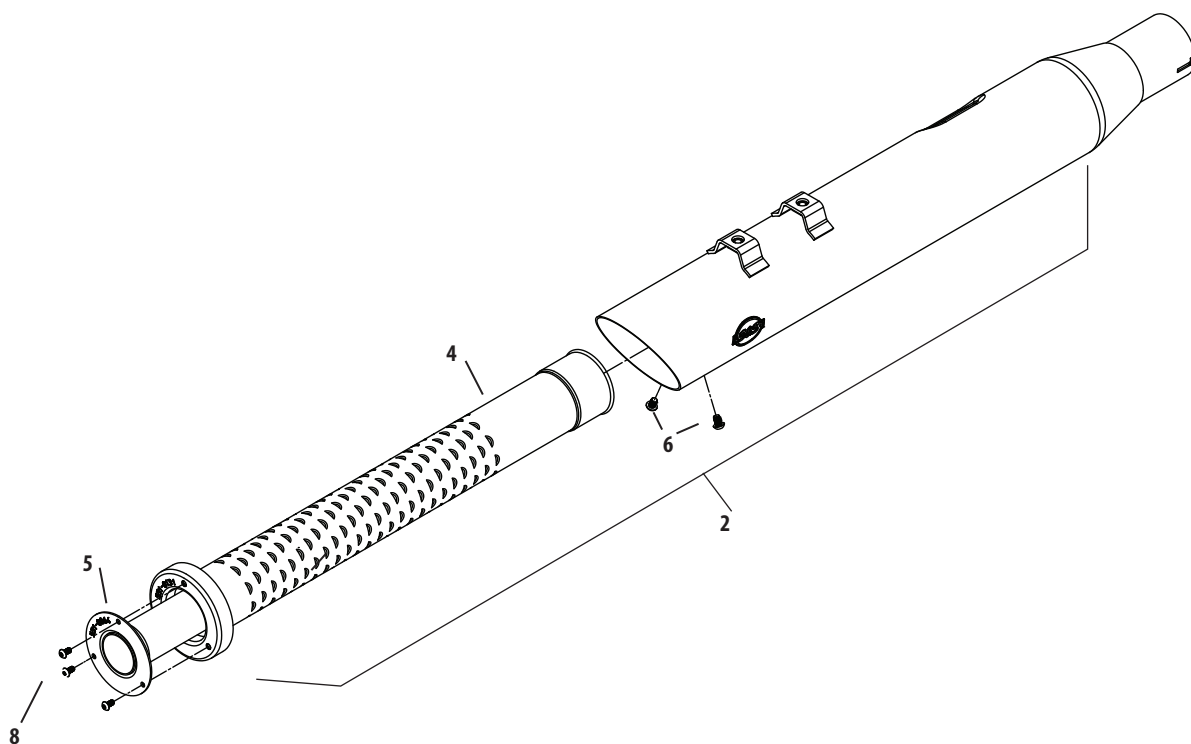
GRAND NATIONAL 4" REPLACEMENT PARTS

- 1. 4" Muffler assembly with Grand National end cap
 - Left, Chrome.....**551-0055±**
 - Right, Chrome.....**551-0056±**
 - Left, Black.....**551-0057**
 - Right, Black.....**551-0058**
- 3. End Cap (Left and Right).....**551-0291**
- 4. Main baffle assembly (Left and Right).....**551-0053**
- 5. dB reducer baffle (Left and Right).....**551-0063**
- 6. Button head cap screw, Stainless, 1/4"-20x3/8".....**500-0441**
- 7. Socket head cap screw, Stainless, 10-32x3/4".....**500-0569**
- 9. Hardware kit, muffler clamps and screws (N/S).....**551-0027**



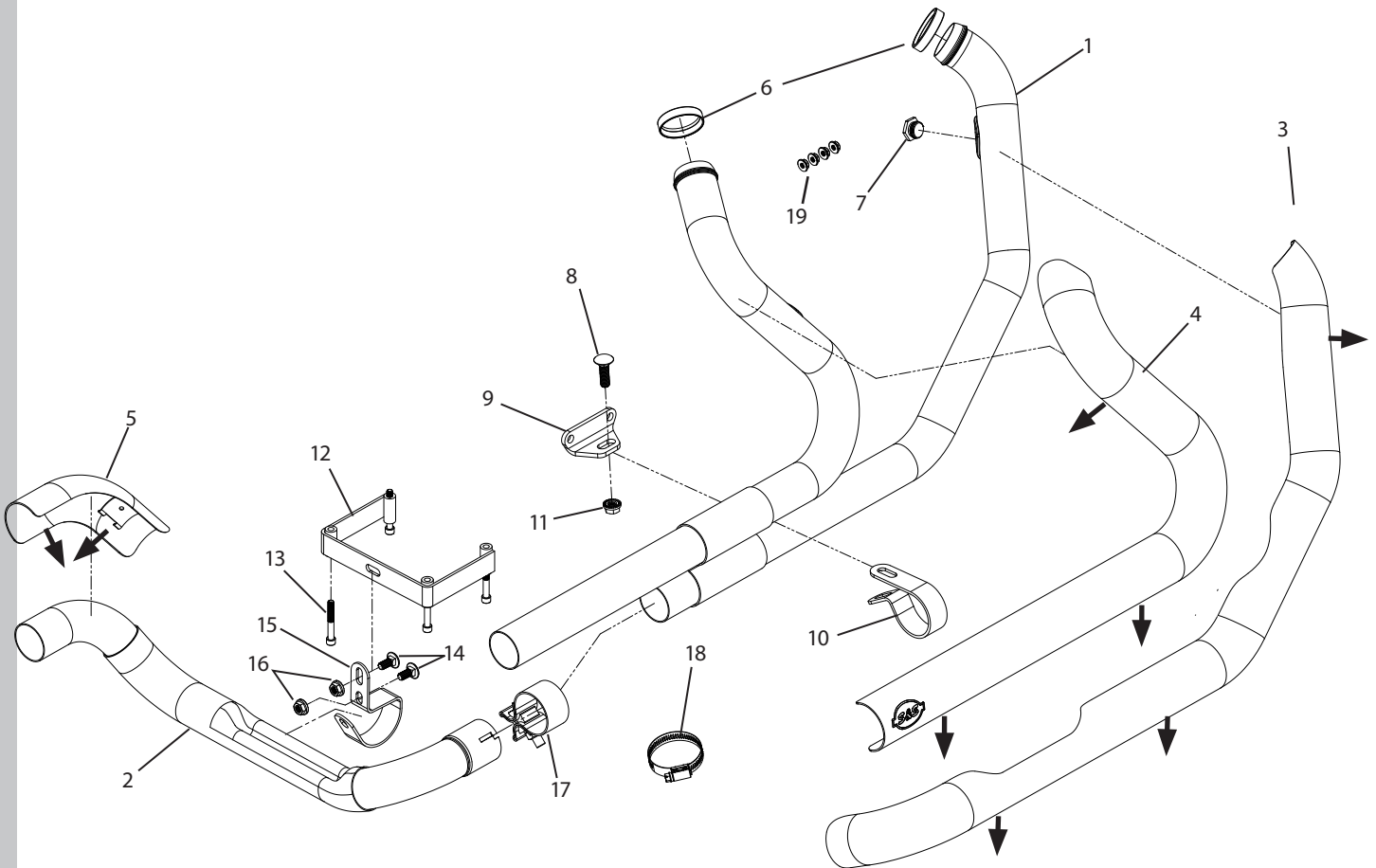
SLASH CUT 4" REPLACEMENT PARTS

- 2. 4" Muffler assembly Slash Down
 - Left, Chrome..... **551-0059**±
 - Right, Chrome..... **551-0060**±
 - Left, Black..... **551-0061**
 - Right, Black..... **551-0062**
- 4. Main baffle assembly (Left and Right)..... **551-0053**
- 5. dB reducer baffle (Left and Right)..... **551-0063**
- 6. Button head cap screw, Stainless, 1/4"-20x3/8"..... **500-0441**
- 8. Button head cap screw, Stainless, 10-32x3/8"..... **500-0570**
- 9. Hardware kit, muffler clamps and screws (N/S)..... **551-0027**



POWER TUNE® DUAL HEADER REPLACEMENT PARTS

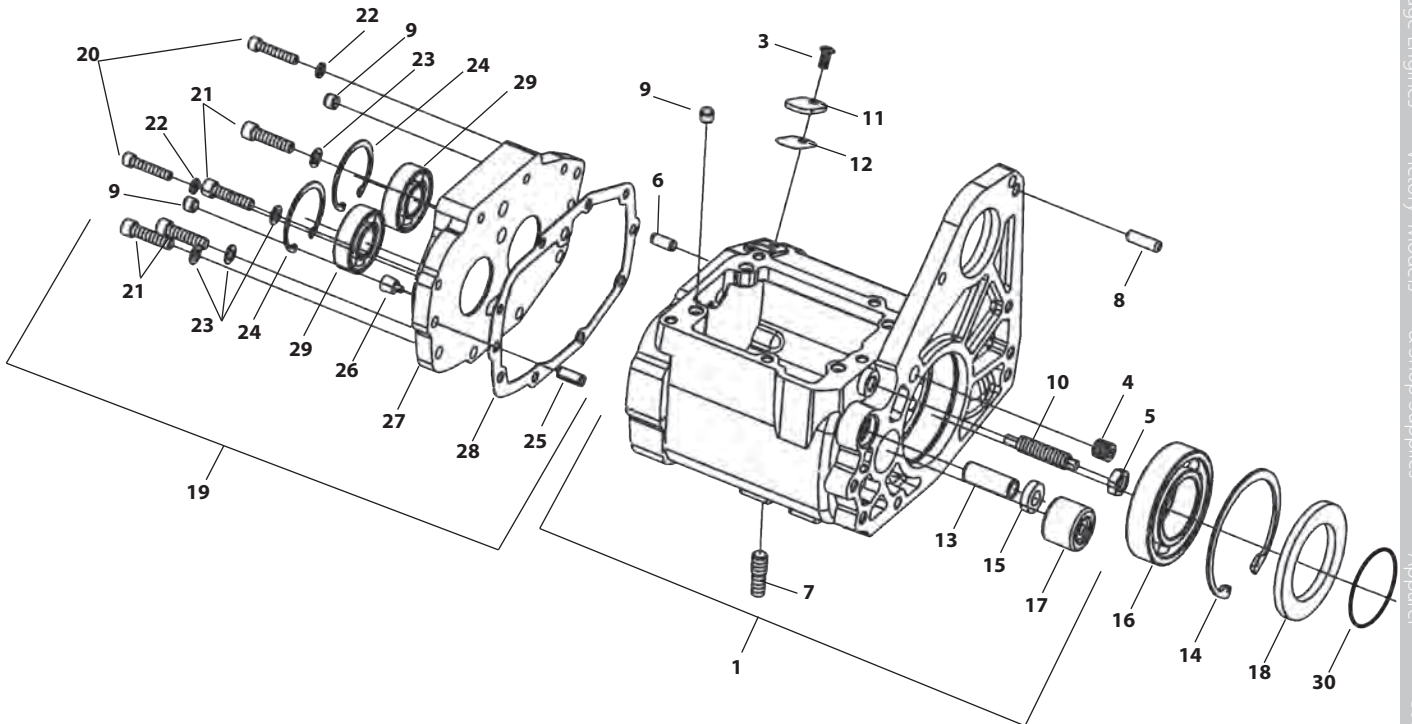
- | | | | |
|---|------------------|--|------------------|
| 1. Pipe, Header, Power Tune Dual, Weldment, 1999–2008 Touring (1 Req) | 551-0083 | 11. Nut, Flanged, Serrated, 3/8–16 (1 Req) | 500-0554 |
| 2. Tube, Crossover, Power Tune Dual, Weldment, 1995–2008 Touring (1 Req) | 551-0077 | 12. Bracket, Assembly, Transmission, Pan, Power Tune Dual, 1995–2008 Touring (1 Req) | 551-0126 |
| 3. Shield, Front, Power Tune Dual, 1995–2008 Touring (1 Req)
Chrome | 551-0091± | 13. Screw, SHC, 1/4–20 x 1 7/8", Zinc Plated (4 Req) | 500-0641 |
| Black | 551-0092 | 14. Bolt, Carriage, 5/16–18 x 3/4" (2 Req) | 500-0555 |
| 4. Shield, Rear, Power Tune Dual, 1995–2016 Touring (1 Req)
Chrome | 551-0103± | 15. Clamp, P-Style, Crossover, Power Tune Dual Header, 1995–2008 Touring (1 Req) | 551-0120 |
| Black | 551-0104 | 16. Nut, Flanged, Serrated, 5/16–18 (2 Req) | 50-5053-S |
| 5. Shield, Left, Power Tune Dual, 1995–2016 Touring (1 Req)
Chrome | 551-0115± | 17. Clamp, Muffler, Band Style (1 Req) | 551-0028 |
| Black | 551-0116 | 18. Clamp, Hose, Worm Drive, SAE #28 (8 Req) | 551-0124 |
| 6. Gasket, Exhaust, Tapered, Stainless Steel, 1984–up bt, 1986–up xl 65324-83B, 65324-83A (2 Req) | 106-5029 | 19. Nut, HSFH, 5/16–24 7593 | 50-5025-S |
| 7. Plug, M18 x 1.5 Thread (2 Req) | 551-0122 | | |
| 8. Bolt, Carriage, 3/8–16 x 1 1/4" (1 Req) | 500-0553 | | |
| 9. Bracket, Transmission, Side, Power Tune Duals, 1995–2008 Touring (1 Req) | 551-0125 | | |
| 10. Clamp, P-Style, Power Tune Dual, Side, 1995–2016 Touring (1 Req) | 551-0119 | | |



NOTE - Install #18 heat shield clamps with screw heads pointing in direction shown by arrows. ➔

TRANSMISSION CASES REPLACEMENT PARTS FOR 1986-'99 SOFTTAIL® MODELS

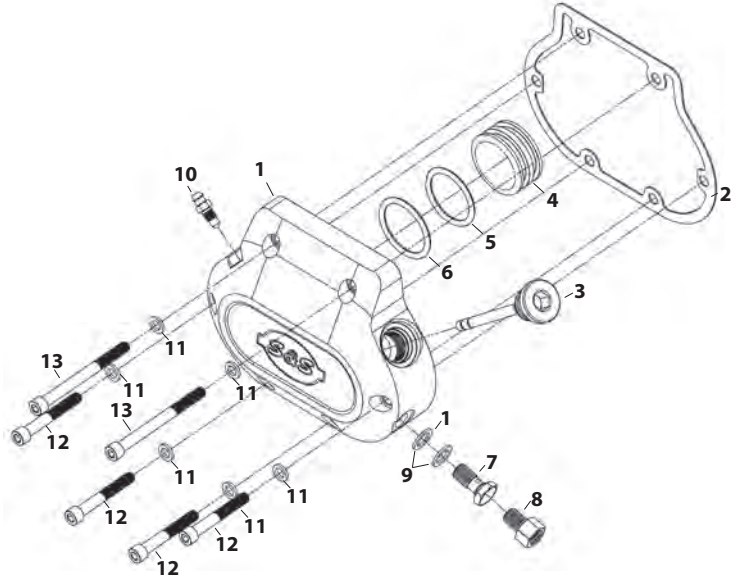
- | | |
|--|-----------------|
| 1. Transmission case assembly, 5-speed, rigid mount 1986-'99 Harley-Davidson® Softail® | 560-0032 |
| 2. Case only | N/A |
| 3. Screw, socket buttonhead, 1/4"-20 x 1/2" | 50-0065 |
| 4. Set-screw, sockethead, 1/2"-20 x 1/2" (HD® #3784) | 50-0203 |
| 5. Nut, hex head, 7/16"-14 (each) | 50-5044 |
| 6. Pin, dowel, .308" diameter x .70" 375 | 50-8029 |
| 7. Stud, 3/8"-24, 7/16"-14 x 1.300" 11733A | 50-8084 |
| 8. Pin, dowel, 5/16" diameter x 1" 337 | 50-8171 |
| 9. Pin, roll, 3/8" x .300" 609 | 50-8173 |
| 10. Screw, shift lever adjustment 33119-79B | 56-1002 |
| 11. Cover, speedo sensor hole | 56-1061 |
| 12. Gasket, speedo sensor hole cover | N/A |
| 13. Guide, shifter shaft, 5-speed rigid mount 1986-'99 BT 33114-79 | 56-1067 |
| 14. Ring, internal retaining, 3.734" O.D. x .109" tru-arc 11161, 11599 | 50-8051 |
| 15. Seal, oil - 1984-'99 BT 12045 | 56-1064 |
| 16. Bearing, transmission output shaft, 1984-'99 BT 8996A | 56-1280 |
| 17. Bearing, transmission countershaft 8977 | 56-3031 |
| 18. Seal, oil 12067B | 56-3033 |
| 19. Door assembly, transmission access, 5-speed 1986-'99 BT | 56-1027 |
| 20. Capscrew, sockethead 1/4"-20 x 1 1/4" 4740A, 3482A each | 50-0008 |
| 21. Capscrew, SH 5/16"-18 x 1 1/4" 3210A | 50-0121 |
| 22. Washer, flat - 1/4" x 7/16" x 1/16" (each) | 50-7017 |
| 23. Washer, flat - 5/16" x .545" x .042" (each) | 50-7013 |
| 24. Ring, internal retaining, 2.072" O.D. x .062" Tru-Arc 35021-89 | 50-8053 |
| 25. Pin, roll - 5/16" x 3/4" 634 (each) | 50-8175 |
| 26. Plug, magnetic - 1/8" -27739A | 50-8334 |
| 27. Door, transmission access 35258-87C Only 5-speed rigid mount 1986-'99 BT | 56-1025 |
| 28. Gasket, transmission access door 35652-79B, 35653-98A | 56-1026 |
| 29. Bearing, transmission access door 8992A, 8998 | 56-3026 |
| 30. O-ring, Quad Seal 11165 | 50-8045 |



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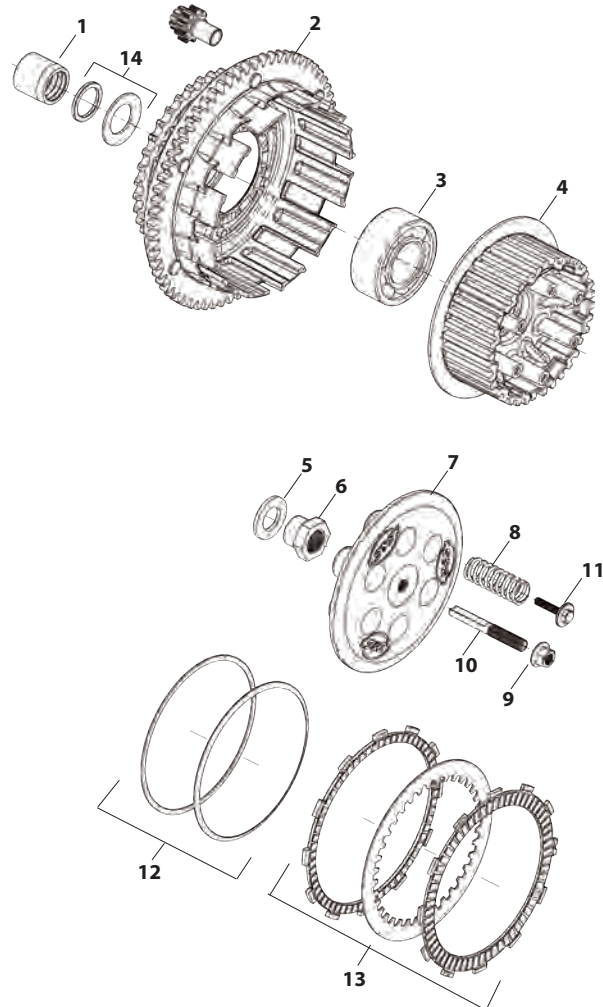
CHROME PLATED BILLET TRANSMISSION SIDE COVER REPLACEMENT PARTS

- 1. Hydraulic Clutch Side Cover (Chrome Billet) N/A
Cable Actuated (Chrome Billet)..... N/A
- 2. Gasket Side Cover (each) N/A
- 3. Dipstick Assembly N/A
- 4. Piston, Hydraulic Clutch (Billet) N/A
- 5. O-ring, 1 1/4 ID x 1/8 CS, Buna-N 70 (each). N/A
- 6. O-ring, 1 1/4 ID x 1/8 CS, Viton. N/A
- 7. Banjo Bolt 3/8–24 x 3/4..... N/A
- 8. Adapter, Hydraulic Clutch Line N/A
- 9. Crush Washer, Copper .400 ID x .590 OD x .050 N/A
- 10. Valve, Bleed Fitting, 1/4–28 N/A
- 11. Washer, Flat .260 x .420 x .06 Chrome. **50-7017[±]**
12 pack **50-7013[±]**
- 12. Screw, Cap Hex SH 1/4–20 UNC x 1.75 Zinc N/A
- 13. Screw, Cap Hex SH 1/4–20 UNC x 2.75 Zinc N/A



HIGH PERFORMANCE CLUTCH REPLACEMENT PARTS

- 1. Race, inner primary bearing, 5/6 speed main shaft
All 1991-'05 BT and 2006 Harley-Davidson® Softail® models
..... **56-5089**
- 2. Basket,
Clutch, 36-tooth N/A
Clutch, 37-tooth N/A
- 3. Bearing, clutch (basket to hub)..... N/A
- 4. Hub, clutch N/A
- 5. Washer, thrust, 19.5 mm I.D. x 35.6 mm O.D. N/A
- 6. Nut, mainshaft, clutch hub, 3/4–18 UNS-2B N/A
(Recommended early style mainshaft nut HD® #37496-84)
(Recommended late style mainshaft nut HD® #37496-90)
- 7. Plate, pressure - clutch
Mechanical (3-piece pushrod actuated) N/A
- 8. Spring, pressure plate, clutch
Light duty, 334 lbs. (6 pack) N/A
Standard, 370 lbs. N/A
Heavy duty, 408 lbs. (each)..... **56-5106-S**
- 9. Nut, flange, M10 x 1.25" N/A
- 10. Screw, clutch adjuster, M10 x 1.25"..... N/A
- 11. Bolt, special, M6 x 30, w/washer **50-8413-S**
- 12. Jutter spring with seat..... N/A
- 13. Clutch pack, 11 frictions, 10 steels..... **56-5085-S**
- 14. Kit, shim, clutch inner race **56-5090**
Shim, 5/6 speed main shaft
1.300" O.D. x .960" I.D. x .0075" (36 gauge) thick N/A
1.300" O.D. x .960" I.D. x .0150" (28 gauge) thick N/A
1.300" O.D. x .960" I.D. x .0240" (24 gauge) thick N/A
1.300" O.D. x .960" I.D. x .0470" (18 gauge) thick..... N/A



VINTAGE MODELS

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UNIVERSAL STEALTH AIR CLEANER KIT

FOR 1936-'92 BIG TWINS AND 1957-'90 SPORTSTER® MODELS

FITMENT

- 1936-'92 bt case breathing engines equipped with a Super E or G carb
- 1957-'03 Sportster® models case breathing engines equipped with a Super E or G carb

FEATURES AND BENEFITS

- Increased performance
- Perfect addition with a performance exhaust system
- Filter element can be cleaned and reuse

KIT CONTENTS

- Backplate
- Air Filter
- All necessary mounting hardware
- Complete instructions



UNIVERSAL STEALTH AIR CLEANER KIT

Model	Part #
1936-'92 big twins, 1957-'90 Sportster® models	170-0176

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

STEALTH AIR CLEANER KIT COVERS INCLUDING THE NEW STEALTH TEARDROP



STEALTH TEARDROP COVER ONLY

Chrome	170-0530
Gloss Black	170-0531
Slasher – Chrome	170-0532
Slasher – Gloss Black	170-0533



Carbon Fiber



Mini in Chrome



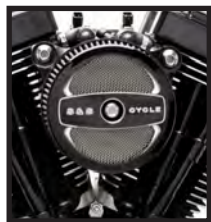
Mini in Gloss Black



Tri-Spoke



Torker



Air 1



Airstream in Chrome



Airstream in Gloss Black



Muscle in Chrome



Muscle in Gloss Black



Bobber-dished

Carbon Fiber	Mini		Tri-Spoke	Torker	Air 1	Bobber-Dished	
Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights	Chrome	Wrinkle Black
170-0501	170-0367[±]	170-0366	170-0210	170-0206	170-0214	170-0119[±]	170-0123

Airstream		Muscle		Displacement			Bobber-Domed	
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	111	124	143	Chrome	Wrinkle Black
170-0118[±]	170-0396	170-0121[±]	170-0463	170-0319	170-0321	170-0323	170-0120[±]	170-0124

CLASSIC TEARDROP AIR CLEANER KITS FOR S&S AND STOCK CARBURETORS

FITMENT

- 1966-'84 big twins
- 1966-'85 Harley-Davidson® Ironhead Sportster®

FEATURES AND BENEFITS

- Increased air flow adds 2–5 horsepower (*more with performance exhaust and cams*)
- Easy installation
- S&S chrome teardrop air cleaner looks great

CLASSIC TEARDROP AIR CLEANER KITS±

Model Year and Engine Style	S&S L, HD® Tillotson®, Bendix®, Keihin®	Super E & G
Big Twin Models		
1966-'84 w/5 gl. tanks	17-0199	17-0440
1966-'84	17-0199	17-0400
Harley-Davidson® Ironhead Sportster® Models		
1966-'85	17-0199	17-0400

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

KIT CONTENTS

- Chrome teardrop cover
- Back plate
- Filter
- Mounting hardware
- Instructions



17-0199±

**REPLACEMENT PARTS:
SEE PAGE 496**

PERFORMANCE KIT OVERVIEW FOR VINTAGE HARLEY-DAVIDSON® MODELS



91-9126

SIDEWINDER® BIG BORE KITS FOR 1966-'84 BIG TWINS

Sidewinder big bore/stroker kits are available in displacements from 88" to 103". The 3 $\frac{5}{8}$ " bore cylinders are coupled with strokes from 4 $\frac{1}{4}$ " to 5" to yield the various displacements (See page 410). The most popular and highly recommended Sidewinder Kit is the 93" (3 $\frac{5}{8}$ " bore X 4 $\frac{1}{2}$ " stroke). This is also available as a Hot Set Up Kit which includes everything you need to achieve the potential of the increased displacement (See page 414).



32-2222

STOCK BORE STROKER KITS FOR 1936-'84 BIG TWINS AND IRONHEAD SPORTSTER®

Stock bore stroker kits were the original solution to attaining more cubic inches back in the day. They are still popular today because of they produce good power for less money. Stock bore strokers reuse most of the components of the stock engine, and don't require expensive crankcase machining so installation is also economical. Stroker kits are available for knuckles, pans, and shovels in 84" to 88" displacement. By far the 84" stroker is the most popular and is available as a Hot Set Up Kit. The Hot Set Up Kit comes with cam, carb pushrods, and valve springs that will allow you to take full advantage of the displacement increase (See page 411). There is a 74" stroker for Ironhead Sportster that has been a favorite since the 1970s (See page 412). Order the basic kit or configure your own Hot Set Up Kit with the CTO number.



106-1070

RETRO CONVERSION KIT FOR 1966-'84 BIG TWINS

Give your shovel the nostalgic look of a panhead, gain performance, and upgrade to modern 1984-'99 style hydraulic valve train with one simple to install kit. (See page 413)



90-0098

TOP END REPLACEMENT KITS FOR 1966-'84 BIG TWINS

Restore that tired iron with a bolt-on Top End Replacement kit. Kit includes cylinders, pistons, cylinder heads and all gaskets and hardware. Available for 74" and 80" engines. (See page 415)

SIDEWINDER® BIG BORE KITS FOR 1966-'84 BIG TWIN ENGINES

FITMENT

- 1966-'84 big twins

FEATURES AND BENEFITS

- Increase displacement and power
- High strength cast iron cylinders with increased cooling fin area
- Stock like appearance – durable black powder coat finish
- Easy installation
- Long engine life, good dependability



S&S® SIDEWINDER® BIG BORE KIT SPECIFICATIONS FOR 1966-'84 BIG TWINS

Displacement	Bore	Stroke	Compression Ratio	Cylinder Length	Recommended Cam (Stock Valve Train*)	Recommended Cam (S&S Valve Train**)	Recommended Carb
88"	3⅝"	4¼"	7.5:1	5.330"	S&S 514	S&S 585	Super E
93"	3⅝"	4½"	8.5:1	5.405"	S&S 514	S&S 585	Super E
93" HC	3⅝"	4½"	9.1:1	5.363"	S&S 560S	S&S 600	Super E
96"	3⅝"	4⅝"	9.1:1	5.440"	S&S 560S	S&S 600	Super E
98"	3⅝"	4¾"	8.9:1	5.530"	S&S 560S	S&S 600	Super E
103"	3⅝"	5"	9.7:1	5.630"	S&S 560S	S&S 600	Super E or G

*1966-'84 style cams for valve train with stock style tappets

**1984-'99 style cams for S&S valve train conversion kit with 1984-'99 style tappets

COMPLETE S&S® SIDEWINDER® KITS FOR SHOVELHEAD ENGINES

Displacement	93"	93" HC	96"	98"	103"
1966-'69	–	–	91-9133	–	–
1970-'84	91-9126	91-9130	91-9134	91-9138	91-9140

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle. These kits require manifolds, see page 458.

84", 86", OR 88" STOCK BORE STROKER KIT

FEATURES AND BENEFITS

- Increased displacement and power
- Economical – re-use most stock engine components
- Easy installation – like a stock engine rebuild
- Stock appearance

OPTIONS

- Displacement 84", 86", or 88"
- Cylinder Bore 3⁷/₁₆" or 3¹/₂"

Optional parts available – cam, prefit cylinder and piston kits, cylinder heads, S&S retro conversion kit (*pan style heads and upgraded valve train*), and S&S valve train upgrade kit



S&S® STOCK BORE STROKER KIT SPECIFICATIONS 1936-'84 BIG TWINS							
Displacement	Bore	Stroke	Compression Ratio		Recommended Cam (Stock Valve Train)	Recommended Cam (S&S® Valve Train)	Recommended Carb
			HC	LC			
84"	3 ⁷ / ₁₆ "	4 ¹ / ₂ "	8.4:1	7.3	S&S 450S	S&S 513	Super E
86"	3 ⁷ / ₁₆ "	4 ⁵ / ₈ "	9.4:1	8.1	S&S 514	S&S 585	Super E
88"	3 ⁷ / ₁₆ "	4 ³ / ₄ "	10.8:1	9.1	S&S 565S	S&S 640	Super E

STOCK BORE STROKER KITS FOR KNUCKLEHEAD, PANHEAD, & SHOVELHEAD ENGINES

Displacement	84"	86"	88"
1936-'53	32-2219	**	**
1958-'64†	32-2220	**	**
1965-'69	32-2221	**	**
1970-'84	32-2222	32-2108	–
CTO	106-5838	106-5838	106-5838
Custom Flywheels	32-2015	32-2015	32-2015

*Includes .032" base plates.

**Available through CTO part #106-5838

†S&S does not offer a pinion shaft for 1954-'57 engines.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle..

! THESE KITS REQUIRE SPECIAL S&S PISTONS. SEE CHART.

FORGED STOCK BORE STROKER PISTONS

Oversize	Standard	Low Compression
Standard (3 ⁷ / ₁₆ "	106-5527	920-0073
+ .010"	106-5528	920-0075
+ .020"	106-5529	920-0077
+ .030"	106-5530	920-0079
+ .040"	106-5777	920-0081
+ .050"	106-5778	920-0083
+ .060"	106-5779	920-0085
+ .070"	106-5780	920-0087
+ .080"	106-5781	920-0089
+ .090"	106-5782	920-0091



Mill
Et
1986-2019
Sportster® & Buell®
2014-2019
Street® & Street Rod®
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® & Victory® Models
Tools & Shop Supplies
Apparel
Warranty & Company Policy
Appendix & Index

STOCK BORE STROKER KITS

FOR 1971-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER

FITMENT

- 1972-'85 1000cc Ironhead Sportster models

FEATURES AND BENEFITS

- Economical – re-use most stock engine components
- More Power – longer stroke and larger displacement

OPTIONS

- Piston oversize
- S&S Super B or Super E carburetor
- S&S pushrods



32-3055

S&S® STOCK BORE STROKER KITS SPECIFICATIONS – HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Displacement	Stroke	Bore	Compression Ratio	Piston Type*	Cylinder Length	Application
74"	4 $\frac{5}{8}$ "	3 $\frac{3}{16}$ "	9:1	Forged	Stock	Short Trips, Street, & Strip

*Order pistons separately. See chart below.

STOCK BORE STROKER KITS FOR HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Year	Part #
1977-'81	32-3055
Custom Flywheels	32-3014

Note - Order pistons separately. See chart below.

! THESE KITS REQUIRE SPECIAL S&S PISTONS. SEE CHART.



106-5542

STROKER PISTON KITS FOR 1972-'85 HARLEY-DAVIDSON® SPORTSTER® MODELS

Oversize	+ .010	+ .020	+ .030	+ .060
Part #	106-5542	106-5543	106-5544	106-5791

Piston Deck Height = .806". Piston kits include rings, wristpins and keepers.

Recommended Piston Fit: Close: .0030"-.0035" Loose: .0045"-.0055"

NOTES

For the best performance, an S&S carburetor, performance cams, and performance exhaust are recommended.
 Do to the increased displacement and compression, cams with longer duration are recommended for easier starting.
 If replacing the pistons in a older 77" stroker engine, stroker plates are required, and all clearances must be checked.

RETRO CONVERSION KIT FOR 1966-'84 BIG TWINS

FITMENT

- 1966-'84 big twins
- 1954-'65 big twins with shovel cylinders

FEATURES AND BENEFITS

- Gives a shovel engine the retro look of a pan
- S&S heads improve performance with increased air flow
- Quiet, dependable valve train with hydraulic tappets

OPTIONS

- Stock or 3 $\frac{3}{8}$ " bore
- Dual spark plugs available on 3 $\frac{3}{8}$ " bore heads
- Internal or external oil returns



RETRO CONVERSION KITS FOR 1954-1984 BIG TWINS

Application	Bore	Option	Part #
1966-'84 bt S&S SH-Series	Stock	Single Plug	106-1070
	3 $\frac{3}{8}$ "	Single Plug	106-1071
		Dual Plugs	106-1078

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These kits have internal oil drains.

LATE STYLE CAM RECOMMENDATIONS FOR SHOVELHEAD ENGINES WITH RETRO CONVERSION KIT						
Application	RPM Range	Compression Ratio	If You Used...	Then Use...	Generator Style	Alternator Style
74" - Stock 84" low compression	Low - Mid	8.5 and below	S&S 450 or Andrews® J or A	S&S 513	106-6028	106-6027
74" and 80" - Modified	Mid - High	8.5 - 9.5	S&S 514 or Andrews #3 or B	S&S 585	33-5131	33-5109
84" - 93"	Low - Mid	8.0 - 9.0	S&S 514	S&S 585	33-5131	33-5109
93" HC - 103"	Mid - High	9.0 - 10.0	S&S 495 or 560S	S&S 600	33-5132	33-5058
High Compression	High	Over 10.0	S&S® 495 or 565S	S&S® 640	-	33-5108

NOTES

The S&S Retro Conversion Kit requires that a 1984-'99 style cam be used to ensure correct valve timing due to the roller size on the late style tappets use in the kit. 1970-'77 stock engines will also require a 1978-'87 style pinion gear to mate with the late style cam gear. 1966-'69 engines or other engines with generator style crankcases will require a special generator style cam with 1984-'99 style lobes. See chart for recommendation. 1979-'84 o-ring style pushrod covers are required; S&S part #93-4040 or equivalent.

**REPLACEMENT PARTS:
SEE PAGE 484**

93" SIDEWINDER® HOT SET UP KIT® FOR 1966-'84 BIG TWIN ENGINES



32-2266

FITMENT

- 1966-'84 big twin engines

FEATURES AND BENEFITS

- Yields 93 cubic inches with an approximate compression ratio of 8.5:1
- 4½" stroker flywheels assembled with mainshafts and rod
- 3⅝" bore cylinders and pistons
- S&S 514 cam kit, valve springs, adjustable chromoly pushrods
- S&S Super E carb kit

S&S® SIDEWINDER® HOT SET UP KIT SPECIFICATIONS FOR 1966-'84 BIG TWINS

Displacement	Bore	Stroke	Compression Ratio	Cylinder Length	Recommended Cam (Stock Valve Train*)	Recommended Cam (S&S Valve Train**)	Recommended Carb
93"	3⅝"	4½"	8.5:1	5.405"	S&S 514	S&S 585	Super E

⚠ CRANKCASES & CYLINDER HEADS MUST BE BORED TO ACCEPT S&S® SIDEWINDER BIG BORE CYLINDERS.

93" SIDEWINDER® HOT SET UP KIT® FOR 1966-'84 SHOVELHEAD ENGINES±

Model Year	Kit Number
1966-'69	32-2265
1970-'72	32-2266
1973-'77	32-2267
1978-'84	32-2268

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84" STROKER HOT SET UP KIT® FOR STOCK BORE PANHEAD AND SHOVELHEAD ENGINES

FITMENT

- 1955-'65 & 1966-'84 Big Twin Engines


FEATURES AND BENEFITS

- Healthy increases in torque and horsepower
- No complicated machining



32-2289

**84" STROKER HOT SET UP KITS®
FOR STOCK BORE PANHEAD & SHOVELHEAD ENGINES±**

Model Year	Part #
1955*-'64	32-2284
1965	**
1966-'69	32-2286
1970-'77	32-2287
1978-'84	32-2289
	106-5838

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*Note: 1955–57 cases require modification to accept 1.250" Pinion Bearing

**Available through CTO part #106-5838

FORGED STOCK BORE STROKER PISTON KITS

Oversize	Piston Kit
Standard	106-5527
+ .010"	106-5528
+ .020"	106-5529
+ .030"	106-5530
+ .040"	106-5777
+ .050"	106-5778
+ .060"	106-5779
+ .070"	106-5780
+ .080"	106-5781
+ .090"	106-5782

Piston kits include two pistons, rings, wristpins, and keepers
Wristpin Deck Height: 1.100"

⚠ THESE KITS REQUIRES SPECIAL S&S PISTONS. SEE CHART.

TOP END REPLACEMENT KITS

FOR 1966-'84 BIG TWIN ENGINES

FITMENT

- 1966–'84 Big Twin Engines

FEATURES AND BENEFITS

- Provide everything you need to replace the top end of a 74" or 80" shovelhead engine.
- S&S top end kits for shovelheads include a set of S&S Super Stock® cylinder heads, a pair of S&S® stock bore cylinders (3 $\frac{7}{16}$ " for 74" and 3 $\frac{1}{2}$ " for 80"), S&S 8:1 compression forged pistons, complete with rings and wristpins, manifold clamps, manifold seals, all required hardware, and gaskets.
- 74" top end kits include S&S 106-5495 series 3 $\frac{3}{32}$ " stroke pistons and o-ring style cylinder heads.
- Top end kits for 80" engines include the S&S 106-5511 series 4 $\frac{1}{4}$ " stroke pistons and rubber band style cylinder heads. Pistons are pre-fit to the cylinders

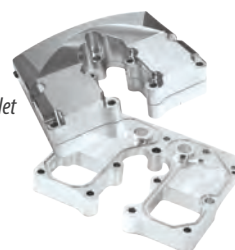
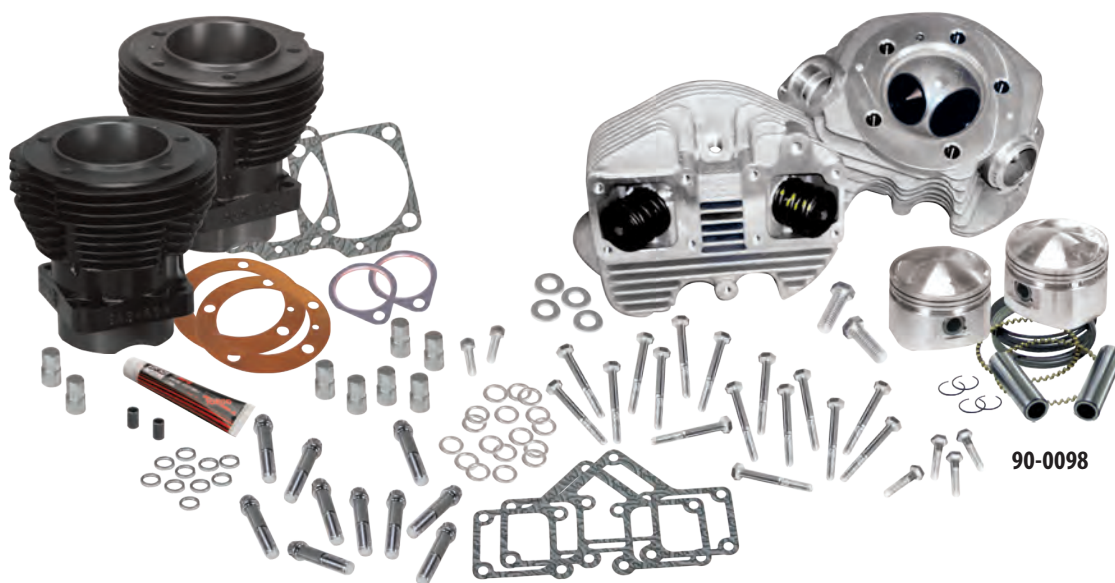
TOP END REPLACEMENT KITS FOR STOCK DISPLACEMENT SHOVELHEAD ENGINES

Displacement	Model Year	Stroke	Compression	High Temp Gloss Finish
				Part #
74"	1966-'78	3 $\frac{3}{32}$ "	8:1	90-0097
80"	1979-'84	4 $\frac{1}{4}$ "	8:1	90-0098

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NOTES

74" engines have a stroke of 3 $\frac{3}{32}$ ", and 80" shovelhead engines have a 4 $\frac{1}{4}$ " stroke, but the cylinder length for both engines is the same. The 74" piston is taller than the 80" piston; piston deck heights of the two pistons are designed for the same piston to head clearance in both engines. While it is possible to install an 80" top end on a 74" engine, this will result in very low compression and poor performance. A 74" top end will bolt to an 80" crankcase, but, the pistons will contact the cylinder head due to the combination of the taller 74" pistons and the longer stroke of the 80" flywheels. Therefore, it is important to correctly identify the stroke of the engine before ordering a top end kit.



Top it off with S&S billet rocker boxes. See page 456.

ENGINE OVERVIEW

S&S offers performance engines in a variety of displacements for 1936–'84 Harley-Davidson® OHV big twins, that provide a vintage vibe and modern muscle. These engines have a deceptively stock appearance, but feature larger displacement and updated internal components for improved performance and reliability. Engineering grade cast iron cylinders are protected with a durable powder coat finish.

1966-'84 BIG TWINS

SH93 (93 CID)

An excellent upgrade option to replace a worn out Harley-Davidson® shovelhead engine, or to power a retro custom. The SH93 provides a significant increase in power over stock 74" or 80" engines, and since it runs well on pump gas, it's a great daily driver. Available with generator, alternator, or alt/gen crankcases.

SH93H (93 CID HIGH COMPRESSION)

The SH93H is a higher compression version of the SH93. It features dual plugged cylinder heads to control knock, and a more aggressive cam to take advantage of the higher compression. Alternator style crankcases only. Complete with S&S Super E Carb and ignition.

SH103 (103 CID)

The SH103 is the largest engine S&S offers for 1970-'84 chassis. This engine will require frame clearancing when installed in a stock chassis. Available with alternator style crankcases only. Complete with S&S Super E Carb and ignition.

1948-'65 BIG TWINS

P74 (74 CID)

The P74 engine is preferred by some riders as a replacement engine for bikes with stock drive train that may not be able to take the power of a larger engine. Timken® sprocket shaft bearing makes this engine more reliable. Available with generator style crankcases only. Complete with S&S Super E Carb and ignition.

P93 (93 CID)

An excellent upgrade option to replace a worn out Harley-Davidson® panhead engine, or to power a retro custom. The P93 provides a significant increase in power over stock 74" engines, and since it runs well on pump gas, it's a great daily driver. Available with generator, alternator, or alt/gen crankcases.

P93H (93 CID HIGH COMPRESSION)

The P93H is a higher compression version of the P93. It features dual plugged cylinder heads to control knock, and a more aggressive cam to take advantage of the higher compression. Alternator/generator style crankcases only. Complete with S&S Super E Carb and ignition.

P103 (103 CID)

The P103 is the largest engine S&S offers for 1970-'84 chassis. This engine will require frame clearancing when installed in a stock chassis. Available with alternator style crankcases only. Complete with S&S Super E Carb and ignition. Complete with S&S Super E Carb and ignition.

1936-'47 OHV BIG TWINS

KN74 (74 CID)

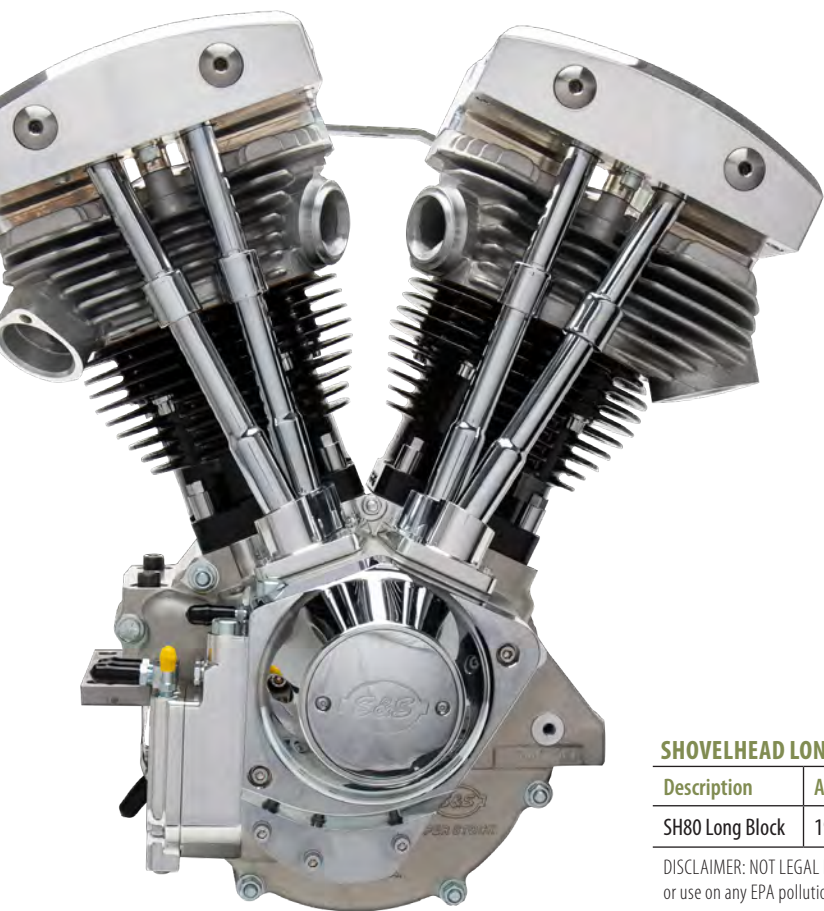
The KN74 is a stock displacement engine favored by riders replacing an engine in a chassis with stock drive train that may not handle the increased power of a larger engine. Timken® sprocket shaft bearing makes this engine more reliable. Available with generator style crankcases only. Complete with S&S Super E Carb and ignition.

KN93 (93 CID)

An excellent upgrade option to replace a worn out Harley-Davidson® knucklehead engine, or to power a retro custom. The KN93 provides a significant increase in power over stock 74" or 61" engines, and since it runs well on pump gas, it's a great daily driver. Available with generator, alternator, or alt/gen crankcases.

SH-LONG BLOCK

1970-'99 STOCK CHASSIS WITH ALTERNATOR STYLE PRIMARY



FEATURES & BENEFITS

- Natural crankcases and black powder coated cylinders
- S&S hydraulic valve train and roller rockers
- Sold without ignition, carb, manifold and air cleaner – Save money by using what you have
- Stock spec H-grind cam
- Billet gearcover
- 3½" Bore
- 4¼" Stroke
- 2 year warranty

SHOVELHEAD LONG BLOCK

Description	Application	Part #
SH80 Long Block	1970-'99 stock chassis with alternator style primary	310-0975

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SH-SERIES ENGINES

FOR 1966-'99 CHASSIS

FITMENT

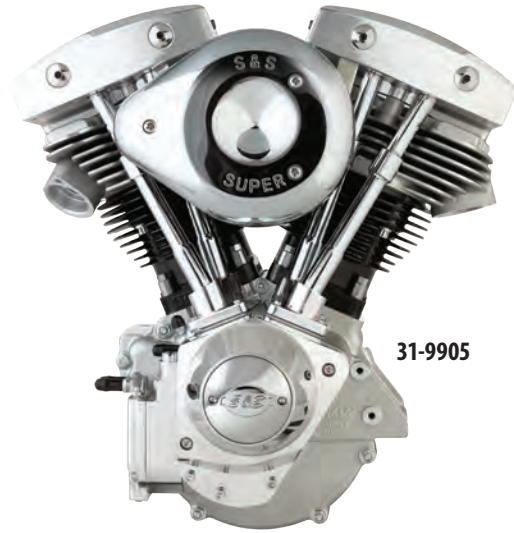
- 1966-'69 stock chassis electric start with alloy primary – flat side gearcover and flat timer cover- available through CTO
- 1970-'99 stock chassis with alternator style primary
- 1970-'99 alternator/generator and alternator custom versions custom bikes with 1970-'99 alternator style primary

FEATURES AND BENEFITS

- Natural crankcases and black powder coated cylinders
- S&S hydraulic valve train and roller rocker arms
- S&S Super Stock™ single fire ignition system
- 1966-'69 models have correct length sprocket shaft for stock primary and transmission
- Alternator and alternator/generator models have correct sprocket length sprocket shaft for 1970-up primary and transmission
- Alternator/generator engines include oil filter mounting bracket for generator location
- Two-year warranty

OPTIONS

- 93", 93" high compression, and 103" displacements
- Stock style generator, alternator/generator, or alternator crankcases



31-9905

SH-SERIES ENGINE SPECIFICATIONS

Engine	Displacement	Bore	Stroke	Carb	Camshaft	Piston Type	Compression Ratio
SH93	93"	3⅝"	4½"	Super E	S&S 585	S&S Forged	8.5:1
SH93H	93"	3⅝"	4½"	Super E	S&S 600	S&S Forged	9.1:1
SH103	103"	3⅝"	5"	Super G	S&S 600	S&S Forged	9.7:1

NOTE: S&S® SH93H engine contains 1984-'99 style S&S cam and tappets. *SH103 will not fit stock chassis—not for everyone!

COMPLETE CARBURETED SH-SERIES ENGINES*

Engine	Application	Style	Warranty	Billet Gearcover	Cast Gearcover
SH93	1970-'99 Chassis	Alternator	2 Years	31-9905	31-9904
	Custom	Alternator/Generator		—	31-9917
SH93H	1970-'99 Chassis	Alternator		31-9908	31-9907
SH103	1970-'99 Chassis	Alternator		31-9919	—
CTO	Specify	Specify		319-0005	319-0005

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P-SERIES ENGINES FOR 1948-'99 CHASSIS

FITMENT

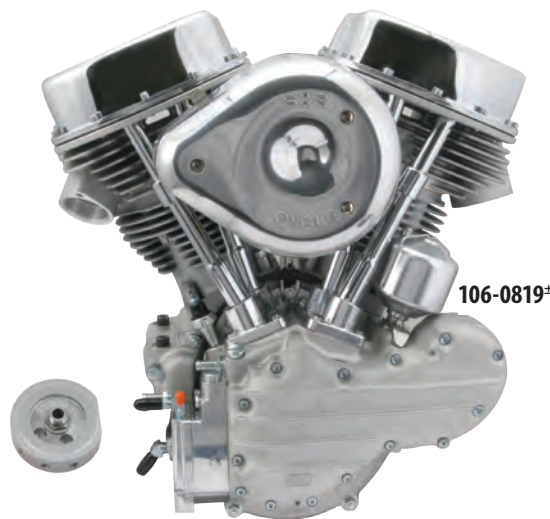
- Several versions are available:
- 1948-'64 stock chassis with tin primary – 4 rib gearcover and domed timer cover
- 1965 stock chassis electric start with alloy primary – flat side gearcover and flat timer cover (will fit 1966-'69 chassis)
- 1970-'99 Alternator/generator and alternator custom versions

FEATURES AND BENEFITS

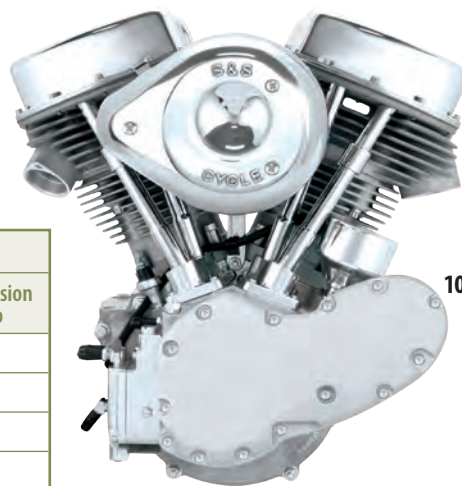
- Vintage vibe – *Modern muscle*
- Natural crankcases and stock-looking silver powder coated cylinders
- S&S hydraulic valve train with roller rocker arms
- S&S billet timer and S&S Super Stock single fire ignition system
- 1948-'64 and 1965 models have correct length sprocket shaft for stock primary and transmission
- Alternator and alternator/generator models have correct sprocket length sprocket shaft for 1970-up primary and transmission
- Alternator/generator engines include oil filter mount for generator location
- 1966-'84 exhaust systems
- 1966-'84 intake ports with o-ring inlets
- Two-year warranty

OPTIONS

- 74", 93", 93" high compression, and 103" displacements
- Stock style generator, alternator/generator, or alternator crankcases



106-0819±



106-0820±

P-SERIES ENGINE SPECIFICATIONS							
Engine	Displacement	Bore	Stroke	Carb	Camshaft	Piston Type	Compression Ratio
P74	74"	3 ⁷ / ₁₆ "	3 ³ / ₃₂ "	Super E	S&S 513	S&S Forged	7.5:1
P93	93"	3 ³ / ₈ "	4 ¹ / ₂ "	Super E	S&S 585	S&S Forged	8.5:1
P93H	93"	3 ³ / ₈ "	4 ¹ / ₂ "	Super E	S&S 600	S&S Forged	9.1:1
P103	103"	3 ³ / ₈ "	5"	Super G	S&S 600	S&S Forged	9.7:1

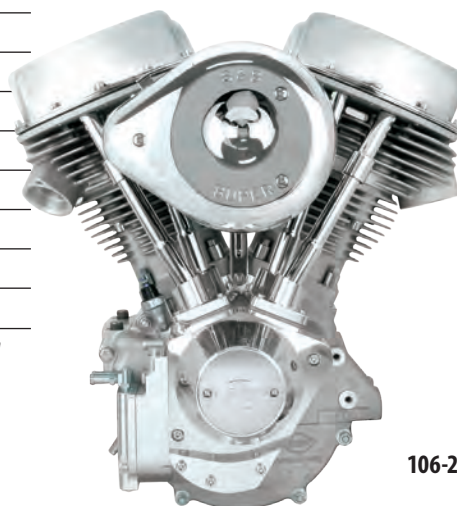
COMPLETE CARBURETED P-SERIES ENGINES±

Engine	Application	Style	Warranty	Part #
P74	1948-'64 Chassis	Generator	2 Years	310-0224
P93	1948-'64 Chassis	Generator		106-0819
	1965-'69 Chassis	Generator		106-0820
	Custom 1970-'99	Alternator		106-2685
Alternator/Generator		106-0821		
P93H	Custom 1970-'99	Alternator/Generator		106-0824
P103	Custom 1970-'99	Alternator/Generator	106-0827	
CTO		Specify		319-0003

P93H and P103 engines come with dual plugged cylinder heads. Alternator and alternator/generator engines require transmission with 1970-up length main shaft and custom exhaust.

1955-'64 style engines may be installed in 1948-'54 chassis if 1955-'64 inner primary tin cover is used.

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106-2685±

KN-SERIES ENGINES

FOR 1936-'99 CHASSIS

FITMENT

- KN74
 - 1936-'99 chassis
- KN93
 - 1936-'47 stock chassis – will fit in 1948-'65 chassis with front motor mount spacer (included)
 - 1970-'99 Alternator/generator and alternator custom versions, custom bikes with 1970-'99 alternator style primary

FEATURES AND BENEFITS

- Natural crankcases and black powder coated cylinders and heads
- S&S Super E
- S&S valve train – solid lifters
- S&S Super Stock™ single fire ignition system and polished billet timer
- 1936-'47 models have correct length sprocket shaft for stock primary and transmission
- Alternator and alternator/generator models have correct sprocket length sprocket shaft for 1970-up primary and transmission
- Alternator/generator engines include oil filter mount for generator location
- Alternator style crankcase – allows the use of modern primary, transmission, clutch components and electrical system
- One-year warranty

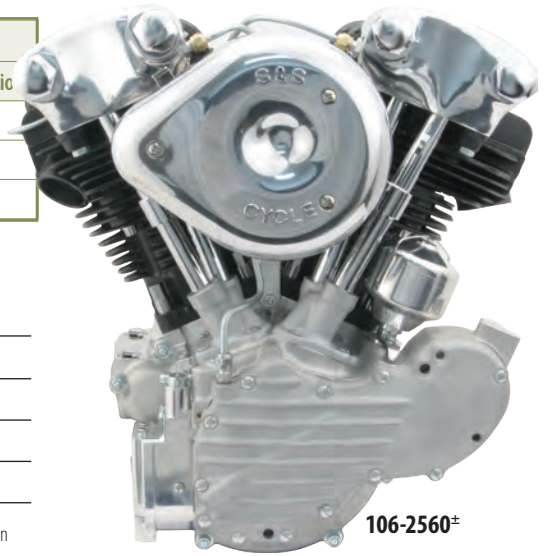
KN-SERIES ENGINE SPECIFICATIONS

Engine	Displacement	Bore	Stroke	Carb	Camshaft	Piston Type	Compression Ratio
KN74	74"	3 ⁷ / ₁₆ "	3 ³ / ₃₂ "	Super E	S&S® 346	S&S Forged	7.5:1
KN93	93"	3 ³ / ₈ "	4 ¹ / ₂ "	Super E	S&S® 420	S&S Forged	8.2:1
KN-Kone	93"	3 ⁵ / ₈ "	4 ¹ / ₂ "	Super E	S&S® 420	S&S Forged	8.2:1

KN-SERIES ENGINES±

Description	Application	Style	Warranty	Part #
KN74	1936-'99 chassis	Generator	1 year	310-0025
KN93	1936-'47 stock chassis	Generator		106-2161
KN93	1970-'99 customs	Alternator/Generator		106-2560

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106-2560±

NOTES

Alternator/generator cases have 1948-'99 style front motor mount. Will not fit stock knuckle frames.

Generator style engines have stock motor mounts for 1936-'47 style frames, but can be used in 1948-'99 style frames with front motor mount spacer, part #31-2017 (included). Alternator/generator cases require a transmission with 1970-up length mainshaft, and custom exhaust pipes must be fabricated.

Engines for 1936-'64 chassis with tin primary must use a 1954-'64 style inner primary cover.

S&S Super Stock generator style crankcases are available for stock 3⁷/₁₆" or 3³/₈" bore, but can be special ordered for bore sizes up to 3¹³/₁₆" and deck heights as much as 3¹/₁₆" taller than stock.

1936-'54 must use the 1955-'64 style inner steel primary cover.

Since all S&S generator style crankcases use 1958 and later style main bearings, stock flywheel assemblies 1957 and earlier cannot be used in S&S crankcases. Flywheel assemblies must have 1958 and later pinion shaft with 1.250" diameter bearing, and a 1954 and later style sprocket shaft designed for a Timken® main bearing.

Generator style cases for 1936-'47 knucklehead engines are machined to supply oil to the heads from a boss located near the rear tappet guide or from a stock or S&S gearcover. Provision for oil scavenging from the heads in these crankcases is the same as stock, with passageways that connect the tappet guides to the crankcase breather gear.

Crankcases for 1948-'69 engines are machined with a provision to separate the oil supply to the top and bottom ends if an S&S oil pump is used. This feature lets you choose the 1972 and earlier stock "side oiling" system or the 1973 and later split oil system. The stock cast iron oil pump can be used for the "original look" and stock oiling system. If an S&S billet oil pump, part #31-6200± is used, the oiling system can be set-up as stock or updated to a split system.

1963-'65 panhead engines, with outside oil supply lines to the cylinder heads, must use the oil supply port located behind the rear tappet guide or the oil fitting toward the rear of the S&S gearcover. S&S generator style crankcases do not have the stock style "outside oiler" oil supply boss, so special oil supply lines will need to be fabricated.

SUPER STOCK® GENERATOR STYLE CRANKCASES FOR 1936-'69 BIG TWIN ENGINES

FITMENT

- 1936-'47 knucklehead engines with tin primary
- 1948-'64 panhead engines with tin primary
- 1965-'69 panhead & generator shovelhead with alloy primary
- Custom – alternator/generator

FEATURES AND BENEFITS

- Pre-clearanced for strokes up to and including 5"
- Motor mounts on crankcases for knucklehead engines are machined to fit stock 1936-'47 frames. An adapter plate is included for 1948 and later style frames
- All cases are designed for late style generator (two brush type) with 5/16" mounting bolts to eliminate early generator cradle/mounting strap bosses for simplicity and economics
- Timken® sprocket shaft main bearing, in all years, instead of stock straight roller bearings – resulting in better flywheel assembly stability, placement, and longer engine life

KIT CONTENTS

- Crankcase assembly
- All required bearings and hardware for installation
- Assembly instructions



31-0010

REPLACEMENT PARTS: SEE PAGE 474

SUPER STOCK® GENERATOR CRANKCASES FOR 1936-'99 BIG TWIN±

Crankcase Style	Stock Bore	3 3/8" Bore	Notes
1984-'99 big twin – Alternator/Generator	–	31-0022	7
P-Series and SH-Series – Alternator/Generator	–	31-0026	7
1965-'69 Panhead or Shovelhead	31-0010 ± 24519-65	31-0013	1,4,6
1948-'64 Panhead	31-0008 ± 24519-63, 24519-58, 24519-55	31-0009	1,2,5
P-Series Replacement 1948-'64	–	–	1,5
P-Series Replacement 1965	31-0008 ± 24519-63, 24519-58, 24519-55	31-0013	1,6
KN Replacement Alternator/Generator	–	106-4625	1,7,8
KN Replacement Generator/Generator	31-0006 ±	106-4369	1,3,5,8

Note: All S&S crankcases use Timken® style sprocket shaft bearings and 1958 & later pinion bearings. These cases will not accept stock 1957 & earlier flywheel assemblies.

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. 1936-'69 style oil pump. 2. Machined for 1948-'62 panhead cylinder base oil feed. 3. Motor mounts are machined for stock 1936-'47 frames, adapter plate for 1948 & later style frames is included. 4. Includes primary scavenge port machining. | <ol style="list-style-type: none"> 5. Machined for 1955-'64 tin primary. 6. Machined for 1965-'69 alloy primary. 7. Machined for 1970-up alloy primary. 8. Uses stock 1/4-24 hardware. |
|---|--|

NOTES

Engines for 1936-'64 chassis with tin primary must use a 1954-'64 style inner primary cover.

S&S Super Stock generator style crankcases are available for stock 37/16" or 35/8" bore, but can be special ordered for bore sizes up to 313/16" and deck heights as much as 3/16" taller than stock.

A special order sheet must be filled out for any special order crankcases. Ask your S&S Customer Support Representative or download special order forms from our website.

Since all S&S generator style crankcases use 1958 and later style main bearings, stock flywheel assemblies 1957 and earlier cannot be used in S&S crankcases. Flywheel assemblies must have 1958 and later pinion shaft with 1.250" diameter bearing, and a 1954 and later style sprocket shaft designed for a Timken® main bearing.

Generator style cases for 1936-'47 knucklehead engines are machined to supply oil to the heads from a boss located near the rear tappet guide or from a stock or S&S gearcover. Provision for oil scavenging from the heads in these crankcases is the same as stock, with passageways that connect the tappet guides to the crankcase breather gear.

Crankcases for 1948-'69 engines are machined with a provision to separate the oil supply to the top and bottom ends if an S&S oil pump is used. This feature lets you choose the 1972 and earlier stock "side oiling" system or the 1973 and later split oil system. The stock cast iron oil pump can be used for the "original look" and stock oiling system. If an S&S billet oil pump, part #31-6200± is used, the oiling system can be set-up as stock or updated to a split system.

1963-'65 panhead engines, with outside oil supply lines to the cylinder heads, must use the oil supply port located behind the rear tappet guide or the oil fitting toward the rear of the S&S gearcover. S&S generator style crankcases do not have the stock style "outside oiler" oil supply boss, so special oil supply lines will need to be fabricated.

SUPER STOCK® ALTERNATOR STYLE CRANKCASES FOR 1970-'84 BIG TWIN ENGINES

FITMENT

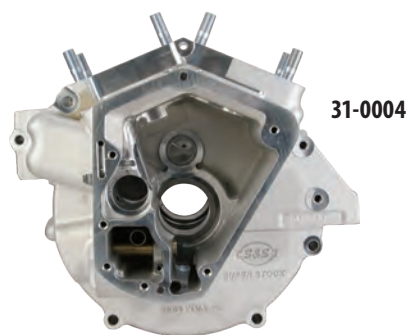
- 1970-'84 big twins

FEATURES AND BENEFITS

- Available for stock, 3 $\frac{3}{8}$ ", and 3 $\frac{13}{16}$ " bore applications
- Compatible with stock 1970-up flywheel assemblies, primary covers and gearcovers
- Clearanced for 38 amp alternator stators
- Pre-clearanced for strokes up to and including 5"
- Complete with bearings and installation hardware

KIT CONTENTS

- Crankcase assembly
- All required bearings and hardware for installation
- Assembly instructions



SUPER STOCK® ALTERNATOR CRANKCASES FOR 1970-'84 BIG TWIN±

Crankcase Style	Finish	Stock Bore	3 $\frac{3}{8}$ " Bore	3 $\frac{3}{8}$ " Bore (Small Diameter)		3 $\frac{13}{16}$ " Bore
1970-'84	Natural	31-0003 [†]	31-0004	–	–	–
Special Order*	Specify	31-0002 *	31-0002 *	31-0002 *	Call for Pricing	31-0002 *

NOTES: 1981-'84 style oil pump. Includes primary scavenge port machining. Machined for 1970 & later alloy primary.

[†]Exempt from emissions tampering regulations under CARB EO# D-355-8 when used with stock bore cylinders

SPECIAL ORDERS:

S&S Super Stock alternator crankcases can be special ordered for cylinder bore sizes up to 3 $\frac{13}{16}$ " and deck heights as much as $\frac{3}{16}$ " taller than stock.

A special order sheet must be filled out for any special order crankcases. Ask your S&S Customer Support Representative or download special order forms from our website.

**REPLACEMENT PARTS:
SEE PAGE 472**

FLYWHEELS FOR 1937-'73 45" FLATHEAD ENGINES

FITMENT

- 1937-'52 W/WR models
- 1952-'53 KR & all K models (excluding KH)
- 1932-'73 G models

FEATURES AND BENEFITS

- 3 $\frac{13}{16}$ " stroke
- Complete S&S connecting rod set – includes special crankpin, rods, bearings and cages
- Compatible with stock 45" KR rods or rods for 1957-'84 Sportster® models, when used with the special crankpin

! WILL NOT FIT KH MODELS



FLYWHEELS FOR 1937-'73 45" FLATHEAD ENGINES

Description	Part #
S&S Replacement Flywheels for 45" Flathead 23925-37	32-3013

**TRYING TO IDENTIFY A SET OF
S&S FLYWHEELS?
SEE FLYWHEEL I. D. CHART ON PAGE 538**

FLYWHEELS

FOR 1936-'84 BIG TWIN ENGINES

FITMENT

- 1936-'84 OHV big twins
- 1930-'48 flathead (side valve)
- KN, P, and SH-Series engines

FEATURES AND BENEFITS

- CNC machined from heat-treated, closed die, steel forging
- Stronger than cast iron or late style steel flywheels
- Available in a wide variety of styles and strokes
- Available balanced or unbalanced
- Unassembled balanced flywheels are balanced by the static method
- Assembled flywheels are dynamic balanced after assembly using our American-Hofmann® dynamic balancing machine (unless otherwise specified)
- 1930-'53 styles fit stock or S&S sprocket shafts
- 1954-'84 styles available for S&S sprocket shafts only

OPTIONS FOR SPECIAL ORDER

- Model year group
- Stroke
- Diameter
- Assembly and balancing
- Additional components – pinion shaft, sprocket shaft and connecting rods

FLYWHEELS FOR 1936-'84 BIG TWIN

Special Order	32-2015*
---------------	----------



FLYWHEELS

FOR 1957-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER®

FITMENT

- 1957-'85 Ironhead Sportster® models
- Fits OHV 900cc and 1000cc engines

FEATURES AND BENEFITS

- CNC machined from heat-treated, closed die, steel forging
- Stronger than cast iron or late style steel flywheels
- Available in a wide variety of styles and strokes
- Available balanced or unbalanced
- Unassembled balanced flywheels are balanced by the static method
- Assembled flywheels are dynamic balanced after assembly using our American-Hofmann® dynamic balancing machine (unless otherwise specified)

OPTIONS FOR SPECIAL ORDER

- Model year group
- Stroke
- Diameter
- Assembly and balancing
- Additional components – pinion shaft, sprocket shaft, connecting rods
- Available for S&S sprocket shafts only

FLYWHEELS FOR HARLEY-DAVIDSON® SPORTSTER® MODELS

Stroke, 7 $\frac{1}{8}$ " Diameter (Stock)	Part #
Special Order	32-3014*



**TRYING TO IDENTIFY A SET OF S&S FLYWHEELS?
SEE FLYWHEEL I. D. CHART ON PAGE 538**

**ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S FLYWHEEL BALANCING KIT, SEE PAGE 510.
S&S FLYWHEEL ASSEMBLY FIXTURE &
TRUING SPANNER,
SEE PAGE 511**

REPLACEMENT FLYWHEELS FOR S&S® VINTAGE ENGINES

FITMENT

- KN-Series Engines
- P-Series Engines
- SH-Series Engines

FEATURES AND BENEFITS

- Exact same parts used in S&S production engines



32-2226

REPLACEMENT FLYWHEEL ASSEMBLIES FOR KN-SERIES ENGINES 1936-'47±

Engine	Stroke	Diameter	Part #
KN74	3 ³¹ / ₃₂ "	8 ¹ / ₂ "	320-0014
KN93 Alt/Gen	4 ¹ / ₂ "	8 ¹ / ₂ "	106-4658

REPLACEMENT FLYWHEEL ASSEMBLIES FOR P-SERIES ENGINES 1954-'64

Engine	Stroke	Diameter	Part #
P74	3 ³¹ / ₃₂ "	8 ¹ / ₂ "	320-0013
P93, P93H - 1954-'64 Generator	4 ¹ / ₂ "	8 ¹ / ₂ "	106-0806
P93, P93H - 1965 Generator	4 ¹ / ₂ "	8 ¹ / ₂ "	32-2224
P93, P93H - Alternator/Generator	4 ¹ / ₂ "	8 ¹ / ₂ "	32-2226
P103 - Alternator/Generator	5"	8 ¹ / ₄ "	32-2990



32-2235

REPLACEMENT FLYWHEEL ASSEMBLIES FOR SH-SERIES ENGINES 1966-'84

Engine	Stroke	Diameter	Part #
SH80 - Alternator	4 ¹ / ₄ "	8 ¹ / ₂ "	32-2235
SH93, SH93H - Generator	4 ¹ / ₂ "	8 ¹ / ₂ "	32-2224
SH93, SH93H - Alternator/Generator	4 ¹ / ₂ "	8 ¹ / ₂ "	32-2226
SH103	5"	8 ¹ / ₄ "	32-2990

**TRYING TO IDENTIFY A SET OF
S&S FLYWHEELS?
SEE FLYWHEEL I. D. CHART ON PAGE 538**

SPROCKET SHAFT ASSEMBLIES FOR BIG TWIN ENGINES



33-2004



33-2003



33-2002



33-2001

TAPERED SPROCKET SHAFT ASSEMBLIES

1970-'99 Big Twin

Fits S&S® SE or SL flywheels only	33-2004
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1965-'69 Big Twin

Fits S&S SE or SL flywheels only	33-2003
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1955-'64 Big Twin

Fits S&S SE or SL flywheels only	33-2002
----------------------------------	----------------

1930-'54 Big Twin—Including UL SVBT

Fits S&S E or Stock flywheels (includes motor sprocket nut) 24001-30	33-2001
--	----------------

REPLACEMENT PARTS FOR TAPERED SPROCKET SHAFT ASSEMBLIES

Sprocket Shaft Nut

1930-'54	33-2031
----------	----------------

1955-'84	33-2033
----------	----------------

Sprocket Shaft Key

1930-'54	50-8224
----------	----------------

1955-'84	50-8225-S
----------	------------------

Motor Sprocket Nut

1930-'54 (fits S&S® sprocket shafts only)	33-2032
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SPROCKET SHAFT ASSEMBLIES FOR HARLEY-DAVIDSON® SPORTSTER® MODELS



33-2301



33-2302

SPROCKET SHAFT ASSEMBLIES

1977-'85 Sportster® Models

Fits S&S D, SB, SBD, SC, SCD, SCDR, and SCR flywheels only	33-2302
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1957-'76 Sportster Models

Fits S&S SB flywheels only.	33-2301
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REPLACEMENT PARTS FOR SPROCKET SHAFT ASSEMBLIES

Sprocket Shaft Nut

Fits all S&S sprocket shafts for Sportster® models.	33-2331
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Sprocket Shaft Key

Key, .188" x .469", Steel	50-8224
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PINION SHAFT ASSEMBLIES FOR BIG TWIN ENGINES



33-2024



33-2027



33-2021

PINION SHAFT ASSEMBLIES

Late 1981-'99 Big Twin – Tapered Pinion Shaft

Stock length for S&S or stock big twin crankcases. Fits S&S BL, SL, SM or stock flywheels.

Standard (1.250") Bearing Diameter	33-2027
+ .001" (1.251") Bearing Diameter	33-2028

1958-Early '81 Big Twin – Tapered Pinion Shaft

Fits S&S L, AL, SE, or stock flywheels 24006-54A, 24006-73

	33-2024
1939-'53 Big Twin – Splined Pinion Shaft	
Fits S&S E or stock flywheels	33-2021

REPLACEMENT PARTS FOR PINION SHAFT ASSEMBLIES

Pinion Shaft Nut

1939-'81	33-2031
1981 & 1984	33-2033

Pinion Shaft Key

1930-'81	50-8224
1981 & 1984	50-8225-S

Metering Plug

No Hole	50-8314±
.0625" Hole	50-8316±
.0925" Hole	50-8317±

Pinion & Oil Pump Drive Key

1958-'81 & 1984	50-8221-S
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PINION SHAFT ASSEMBLIES FOR HARLEY-DAVIDSON® SPORTSTER® MODELS



33-2321



33-2322

PINION SHAFT ASSEMBLIES

1957-'76 Sportster Models

Fits S&S B, SB, or stock flywheels.

Standard 24005-57	33-2321
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1977-Early '81 Sportster Models

Fits S&S B, BD, SB, SBD, or stock flywheels. Requires 1977-'86 main bearing.

	33-2322
--	----------------

REPLACEMENT PARTS PINION SHAFT ASSEMBLIES

Pinion Shaft Key

1957-'81	50-8224
1981-'85 11218	50-8222-S

Metering Plug

1977-'85	50-8316
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All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

BILLET OIL PUMPS FOR 1936-'84 OHV BIG TWINS

FITMENT

- Pumps are available for stock 1936-'84 big twin engines
- Custom engines using S&S crankcases

FEATURES AND BENEFITS

- Same width oil supply and return gears as the stock Harley-Davidson® aluminum pump
- S&S pinion and oil pump drive shaft drive gears increase potential oil volume delivery by 25% over stock on 1972 and earlier engines
- S&S pumps for 1936-'67 engines used with the S&S oil pump drive gears deliver 33% more oil than the original cast iron pump
- Machined with an oil pressure relief bleed off passageway – *relieves pressure build up on top of the valve to maintain consistent oil pressure*
- Oil pressure regulation bypass routes excess oil directly to the supply side of the pump – *reduces the amount of oil returned to the tank, less foaming and cavitation*
- The standard pump cover allows total flexibility for oil system configuration with a number of oil feed and return options

OPTIONS

- Pump only kits
- Pump with gears – *includes drive gears, and breather gear*

KIT CONTENTS

- Complete oil pump assembly
- Mounting hardware, fittings and gaskets
- Instructions
- Pump with gear kits also include:
 - Pinion shaft pump drive gear
 - Oil pump drive shaft gear
 - Breather gear



OIL PUMP KITS FOR 1936-'84 BIG TWIN ENGINES[±]

Year/Crankcase	Without Gears & Shims	With Drive Gear, Breather Gear & Shim Kit
KN-Series** (Silver Powder Coated)	106-4688	–
1936-'47	31-6200[§]	–
1948-'53	31-6200	31-6292
1954-'69	31-6200	31-6293
1970-'77	–	31-6294
1978-'84	31-6203[§]	31-6295

*Requires 1973-'77 breather gear. **Uses a 28 lb pop-off spring to lower oil pressure at high RPM.

[§]Universal cover with top and bottom oil feeds.

OIL PUMP COVER ONLY FOR 1936-'91 BIG TWINS

Description	Part #
Universal	31-6059 <small>31-6041</small>
Custom	31-6060 <small>31-6045</small>

REPLACEMENT PARTS: SEE PAGE 478

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

Milwaukee
Eight™
2007-2017
Twin Cam
96"/103"/110"
1999-2006
Twin Cam 88"
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod™
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

CAMSHAFTS

FOR 1936-'47 OHV BIG TWINS

FITMENT

- 1936-'47 OHV big twins
- S&S® KN-Series engines

FEATURES AND BENEFITS

- Quality construction – Made in-house by S&S Cycle in Viola, WI
- Higher lift and increased valve timing for better performance

APPLICATIONS

KN346 Cam: This is a service part cam for 74" knuckle engines. The KN346 cam is ground to stock specifications.

KN420 Cam: This "high-lift" cam for modified knuckle engines features .420" valve lift and increased duration for larger engines up to 93" and compression ratio of up to 8.5:1. Special high-lift valve springs are required.



CAMS FOR 1936-'47 OHV BIG TWINS & KN-SERIES ENGINES

Cam Name	Part #
KN420	106-2409
KN346	106-3676 25522-36

CAM SPECIFICATIONS FOR 1936-'47 OHV BIG TWINS AND KN-SERIES ENGINES

Cam Name	Cam Timing (Open/Close)		Cam Duration		Lobe Centerline		Max Valve Lift		Valve Lift @ TDC	
	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust
KN420	31°/55°	60°/30°	266°	270°	102°	110°	.420"	.420"	.167"	.152"
KN346*	10°/51°	40°/12°	241°	232°	110.5°	104°	.346"	.346"	.085"	.100"

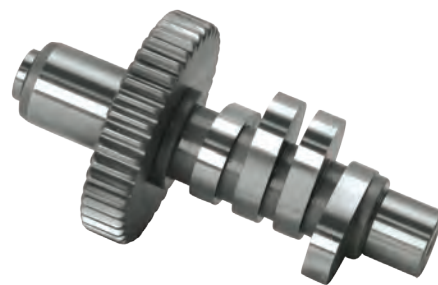
*Ground to stock specifications.

NOTE

S&S can do a special order cam, please contact your S&S customer service representative for more information

CAMSHAFTS

FOR 1948-'84 BIG TWINS WITH STOCK VALVE TRAIN



FITMENT

- 1948-'69 engines with generator style crankcases
- 1970-'84 engines with alternator style crankcases
- Early SH-Series engines with stock style valve train

APPLICATIONS

S&S H-Grind: Service part for panhead and shovelhead engines. This grind is a dead-on reproduction of the stock cams used in 1948 to 1984 big twins. Perfect for repair and restoration of 74" and 80" engines. Available for generator engines with inner cam bushings or inner cam bearings, and for early and late alternator engines with different cam gear pitch diameters. Note that the front and rear cylinders have unique timing specs.

450S Cam: A bolt-in hydraulic cam for 74" and 80" shovelhead engines 1966-'79 and 1983-'84. (Can be used in 1981-'82 models if cylinder heads are updated to late style valve guides.) The 450S can also be used as a low end torque cam in modified shovelhead engines up to 88" with compression ratios of up to 8.5:1. Although designed for use with hydraulic tappets, the S&S 450S can be used with solid lifters. Use with solids will result in more valve train noise, slightly higher cylinder pressure, and slightly more torque. 1500-4500 rpm.

514 Cam: For 84" to 93" strokers with no greater than 9:1 CR – best gains occur in the mid range from 2500 to 5000 rpm where most riding is done. Relatively quiet and easier on the valve train than most other cams with lifts as high. Solid lifters or aftermarket hydraulic tappets are recommended, valve spring spacing and other normal clearancing checks required. 2500-5000 rpm.

560S Cam: For 88" to 103" engines between 9:1 to 10:1 CR – Excellent power across the rpm range. Not recommended for stock displacement or lower compression engines. Requires high lift valve springs and normal clearance checks. Solid lifters only. 3500-6000 rpm.

CAMSHAFTS FOR 1948-'84 BIG TWIN ENGINES

Cam Name	Model Year	Part #
Service Part H-Grind	1948-'57	330-0164
	1958-'69	330-0170
	1970-'77	330-0165
	1978-'84	330-0166
S&S 450S	1948-'69	33-5062
	1970-'77	33-5063
	1978-'84	33-5064
S&S 514	1948-'69	33-5050
	1970-'77	33-5051
	1978-'84	33-5052
S&S 560S	1948-'69	33-5059
	1970-'77	33-5060
	1978-'84	33-5061

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

NOTE

S&S can do a special order cam, please contact your S&S customer service representative for more information

CAM SPECIFICATIONS FOR 1948-'84 BIG TWIN ENGINES											
Cam Name	Application	Model Year	Valve Timing ¹		Valve Duration		Valve Lift ²	Lift @ TDC ³		Spring Spacing Required	Tappet ⁴ Type Required
			Open/Close		Intake	Exhaust		Intake	Exhaust		
			Open BTDC/ Close ABDC	Open BBDC/ Close ATDC							
Service Part H-Grind	Service part replacement cam for pan and shovel engines	1948-'84	0°/40° F 20°/33° R	53°/12° F 53°/12° R	220° F 233° R	245° F 245° R	.389" F .391" R	.076" F .076" R	.131" F .131" R	No Bolt-In	Hydraulic
S&S 450S	Engines up to 88" with up to 8.5:1 CR Good low and mid range torque	1948-'84	18°/38°	40°/18°	236°	238°	.475" Pan	.158" Pan	.152" Pan	No Bolt-In	Hydraulic or Solid
							.453" Shovel	.151" Shovel	.145" Shovel		
S&S 514	80" to 96" engines with 8:1 to 9:1 CR Good mid range	1948-'84	23°/43°	43°/23°	246°	246°	.540" Pan	.177" Pan	.177" Pan	Yes	Solid
							.514" Shovel	.169" Shovel	.169" Shovel		
S&S 560S	88" to 103" engines with 9:1 to 10.1:1 CR Strong power	1948-'84	20°/55°	60°/20°	255°	260°	.587" Pan	.176" Pan	.176" Pan	Yes	Solid
							.560" Shovel	.168" Shovel	.164" Shovel		

¹Timing designation is function of zero lash @ .053" off base circle.

²Pan and shovel lifts are determined by rocker arm ratio. Pan ratio is nominally 1.5":1 and shovel ratio is nominally 1.4":1. S&S rocker arms for shovels have 1.5":1 rocker arm ratio, so lift will be the same as pan lift.

³TDC lifts are measured at the valve and are for reference only. Overlap valve lifts must be checked on assembled motor.

⁴Cams specified for solid tappets may be used with modern high performance hydraulic tappets for shovelhead engines. Stock hydraulic tappets are not recommended. 1980-'81 engines require conversion to late style valve guides

CAMSHAFTS

FOR 1954-'84 BIG TWINS WITH S&S® VALVE TRAIN CONVERSION KIT

FITMENT

- 1954-'65 engines with S&S Head Update kit
- 1966-'84 engines with Hydraulic Conversion kit
- P-Series and SH-Series engines
- Custom generator style engines with 1984-'99 style top end

FEATURES AND BENEFITS

- Quality construction – Made in-house by S&S Cycle in Viola, WI
- Higher lift and increased valve timing for better performance
- Quiet, dependable hydraulic valve train when used with S&S Hydraulic Conversion kits



33-5131



106-6028

CAM SPECIFICATIONS FOR 1954-'84 BIG TWIN ENGINES REQUIRING 1984-'99 STYLE CAMS

Cam Name	Application	Valve Timing ¹ Open/Close		Valve Duration		Valve Lift	Lift @ TDC ²		Spring Spacing Required	Tappet Type Required
		Intake	Exhaust	Intake	Exhaust		Intake	Exhaust		
		<i>Open BTDC/Close ABDC</i>	<i>Open BBDC/Close ATDC</i>							
S&S 513	74" - 84" Stock or low compression	18°/38°	40°/18°	236°	238°	.472"	.163"	.187"	No	Hydraulic
S&S 585	74" - 80" engines 8.5:1 - 9.5:1 CR 84" - 93" engines up to 8:1 - 9:1 CR	20°/45°	60°/20°	245°	260°	.540"	.172"	.166"	Yes	Hydraulic
S&S 600	93" - 103" engines 9:1 - 10:1 CR	20°/55°	60°/20°	255°	260°	.554"	.177"	.170"	Yes	Hydraulic
S&S 631	High rpm cam for 93" - 103" engines 11:1+ CR	34°/61°	66°/29°	275°	275°	.581"	.359"	.204"	Yes	Solid or Hydraulic
S&S 640	93" - up engines 10:1 or greater compression	25°/60°	65°/20°	265°	265°	.590"	.205"	.192"	Yes	Hydraulic

¹Timing designation is function of zero lash @ .053" off base circle.
²Lifts at TDC are measured at the valve and are for reference only. Overlap valve lifts must be checked on assembled motor.
 Lifts based on 1.5:1 Rocker Ratio

CAMSHAFTS FOR 1954-'84 BIG TWIN ENGINES REQUIRING 1984-'99 STYLE CAMS

Cam Name	Application	Generator Part #	Alternator Part #	Tappet Type Required
S&S 513	74" - 84" Stock or low compression	106-6028	106-6027	Hydraulic
S&S 585	74" - 80" engines 8.5:1 - 9.5:1 CR 84" - 93" engines up to 8:1 - 9:1 CR	33-5131	33-5109	Hydraulic
S&S 600	93" - 103" engines 9:1 - 10:1 CR	33-5132	33-5058	Hydraulic

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

LATE STYLE CAM RECOMMENDATIONS FOR PANHEAD AND SHOVELHEAD ENGINES

Application	RPM range	Compression Ratio	If you used...	Then Use	Generator	Alternator
74" – Stock 84" low compression	Low - Mid 1500-4500 rpm	8.5 and below	S&S® 450 or Andrews® J or A	S&S® 513	106-6028	106-6027
74" and 80" – Modified	Mid - High 3500-6000 rpm	8.5 - 9.5	S&S® 514 or Andrews #3 or B	S&S® 585	33-5131	33-5109
84" – 93"	Low - Mid 2500-5500 rpm	8.0 - 9.0	S&S® 514	S&S® 585	33-5131	33-5109
93" HC – 103"	Mid - High 3500-6000 rpm	9.0 - 10.0	S&S® 495 or 560S	S&S® 600	33-5132	33-5058
High Compression	High 3500-6500 rpm	Over 10.0	S&S® 495 or 565S	S&S® 640	-	33-5108

NOTES

In order to achieve stated timing specifications, these cams must be used in engines with 1984-'99 style tappets.

These cams should not be ordered as replacement parts for early S&S SH-Series engines, or for any shovelhead engine equipped with stock valve train. For replacement parts for these engines, select stock style cams and tappets.

S&S can do a special order cam, please contact your S&S customer service representative for more information

PINION SHAFT GEAR KITS

FITMENT

- 1939-'89

FEATURES AND BENEFITS

- Contain all the components that need to be installed on the pinion shaft for the specified year group.
- Kits for 1939-'53 and 1954-'77 can be used in 1972 and earlier engines to speed up the oil pump by 25% for more potential oil volume, since S&S oil pump drive gears are of the 1973 and later 6-tooth design.

1939-'53 S&S® BIG TWIN STYLE PINION SHAFT GEAR KITS

Size	Color Code	Part #
Biggest	Orange	106-3217
	Black	106-3218
Average	Blue	106-3220
	Green	106-3221



106-3217

EARLY 1954-'77 S&S® BIG TWIN STYLE PINION SHAFT GEAR KITS

Size	Color Code	Part #
Smallest	White	106-3214
	Brown	106-3215
	Yellow	106-3216



106-3215

LATE 1977-'89* S&S® BIG TWIN STYLE PINION SHAFT GEAR KITS



Size	Color Code	Part #
Biggest	Yellow	33-4185
Average	Red	33-4148
	Blue	33-4181
Smallest	Black	33-4180



33-4148

*Use this kit when installing an S&S® flywheel assembly in a 1990-'99 Engine

INDIVIDUAL COMPONENTS

Description	Part #
Pinion Shaft Gear Spacer Fits 1954-'89 big twin engine.  1,2,3	33-4289
Pinion Shaft Gear Nut ²⁶³⁴⁹⁻⁵⁴ Fits 1954-'89 big twin engine.  1,2,3	33-4244
S&S Upgrade Pinion Shaft Oil Pump Drive Gear 1939-'53 Big Twin – 6-Tooth. Requires S&S part #33-4230 or ²⁶³⁴⁵⁻⁷³ drive shaft drive gear. Fits 1939-'53 stock and S&S pinion shafts.	33-4237
Pinion Shaft Oil Pump Drive Gear ^{26349-73, 26349-73A} 1973-'89 – 6-Tooth. May be used in 1954-'72 engines, but requires S&S part #33-4230 or ²⁶³⁴⁵⁻⁷³ oil pump shaft drive gear. Fits 1954-'89 stock and 1958-'99 S&S pinion shafts.	33-4232
Oil Pump Drive Gear 24-Tooth Requires S&S part #33-4232, part #33-4237, or ²⁶³⁴⁹⁻⁵⁴ pinion shaft drive gear. Fits 1973-'99 big twin engine. ^{26349-73, 26349-73A}	33-4230



33-4289

33-4244



33-4237

33-4232

33-4230

NOTE

All S&S Pinion Shaft Gear Kits must be used with 1973-'99 style 24-tooth oil pump drive shaft gear such as S&S part #33-4230.

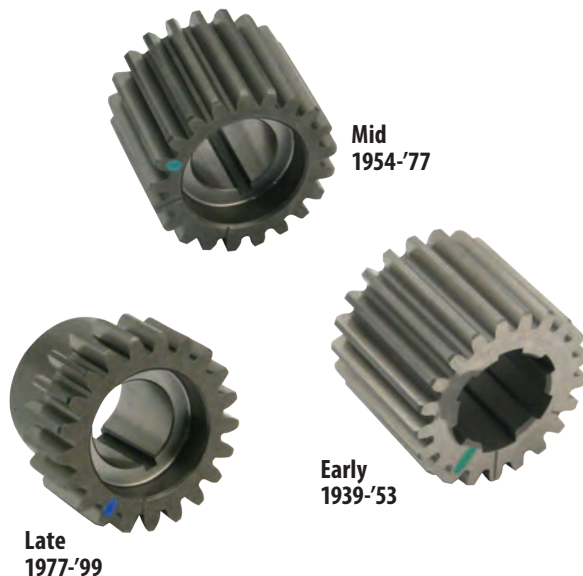
REPLACEMENT PINION GEARS

High quality S&S pinion gears are carefully machined, heat treated and then finish ground.

Three distinct year groups, in up to eight different color coded sizes for optimum gear lash, are available for big twin engines. S&S color codes match Harley-Davidson® color codes so that replacement is easy. Just pick the appropriate color S&S gear that matches the color on the damaged stock gear (see notes).

NOTES

If the stock gear is unmarked and the size is unknown or you are scratch building an engine and have no gear, we recommend that you order a gear in the middle of the size range. These sizes were used more often and should provide adequate gear clearance under most circumstances. When in doubt, use a gear from the middle to the small side of the range, because a combination of looser fitting smaller gears is less likely to cause binding and premature wear. Consult the chart for the size and appropriate part number required. If you wish to achieve optimum cam gear to pinion gear fit, consult your factory service manual for instructions on fitting these gears before making a selection. Some sizes, particularly those on and near the ends of each range, are available on a limited basis because they are the extremes.



BIG TWIN STYLE PINION GEAR SELECTION CHART

	1939-'53		1954-'77		1977-'89*	
	Color Code	Part #	Color Code	Part #	Color Code	Part #
Biggest	Orange	33-4101	Orange	33-4121	Orange	33-4141
	Black	33-4102	Black	33-4122	White	33-4142
	Red	—	Red	33-4123	Yellow	33-4143
Average	Blue	33-4104	Blue	33-4124	Red	33-4144
	Green	33-4105	Green	33-4125	Blue	33-4145
Smallest	—	—	White	33-4126	Green	33-4146
	—	—	Brown	33-4127	Black	33-4147
	—	—	Yellow	33-4128	—	—

Note - All S&S Pinion Shaft Gear Kits must be used with 1973-'99 style 24-tooth oil pump drive shaft gear such as S&S part #33-4230.

*Use this kit when installing an S&S flywheel assembly in a 1990-'99 engine.

STEEL ROTARY BREATHER GEARS FOR 1936-'84 BIG TWIN

FITMENT

- 1936-'84 OHV big twins

FEATURES

- All steel construction – superior dimensional stability, abrasion
- Welded-in screen
- Higher flow than stock
- Elongated breather pocket scavange hole for increased suction

OPTIONS

- Standard diameter for replacement or new builds
- +.030" diameter for damaged engines
- Breather gear only kits
- Breather gear and shim kits



33-4250

BREATHER GEAR KITS FOR 1936-'99 BIG TWIN

Year of Camshaft	Standard Size	+.030" Oversize
1936-Early '47	106-6010	106-6013
1948-Early '77	33-4253	33-4263
Late 1977-'99	33-4250	33-4260



106-5070

BREATHER GEARS ONLY FOR 1936-'99 BIG TWIN

Year of Camshaft	Standard Size	+.030" Oversize
1936-Early '47	106-5070 <small>25300-36</small>	106-6012
1948-Early '77	33-4246 <small>25313-73</small>	33-4247
Late 1977-'99	33-4241 <small>25310-82A, 25313-77B, 25311-90</small>	33-4242



33-4249

BREATHER GEAR SPACING SHIM KIT

Description	Part #
Fits stock 1979-'82 and all S&S® steel breather gears. Includes one of each thickness: .100", .110", .120", .130", .140", .150", .160", .170"	33-4249

GENERATOR STYLE GEARCOVERS FOR 1936-'69 OHV BIG TWINS

FITMENT

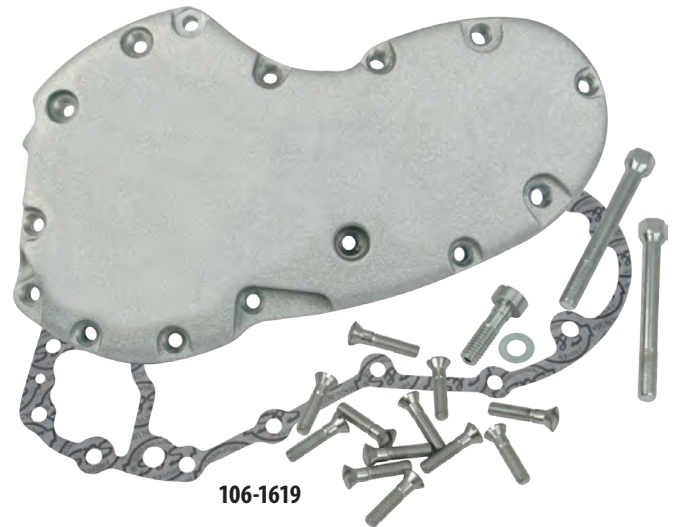
- 1936-'62 and 1965-'69 OHV big twins
- Available for stock and S&S crankcases

FEATURES AND BENEFITS

- Cast gearcovers – stock appearance
- Bushings installed and sized – ready to install

KIT CONTENTS

- Gearcover assembly
- Gasket and hardware
- Instructions



106-1619

FOR STOCK CRANKCASES—CAST GENERATOR GEARCOVERS

Application	Hardware Type	Pinion Bushing I.D.	Distinguishing Characteristics	Part #
1940-early'48 OHV	¼"-24	11/16"	8 Ribs, w/tapped hole for top end oiling, ¼" gen mount holes*	106-3198 25216-48
Late 1948-'53 OHV	¼"-24	11/16"	8 Ribs, w/o tapped hole top for end oiling, ¼" gen mount holes*	106-3499
1954-'62 OHV	¼"-24 and ¼"-20	9/16"	4 Ribs w/o stock outside oiler passage, 5/16" gen mount holes	31-0240 25216-58
1965 OHV	¼"-24 and ¼"-20	9/16"	Smooth, w/outside oiler passage, 5/16" gen mount holes	106-1619
1966-'69 OHV	¼"-24 and ¼"-20	9/16"	Smooth w/o outside oiler passage, 5/16" gen mount holes w/o 12 o'clock boss	106-1625

*Generator mounting holes must be drilled to 5/16" for use with 1958-later generators. Cast generator gearcovers come with countersunk hardware

FOR S&S® CRANKCASES—CAST GENERATOR GEARCOVERS

Application	Hardware Type	Pinion Bushing I.D.	Distinguishing Characteristics	Part #
1940-'47 OHV	¼"-24 and ¼"-20	9/16"	8 Ribs, w/tapped hole for top end oiling, 5/16" gen mount holes	106-3482
1954-'64 OHV	¼"-24 and ¼"-20	9/16"	4 Ribs w/o stock outside oiler passage, 5/16" gen mount holes*	31-0240 25216-58
1965-'69 OHV	¼"-24 and ¼"-20	9/16"	Smooth w/o outside oiler passage, 5/16" gen mount holes w/12 o'clock boss	106-1627

Cast generator gearcovers come with countersunk hardware.

*A tapped hole on top of the cover can be used to supply oil to the top end – similar to 1936-48 OHV big twins.

NOTE

S&S does not offer a direct replacement cover for 1963-'64 engines with outside oilers. However, cover part #106-1619 is functionally compatible, but is not cosmetically correct for those year groups. Stock covers of the four ribbed design, and cover part #106-1619 is a flat-side design.

BILLET GEARCOVERS FOR 1973-'92 BIG TWINS

FITMENT

- 1973-'92 engines
- S&S alternator style SH-Series engines

FEATURES AND BENEFITS

- Machined from billet aluminum
- Available polished or chrome plated
- Compatible with points or electronic ignition systems

KIT CONTENTS

- Billet gearcover, Chrome billet ignition cover, All gaskets and hardware, Installation instructions

BILLET GEARCOVERS FOR 1973-'92 BIG TWINS

Description	Part #
1973-'92 Polished  1,2,3	31-0335
1973-'92 Chrome	106-4211[±]
Chrome Plated Billet Ignition Cover Only	31-0332[±]



31-0332[±]

REPLACEMENT PARTS: SEE PAGE 481

CAST GEARCOVERS FOR 1973-'84 BIG TWINS

FITMENT

- 1973-'84 engines

FEATURES AND BENEFITS

- Flangeless
- Flanged with a chromed billet aluminum cover
- Machined from tough 356-T6 aluminum castings – the same material used to make S&S crankcases
- Inner cast aluminum cover and a decorative bolt-on outer cover
- Both versions will accept either points or electronic ignition systems

KIT CONTENTS

- Cast gearcover, Gaskets, Mounting Hardware



CAST GEARCOVERS FOR 1973-84 BIG TWINS

Description	Part #
Natural–Flangeless Tall	31-0203
Wrinkle Black–Flangeless Tall	31-0299

CIRCUIT BREAKER DRIVE GEARS

GENERATOR CRANKCASE GEAR KIT FOR 1936-69 BIG TWIN ENGINES & CUSTOM ALT/GEN ENGINES

Description	Part #
Standard Clockwise Rotation.	33-4226
Reverse Counterclockwise Rotation.	33-4227



33-4226

CIRCUIT BREAKER DRIVE GEAR ASSEMBLIES FOR 1936-69 BIG TWIN ENGINES

Description	Part #
Standard/Clockwise Rotation. 25850-36A	33-4215
Counterclockwise/Reverse Rotation. Requires S&S #33-4208 circuit breaker gear.	33-4209[±]

Shims not included



33-4217

CIRCUIT BREAKER GEARS FOR 1936-69 BIG TWIN ENGINES

Description	Part #
Standard Clockwise Rotation 32531-36	33-4217
Reverse Counterclockwise Rotation Requires S&S #33-4209 [±] circuit breaker gear assembly	33-4208
Roll Pin 7/64" Diameter 255	50-8025
Roll Pin 1/8" Diameter	50-8030

CIRCUIT BREAKER DRIVE GEAR SHAFT

Description	Part #
Fits 1936-'69 big twin engines. 25856-36	31-2037



31-2039

IDLER GEAR SHAFT

Description	Part #
Fits 1936-'69 big twin engines 25791-36	31-2039

BUSHING

Description	Part #
Fits all S&S® circuit breaker drive and idler gears for 1936-'69 big twin engines	33-4214



33-4214



33-4221

IDLER GEAR ASSEMBLY

Description	Part #
Fits 1936-'69 big twin engines. (Shims not included.) 25775-36	33-4216

CIRCUIT BREAKER DRIVE/IDLER GEAR SHIMS

Fits 1936-'69 big twin engines.	
Description	Part #
.050" Thick	33-4221
.054" Thick	33-4222
.058" Thick	33-4223
.062" Thick	33-4224
.066" Thick	33-4225

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

CYLINDERS WITH PISTONS KIT

FOR 1966-'84 BIG TWINS AND P-SERIES ENGINES

FITMENT

- 1966-'84 shovel engines
- S&S® Vintage SH-Series and P-Series engines
- Cylinders will not fit OEM panhead engines

FEATURES AND BENEFITS

- High strength engineering-grade grey cast iron
- Excellent wear resistance
- Durable powder coat finish
- P-Series are silver powder coated

OPTIONS

- 3 $\frac{1}{16}$ ", 3 $\frac{3}{8}$ ", and 3 $\frac{1}{2}$ " bore
- Black or silver powder coat finish
- Available in sets or single front or rear cylinders
- Available fit with your choice of S&S pistons



CYLINDERS WITH PISTONS KIT

Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Part #
74" LC	3 $\frac{3}{32}$ "	3 $\frac{1}{16}$ "	5.330"	8.0:1	91-9013
74" HC	3 $\frac{3}{32}$ "	3 $\frac{1}{16}$ "	5.330"	9.0:1	91-9012
80" LC	4 $\frac{1}{4}$ "	3 $\frac{1}{2}$ "	5.330"	8.0:1	91-9024
80" HC	4 $\frac{1}{4}$ "	3 $\frac{1}{2}$ "	5.330"	9.0:1	91-9023
Special Order	Specify	Specify	Specify	Specify	91-9307*

Cylinders with pistons include cylinders, piston kit, head bolts, base nuts, and head & base gaskets. All piston kits include rings, wristpins, and clips. Recommended Piston Fit: Close: .0035" to .004" Loose: .0045" to .0055"

STOCK BORE STROKER CYLINDERS WITH PISTONS KIT

Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Part #
84"	4 $\frac{1}{2}$ "	3 $\frac{1}{16}$ "	5.330"	8.4:1	91-9017
86"	4 $\frac{5}{8}$ "	3 $\frac{1}{16}$ "	5.330"	9.4:1	91-9017
88"	4 $\frac{3}{4}$ "	3 $\frac{1}{16}$ "	5.330"	10.8:1	91-9017
Special Order	Specify	Specify	Specify	Specify	91-9307*

Cylinders with pistons include cylinders, piston kit, head bolts, base nuts, and head & base gaskets. All piston kits include rings, wristpins, and clips. Recommended Piston Fit: Close: .0035" to .004" Loose: .0045" to .0055"

3 $\frac{5}{8}$ " BORE STROKER CYLINDERS WITH PISTONS KIT

Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Part #
88"	4 $\frac{1}{4}$ "	3 $\frac{5}{8}$ "	5.330"	7.5:1	91-9001
93" LC	4 $\frac{1}{2}$ "	3 $\frac{5}{8}$ "	5.405"	8.5:1	91-9101
93" HC	4 $\frac{1}{2}$ "	3 $\frac{5}{8}$ "	5.363"	9.1:1	91-9031
96"	4 $\frac{5}{8}$ "	3 $\frac{5}{8}$ "	5.440"	9.0:1	91-9401
98"*	4 $\frac{3}{4}$ "	3 $\frac{5}{8}$ "	5.530"	8.9:1	91-9201
103"*	5"	3 $\frac{5}{8}$ "	5.630"	9.7:1	91-9302
Special Order	Specify	Specify	Specify	Specify	91-9307**

Cylinders with pistons include cylinders, piston kit, head bolts, base nuts, and head & base gaskets. All piston kits include rings, wristpins, and clips. Recommended Piston Fit: Close: .0035" to .004" Loose: .0045" to .0055" *Small Diameter Flywheels

NOTES

Cylinders for P-Series engines will not fit stock pan cylinder heads. They are machined with a stock shovel head bolt pattern.

Cylinders for P-Series engines do not have an internal oil feed passage for top end oiling. Not compatible with stock pan cases or heads.

CYLINDERS WITH PISTONS KIT FOR 1936-'47 OHV BIG TWINS

FITMENT

- 1936-'47, 74", and 93" knuckle engines
- S&S® Vintage KN-Series engines

FEATURES AND BENEFITS

- High strength engineering-grade grey cast iron
- Excellent wear resistance
- Durable powder coat finish – high temp gloss black



106-2402

3 7/16" & 3 5/8" BORE CYLINDERS WITH PISTONS KIT FOR 1936-'47 OHV ENGINES

Piston Series	Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Part #
74 LC Forged	74"	3 3/32"	3 7/16"	5.530"	8:1	106-4519
3 5/8" Forged	93"	4 1/2"	3 5/8"	5.625"	8.2:1	106-2402

Cylinders with pistons include cylinders, piston kit, and head & base gaskets. All piston kits include rings, wristpins, and clips. Recommended Piston Fit: Close: .0035" to .004" Loose: .0045" to .0055"

NOTES

S&S® cylinder heads for 1940-'47 OHV big twins are machined for 7/16"-20 head bolts and are not compatible with stock 7/16"-16 head bolts. If using S&S heads with 3 7/16" bore cylinders, stock style hex head bolts for 1948-'65 big twins, part #106-4523 may be used. S&S 3 5/8" bore cylinders require the use of S&S 1966-'84 style 12 point head bolts part #93-3024, due to clearance issues.

Stock 1930-'78 hex style base nut kit is available in cadmium plate, part #106-4522, for 3 7/16" bore cylinders only. Stainless raised hex base nuts, part #93-3063-5, are required for 3 5/8" bore cylinders.

CYLINDERS

3 7/16", 3 1/2", & 3 5/8" BORE CYLINDERS FOR 1966-'84 BIG TWIN—GLOSS BACK

Displacement	Bore	Cylinder Sets
74", 84", 86", 88" Stock Bore Strokers	3 7/16"	91-9011
80", 84"	3 1/2"	91-9021
88"	3 5/8"	91-9000
93"		91-9100
93"HC		91-9030
96"		91-9400
98" SD †		91-9200
103" SD †		91-9300
Special Order	Specify	91-9307***

*†Small Diameter Flywheels **Some early S&S 93" and 96" Sidewinder® Kits were sold with 5.530" length cylinders. Use 91-9200 for replacement cylinders.*

Individual cylinders and cylinder sets without pistons are bored slightly under nominal size and are not honed. Individual cylinder assemblies and cylinder kits with pistons are honed to fit the pistons included.

3 7/16" & 3 5/8" BORE CYLINDERS FOR 1936-'47 OHV ENGINES—HIGH TEMP GLOSS BLACK

Displacement	Bore	Cylinder Sets
74"	3 7/16"	106-4512 16492-41, 16483-41
93"	3 5/8"	106-4655

Cylinder set include cylinders, head gaskets, and base gaskets.

FORGED PISTON KITS FOR 74" AND 80" 1936-'84 OHV ENGINES

FITMENT

- 74" pistons fit 1936-'78, 74" OHV engines
- 80" pistons fit 1979-'84, 80" big twin engines and may be used in mild stroker engines with 4¼" stroke flywheels

FEATURES AND BENEFITS

- Forged pistons for superior strength
- Modern alloys and piston skirt profiles for low noise and long engine life
- Dome volume
 - 74 LC = 46cc
 - 74 HC = 57cc
 - 80 LC = 41cc
 - 80 HC = 53cc
- Piston kits include set of pistons, rings, wristpins, and clips

OPTIONS

- 74" – 8:1 or 9:1 compression
- 80" – 8:1 or 9:1 compression

S&S will fit these pistons to your existing cylinders (when purchasing new cylinders, pistons can be fit to them as an option)



S&S® STOCK BORE FORGED PISTON SPECIFICATIONS

Displacement	Bore	Stroke	Compression Ratio	Piston Deck Height
74"	3 ⁷ / ₁₆ "	3 ³ / ₂ "	8:1 and 9:1	1.436"
80"	3 ¹ / ₂ "	4 ¹ / ₄ "	8:1 and 9:1	1.270"

Recommended Piston Fit Close: .003" - .0035" Loose: .004" - .005"

FORGED 74" PISTONS

Override	Deck Height	8:1 Compression	9:1 Compression
Standard (3 ⁷ / ₁₆ ")	1.436"	106-5495 22101-41, 22101-48	106-5503
+ .010"	1.436"	106-5496 22103-48, 22103-41	106-5504
+ .020"	1.436"	106-5497 22104-48, 22104-41	106-5505
+ .030"	1.436"	106-5498 22105-48, 22105-41	106-5506
+ .040"	1.436"	106-5773 22106-48, 22106-41	106-5775

FORGED 80" PISTONS

Override	Deck Height	8:1 Compression	9:1 Compression
Standard (3 ¹ / ₂ ")	1.270"	106-5511	106-5519
+ .010"	1.270"	106-5512	106-5520
+ .020"	1.270"	106-5513	106-5521
+ .030"	1.270"	106-5514	106-5522

NOTES

Since many older motorcycles have been modified, be sure to confirm that your engine is still stock before ordering replacement pistons.

Using 80" pistons with 74" (3³/₂" stroke) flywheels will result in very low compression and poor performance. Using 74" pistons with 80" (4¹/₄" stroke) flywheels will result in contact between piston and cylinder head, and potential engine damage.

REPLACEMENT RINGS FOR 74"

Override	Part #
Standard (3 ⁷ / ₁₆ ")	94-2200X 22325-55B, 22355-53, 22355-48, 22355-41
+ .010"	94-2201X 22327-55B, 22357-48, 22357-41
+ .020"	94-2202X 22358-48, 22358-41, 22328-55B, 22358-53
+ .030"	94-2203X 22329-55B, 22359-48, 22359-41
+ .040"	94-2204X 22330-55B, 22360-48, 22360-41

REPLACEMENT RINGS FOR 80"

Override	Part #
Standard (3 ¹ / ₂ ")	94-2206X 22334-78A, 22334-78B, 21920-83
+ .010"	94-2207X 22335-78A, 22335-78B, 21922-83
+ .020"	94-2208X 22336-78B, 21923-83
+ .030"	94-2209X 22337-78B, 21924-83

REPLACEMENT WRISTPINS AND KEEPERS

Description	Part #
Wristpin .791" diameter	106-6123
Wristpin keeper, c-clip	each 94-9254-S
	4 pack 94-9254

FORGED STOCK BORE STROKER PISTONS FOR 1936-'84 OHV ENGINES

FITMENT

- 84", 86", and 88" stroker engines for 1936-'84 OHV engines

FEATURES AND BENEFITS

- Forged pistons for superior strength
- Modern alloys and piston skirt profiles for low noise and long engine life
- Dome volume 50cc
- Piston kits include set of pistons, rings, wristpins, and clips

S&S will fit these pistons to your existing cylinders (when purchasing new cylinders, pistons can be fit to them as an option)



106-5527

S&S FORGED STOCK BORE STROKER PISTON SPECIFICATIONS

Displacement	Bore	Stroke	Compression Ratio		Piston Deck Height
			Standard	LC	
84"	3 7/16"	4 1/2"	8.1:1	7.3:1	1.100
86"	3 7/16"	4 5/8"	9.4:1	8.1:1	
88"	3 7/16"	4 3/4"	10.8:1	9.1:1	

Recommended Piston Fit Close: .003" - .0035" Loose: .004" - .005"

FORGED STOCK BORE STROKER PISTONS

Oversize	Standard	Low Compression
Standard (37/16")	106-5527	920-0073
+.010"	106-5528	920-0075
+.020"	106-5529	920-0077
+.030"	106-5530	920-0079
+.040"	106-5777	920-0081
+.050"	106-5778	920-0083
+.060"	106-5779	920-0085
+.070"	106-5780	920-0087
+.080"	106-5781	920-0089
+.090"	106-5782	920-0091

REPLACEMENT RINGS FOR FORGED STOCK BORE STROKER PISTONS

Oversize	Part #
Standard (37/16")	94-2200X 22325-55B, 22355-53, 22355-48, 22355-41
+.010"	94-2201X 22327-55B, 22357-48, 22357-41
+.020"	94-2202X 22358-48, 22358-41, 22328-55B, 22358-53
+.030"	94-2203X 22329-55B, 22359-48, 22359-41
+.040"	94-2204X 22330-55B, 22360-48, 22360-41
+.050"	94-2205X
+.060"	94-2206X 22334-78A, 22334-78B, 21920-83
+.070"	94-2207X 22335-78A, 22335-78B, 21922-83
+.080"	94-2208X 22336-78B, 21923-83
+.090"	94-2209X 22337-78B, 21924-83

NOTES

When ordering pistons for a shovel engine, please keep in mind that these pistons are sized by 37/16" standard bore for a 74" engine. If using 80" cylinders standard bore is 3 1/2" or 37/16" +.060".

REPLACEMENT WRISTPINS AND KEEPERS

Description	Part #
Wristpin .791" diameter	106-6123
Wristpin keeper, c-clip	each 94-9254-S
	4 pack 94-9254

FORGED 3-5/8" BORE PISTONS FOR 1936-'84 OHV ENGINES

FITMENT

- 88", 93", 96", 98" and 103" engines for 1936-'84 OHV big twins

FEATURES AND BENEFITS

- Forged pistons for superior strength
- Modern alloys and piston skirt profiles for low noise and long engine life
- Dome volume 30cc
- Piston kits include set of pistons, rings, wristpins, and clips

OPTIONS

- Available in 3/8" Standard, +.010", .020", .030", and .060" oversizes

S&S will fit these pistons to your existing cylinders (when purchasing new cylinders, pistons can be fit to them as an option)



106-5535

S&S® 3/8" BORE FORGED PISTON APPLICATION CHART						
Displacement	Wristpin Deck Height	Stroke	Flywheel Diameter	Compression Ratio	Cylinder Length	
					SH-Series & P-Series Engines	KN-Series Engines
88"	1.260"	4¼"	8½"	7.5:1	5.330"	–
93"	1.260"	4½"	8½"	8.5:1	5.405"	5.625"
93" HC	1.260"	4½"	8½"	9.1:1	5.363"	–
96"	1.260"	4¾"	8½"	9.1:1	5.440"	–
98"	1.260"	4¾"	8½"	8.9:1	5.530"	–
103"	1.260"	5"	8¾"	9.7:1	5.630"	–

FORGED 3/8" BORE PISTON SETS FOR 1936-'84 OHV BIG TWINS

Oversize	Wristpin Deck Height	Part #
Standard (3/8")	1.260"	106-5535
+.010"	1.260"	106-5536
+.020"	1.260"	106-5537
+.030"	1.260"	106-5538
+.060"	1.260"	106-5789

Recommended Piston Fit Close: .003" – .0035" Loose: .004" – .005"

NOTES

Compression ratios will change when replacing existing pistons in S&S engines with this series of forged pistons. If higher compression is desired, we suggest shortening cylinders, or decking heads to achieve the desired compression ratio. A change of .060" will produce approximately 1 point of change in the compression ratio.

REPLACEMENT RINGS FOR FORGED 3/8" BORE PISTONS

Oversize	Part #
Standard (3/8")	94-1220X
+.010"	94-1221X
+.020"	94-1222X
+.030"	94-1223X
+.060"	94-1226X

REPLACEMENT WRISTPINS AND KEEPERS

Description	Part #
Wristpin .791" diameter	106-6123
Wristpin keeper, c-clip	each 94-9254-S
	4 pack 94-9254

REPLACEMENT PISTON RINGS FOR UL CYLINDERS

REPLACEMENT RINGS FOR CAST PISTON KITS

Oversize	Part #
Standard (3/16")	940-0006
+.010"	940-0007
+.020"	940-0008
+.030"	940-0009
+.040"	940-0010
+.060"	940-0011

REPLACEMENT FORGED STROKER PISTONS FOR 1972-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER®

FEATURES AND BENEFITS

- 33/16" bore stroker pistons are designed to be used in conjunction with S&S 45/8" stroke flywheels to convert 1000cc Ironhead engines in 1972-'85 Harley-Davidson® Sportster® models to 1200cc (74") displacement.
- Can also be used to replace pistons in older S&S stroker engines with 41/16", 49/16", 41/2", and 43/16" stroke flywheels. All clearances must be checked. See chart below for displacements and compression ratios. These pistons are normally used in stock Harley-Davidson® cylinders. No cylinders are available from S&S for Ironhead Sportster models.
- Piston kits include rings and keeper buttons.



106-5544

STROKER PISTONS SPECIFICATIONS FOR 1972-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Displacement	71"	72"	73"	74"	77"*
Stroke	47/16"	41/2"	49/16"	45/8"	413/16"
Cylinder Length	5.330"	5.330"	5.330"	5.330"	5.330"
Compression	7.5:1	8:1	8.5:1	9:1	9:1

*Requires 1/8" base plates and small diameter flywheels.

STROKER PISTONS KITS FOR 1972-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Oversize	Deck Height	Part #
+.010	.806"	106-5542
+.020	.806"	106-5543
+.030	.806"	106-5544
+.060	.806"	106-5791

Recommended Piston Fit: Close: .0030"-.0035" Loose: .0045"-.0055"

REPLACEMENT MOLY FACED RINGS FOR 1972-'85 HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Oversize	Part #
+.010	94-3201X
+.020	94-3202X
+.030	94-3203X
+.040	94-3204X
+.060	94-3206X

REPLACEMENT WRISTPINS AND BUTTONS



94-9351

Description	Part #
Wristpin .791" diameter	94-9350
Keeper Buttons	4 pack 94-9351

NOTES

If replacing the pistons in a older 77" stroker engine, stroker plates are required, and all clearances must be checked.

SUPER STOCK™ CYLINDER HEADS FOR 1966-'84 BIG TWIN ENGINES

FITMENT

- 1966-'84 big twins
- SH-Series engines

FEATURES AND BENEFITS

- Stock appearance and improved performance
- S&S .590" lift valve springs
- Fits stock intake manifolds and exhaust pipes
- Rocker cover fastened with 5/16" - 18 hex-head cap screws

OPTIONS

- Stock bore or 3 3/8" bore
- O-ring or rubber band style manifold
- Natural aluminum or wrinkle black powder coat finish (wblack)
- Dual spark plugs and/or external oil return lines by special order

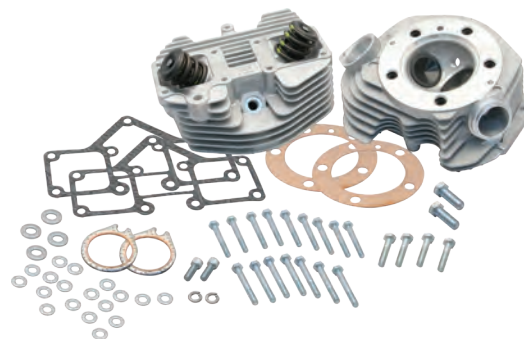
KIT CONTENTS

- Front and rear assembled cylinder heads complete with valves and .590" springs
- Head, rocker and exhaust gaskets
- Mounting hardware and instructions

CYLINDER HEAD KITS FOR 1966-'84 BIG TWIN ENGINES

Engine Year and Type	Bore	Aluminum Finish	WBlack
1966-'78 (O-ring)	Stock	90-1496	90-1596
	3 3/8"	90-1497	90-1597
	3 3/8" Dual Plug	90-1491	—
1979-'84 (Band)	Stock	90-1498	90-1598
	3 3/8"	90-1499	—
	3 3/8" Dual Plug	90-1488	—
Special Order*	Specify	90-1490*	90-1490*

*Use this special order part number to order assembled or unassembled cylinder heads with spring options, and special finish. Front or rear heads available by special order. **DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.**



90-1496

REPLACEMENT PARTS: SEE PAGE 486

REPLACEMENT CYLINDER HEADS FOR P-SERIES ENGINES & RETRO CONVERSION KITS

FITMENT

- P-Series engines
- 1966-'84 big twins
- Valve train update kit – available through Special Order

FEATURES AND BENEFITS

- S&S .590" lift valve springs
- Late style valve chamber eliminates oil pooling
- Cooling channel between combustion chamber and rocker arms

OPTIONS

- Stock bore or 3 3/8" bore
- Dual spark plug available for 3 3/8" bore and special order
- Stock pan bolt pattern available through special order

KIT CONTENTS

- Front and rear cylinder head complete with valves and springs
- Head, pan, and exhaust gaskets

REPLACEMENT CYLINDER HEADS FOR S&S® P-SERIES ENGINES AND RETRO CONVERSION KITS

Description	Complete Kit (with Valves and Springs)
Stock Bore	106-0414
3 3/8" Bore	106-0417
3 3/8" Bore Dual Plug	106-0420



106-0414

REPLACEMENT PARTS: SEE PAGE 484

NOTE

These are not service part cylinder heads for panhead engines. They will not fit on stock panhead cylinders.

ALUMINUM CYLINDER HEADS

FOR 1937-'48 FLATHEAD SIDE-VALVE BIG TWIN ENGINES

FITMENT

- 1936 V model engines
- 1937-'48 U model engines

FEATURES AND BENEFITS

- Precision cast aluminum construction for better cooling
- Nine head bolt pattern

OPTIONS

- Available compression ratios: 5.5:1, 6:1, 6.25:1, and 7:1 (80")
- 14mm or 18mm spark plug hole

KIT CONTENTS

- Front and rear cylinder heads
- Copper head gaskets
- Head bolts NOT included



106-2475

ALUMINUM CYLINDER HEADS FOR UL AND ULH MODELS

Description	Part #
Set 16671-36, 16661-40	106-2475*

CYLINDER HEADS

FOR 1940-'47 OHV BIG TWIN ENGINES

FITMENT

- KN-Series engines
- 1940-'47 OHV big twins
- 1936-'39 with a manifold upgrade

FEATURES AND BENEFITS

- Made of engineering-grade grey iron – better heat dissipation, less sound transfer
- Durable stock-look black powder coat finish
- Counter bore for 61" cylinder fire ring
- Set up for o-ring manifold or late style port plumber fittings
- 1.940" intake and 1.750" exhaust valve
- Valve springs allow cams with up to .480" lift
- Compatible with stock or S&S valve cover "tins"

OPTIONS

- Fully assembled or unassembled
 - Fully assembled with valves, rocker arms, tins and housings complete
 - Guides installed for use with S&S® Vintage tins (valves ground)
 - Guides not installed for use with stock tins (valves not ground)
- 14mm or 18mm spark plug hole



106-4929

CYLINDER HEADS

Description	Part #
Fully assembled heads	106-4929*
Unassembled heads	106-2403*


REPLACEMENT PARTS: SEE PAGE 486

NOTE

Stock 1948-'65 head bolts can be used in stock bore applications and are available on page 445, big bore applications must use the S&S 12 point head bolt also found on page 445.

HEAD BOLT KITS FOR 1948-'84 BIG TWIN ENGINES

HEAD BOLT KITS FOR 1948-'84 BIG TWIN ENGINES

Description	Part #
1948-'84 Panhead & Shovelhead & 3 $\frac{3}{8}$ " Bore KN-Series Head Bolt Kit 6469HW 7/16"-20 x 2 $\frac{3}{8}$ " 12 pt stainless steel bolt #93-3025 washers.	93-3024
Stock Bore KN-Series & Stock Panhead 16814-48 Head Bolt Kit 7/16"-20 x 2 $\frac{3}{8}$ " Hex cad plated bolt #106-4523 washers.	106-4523
Oil Bypass Plug (Included with all S&S® stock bore shovelhead style cylinders) 	each 93-1032-S
	2 pack 93-1032



106-4523



93-3024

Shown: 1 bolt and washer. Kit includes 10 of each.

CYLINDER HEAD & MOTOR MOUNTS

CYLINDER HEAD AND MOTOR MOUNTS

Description	Part #
Complete Kit for 1948-'84 Big Twin – Fits panhead and shovelhead engines with cylinders up to 5.750" long 16852-67A, 16853-48	93-4057
Screw, HHC, 7/16"-20 x 1-1/4" 4726	50-0176
Nut, Lock, HH, 7/16"-20, Steel/Nylon 7825	50-5045
Washer, Flat, .469" x .922" x .125", Zinc, Steel 6495HW	50-7064



93-4057

CYLINDER BASE NUTS & STUDS

CYLINDER BASE NUTS AND STUDS

Fitment	Description	Part #
Cylinder Base Studs 1930-'84 Big Twin	Stock length base stud - Fits 61", 74", and 80" OHV and SV models 2.030" overall length. 16831-30, 16837-30	each 31-2328-S
		8 pack 31-2328
	Extra long base stud - 5/16" longer than late stock studs 2.390" overall length 16837-78	each 31-2324-S
		8 pack 31-2324

NOTE: This leaves approximately 1.400" above the base gasket surface with 1" of crankcase thread engagement

Base Nuts 1930-'78 Big Twin (stock bore only)	Base Nut Kit - Cadmium plated, includes lock washers.	8 pack 106-4522
---	---	------------------------

NOTE: This leaves approximately 1.400" above the base gasket surfaces with 1.125" of crankcase thread engagement.

Base Nuts 1966-'84 Big Twin	Stainless 7/16" hex allows the use of box end wrench to tighten base nuts on S&S Sidewinder® cylinders for shovelhead engines. Requires .375" - .400" stud engagement – stud height may need to be adjusted.	each 93-3063-S
		8 pack 93-3063



31-2328-S



31-2324-S



93-3063-S



106-4522

Showing one nut & washer. Kit includes 8 of each.

HYDRAULIC VALVE TRAIN CONVERSION KIT FOR SHOVELHEAD ENGINES

FITMENT

- 1966–'84 big twins
- 1953–'65 engines using shovel cylinders and P-Series heads or engines using P-Series valve train update kits



FEATURES AND BENEFITS

- Quiet, dependable hydraulic valve train
- Through the pushrod or external oiling options
- Easy pushrod installation and removal
- Wide selection of late style cams to choose from

OPTIONS

- Kit for use with S&S roller rocker arms for oiling through pushrods
- Kit for use with stock style rocker arms for oiling through external oil line

KIT CONTENTS

- Polished billet tappet guides
- Four 1984-'99 style tappets w/HL₂T kit
- Set of Quickee Adjustable pushrods
- Pushrod cover keepers
- Required hardware and gaskets



33-5452

HYDRAULIC VALVE TRAIN CONVERSION KIT FOR SHOVELHEAD ENGINES

Description	Part #
For use with S&S roller rocker arms.	33-5451
For use with stock shovelhead style rocker arms	33-5452

REPLACEMENT PARTS

Description	Part #	
Quickee Adjustable Pushrods for 74"- 103" Shovels	For S&S Rocker Arms <i>(oil through pushrods)</i>	93-5123
	For Stock Rocker Arms <i>(oil through external oil lines)</i>	93-5134
Billet Tappet Guides – Polished	Set	33-5450[±]
	Front	33-5450F[±]
	Rear	33-5450R[±]
Tappets USA 1,2,3	Without HL ₂ T Kit <i>(Set of four)</i> 18523-86A	33-5352
	With HL ₂ T Kit <i>(Set of four)</i>	33-5353

NOTES

1984-'99 cams must be used with this kit to ensure correct valve timing. These cams are not included with the kit. Refer to page 429 for S&S camshaft recommendations to be used with this kit. If sourcing cams from another manufacturer, note that timing specifications will be unchanged, but the actual lift will be about 9% lower than specified due to the difference in rocker arm ratio.

S&S billet tappet guides for shovelhead engines are similar in design to S&S tappet guides for 1984-'99 big twin engines. For that reason, they are not a direct replacement for stock parts, but must be used in conjunction with S&S tappets and cams for 1984-'99 big twin engines. Tappet bore geometry is corrected to compensate for the difference in pushrod angles between the engine types in order to maintain specified valve event timing. When selecting a cam, keep in mind that timing specifications will be the same as shown for 1984-'99 engines, but there will be about a 9% reduction in valve lift due to the lower shovelhead rocker arm ratio.

TAPPET ASSEMBLIES

FITMENT

- 1953-'84 bt

FEATURES AND BENEFITS

- Precision machined tappets complete with premium hydraulic units
- Save money by reusing worn stock tappet guides with +.003" oversize



330-0381

HYDRAULIC TAPPET ASSEMBLIES – 4 PACK

Standard	330-0380
+.003" Oversized	330-0381

HYDRAULIC TAPPET COMPONENTS

FITMENT

- 1953-'84 bt

FEATURES AND BENEFITS

- Same quality components used in S&S tappet assemblies
- Compatible with stock tappets



330-0377



330-0384

HYDRAULIC TAPPET COMPONENTS

Tappet Body – Standard	each	330-0384
Tappet Body - +.003"	each	330-0385
Hydraulic Insert	each	330-0379
Tappet Rollers*	4 pack	330-0377

*Fits 1929-'56 Side Valve bt, 1936-'84 OHV big twins, and 1957-'85 ironhead Sportster® models

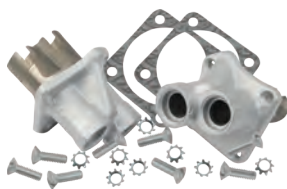
TAPPET GUIDES FOR KNUCKLEHEAD ENGINES

FITMENT

- 1936-'47 knucklehead and S&S® KN-Engines

FEATURES AND BENEFITS

- Cast iron
- Mounting hardware and gaskets included



106-2410

TAPPET GUIDES FOR KNUCKLEHEADS 1936-47 KNUCKLEHEAD AND S&S® KN ENGINES

Description	Part #
Tappet, Set, Standard	106-2410
Front only 18600-36	106-2665
Rear only 18610-36	106-2666

TAPPETS FOR KNUCKLEHEAD ENGINES

FITMENT

- 1936-'47 knucklehead and S&S® KN-Engines

FEATURES AND BENEFITS

- Includes lifter body wrench flat
- Includes adjusting screw and nut



106-1819

TAPPETS FOR KNUCKLEHEADS

Description		Standard	+.005"
Tappet Set	4 pack	106-1819	106-1820
Tappet Assembly	Intake	106-1815 18491-36	106-1816
	Exhaust	106-1817 18493-36	106-1818

QUICKEE ADJUSTABLE PUSHRODS

FEATURES AND BENEFITS

- Can be installed or removed from an assembled engine



93-5123

QUICKEE ADJUSTABLE PUSHRODS

Application	Displacement	Part #
1966-'84 bt*(S&S Rocker Arms)	74"-103"	93-5123
1966-'84 bt*(Stock Rocker Arms)	74"-103"	93-5134

*S&S tappet guide, S&S 1984-'99 style tappets

NOTES

S&S Quickee Adjustable pushrods are designed for use with 1984-up hydraulic tappets. They are not compatible with stock or aftermarket hydraulic tappets for shovelhead engines or most solid style tappets.

See page 446 for more information on S&S hydraulic valve train conversion kits, and see page 454 for more info on S&S roller rocker arms.

PUSHROD KITS FOR 1966-'84 BIG TWIN ENGINES

FEATURES AND BENEFITS

- 7/16" Chromoly steel tubing for maximum strength
- Reduced pushrod flex for precise valve control at high rpm
- Solid lifter conversion kits replace troublesome hydraulic tappets

NOTE

If using S&S tappet guides for shovelhead engines, see S&S Quickee Adjustable pushrods.



93-5067

ADJUSTABLE PUSHROD KITS FOR 1966-'84 BIG TWIN WITH SOLID LIFTER ADAPTERS

INCLUDES ADAPTERS FOR CONVERTING 1953-'84 STYLE HYDRAULIC LIFTERS TO NON-ADJUSTABLE SOLIDS.

Cylinder Length	5.330" (Stock)	5.405" (+ 1/16")	5.530" (+ 3/16")	5.630" (+ 5/16")
Part #	93-5067	93-5014	93-5015	93-5016



93-5068

NON-ADJUSTABLE PUSHROD KITS FOR 1966-'84 BIG TWIN WITH ADJUSTABLE LIFTER ADAPTERS

INCLUDES ADAPTERS FOR CONVERTING 1953-'84 STYLE HYDRAULIC LIFTERS TO ADJUSTABLE SOLIDS. ADJUSTER SCREW IN THE LIFTER ADAPTERS.

Cylinder Length	5.330" (Stock)	Special Order
Part #	93-5068	93-5062*

PUSHROD KIT ONLY—FOR SOLID LIFTERS WITH 1948-'52 SOLID ADJUSTABLE LIFTERS

- Fits 1966-'84, 74" & 80" Shovelhead Engines
- Includes four non-adjustable steel pushrods. (Pushrods are identical to those used in kit part #93-5068.)
- Recommended for all shovelhead and shovelhead top/panhead bottom engines with 1948-'52 style lifters.



NON-ADJUSTABLE PUSHROD KITS FOR 1966-'84 BIG TWIN

PUSHRODS FOR USE WITH 1948-'52 STOCK STYLE SOLID ADJUSTABLE LIFTERS.

Cylinder Length	5.330" (Stock)
Part #	93-5069

SERVICE PART PUSHROD KIT WITH HYDRAULIC LIFTERS

- Fits 1966-'84, 74" & 80" Shovelhead Engines
- Includes four adjustable steel pushrods. Stock adjusting screws (not included) must be used in these pushrods.



ADJUSTABLE PUSHROD KITS FOR 1966-'84 BIG TWIN

FOR HYDRAULIC LIFTERS. SERVICE PARTS FOR 1966-'84.

Cylinder Length	5.330" (Stock)
Part #	93-5070 17904-66

PUSHROD KITS FOR 1948-'65 BIG TWIN ENGINES

- Converts valve train to solid lifter operation
- Includes all parts needed for conversion



93-5058

PUSHROD KITS FOR 1948-'65 BIG TWIN NON-ADJUSTABLE PUSHRODS WITH ADJUSTABLE LIFTER ADAPTERS INCLUDES ADAPTERS FOR CONVERTING 1953-'84 STYLE HYDRAULIC LIFTERS TO ADJUSTABLE SOLIDS.

Cylinder Length		Part #
5.205"	(Stock 61")	93-5081
5.330"	(Stock 74")	93-5058
5.405"	(+ 1/16")	93-5082
5.530"	(+ 3/16")	93-5084

SOLID LIFTER PUSHROD KIT – FOR 1948-'52, 61" & 74" PANHEAD ENGINES

- Converts stock 1948-'52 valve train to solid lifter operation.
- Requires stock 1948-'52 style adjustable lifters.
- Pushrods are identical to those used in kit part #93-5058. See above.



93-5059

NON-ADJUSTABLE PUSHROD KITS FOR 1948-'52 BIG TWIN PUSHRODS ONLY SOLID LIFTER CONVERSION PUSHRODS FOR 1948-'52 STOCK ADJUSTABLE LIFTERS. SET OF FOUR

Cylinder Length		Part #
5.205"	(Stock 61")	93-5029
5.330"	(Stock 74")	93-5059 <small>17905-53B</small>

SERVICE PART PUSHROD KIT – FOR 1953-'65 PANHEAD ENGINES WITH HYDRAULIC LIFTERS

- Includes four adjustable pushrods.



MUST USE ORIGINAL ADJUSTING SCREW. (NOT SUPPLIED)



93-5091

ADJUSTABLE PUSHROD KITS FOR 1953-'65 BIG TWIN STOCK REPLACEMENT PUSHROD KITS ADJUSTABLE PUSHROD KITS FOR HYDRAULIC LIFTERS.

Cylinder Length		Part #
5.330"	(Stock 74")	93-5091

PUSHROD KITS FOR 1936-'47 BIG TWIN ENGINES

- Solid Lifter Pushrod Kit
- Fits 1936-'47, 61", 74" & 93" Knucklehead Engine
- Requires stock-style adjustable tappets.
- Includes four aluminum non-adjustable pushrods.
- The increase expansion of aluminum provides a quieter valve train.



PUSHROD KITS FOR 1936-'47 BIG TWIN NON-ADJUSTABLE PUSHRODS KITS SOLID LIFTER PUSHRODS FOR 1948-'52 STOCK ADJUSTABLE LIFTERS

Cylinder Length		Part #
5.530" (Stock 74")		930-0008 <small>17905-36</small>
5.625" (KN93")		930-0009


TIME-SAVER ADJUSTABLE PUSHRODS



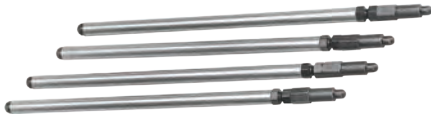
FEATURES AND BENEFITS

- Eliminates the need to disassemble the top end and remove the rocker arms to change pushrods or camshafts
- Reduce installation time by 75% - Hence the name Time Saver
- Larger 9mm diameter chrome moly tubing provides superior strength and minimizes pushrod flex
- Single adjuster end provides pushrod lengths from 9.5" to 11.5" for stock height and taller engines
- Kit includes set of four pushrods and installation instructions
- Not compatible with stock shovelhead hydraulic tappets, but will work with tappets having 3/8" diameter cup.

TIME-SAVER ADJUSTABLE PUSHRODS

Description	Part #
Pushrod Set	930-0052 

ADJUSTABLE CHROMOLY STEEL PUSHRODS



- Adjustable chromoly steel pushrods for 1966–'84 big twins
- Compatible with S&S or original equipment hydraulic tappets
- Set of four pushrods

ADJUSTABLE CHROMOLY STEEL PUSHRODS

Description	Part #
Pushrod Set	930-0051

SOLID LIFTER CONVERSION KIT FOR 1953-'84 PANHEAD AND SHOVELHEAD ENGINES

- Hardened steel adapters, in place of stock hydraulic units in 1953-'84 lifters.
- Use with stock adjustable pushrods.

SOLID LIFTER CONVERSION KIT

Description	Part #
Kit includes four adapters.	33-5348
each	33-5336



PUSHROD COVERS & RELATED REPLACEMENT PARTS

S&S pushrod cover kits include all of the parts required for four pushrods, except keepers. Keepers are not included because of different length requirements of some engines, but are available separately. Pushrod covers and pushrod keepers are available for 1936-up big twin engines and 1986-'90 Harley-Davidson® Sportster® models. Consult the chart below for the pushrod keepers you require. Sold in kits of four assemblies; enough for one engine.

PUSHROD COVER KITS



Includes top and bottom covers, cover cap, cover spring, and spring washer for four pushrods.

Description	Part #
1979-'84 big twin engines (o-ring style bottom cover)	93-4040
KN-Series & 1936-'47 OHV big twin engines 17939-36	106-3949

NOTE

Keepers and o-ring kits are available but must be purchased separately.

PUSHROD COVER PARTS

Description	Part #
Top Cover 1966-up big twin 17935-66T, 17935-79B   1,2,3	93-4016
Top Cover KN-Series & 1936-'47 OHV big twin 17935-36	106-3850
Bottom Cover 1979-'84 big twin	93-4029-S
Bottom Cover KN-Series & 1936-'47 OHV big twin 17983-40	106-3851
Cover Cap 1936-up big twin, 1957-'90 Sportster® 17945-36B   1,2,3	93-4017
Cover Spring 1936-up big twin,   1,2,3 1957-'90 Sportster® 17947-36	93-4018
Cover Cap Washer 6762B	50-7131
Bottom Cover Washer 6737	50-7150
Pushrod O-ring Kit (For o-ring style bottom cover) <i>Includes parts for four pushrods: top, middle, bottom o-rings.</i>	93-4041
Top O-ring 11293, 11157, 11101, 11190	50-8039
Middle O-ring 11132A	50-8038
Bottom O-ring 11145A	50-8037
Quad Seal 11133A	50-8064-S
O-ring Square 17955-36	106-3849



93-4040

1926–1984 Vintage Models

KEEPER LENGTHS FOR STOCK HARLEY-DAVIDSON® ENGINES

74" & 80" shovelhead	3.330"
74" panhead	2.375"
74" knucklehead	3.312"
Ironhead Sportster®	2.375"
Shovelheads-with S&S tappet guides	2.900" (Subtract .430" from stock length)

PUSHROD COVER KEEPER SETS

FOR 1936-'99 BIG TWINS AND HARLEY-DAVIDSON® SPORTSTER® MODELS

Length	Description	Part #
2.400"		93-4070 [±] 17950-48
2.500"	900/1000cc + 1/8"	93-4100 [±]
2.600"		93-4101 [±]
2.800"		93-4115 [±] 17950-86
2.900"		93-4102 [±]
3.000"		93-4103 [±]
3.100"		93-4104 [±]
3.200"		93-4105 [±]
3.330"	74", KN74, 80", 84", 86", 88", 93", KN93	93-4106 [±] 17949-40, 17950-66
3.500"	96", 98"	93-4107 [±]
3.625"	103"	93-4108 [±]
4.250"	Custom. Extra long stainless steel 4.250". Customer to cut to required length.	93-4109



93-4105

Notes: Keepers are sold in sets of four. All S&S pushrod keepers are chromed steel, except part #93-4109. Keeper part #93-4109 is intended for unusually tall engines. It is manufactured of unchromed stainless steel to prevent rust or peeling after it is trimmed to the required length.

REPLACEMENT PARTS FOR MANY OF THE COMPONENTS SUPPLIED IN S&S PUSHROD KITS ARE AVAILABLE SEPARATELY. IN SOME CASES THEY MAY BE USED AS DIRECT REPLACEMENTS FOR STOCK ITEMS.

PUSHROD RELATED REPLACEMENT PARTS

Description	Part #
Adjusting Unit Screw – 1936-'52 Style Fits stock 1936-'52 lifter with early stock 9/32"-32 threads. 18555-36	33-5332
Adjusting Unit Sleeve	33-5331
Ball End for S&S Adjustable Pushrods Fits S&S adjustable with 5/16"-32 threads. (Manufactured after 2-1-1996)	93-5002
Solid Lifter Adapter for S&S Adjustable Pushrod Converts stock 1953-'84 hydraulic lifter to non-adjustable solid lifter. For use with S&S adjustable pushrods in shovelhead engines (same as unit supplied in kit #93-5067)	33-5335
Adjusting Unit Locknut Fits S&S adjustable pushrods with early stock 9/32"-32 threads	33-5333
Fits S&S adjustable pushrods with 5/16"-32 threads. (Manufactured after 2-1-1996)	93-5003-S

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

HIGH-PERFORMANCE VALVE SPRING KITS FOR 1948-'84 BIG TWIN ENGINES

.550" LIFT DOUBLE VALVE SPRING KIT

For 1948-'84 big twins with up to .550" lift.

- Includes 4 inner springs, 4 outer springs, 4 aluminum top collars and late 1981-'85 bottom covers
- Use with stock-style bottom collar, valve guides, valves with stock 3/8" stem, and stock keepers
- Compatible with thin-stem valves if thicker keepers (*that maintain correct valve stem-top collar engagement*) are used
- Late single bottom collars are available for use in S&S cylinder heads for shovels and stock late 1981-'85 heads



90-2053

.550 LIFT VALVE SPRING KIT FOR 1948-'84 PANHEAD AND SHOVELHEAD ENGINES

Description	Part #
For 1948-'84 Panhead and Shovelhead Engines	90-2053
Bottom Collar – Late 1981-'84 18222-81 (each)	90-2038

S&S® .550" VALVE SPRINGS SPECIFICATIONS – 1948-'84 BIG TWIN			
Lift	Installed Height	Seat Force	Force @ Max Lift
.550"	1.500"	150 lb.	343 lb.

NOTE

Panhead engines usually require clearancing between rocker cover and top collar.

.590" LIFT TRIPLE VALVE SPRING KIT

For 1981-'84 big twins and S&S SH and P Series heads with up to .590" lift.

- Includes 4 steel top collars, 4 bottom collars, 4 each outer, middle, and inner springs, shims, and 8 keepers
- Use with stock valve guides, stock valves with 3/8" stem, and stock keepers
- Compatible with thin-stem valves if thicker keepers (*that maintain correct valve stem-top collar engagement*) are used



90-2063

.590 LIFT VALVE SPRING KIT FOR –1981-'84 BIG TWIN

Description	Part Number
For Late 1981-'84 and All S&S Cylinder Heads	90-2063

S&S® .590" VALVE SPRINGS SPECIFICATIONS – 1981-'84 BIG TWIN			
Lift	Installed Height	Seat Force	Force @ Max Lift
.590"	1.480"	157 lb.	356 lb.

NOTE

.590" spring kit is year-group specific because of different bottom collars supplied with early and late kits. S&S heads require late 1981-'84 style kit, part #90-2063. When ordering replacement valve springs for S&S cylinder heads for shovelhead engines, order the 1981-'84 style part #90-2063.

VALVE SPRING KIT FOR 1936-'47 BIG TWINS

- Fits S&S KN-Series engines and stock 1936-'47 knucklehead engines
- Accommodates cams with valve lifts up to .480"
- Kit consists of inner and outer springs for four valves, spring collars, shims, and valve keepers.

S&S® .480" VALVE SPRINGS SPECIFICATIONS – 1936-'47 BIG TWIN

Lift	Installed Height	Seat Force	Force @ Max Lift
.480"	1.315"	160 lb.	310 lb.



900-0535



106-3637

.480" VALVE SPRINGS FOR 1936-'47 BIG TWINS

Description	Part #
S&S Valve Spring Kit for 1936-'47 OHV bt	106-6398

CAST IRON VALVE GUIDES FOR 1936-'47 OHV

Description	Part #
Standard	106-3637 18185-40, 18181-36
+ .002"	106-3948 18187-40, 18184-36
+ .004"	106-3638
+ .008"	106-3639

REPLACEMENT PARTS FOR .480" VALVE SPRINGS

Description	Part #
Springs, valve, dual, .480"	<i>each</i> 106-4362
	<i>4 pack</i> 900-0535
Top collar, valve spring	106-3828
Keepers, valve spring, top collar	<i>each</i> 90-2037-S
	<i>8 pack</i> 50-7165
Bottom collar, valve spring	106-3827
Shim, valve spring .015"	106-4549
Bottom collar spacer	106-5094

NOTE

These springs will not fit over stock guides. Stock guides must be turned down or S&S® Vintage guides must be used.

ROLLER ROCKER ARMS FOR 1966-'84 BIG TWIN ENGINES

FITMENT

- 1966-'84 big twins
- P-Series engines
- SH-Series engines

FEATURES AND BENEFITS

- 8620 steel heat treated forgings for maximum strength
- .750" rocker arm bushing for 50% more load bearing area than stock .500" bushings
- Roller tip reduces valve tip wear and side thrusting
- 1.5:1 rocker ratio
- Oil passage allows top end oiling through pushrods
- Compatible with stock or S&S billet rocker boxes



900-4320A

ROCKER ARMS FOR SHOVELHEAD ENGINES

Description	Part #
Set (includes two each front and rear rocker arms)	900-4320A
Front exhaust or rear intake 17375-66A	900-4320FA
Rear exhaust or front intake 17360-66A	900-4320RA

REBUILD KIT S&S® ROLLER ROCKER ARMS

Rebuilds four rocker arms	90-4321
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ROCKER ARMS AND SHAFTS

FOR 1936-'47 OHV BIG TWINS

FITMENT

- 1936-'47 OHV big twins
- Compatible with S&S® or stock tins
- Rocker arms are not compatible with stock rocker shafts

FEATURES AND BENEFITS

- High quality CNC machined
- 1:1 stock knuckle rocker arm ratio
- Improved oil control

KIT CONTENTS

- Four rocker arms FE, FI, RI, and RE, Four rocker shafts, Washers and spacers

ROCKER ARMS AND SHAFTS FOR 1936-'47 OHV BIG TWINS

Description		Part #
Rocker Arms and Shaft Set (includes hardware)	4 pack	106-2412
Front Intake (includes shaft and spacers)	each	106-2862
Front Exhaust (includes shaft and spacers)	each	106-2863
Rear Intake (includes shaft and spacers)	each	106-2864
Rear Exhaust (includes shaft and spacers)	each	106-2865
Rocker Shaft Set (includes spacers and hardware)	4 pack	106-2413
Nut and Washer Kit, Rocker Shaft Left Side 7831	4 pack	106-3632
Nut and O-Ring, Rocker Box, KN-Series 17447-36	each	106-4355



All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

VALVE SPRING COVERS (TINS)

FOR KN-SERIES ENGINES

FITMENT

- KN-Series engines

FEATURES AND BENEFITS

- Improved design for better oil scavenging and less leaking
- Die-cast lower covers can be removed without pressing out valve guides
- Improved oil return lines are easy to replace and service
- Relatively stock appearance

OPTIONS

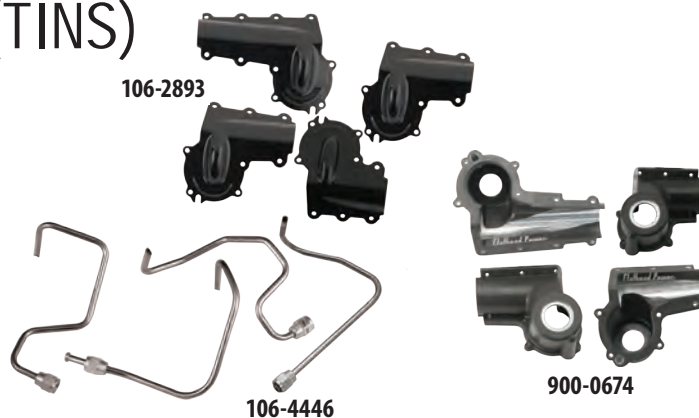
- Chrome, silver powder coat and gloss black powder coat finishes

KIT CONTENTS

- Lower cover kit contains set of four lower covers and gaskets
- Top cover kits contain four top covers and gaskets
- Oil return lines must be purchased separately

VINTAGE VALVE SPRING COVER KITS

Description		Part#
Lower Cover Kit	Black anodized	900-0674
	Chrome	106-2400 ±
Top Cover Kit	Chrome	106-2400 ±
	Gloss black	106-2893



OIL LINE RETURN 1936-'47 OHV BT (TINS ONLY)

CNC bent stainless steel for a perfect fit and long life

Description	Part #
Kit of 4	106-4446
Front Intake	106-4447
Front Exhaust	106-4448
Rear Intake	106-4449
Rear Exhaust	106-4450
Seal, Oil Return Line, 28" OD x .18" ID x 1", Rubber Hose	106-4456
Rocker arm cover gasket kit	900-0493

NOTE



Requires the use of valve springs 106-6398 and Valve guides 106-3637 or corresponding oversizes. Stock rocker arms and shafts will require modifications to be used.

ROCKER ARM HOUSINGS FOR 1936-'47 OHV ENGINES

FITMENT

- Faithful reproductions of the stock "knuckles" for 1936-'47 OHV big twins.

FEATURES AND BENEFITS

- Excellent for stock replacement and restoration.
- Does not include hardware and fittings.



900-0618

ROCKER ARM HOUSINGS FOR 1936-'47 OHV ENGINES

Description		Part #
Polished	Set	900-0617
	Front	900-0618
	Rear	900-0619
Natural	Set	900-0622
	Front	900-0623
	Rear	900-0624



OIL FEED LINE

Description	Part #
74" & 93"	106-4670

POLISHED BILLET ROCKER COVERS FOR 1966-'84 BIG TWIN ENGINES

FITMENT

- 1966-'84 shovelhead engines with stock or S&S cylinder heads
- SH-Series engines

FEATURES AND BENEFITS

- CNC machined from 6061-T6511 aluminum billet and polished to a show finish
- Two piece design for easy installation
- Some frames allow installation with engine in the frame
- Works with stock or S&S roller rocker arms
- Clearanced for valve lifts of up to .590" with S&S roller rocker arms
- Fastened to the heads with 5/16" bolts
- Simple and inexpensive straight rocker shafts

KIT CONTENTS

- Front and rear rocker box assemblies
- Rocker shafts
- Gaskets, seals and mounting hardware
- Installation instructions



90-4305

POLISHED BILLET ROCKER COVERS FOR 1966-'84 BIG TWIN ENGINES

Description	Part #
Billet Rocker Cover Set for Shovelhead Engines	90-4305
Replacement Rocker Arm Shaft Set	90-4351

REPLACEMENT PARTS: SEE PAGE 488

CHROME PAN COVERS FOR 1948-'65 BIG TWINS

CHROME PAN COVER

Description	Part #
Set 17500-48A	106-0919 [±]
Replacement Parts	
D-ring Set 17507-51	106-0920
Screw, SHCS 10-24 x 3/4" 2674, 2675	106-0913
Rocker arm cover gasket 1948-'65 bt 117541-48	each 900-0329
	2 pack 900-0339



106-0919[±]

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INTAKE MANIFOLD O-RINGS AND CLAMPS

FITMENT

- Panhead, shovelhead, and Harley-Davidson® Ironhead Sportster® models

FEATURES AND BENEFITS

- Replace your flimsy and troublesome stock clamps
- ¾" wide and constructed of .020" thick stainless steel and use a curved 10-24 threaded "T"-bolt with plated steel aircraft hex locknut
- Sold individually—Two are required for each engine
- S&S intake manifold o-rings and rubberbands are made of special materials that resist destruction from the additives in today's fuel



16-0230

16-0231

1955-'78 BIG TWIN, 1957-'78 IRONHEAD SPORTSTER® MODELS, AND S&S KN, P, & SH SERIES ENGINES WITH O-RING STYLE CYLINDER HEADS

Description	Part #
O-ring 27060-55	50-8046
10 Pack 27060-55	50-8132
Clamp for O-ring Style 27063-57	16-0230

1979-'84 BIG TWIN, 1979-'85 IRONHEAD SPORTSTER® MODELS WITH RUBBERBAND STYLE CYLINDER HEADS

Description	Part #
Rubberband 27062-78	16-0238
10 pack 27062-78	16-0245
Clamp for Band Style 27063-80, 27063-78	16-0231

ELECTRONIC TIMERS

- Fits S&S and stock generator style cases and allows the use of S&S Super Stock™ or other late style electronic ignition systems. (Ignition sold separately).
- Requires reverse timing gears for use in generator style engines.
- The domed billet timer has a period correct look for 1964 and earlier engines.



55-1269



106-4622 ±

ELECTRONIC TIMERS

Description	Part #
Billet generator style electronic timer	55-1269
Domed	106-4622±

MANIFOLDS

FOR STOCK ENGINES, P-SERIES, SH-SERIES & KN-SERIES ENGINES

- Manifolds for 1955-'65 panhead engines with "o-ring" style cylinder heads are available in 1/8" bore only.
- 1936-'54 knuckle and pan cylinder heads with "plumber" style intake mounting nipples must be converted to accept a 1955 to 1965 o-ring manifold.



16-1103

O-RING STYLE MANIFOLD FOR 1955-'65 BIG TWIN

Cylinder Length	Manifold Length (Between Ports)	S&S ES, LS, A, Super B, E – Tillotson®, Bendix®, Keihin®
Stock - 5.330"	2.975"	16-1100
5.392" – + 1/16"	3.025"	16-1101
5.455" – + 1/8"	3.075"	16-1102
5.517" – + 3/16"	3.125"	16-1103
Special Order*	Specify	16-1106A



16-1200

O-RING STYLE MANIFOLDS FOR 1966-'77 BIG TWINS

Stock or S&S Engine Displacement	Cylinder Length	Size	S&S ES, LS, Super A, B, E, Tillotson®, Bendix®, Keihin®	Super G	Super D
74", 80", 84", 88"	Stock 5.330"	220	16-1200 27021-71A	16-2200	–
93" HC	5.363"	222	16-1201	16-2201	–
93"	5.405"	225	16-1223	16-2223	–
96"	5.440"	228	16-1202	16-2202	–
98"	5.530"	235	16-1204	16-2204	–
103"	5.630"	242	16-1206	16-2206	–
Special Order*	Specify	–	16-1216	16-2216	16-3216



16-2200

O-RING STYLE VOES MANIFOLD FOR KN-SERIES ENGINES

Engine Type	Cylinder Length	S&S ES, LS, A, Super B, E – Tillotson®, Bendix®, Keihin®
KN93	5.625"	106-4530
KN74	5.530"	160-0008

Equipped with a VOES fitting for use with the S&S Super Stock Ignition system. Heads must be set up with o-ring adaptor inserts part #106-4654 (2 required).



106-4530

O-RING STYLE MANIFOLDS WITH VOES FOR SH-SERIES AND P-SERIES ENGINES

Stock or S&S Engine Displacement	Cylinder Length	Size	S&S ES, LS, Super A, B, E, Tillotson®, Bendix®, Keihin®	Super G
SH80	Stock - 5.330"	220	16-1230	–
SH93H, P93H	5.363"	222	16-1231	–
SH93, P93	5.405"	225	16-1233	–
SH103, P103	5.630"	242	–	16-2236
Special Order*	Specify	–	16-1216	16-2216

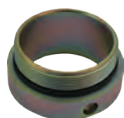


16-1230

O-RING STYLE MANIFOLDS FOR 1957-'78 HARLEY-DAVIDSON® IRONHEAD SPORTSTER® MODELS

Engine Displacement	Cylinder Length	Size	S&S ES, LS, Super A, B, E, Tillotson®, Bendix®, Keihin®	Super G
900cc, 1000cc	Stock 5.330"	220	16-1200 27021-71A	16-2200
Special Order*	Specify	–	16-1216	16-2216

MANIFOLDS CON'T



106-4654

ADAPTOR

Description	Part #
Converts stock "plumber" style heads to o-ring <i>(sold each, two required)</i>	106-4654



16-1300

RUBBERBAND STYLE MANIFOLDS FOR 1978-'84 BIG TWINS

Stock or S&S Engine Kit Displacement	Cylinder Length	Size	S&S ES, LS, Super A,B, E, Tillotson®, Bendix®, Keihin®	Super G
74", 80", 84", 88"	Stock 5.330"	220	16-1300 27021-78	16-2300
93" HC	5.363"	222	16-1301	16-2301
93"	5.405"	225	16-1323	16-2323
96"	5.440"	228	16-1302	16-2302
98"	5.530"	235	16-1304	16-2304
103"	5.630"	242	16-1306	16-2306
Special Order*	Specify	–	16-1316	16-2316



16-1400

RUBBER BAND STYLE MANIFOLDS WITH VOES FITTING FOR 1983-'85 HD® IRONHEAD SPORTSTER® MODELS

Engine Displacement	Cylinder Length	Size	S&S ES, LS, Super A,B, E, Tillotson®, Bendix®, Keihin®	Super G
900cc, 1000cc	Stock 5.330"	220	16-1400	–
Special Order*	Specify	–	16-1316	16-2316



16-2300

RUBBER BAND STYLE MANIFOLDS WITHOUT VOES FITTING FOR 1979-'82 HD® IRONHEAD SPORTSTER® MODELS

Engine Displacement	Cylinder Length	Size	S&S ES, LS, Super A,B, E, Tillotson®, Bendix®, Keihin®	Super G
900cc, 1000cc	Stock 5.330"	220	16-1300 27021-78	16-2300
Special Order*	Specify	–	16-1316	16-2316

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NOSTALGIC AIR CLEANER COVERS

FITMENT

- Super E carbs
- Teardrop air cleaner kits for stock carbs

NOSTALGIC AIR CLEANER COVER

Description	Part #
Polished, Super E & G	17-0071



NOTE

Super B and Super E & G air cleaner covers are not interchangeable. They each have a unique bolt pattern.

AIR HORN COVER

FITMENT

- S&S short air horns

FEATURES AND BENEFITS

- Sand casted just like the originals
- Really hard to tell them apart from the real deal

AIR HORN COVER

Description	Part #
For S&S short air horns	17-0026



AIR HORNS & AIR HORN CONVERSION KITS

SHORT AIR HORNS (2½")

- Fits S&S 1¼", 1⅞" L Series carbs and S&S 1⅞" Super A & B carbs
- Any stock carburetor with an identical air cleaner/air horn mounting pattern. These include Tillotson®, Bendix® or butterfly type Keihin®
- Available for S&S Super E & G carburetors

LONG AIR HORNS (4")

- Available for S&S Super E, G, & D carbs

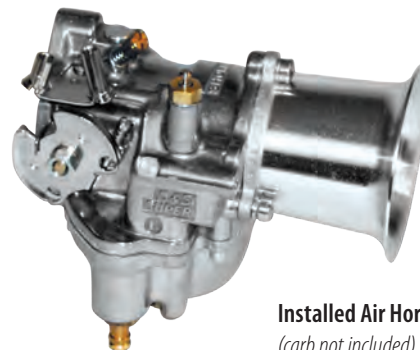
KIT CONTENTS

Air Horn Kit:

- Air Horn
- Three mounting screws

Air Horn Conversion Kit:

- Air horn
- Three mounting screws
- Carb support bracket (bracket connects the center crankcase bolt to the bottom manifold carburetor mounting bolt)
- Two longer bottom carb to manifold mounting bolts
- Super E & G air horn conversion kit includes an enrichment device



Installed Air Horn
(carb not included)

AIR HORN SELECTION CHART

Description	Length	Super A & B	Super E & G	Super D
Air Horn	2½"	17-0043	17-0484±	–
Conversion Kits	4"	–	17-0485±	–
Air Horn Only	2½"	17-0042	17-0331	–
	4"	–	17-0333	17-0141

NOTES

S&S recommends that air horns be used in racing applications only, as they do not provide the filtration required to protect the engine on a day-to-day basis.

Any installation of an air horn on an S&S carb in place of an air cleaner requires an S&S carb support bracket, part #16-0471, to securely fasten the carb to the engine. This bracket is included in the air horn conversion kits.

S&S recommends that the bowl vent plug at the bottom of carb body be removed when air horn is installed, as air horn may obstruct bowl vent in air cleaner mounting surface of the carb body.

SUPER E & G SHORTY CARBURETOR KITS

FITMENT

- 1936-'84 big twins
- 1957-'85 Harley-Davidson® Ironhead Sportster® (except models with vertical magneto)

FEATURES AND BENEFITS

- Four fuel delivery ports – Better throttle response
- O-ring sealed idle mixture screw
- Increased air flow for more power
- Super E 1 7/8" (47.6mm) bore – for engines up to 100" displacement
- Super G 2 1/16" (52.4mm) bore – for engines 100" or greater displacement
- Adjustable enrichment starting system – does not restrict air flow like a conventional choke
- Adjustable accelerator pump
- S&S chrome Classic Teardrop air cleaner
- Two cable throttles required – see notes

OPTIONS

- Complete kits for engines requiring stock length manifolds
- Partial kits for engine requiring non-stock length manifolds (order manifold separately)
- Carb only kits for replacement and custom applications



KIT CONTENTS

- Super E or G carburetor assembly
- Manifold for stock height engine
- Manifold seals and clamps
- S&S chrome Classic Teardrop air cleaner kit
- All gaskets, hoses, and required hardware for installation
- Complete installation and tuning instructions

REPLACEMENT PARTS: SEE PAGE 490

SUPER E AND G CARBURETOR KITS*

Models	Super E Complete Kit <i>Manifold Included</i>	Super E Partial Kit <i>Manifold & Mounting Hardware Not Included</i>		Super G Complete Kit <i>Manifold Included</i>
	Standard Tanks	Standard Tanks	5 Gallon Tanks §	Standard Tanks
Big Twin Models				
1979-'84	11-0411	11-0412	11-0418	11-0431
1966-'78	11-0402	11-0412	11-0418	11-0422
1955-'65*	11-0401	11-0412	–	–
Harley-Davidson® Ironhead Sportster® Models				
1979-'85 ‡	11-0406	–	–	–
1957-'78 ‡	11-0404	–	–	–
Carb Only				
All Years	11-0420	–	–	11-0421

*Outside oil lines that feed heads on knucklehead and 1963-'65 panhead engines must be refabricated or use a 1" spacer block for additional clearance.

‡ Does not fit engines equipped with vertical magneto.

§ Shovelhead engines equipped with .075" longer than stock cylinders in chassis with five gallon gas tanks require additional air cleaner cover to gas tank clearance. Kits in this column include an air cleaner cover cleared to fit these engines.

NOTE: 1979-'80 engines may be equipped with either o-ring or band style heads. Check before ordering.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle..

NOTES

Stock motorcycles 1980 or earlier must be updated to a two cable pull open/pull closed throttle control system. A single cable pull open system cannot pull the throttle closed in case the throttle should accidentally stick in the open position. S&S offers high quality throttle cable kits in several lengths for this purpose. A press-on sleeve is also available to increase the diameter of the throttle grip area of 1972 and earlier handle bars to 1", allowing installation of modern throttle assemblies. See page 465 for throttle cables and press-on sleeves.

S&S "Shorty" carburetors will not fit Harley-Davidson® Ironhead Sportster® models with vertical magnetos due to clearance problems between the magneto and the carburetor.

Shovelhead engines with five gallon gas tanks and cylinders that are taller than stock require a special notched air cleaner cover to clear the gas tank. Since these taller engines also require a special length manifold, select a carb with a notched air cleaner cover without a manifold from the chart and refer to the manifolds starting on page 458 to select the correct length manifold.

S&S does not recommend polishing or chrome plating Super E & G carburetors. Our repair department has seen many carbs with passages plugged with polishing compounds and some carbs that had been destroyed because the polishing or chrome plating had altered critical machined surfaces.

Recommended for closed circuit use only—S&S Super E & G carbs shown are not approved for use on motor vehicles operated on California public highways, or in other states where similar pollution laws may apply. The user shall determine the suitability of the product for his or her use and shall assume all risk and liability in connection therewith.

BLACK SUPER E & G CARBURETORS

FEATURES AND BENEFITS

- Exclusive black coating – heat and chemical resistant
- Increased venturi diameter! – specially machined for 7% more flow– See flow chart

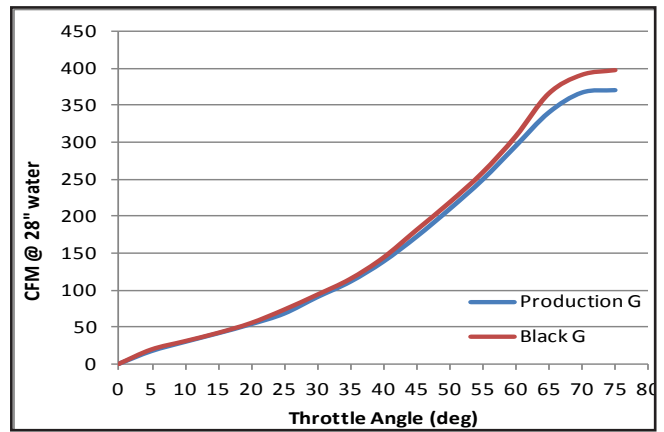
BLACK CARBURETORS

	Description	Part #
Increased venturi diameter <i>(7% more flow)</i>	Super E Carb	110-0099
	Super G Carb	110-0100
Standard venturi diameter	Super E Carb	110-0133
	Super G Carb	110-0138

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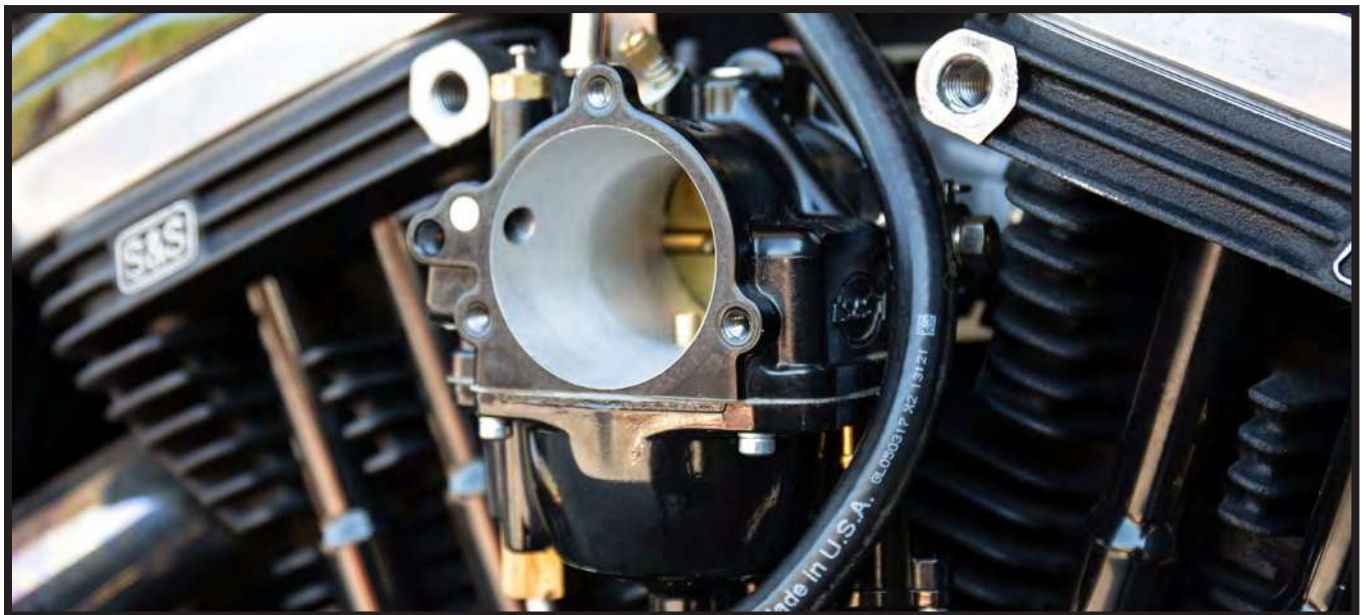
110-0099



Flow at WOT (wide open throttle) for the Black G carb increases 7% vs. the base S&S G carb

NOTE

These black carb kits do not include air cleaners. Air cleaner options are available starting on page 408.



JETS & CARB REBUILD KITS FOR S&S SUPER E & G CARBURETORS

For those who need to rejet their carburetor because of engine modifications, exhaust modifications, or changes in altitude, we have extra jet kits available which are designed to cover most jetting situations.

DEALER JET KITS[±]

Description	Part #
S&S Carb Parts Kit (Contains needed parts to maintain S&S Super E and G carburetors)	11-3103
S&S Jet Kit (Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)	11-3102



11-3103[±]

JET PACKS[±]

Description	Part #
Low Range Jet Pack – For jetting most stock and moderate performance engines.	
Includes one each intermediate jets (.025", .0265", .028", .0295") and one each main jets (.062", .064", .066", .068", .070", .072", .074")	11-7270
High Range Jet Pack – For jetting some stock and all performance engines.	
Includes one each intermediate jets (.0295", .031", .032", .033") and one each main jets (.072", .074", .076", .078", .080", .082", .084")	11-7271
Master Jet Pack – For jetting all Super B, E, and G equipped engines.	
Includes one each intermediate jets (.025", .0265", .028", .0295", .031", .032", .033") and one each main jets (.062", .064", .066", .068", .070", .072", .074", .076", .078", .080", .082", .084")	11-7272



11-3102[±]

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION[±]

Size	QTY	Part #	Size	QTY	Part #
.025	each	11-0250	.032	each	11-0320
	3 pack	11-7107		3 pack	11-7112
.0265	each	11-0265	.033	each	11-0330
	3 pack	11-7108		3 pack	11-7113
.028	each	11-0280	.036	each	11-0360
	3 pack	11-7109		3 pack	11-7114
.0295	each	11-0295	.040	each	11-0400
	3 pack	11-7110		3 pack	11-7115
.031	each	11-0310	Blank	each	11-0000
	3 pack	11-7111			



11-7272[±]



106-3517[±]

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

- | | |
|--------------|--------------|
| 1..... .025" | 4..... .033" |
| 2..... .028" | 5..... .036" |
| 3..... .031" | 6..... .040" |

NOTES

No returns or exchanges on jets.
Refer to Section 10: Racing for the S&S fuel and turbo carburetors.

MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION±

Size	QTY	Part #	Size	QTY	Part #
.040	each	11-4040	.080	each	11-4080
	5 pack	11-7220		5 pack	11-7240
.042	each	11-4042	.082	each	11-4082
	5 pack	11-7221		5 pack	11-7241
.044	each	11-4044	.084	each	11-4084
	5 pack	11-7222		5 pack	11-7242
.046	each	11-4046	.086	each	11-4086
	5 pack	11-7223		5 pack	11-7243
.048	each	11-4048	.088	each	11-4088
	5 pack	11-7224		5 pack	11-7244
.050	each	11-4050	.090	each	11-4090
	5 pack	11-7225		5 pack	11-7245
.052	each	11-4052	.092	each	11-4092
	5 pack	11-7226		5 pack	11-7246
.054	each	11-4054	.094	each	11-4094
	5 pack	11-7227		5 pack	11-7247
.056	each	11-4056	.096	each	11-4096
	5 pack	11-7228		5 pack	11-7248
.058	each	11-4058	.098	each	11-4098
	5 pack	11-7229		5 pack	11-7249
.060	each	11-4060	.100	each	11-4100
	5 pack	11-7230		5 pack	11-7250
.062	each	11-4062	.102	each	11-4102
	5 pack	11-7231		5 pack	11-7251
.064	each	11-4064	.104	each	11-4104
	5 pack	11-7232		5 pack	11-7252
.066	each	11-4066	.106	each	11-4106
	5 pack	11-7233			
.068	each	11-4068	.110	each	11-4110
.070	each	11-4070		5 pack	11-7255
	.072	each	11-4072	.115	each	11-4115
5 pack		11-7236	5 pack		11-7256
.074	each	11-4074	.120	each	11-4120
	5 pack	11-7237		5 pack	11-7257
.076	each	11-4076			
	5 pack	11-7238			
.078	each	11-4078			
	5 pack	11-7239			

MAIN JET AIR BLEED KIT (ONE JET EACH SIZE)±

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518

S&S® CARBURETOR REBUILD KITS

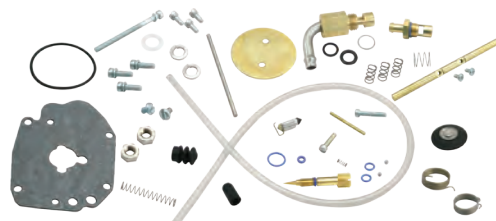
To insure that you continue to get the utmost in performance from your S&S carburetor, we have put together a series of rebuild kits that are designed to provide the proper parts to return a worn carburetor to top shape. We have assembled different types of kits to cover the different degrees of rebuild necessary.

MASTER REBUILD KITS

Master rebuild kits contain a body rebuild kit, accelerator pump rebuild kit (Super E and G only), all new fasteners, springs, idle mixture screw, seat, and needle assembly. Everything needed to completely rebuild one carburetor.

MASTER REBUILD KIT±

Description	Part #
Super E	11-2923
Super G	11-2924



11-2923

BODY REBUILD KITS

Body rebuild kits for Super E and G carbs also contain throttle shaft nuts, nylon washers, accelerator pump o-ring, and accelerator pump boot. Body rebuild kits for Super E and G carbs do not contain throttle shaft bushings since these carbs have stainless steel throttle shaft bushings already installed.

BODY REBUILD KIT±

Description	Part #
Super E	11-2906
Super G	11-2907



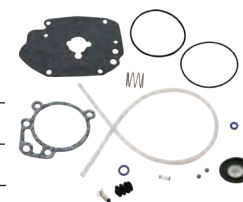
11-2907

BASIC REBUILD KIT

A gasket and seal kit for low mileage Super E & G carbs. Perfect to reassemble carbs taken apart for inspection and cleaning.

BASIC REBUILD KIT±

Description	Part #
Super E & G	110-0067



ACCELERATOR PUMP REBUILD KITS

Accelerator pump rebuild kits contain diaphragm, diaphragm spring, check balls, check ball spring, pump pushrod, and required hardware and o-rings.

ACCELERATOR PUMP REBUILD KIT

Description	Part #
Super E & G	11-2918



THROTTLE CABLE ASSEMBLIES





EARLY STOCK STYLE TWO-CABLE THROTTLE ASSEMBLIES

- Designed to update 1981 and earlier chassis with 1" diameter handlebars for S&S Super E and G carbs or any other butterfly type carburetors with 1981-up stock style throttle linkage
- Cables are not interchangeable since they are specifically designed for the opening or closing side of throttle
- Kit contains throttle grips and both. Select kit with cable length desired. Cable measurement is from throttle grip to end of cable housing, barrel fittings are molded in place.









19-0448

EARLY STOCK STYLE TWO-CABLE THROTTLE

Description	Part #
Throttle Assembly with 36" Cables 	19-0450
Throttle Assembly with 39" Cables 	19-0448
Throttle Assembly with 42" Cables 	19-0482
Throttle Assembly with 48" Cables 	19-0449

S&S® THROTTLE CABLE APPLICATION CHART

Application	Length Total Housing	Length Vinyl Housing	Open Side	Close Side
FX & FL models 1985 and earlier* big twins 1995 and earlier*	36"	32"	19-0432 	19-0433 
To 1995 Harley-Davidson® Softail® (FXSTC, FXST, FLSTC, FLSTF) 1986-'94 FXR, 1993-'95 Dyna®	39"	35"	19-0434 	19-0435 
To 1995 All FLT models	48"	44"	19-0462 	19-0463 
To 1995 custom application	42"	38"	19-0446	19-0447

*1980 and earlier must be converted to dual cable throttle assembly



UNIVERSAL THROTTLE ASSEMBLY

- Used with early style S&S carburetors including Early Style, L Series, Super B, Super D, and Two-Throat
- Can also be used with any other carburetor which uses a screw clamp style throttle arm
- Threads on both cables are the same size so cables are interchangeable. One end of each cable has a molded ball end, and the other end is plain. Cable can be cut to length required. Fits 1" diameter handlebars.







19-0229

UNIVERSAL THROTTLE ASSEMBLY

Description	Part #
Universal 48" Throttle Assembly 	19-0229
Universal Replacement Throttle Cable 	19-0224

REPLACEMENT PARTS

Description	Part #
S&S Universal Throttle Cable	106-3520
Throttle Grip Clamp Set 1985-'95 	106-3519
Top Throttle Grip Clamp only	19-0222
Bottom Throttle Grip Clamp only	19-0220
Throttle Grip Clamp Screw  (Fits S&S throttle assemblies: Part #19-0448, #19-0449, #19-0482, #19-0450, and #19-0229)	50-0043
Throttle Grip Set 	106-3521
Right Hand Grip only	19-0225
Left Hand Grip only	19-0226
Cable Adjuster Fits S&S throttle assembly part #19-0229.	19-0223
Cable Adjuster Jam Nut Fits S&S throttle assembly part #19-0229	19-0227
Handlebar Spacing Sleeve 4" x 1" O.D. – converts 7/8" handlebars to 1" O.D. 	19-0235

HI-4N PERFORMANCE IGNITION

FITMENT

- 1970-1984 big twins
- 1971-1985 Ironhead Sportster® Models

FEATURES AND BENEFITS

- One piece machined aluminum housing reduces vibration and improves heat dissipation and reliability
- Improved kick start algorithm designed to start as easily as points
- BCD switches with solid detent and legible marking allow easy and repeatable adjustments of mode, advance rate, and rev limit
- Single-fire and dual-fire function built into a single module
- Flexible wiring harness makes installation easier
- Initial timing marks allow precise adjustment and reinstallation
- Sensor covers integrated into housing to provide protection during installation



550-0502

HI-4N PERFORMANCE IGNITION

Fitment	Part #
Ignition only	550-0501
Kit Includes S&S® HI-4N Ignition, Single-Fire Coil, and 8.5mm double silicone, premium quality spark plug wires	550-0502

SUPER STOCK™ IGNITIONS

FITMENT

- S&S® SH-Series
- S&S KN-Series
- S&S P-Series

FEATURES & BENEFITS

- Modules can be set to kick-start or electric-start mode by an S&S dealer using the Super Stock diagnostic cable and software
- Electric-start mode allows the pre-ignition cranking to be set anywhere from 1 to 4 engine revolutions (*only available with current modules – earlier modules cannot be updated*)
- Pre-programmed ignitions are custom tailored for a specific S&S engine – no need for adjustments
- Single fire operation – requires a single fire coil for single spark plug applications
- Dual plugged applications require a pair of two tower coils or a single four tower coil
- Minimum 3.0Ω primary resistance
- Overload and short circuit protected
- VOES switches to less aggressive curve under load or hard acceleration
- 6300 rpm rev-limiter
- 24-hour break-in rev-limiter – prevents damage during break-in
- Data logging diagnostic capabilities



55-1352

SUPER STOCK® IGNITION MODULE AND KITS

Engine	Kit Part #	Module Part #
SH80	55-1350	55-1340
SH93/P93	55-1351	55-1341
SH93H/P93H/P74	55-1352	55-1342
SH103	–	55-1343
KN93/KN74	106-3201	106-3200

SUPER STOCK® IGNITION KIT REPLACEMENT PARTS

Description	Part #
Pick-up Cup and Mounting Screw	55-1247±
Connector Kit	55-1249
VOES Switch with Hardware	55-1248
VOES Hose, 9'	each 19-0395
	5 pack 19-0398
VOES Manifold Fitting	16-0136-S
VOES Hose Tee	50-8124-S
Optional Parts	
S&S Single Fire Coil (3.0Ω)	55-1571

NOTES

S&S Super Stock ignition systems are available in complete ignition kits and as replacement modules. S&S single fire ignition coils are available separately.

Keep in mind that the curves are preset for a specific S&S engine, and that modules intended for one engine may not yield optimum results when used on another configuration.

Generator style engines require reverse timer gears and a special timer, designed to accept an electronic ignition. S&S offers two beautiful billet timers for this application.

5-SPEED TRANSMISSION CASE

FOR 1965-'85 4-SPEED BIG TWINS

FITMENT

- 1965-'85 big twin 4-speed chassis

FEATURES AND BENEFITS

- Update 4-speed bikes to 5-speed transmission
- CNC machined from 356-T6 aluminum castings
- Accepts most OEM and aftermarket parts designed for 1985-'99 big twin 5-speed transmissions
- These items available for purchase separately —see next page
- CNC-machined billet trap door with bearings and required hardware
- Special battery box/starter brackets
- Shift linkage required for 4-speed FX and FL models
- Footpeg adapter kit required for FX

KIT CONTENTS

- Transmission case assembly
- Required hardware
- Instructions



56-1051

4 TO 5-SPEED TRANSMISSION CASE KIT

Description	Part #
Basic Case Assembly Kit	56-1051

REPLACEMENT PARTS: SEE PAGE 500

NOTES

The S&S 4 to 5-speed transmission case is not compatible with the factory Harley-Davidson® primary belt drive used on 1980-'83 FXSB Sturgis models.

For applications that utilize an existing 4-speed driveline, a 1980 to early '84, 5-speed style chain-drive mainshaft and 1980 to early '84 style main drive gear must be used. These parts are compatible with the tapered I.D. clutch hub used on 4-speed big twins.

4 and 5-speed transmissions utilize the same 1:1 final drive ratio. As a result, the 5-speed gear set will not alter engine RPM at highway speeds. The additional gear narrows the gap between lower gears for improved acceleration and better performance in traffic.

This transmission case will fit earlier big twin frames. However, the engine sprocket shaft must be of the type used in 1970-later big twin style engines. The transmission case itself is compatible with HD® secondary (rear) belt drive if the correct mainshaft, main drive gear, inner primary cover, starter shaft, starter housing, and related parts are used. However, the builder may encounter other obstacles when converting a motorcycle with chain final drive to belt final drive.

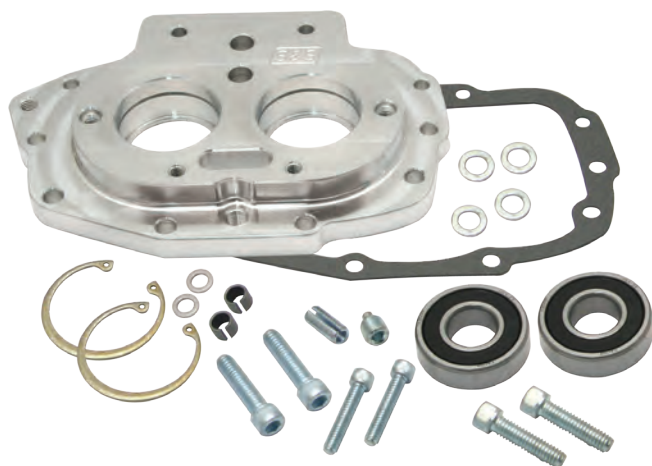
The purchaser's countershaft and shift fork shaft will require shortening.

A low contact-style countershaft gear must be used in this transmission case to match the 1980-'84 main drive gear required. Harley-Davidson® replaced low-contact gears with high-contact gears on 1994 international big twin models and 1995 U.S. models. Low and high contact gears may not be mixed.

S&S trap doors are of the 1987-'99 style. S&S recommends using this style trap door and end cover with the "ball and ramp" clutch actuator. The strength of the earlier, lever-type actuator is marginal for heavy clutch springs sometimes required in high-performance applications.

Most 4-speed big twin style engines utilize transmission-driven mechanical speedometers. This transmission case has no provision for speedometer drive, and must be used with a wheel-driven speedometer and speedometer drive. The existing wheel may require modification to accept the speedometer drive unit.

The clutch-actuator end of the 4-speed clutch cable is not compatible with the five-speed type clutch actuator. Options are to replace the existing clutch lever with an 1987-'99 style lever or purchase a custom cable with the correct ends from Barnett Tool and Engineering in Ventura, California. (Phone: 805-642-9435)



BILLET TRAP DOOR ASSEMBLY

Description	Part #
Billet Trap Door Assembly	56-1027

REPLACEMENT PARTS: SEE PAGE 500

RETRO KICK STARTER COVER KIT

FITMENT

- 1940–'86 big twin
(year group authenticity is listed in the product descriptions below)

FEATURES AND BENEFITS

- Authentic detailing in cover casting
- Updates and improvements eliminate cracking problems of original covers
- Utilizes your stock hardware and filler plug, gasket included
- Heavy duty kicker boss with single bushing

TRANSMISSION COVER KITS

Description	Part #
1948–'50 Big Twins J7 Date Code 33277-36, 33277-36A	106-6479-J7
1940–'47 Big Twins The G6 cover duplicates the external shape for 1940–'47. The G6 cover has a stamped in part number just as the original. The G6 date code stands for June of 1946. G6 Date Code 33277-36, 33277-36A	106-6479-G6
1940–'86 Big Twins The 00 cover has no part number or date code. It was created with the custom application in mind where authenticity isn't a must, or polishing or other finishes are desired. 33277-36, 33277-36A	106-6479-00

REPLACEMENT PARTS

Description		Part #
Bushing	Lower, Clutch Arm 33290-38	106-6473
	Upper, Clutch Arm 33291-36	106-6474
Kicker Shaft		106-6475
Gasket 33295-36		560-0012
Oil Seal/ Seal, 1" OD x .75" Shaft x .125"		106-6476



106-6479-J7



106-6479-G6

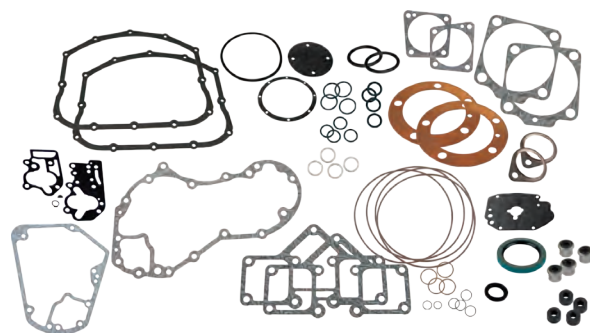


106-6479-00

GASKETS

REBUILD GASKET KITS FOR S&S® ENGINES & HOT SET UP KIT®

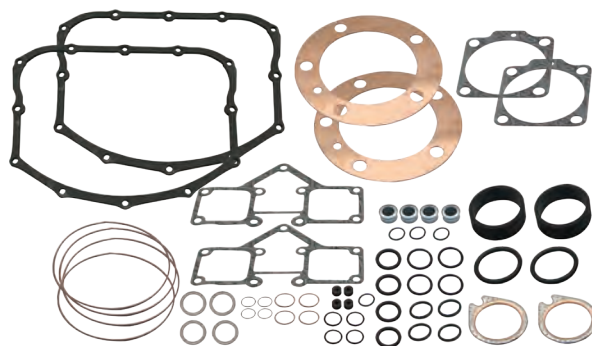
Description	Bore	Part #
SH-Series 1966-'84	3½"	106-0407
P-Series/SH-Series 1948-'84	3⅝"	106-0408
KN-Series 1936-'47	3⅝"	106-2414



106-0408

TOP END GASKET KITS

Description	Bore	Part #
P Series/SH-Series 1966-'84	3⅝"	90-9501
P Series/SH-Series 1966-'84	3½"	90-9500



90-9501

CYLINDER HEAD GASKET KITS

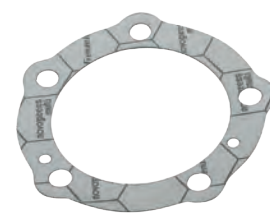
Description	Bore	Part #
P Series/SH-Series 1966-'84	3⅝"	90-1918
P Series/SH-Series 1966-'84	3½"	90-1917

HEAD GASKETS FOR S&S® P-SERIES AND SH-SERIES 1948-'84 (SHOVELHEAD BOLT PATTERN)

Description	Thickness	Bore	Part #
Copper	.032"	3⅝"	each 93-1042
			10 pack 93-1062
Copper 16770-66B	.032"	3⅞" & 3½"	each 93-1041
			10 pack 93-1061



93-1042



93-1019

HEAD GASKETS FOR S&S® SW FOR PAN/KNUCKLE (PANHEAD HEAD BOLT PATTERN)

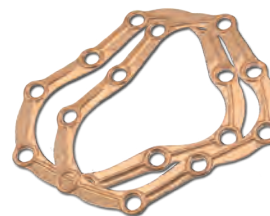
Description	Thickness	Bore	Part #
Composite	.032"	3⅝"	each 93-1019

HEAD GASKETS FOR KN-SERIES 1936-'47

Description	Thickness	Bore	Part #
Copper	.032"	3⅝"	each 106-2681
			2 pack 106-2432
Copper	.032"	3⅞"	2 pack 106-2689



106-2681



106-2669

HEAD GASKETS FOR FH-SERIES AND UL 1938-'48

Description	Thickness	Bore	Part #
Copper 16769-36	.020"	3⅞"	2 pack 106-2669

NOTES

While many of the gaskets in these kits will work for stock applications, some gaskets in the kits are specifically designed for S&S parts used in S&S engines.

Alternator style lower end kits include outer gaskets for both S&S flanged and flangeless gear covers. Not all gaskets will be used.

Oil pump gaskets provided in lower end gasket kits fit the standard pumps provided with S&S engines. If the crankcase of an engine was special ordered to accept a different type of oil pump, these gaskets may not fit.

1926–1984 Vintage Models

BASE GASKETS FOR SH-SERIES 1966-'84

Description	Thickness	Bore	Part #	
Micropore	.018"	3 $\frac{3}{8}$ "	each	93-1022-S
			10 pack	93-1069
Micropore 16776-63	.018"	3 $\frac{1}{2}$ "	each	93-1023-S
			10 pack	93-1070

BASE GASKETS FOR P-SERIES 1948-'65

Description	Thickness	Bore	Part #	
Micropore	.018"	3 $\frac{3}{8}$ "	each	93-1022-S
			10 pack	93-1069

BASE GASKET FOR S&S PAN/KNUCKLE SW 1936-'65

Description	Thickness	Bore	Part #	
Composite 16776-63	.018"	3 $\frac{3}{8}$ "	each	93-1023-S
			10 pack	93-1070
Composite	.018"	3 $\frac{3}{8}$ "	each	93-1022-S
			10 pack	93-1069

BASE GASKETS FOR KN-SERIES 1936-'47

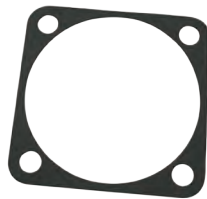
Description	Thickness	Bore	Part #	
Composite	.020"	3 $\frac{3}{8}$ "	each	106-2690
Composite 16774-21	.020"	3 $\frac{5}{16}$ " & 3 $\frac{7}{16}$ "	each	106-2692

EXHAUST GASKETS

S&S SH-Series, P-Series, and 1966-'84 bt	each	93-1004-S
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93-1022-S



106-2690



900-0329



90-4040

VALVE GUIDE SEALS

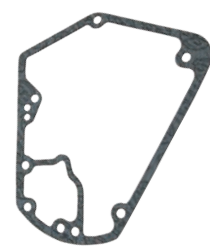
Fits S&S Heads for 1966-'84 bt and 1981-'84 stock cylinder heads 18000-81	each	90-2019
	8 pack	90-2157

ROCKER BOX GASKET KITS AND INDIVIDUAL GASKETS

Gasket Kit S&S Billet Rocker boxes 1966-84 bt		90-4311
O-ring, (-160), 5.250" ID x 5.437" OD, Viton®	each	50-7961-S
O-ring, (-019), .812" ID x .937" OD, Viton®	each	50-7962-S
O-ring, .551" ID x .627" OD, Viton®	each	50-7963-S
O-ring, .374" ID x .473" OD, Viton®	each	50-7965-S
Gasket, Rocker Cover, 1966-'84 bt 17540-69, 17540-69A	each	90-4040
	10 pack	90-4064
Stock Rocker Boxes 1966-'84 bt 17540-69, 17540-69A	each	90-4040
	10 pack	90-4064
Rocker Arm Cover Gasket 1948-'65 bt 117541-48	each	900-0329
	Set	900-0339
Rocker Arm Cover Gasket Kit 1936-'47 bt		900-0493
Gasket, Bottom, Valve Spring Covers, (Tins), Vulcanized Fiber, 1936-'47 OHV bt		106-2878
Gasket, Set, Valve Spring Covers, KN-Series, (Tins)		106-3166
Seal, Oil, Rocker Arm, 1936-'47 OHV bt, KN-Series 17475-38		106-3636
O-ring, Square, .1875" 17955-36		106-3849
O-ring, (-017), .676" ID x .816" OD, Black, Viton®		50-0466
O-ring, (-015), .562" ID x .068" OD, Black, Viton® 26432-76A	each	50-8034-S
	2 pack	50-8034
O-ring, (-326), 1.625" ID x 2" OD, Black, Viton® 27060-55	each	50-8046
	10 pack	50-8132
LOWER END GASKETS AND SEALS		
1970-'99 Big Twin Engine 25225-93A, 25225-93B, 25225-70C, 25257-80	each	31-2107
	10 pack	106-0232
1936-'69 Big Twin Engine w/S&S Cases 25225-36A		31-2030
1936-'69 Big Twin Engine w/Stock Cases 25225-36C		106-2072
CAMSHAFT OIL SEALS FOR 1970-'99 BIG TWIN MODELS		
Seal, Gearcover Cam, 1" x 1.441" x .250" 83162-51	each	31-4022



106-3166



31-2107

TAPPET GUIDE GASKETS

1948-'99 bt engines – Set (Includes Front & Rear) 18633-48	each	33-5302
	10 pack	33-5313
Front 18634-48C	each	33-5302F
	10 pack	33-5313F
Rear 18633-48B, 18633-48D	each	33-5302R
	10 pack	33-5313R
1936-'47 OHV bt engines – Set (Includes Front & Rear) 18632-36		106-2563

PUSHROD O-RINGS

Pushrod O-Ring Kit 1979-'84 Big Twin		93-4041
Top O-Ring 11293, 11157, 11101, 11190	each	50-8039
Middle O-Ring 11132A	each	50-8038
Bottom O-Ring 11145A	each	50-8037
Quad Seal 11133A		50-8064-S
Washer, Bottom Pushrod Tube	each	50-7050
	10 pack	50-7072

SPROCKET SHAFT SEAL

1936-'99 Big Twin 12026B	each	31-4010
	5 pack	31-4110

OIL PUMP GASKET KITS STANDARD S&S BILLET OIL PUMP 1936-'91

Gasket Rebuild Kit	31-6271
Master Rebuild Kit	31-6275
Oil Pump Drive Shaft Seal 26227-58	31-6005

FUEL SYSTEM GASKETS

Manifold Seals		
Rubberband – 1979-'84 BT and 1979-'85 XL 27062-78	each	16-0238
	10 pack	16-0245
O-ring – 1955-'78 BT and 1957-'78 XL 27060-55	each	50-8046
	10 pack	50-8132
Cap, rubber, manifold, fitting		50-8372

CLASSIC TEARDROP AIR CLEANER GASKETS

Backplate gasket Super E	each	106-1724
	10 pack	106-2328
Backplate gasket Super B	each	17-0196
	5 pack	17-0197

STEALTH AIR CLEANER GASKETS

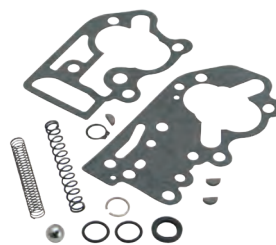
Super E/G	each	106-1724
	10 pack	106-2328
Muscle Air Cleaner (includes lanyards)		170-0137

CARBURETOR GASKETS

Bowl Gasket	Super E & G	each	11-2386
		10 pack	11-2387
	Super B & D	each	11-2086
		10 pack	11-2091
	L Series	each	11-2070
	Pump cap o-ring - (two required)	each	50-8012
10 pack		50-8100	
Idle Mixture Needle o-ring	each	500-0036	
	10 pack	500-0148	
Bellows seal Bellows Seal, Accelerator Pump	each	11-2266	
	5 pack	11-2279	
Accelerator pump diaphragm	each	11-2282	
Manifold to Carb/ Throttle Body O-Rings	Super E	each	50-8016
		10 pack	50-8094
	Super G	each	50-8015
		10 pack	50-8093
	Super B	each	50-8013
	L Series 1 $\frac{3}{4}$ " or 1 $\frac{7}{8}$ "	each	50-8013
Seat and Bowl Plug O-Ring	each	50-8009	
	10 pack	50-8095	

TRANSMISSION GASKETS

Seal, quad, 1 $\frac{49}{64}$ " I.D. x 1 $\frac{7}{8}$ " O.D. x $\frac{1}{16}$ " Buna 11165	50-8045
Seal, inner primary - 4-speed BT	56-5101
Seal, oil shifter shaft - 1984-'99 BT 12045	56-1064
Seal, oil 12067B	56-3033
Gasket, transmission access door 35652-79B, 35653-98A	56-1026



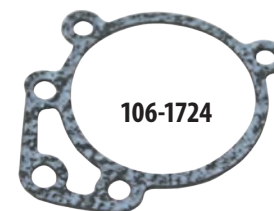
31-6275



33-5302



93-4041



106-1724

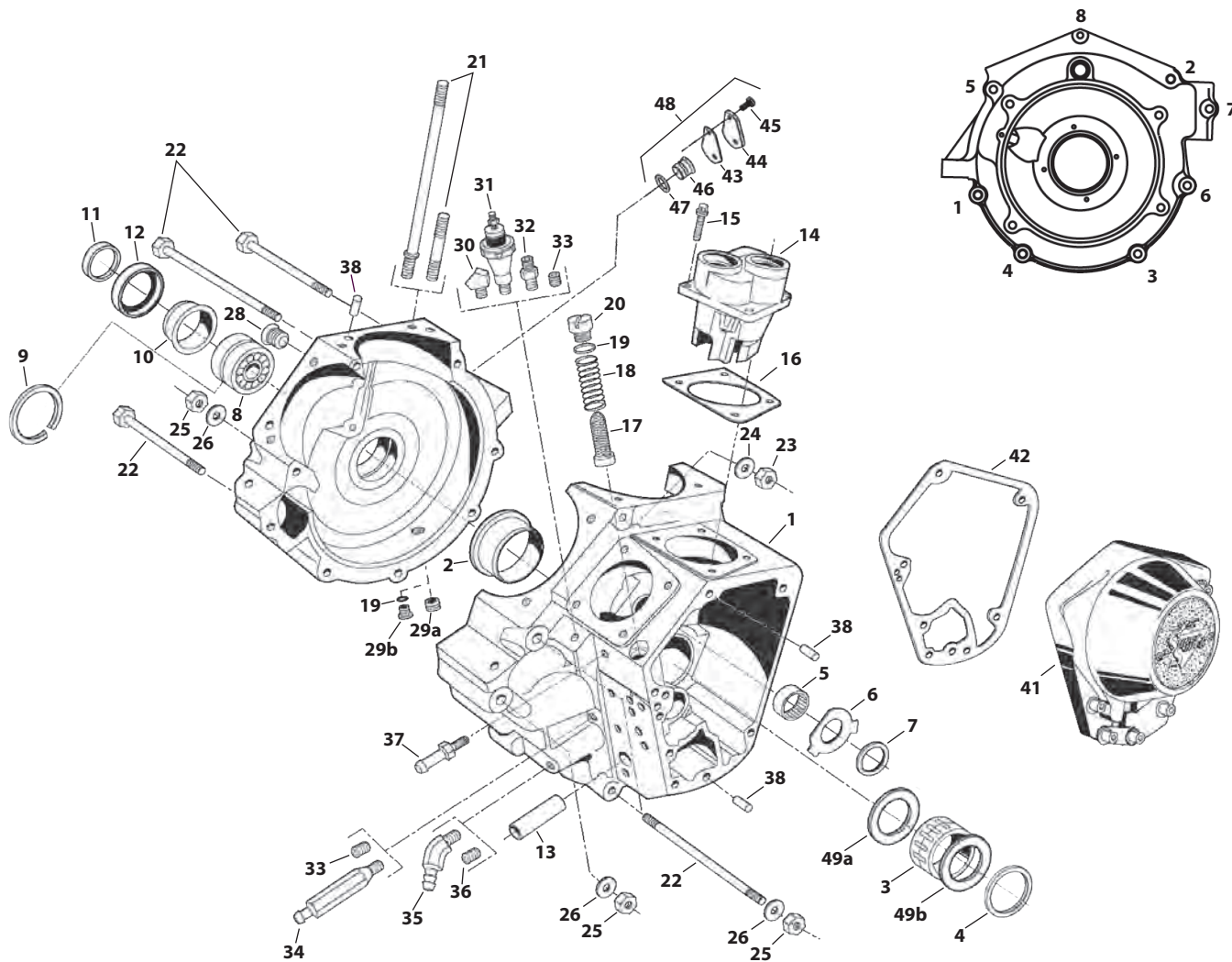
All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

SUPER STOCK CRANKCASE REPLACEMENT PARTS

FOR ALTERNATOR STYLE BIG TWIN ENGINES OF LESS THAN 4" CYLINDER BORE

- | | |
|---|------------|
| 1. Crankcase assembly, half | N/A |
| 2. Race, right main bearing, All S&S BT
Standard 24599-93, 24599-58A, 24599-58B | 31-4004 |
| <i>Cleared for .798" lift 1984-'99 style cam w/ 1" base circle</i> | |
| 3. Right main bearing assembly BT | |
| White 24626-87A | 31-4005 |
| Green 24628-87A | 31-4016 |
| Red 24641-87A | 31-4017 |
| Blue 24643-87A | 31-4018 |
| 4. Retaining ring, main bearing BT 11177A (each) | 50-8057 |
| 5 pack | 50-1004 |
| 5. Cam needle bearing assembly BT
9058 | 31-4009 |
| 6. Washer, cam lock - BT 25550-57A (each) | 33-5201 |
| 5 pack | 33-5213 |
| 7. Cam thrust washer - BT | |
| .050" 25550-36 (each) | 33-5200 |
| .055" 25551-36 (each) | 33-5202 |
| .060" 25552-36 (each) | 33-5203 |
| .065" 25553-36 (each) | 33-5204 |
| .070" 25554-36 (each) | 33-5205 |
| .075" 25555-36 (each) | 33-5206 |
| .080" 25556-36 (each) | 33-5207 |
| .090" 25558-36 (each) | 33-5209 |
| 8. Left Timken® main bearing assembly 1936-'99
S&S BT cases 9028 | 31-4013 |
| 9. Timken Main Bearing Spacers, 1969-up BT
Fits 1 1/4" stock diameter shaft. | |
| .0995" - .1005" 9124 | 31-4071 |
| .1015" - .1025" 9125 | 31-4072 |
| .1035" - .1045" 9126 | 31-4073 |
| .1055" - .1065" 9127 | 31-4074 |
| .1075" - .1085" 9128 | 31-4075 |
| .1195" - .1205" 9134 | 31-4076 |
| 10. Spacer, drive sprocket, 1965-'99 S&S BT cases
24002-70 | 31-4011 |
| 11. Spacer, Drive Sprocket, 45A Charging System, | N/A |
| 12. Seal, sprocket shaft oil 1936-'99 S&S BT cases
12026B (each) | 31-4010 |
| 5 pack | 31-4110 |
| 13. Bushing, oil pump shaft - All S&S BT cases Standard
24641-36 | 31-4008 |
| 14. Tappet guide assembly | N/S |
| 15. Screw, 12 pt. DHH 1/4" -20 x 7/8" 3770 | 50-0068 |
| 4 pack | 50-0068P |
| 16. Gasket, tappet guide - 1948-'99 BT | |
| Front 18634-48C (each) | 33-5302F |
| 10 pack front | 33-5313F |
| Rear 18633-48B, 18633-48D (each) | 33-5302R |
| 10 pack rear | 33-5313R |
| Set 18633-48 (each front & rear) | 33-5302 |
| 10 pack set | 33-5313 |
| 17. Crankcase oil screen - 1948-'99 BT 24981-70, 24981-66
(each) | 31-2010 |
| 5 pack | 31-7008 |
| 18. Crankcase oil screen spring - 1948-'99 BT
24982-66, 24982-70 (each) | 31-2011-S |
| 19. Cover screw o-ring - 1948-up S&S BT
11105, 11273 (each) | 50-8008 |
| 10 pack | 50-8078 |
| 20. Cover screw - 1948-'99 S&S BT 26263-80, 26362-36
each | 31-6021 |
| 5 pack | 31-7005 |
| 21. Cylinder stud
1984-up BT 16837-85C (each) | 31-2321-S |
| 8 pack | 31-2321 |
| 1984-up BT with +.500" cases 16832-86C | 31-2331-S |
| each | 31-2331 |
| 22. Crankcase Hardware | |
| Alternator 1970-'99 and Alt/Gen Cases | |
| Alignment Stud, 5/16" -24 x 5 3/4" 3506, 24806-36 | 31-2003 |
| (Position 5 & 6) | |
| Screw, HHCS, 5/16" -18 x 3 1/2" 3427 | 50-0117 |
| (Position 7) | |
| Screw HHCS, 5/16" -24 x 5" | |
| Zinc 3430 | 50-0119 |
| Chrome (each) | 50-0253-S± |
| (Position 8) | |
| Screw HHCS, 1/4" -28 x 5 1/2" (each) | 50-0090 |
| Screw HHCS, 1/4" -28 x 5 1/2" Chrome (each) | 50-0252-S± |
| 23. Nut, Hex - 1/4" -28 7683 | 50-5011 |
| 24. Washer, flat - 1/4" x 5/8" x 1/16"
Zinc 6194, 6245, 6703, 6736, 6228W, 6192 (each) | 50-7021 |
| Chrome (each) | 50-7104-S± |
| 25. Nut, hex - 5/16" -24 zinc 7833, 7883 | 50-5023 |
| 26. Washer, flat - 5/16" x 1 1/8" x 1/16" 6320, 70907-07, 6016, 6702 | 50-7034 |
| 27. Hardware Kits (includes studs, screws, nut and washers)
1984-up BT - manufactured after 6-1-08 | |
| Chrome | 106-4913± |
| 1970-'99 big twin | |
| Zinc Plated | 106-4908 |
| Chrome | 106-4909± |
| 28. Plug, timing hole 720 | 31-2005 |
| 29. Drain plug | |
| Manufactured before 5-1-2000 | |
| a. 3/8"-18 NPT | 31-2006 |
| Manufactured after 5-1-2000 | |
| b. 1/2"-20 thread | 50-8335 |
| 30. Fitting, 1/8" x 1/8" pipe, male/female | 50-8112 |
| 31. Oil pressure switch 26561-84
(Includes: 1 each switch, nut, lock washer.) | 31-2016 |
| 32. Fitting, oil line - .375" x 1/8"-27 62484-81 | 31-2021 |
| 33. Plug, SH pipe - 1/8" -27
each | 50-8331A |
| 10 pack | 50-1015 |
| 34. Fitting, primary oil return 63533-65, 63533-41A | 31-2019 |
| 35. Fitting, 45° hose - 1/4" pipe male x 3/8" male hose | 50-8113 |
| 36. Plug, SH pipe, 1/4"-18, 1965-'69 S&S BT 765 | 50-8330 |
| 37. Fitting, hose - 1/8"-27 pipe male | 50-8115 |
| 38. Dowel pin, .250" diameter x 1/2"
(1970-up S&S BT) 358, 366 (each) | 50-8022 |
| 2 pack | 50-8022-2 |
| 5 pack | 50-8105 |
| 39. Screw, SHC - 10-24 x 1" (Stator) (N/S) 2720 | |
| each | 50-0044 |
| 40. Screw, SHS - 10-24 x 5/16" - (Stator plug clamp) (N/S)
each | 50-0045 |
| 41. Gearcover | N/A |
| 42. Gearcover gasket 1970-up S&S BT | N/A |
| 43. Gasket, CPS hole | N/A |
| 44. Cover, CPS hole | 31-2056-S |
| 45. Screw, Torx, 8-32 x 3/8" 68042-99 | 50-0054-S |
| 46. CPS hole plug | 106-1189 |
| 47. O-ring (each) | 50-8270 |
| 5 pack | 50-8275 |

Bolt Position Diagram



- 48. CPS hole plug kit..... 106-2997
- 49. Washer,Right,Main Bearing,Thrust
 - a. 1.258" x 1.743" x .071",Steel..... 31-4038*
 - b. 1.258" x 1.743" x .051",Steel..... 31-4039*

**Thrust washers are normally used with 1958-'86 style bearings with loose rollers and drop in style cages, but can be used to position 1987-up bearings when used on early style flywheels.*































(N/S) = Not Shown
N/A = No longer available

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

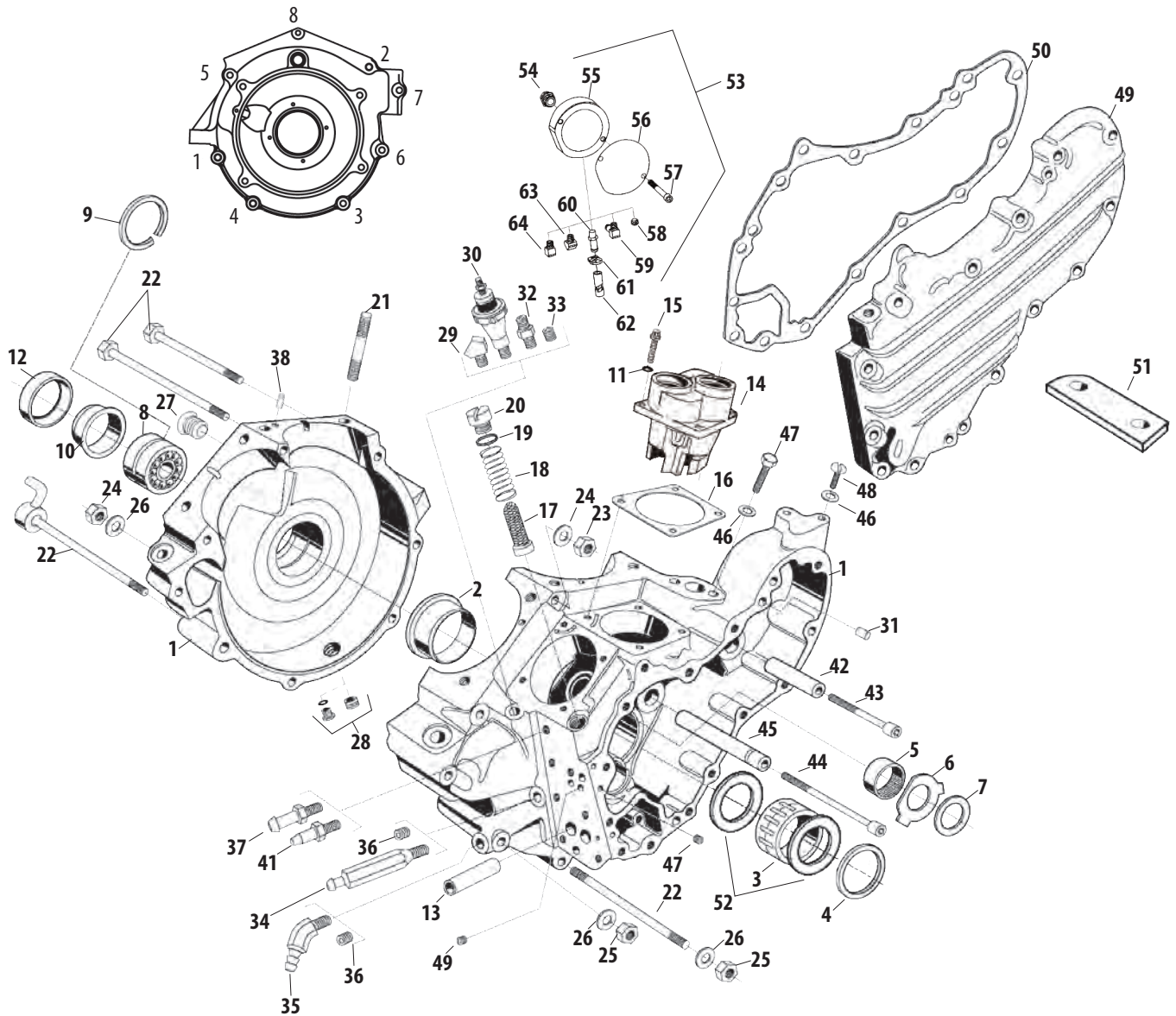
Milwaukee
 Flight®
 2007-2017
 Twin Cam
 96-/103-/110-
 1999-2006
 Twin Cam 88®
 1986-2019
 Sportster® & Buell®
 2014-2019
 Street & Street Rod®
 1984-1999
 Evolution®
 1926-1984
 Vintage Engines
 Indian® & Victory® Models
 Tools & Shop Supplies
 Apparel
 Warranty & Company Policy
 Appendix & Index

SUPER STOCK CRANKCASE REPLACEMENT PARTS

FOR ALTERNATOR/GENERATOR STYLE BIG TWIN ENGINES OF LESS THAN 4" CYLINDER BORE

- | | |
|---|--|
| 1. Crankcase assembly, half..... | N/A |
| 2. Race, right main bearing, All S&S BT
Standard 24599-93, 24599-58A, 24599-58B |  31-4004 |
| <i>Clearanced for .798" lift 1984-'99 style cam w/1" base circle</i> | |
| 3. Right main bearing assembly BT | |
| White 24626-87A..... | 31-4005 |
| Green 24628-87A..... | 31-4016 |
| Red 24641-87A..... | 31-4017 |
| Blue 24643-87A..... | 31-4018 |
| 4. Retaining ring, main bearing BT 11177A (each) | 50-8057 |
| 5 pack..... | 50-1004 |
| 5. Cam needle bearing assembly
9058 |  31-4009 |
| 6. Washer, cam lock
1958-'99 bt 25550-57A (each) | 33-5201 |
| 5 pack..... |  33-5213 |
| 7. Cam thrust washer - BT | |
| .050" 25550-36 (each)..... |  33-5200 |
| .055" 25551-36 (each)..... |  33-5202 |
| .060" 25552-36 (each)..... |  33-5203 |
| .065" 25553-36 (each)..... |  33-5204 |
| .070" 25554-36 (each)..... |  33-5205 |
| .075" 25555-36 (each)..... |  33-5206 |
| .080" 25556-36 (each)..... |  33-5207 |
| .090" 25558-36 (each)..... |  33-5209 |
| 8. Left Timken® main bearing assembly 1936-'99
S&S BT cases 9028 |  31-4013 |
| 9. Timken Main Bearing Spacers, 1969-up bt
Fits 1 1/4" stock diameter shaft. | |
| .0995" - .1005" 9124..... | 31-4071 |
| .1015" - .1025" 9125..... | 31-4072 |
| .1035" - .1045" 9126..... | 31-4073 |
| .1055" - .1065" 9127..... | 31-4074 |
| .1075" - .1085" 9128..... | 31-4075 |
| .1195" - .1205" 9134..... | 31-4076 |
| 10. Spacer, drive sprocket
1936-'64 S&S BT cases..... | 31-4014 |
| 1965-'99 S&S BT cases 24002-70..... |  31-4011 |
| 11. Washer, Countersunk, 1/4" x 1/2" | 106-3848 |
| 12. Seal, sprocket shaft oil 1936-'99 S&S BT cases
120268 (each)..... |  31-4010 |
| 5 pack..... |  31-4110 |
| 13. Bushing, oil pump shaft - All S&S BT cases
Standard 24641-36 |  31-4008 |
| Tappet guide, 1936-'47 OHV bt & S&S KN-Series | |
| Set..... | 106-2410 |
| Front 18600-36..... | 106-2665 |
| Rear 18610-36..... | 106-2666 |
| Tappet Guide, S&S SH & P series and conversion kits only, uses V-Series lifters | |
| Set..... | 33-5450± |
| Front..... | 33-5450F± |
| Rear..... | 33-5450R± |
| 14. Screw | |
| 15a. Screw, 12pt, DHH, 1/4"-20 x 7/8" 3770 (each)..... | 50-0068 |
| 4 pack..... | 50-0068P |
| 15b. Screw, Slotted, Oval, 1/4"-24 x 5/8" 2329..... | 106-3847 |
| 15c. Screw, Slotted, Oval, 1/4"-20 x 5/8"..... | 500-0043 |
| 15. Gasket, tappet guide - 1948-'99 BT | |
| Front 18634-48C (each)..... |  33-5302F |
| 10 pack front..... |  33-5313F |
| Rear 18633-48B, 18633-48D (each)..... |  33-5302R |
| 10 pack rear..... |  33-5313R |
| Set (each front & rear) 18633-48B, 18633-48D..... |  33-5302 |
| 10 pack set..... |  33-5313 |
| Gasket, tappet guide - KN 1936-'47 OHV
18632-36 | |
| (each)..... | 106-2561 |
| 2 pack..... | 106-2563 |
| 16. Crankcase oil screen - 1948-'99 BT 24981-70, 24981-66 | 31-2010 |
| (each)..... | 31-7008 |
| 5 pack..... | 31-7008 |
| 17. Crankcase oil screen spring - 1948-'99 bt 24982-66, 24982-70 | 31-2011-S |
| (each)..... | 31-2011-S |
| 18. Cover screw o-ring - 1948-up S&S BT (each) | 50-8008 |
| 10 pack..... | 50-8078 |
| 19. Cover screw - 1948-'99 S&S BT 26263-80, 26362-36 | |
| (each)..... | 31-6021 |
| 5 pack..... | 31-7005 |
| 20. Cylinder stud | |
| 1936-'84 BT Standard 16831-30, 16837-30 |  31-2328-S |
| 8 pack..... |  31-2328 |
| 1936-'84 BT +5/16" longer 16837-78..... | 31-2324-S |
| 8 pack..... | 31-2324 |
| 21. Crankcase Hardware
Hardware Kit
Alt/Gen Cases
Alignment Stud, 5/16" -24 x 5 3/4" 3506, 24806-36..... | 31-2003 |
| (Position 1)
Front Chain Oiler Bolt..... | 106-4795 |
| (Position 5 & 6)
Screw, HHCS, 5/16" -18 x 3 1/2"..... | 50-0117 |
| (Position 7)
Screw HHCS, 5/16" -24 x 5" zinc 3430..... | 50-0119 |
| Chrome (each)..... | 50-0253-S± |
| (Position 8)
Screw HHCS, 1/4" -28 x 5 1/2" (each)..... | 50-0090 |
| Screw HHCS, 1/4" -28 x 5 1/2" Chrome (each)..... | 50-0252-S± |
| 22. Nut, Hex - 1/4"-28 7683..... | 50-5011 |
| 23. Washer, flat - 1/4" x 5/8" x 1/16" | |
| Zinc 7035, 7036 (each)..... | 50-7021 |
| Chrome (each)..... | 50-7104-S± |
| 24. Nut, hex - 5/16"-24 zinc 7833, 7883..... | 50-5023 |
| 25. Washer, flat - 5/16" x 1 1/16" x 1/16" | 50-7034 |
| 6320, 70907-07, 6016, 6702..... |  31-2005 |
| 26. Plug, timing hole 720..... |  31-2005 |
| 27. Drain plug,
28a. 3/8"-18 NPT Manufactured before 5-1-2000..... | 31-2006 |
| 28b. 1/2"-20 thread Manufactured after 5-1-2000..... | 50-8335 |
| 28. Fitting, 1/8" x 1/8" pipe, male/female..... | 50-8112 |
| 29. Oil pressure switch (HD® #26561-84)
(Includes: 1 each switch, nut, lock washer)..... |  31-2016 |
| 30. Dowel pin .375" diameter x 3/4" 1936-'64 S&S BT..... | 50-8017 |
| 31. Fitting, oil line - .375" x 1/8"-27 62484-81..... | 31-2021 |
| 32. Plug, SH pipe - 1/8"-27 (each)..... | 50-8331A |
| 10 pack..... | 50-1015 |
| 33. Fitting, primary oil return 63533-65, 63533-41A..... | |
| 34. Fitting, 45° hose - 1/4" pipe male x 3/8" male hose |  50-8113 |
| 35. Plug, SH pipe 1/4"-18, 1965-'69 S&S BT
765 |  50-8330 |
| 36. Fitting, hose - 1/8"-27 pipe male |  50-8115 |
| 37. Dowel pin, .250" diameter x 1/2"
(1970-up S&S BT) 358, 366 (each)..... | 50-8022 |
| 2 pack..... | 50-8022-2 |
| 5 pack..... | 50-8105 |
| 38. Screw, SHC - 10-24 x 1" (Stator) N/S (HD® #2720) (each)..... | 50-0044 |
| 39. Screw, SHS - 10-24 x 3/4" - (Stator plug clamp) N/S..... | 50-0045 |
| 40. Fitting, oil line 63533-15..... | 31-2018 |
| 41. Idler gear shaft - 1936-'69 BT 25791-36..... | 31-2039 |

BOLT POSITION DIAGRAM



- 42. Screw, SHC 1/4"-20 x 2" (Idler gear shaft)
25794-36 **50-0013**
- 43. Screw, SHC 1/4" -20 x 3 1/4" (Circuit breaker drive gear shaft.)
1430 **50-0012**
- 44. Shaft, circuit breaker drive gear , 1936-'69 BT
25856-36 **31-2037**
- 45. Washer, lock - 1/4" 7035, 7036 **50-7019**
- 46. Screw, HHC 1/4" -20 x 1/2" 1936-'65
S&S BT timer 3728 **50-0014**
1/4"-20 x 1" 1966-'69 S&S BT timer 2551W **50-0018**
- 47. Screw, standard RH 1/4"-20 x 1/2" 2759 **50-0015**
- 48. Gearcover (See page 434)
- 49. Gearcover gasket 1936-'69 S&S BT 25225-36A **31-2030**
- 50. Spacer, motor mount - 1936-'47 BT 24795-48 **31-2017**
- 51. Washer, Right, Main Bearing, Thrust
1.258" x 1.743" x .071",Steel **31-4038***
1.258" x 1.743" x .051",Steel **31-4039***
- 52. Bracket Kit, Oil Filter 1936-69 bt (includes 56-66) **106-3134***
- 53. Fitting, Straight, 3/4-16 UNF 2A x 1" 26352-95A **50-8197-S**
- 54. Bracket, Oil Filter **N/A**
- 55. Gasket, Oil Filter Mount **106-4423**
- 56. Screw, SHC, 5/16-24 x 2-3/4" **50-0017**
- 57. Plug, Pipe, 3/4" x 1/8-27 x .188" **50-8331A**
10 pack **50-1015**

- 58. Fitting, Pipe, 90°, 1/8-27 x .375" **50-8110**
Fitting, Hose, Straight, 1/8-27 x .500" **50-8115**
 - 59. Clamp, Hose, 5/8" -7/8" **50-8002**
 - 60. Hose, Oil Line Return, 375" x 12" **N/A**
 - 61. Fitting, Pipe, 45°, 1/8-27 x 1/8-27 **50-8112**
 - 62. Fitting, Pipe, 90°, Male/Female, 1/8-27
26338-68, 26561-84A, 26561-81A, 26338-68A **106-2682**
5 pack **50-1007**
- *Thrust washers are normally used with 1958-'86 style bearings with loose rollers and drop in style cages, but can be used to position 1987-up bearings when used on early style flywheels
(N/S) = Not Shown
N/A = No longer available

FLYWHEEL REPLACEMENT PARTS

FOR 1930-'84 BIG TWIN ENGINES

1. Sprocket Shaft

1930-1954 Including UL SVBT stock & S&S E flywheels
(straight – roller bearing) (includes #2, 3, 4)

24001-30 **33-2001**

Note: This shaft uses the larger 55-later thread for added strength and includes the motor sprocket nut. The stock nut will not fit.

1955-1964 S&S SE/SL flywheels
(includes #5 & 6) (spline - Timkin®) **33-2002**

1965-1969 S&S SE/SL flywheels
(includes #5 & 6) (spline - Timkin®) **33-2003**

1970-1999 S&S SE/SL flywheels
(includes #5 & 6) (spline - Timkin®) **33-2004**

2. Key **50-8224**

3. Sprocket Shaft Nut **33-2031**

4. Motor Sprocket Nut **33-2032**

5. Key **50-8225-S**

6. Sprocket Shaft Nut **33-2033**

7. Pinion Shaft

1939-1953 stock/ S&S E flywheels (spline) (includes #8 & 12)

Standard **33-2021**

1958-early 1981 stock & S&S L/AL/SE flywheels (tapered)
(includes #8, 12, 10, 14, 15)

Standard 24006-54A, 24006-73 **33-2024**

.001" OS **33-2025**

Late 1981-1984 stock/ S&S BL/SL/SM flywheels (tapered)
(includes #10, 14, 15, 9, 13)

Standard **33-2027**

.001" OS **33-2028**

8. Key **50-8224**

9. Key 11218 **50-8222-S**

5 pack **50-1009**

10. Pinion/Oil Pump Key **50-8221-S**

5 pack **50-1008**

11. Pinion Shaft Nut **N/A**

12. Pinion Shaft Nut **33-2031**

13. Pinion Shaft Nut **33-2034**

14. Bearing Retaining Ring 11177A **50-8057**

5 pack **50-1004**

Meter Plug

.0625" hole **50-8316±**

.0925" hole **50-8317±**

no hole **50-8314±**

15. Front Rod Race, 1941-1984 24356-36A

..... **34-4005**

16. Rear Rod Race 24345-36A

..... **34-4006**

17. Wristpin Bushing 24334-36

..... **34-4007**

18. Race & Bushing Set (includes #16, 17, 18)

..... **34-4040**

19. Cage and Bearing Set, Standard 24346-87A, 24385-40B

..... **34-4010**

20. Crankpin

1937-'53 EL / 1940-'48 UL/ULH models (includes #22 & 23)*

Standard **34-2001**

*Stepped crankpin for 1936-'52 (61") engines with stock flywheels.

1941-early 1981 (includes #22 & 23)

Standard **34-2003**

.001" OS **34-2007**

.002" OS **34-2008**

Late 1981-1984 (includes #10 & 23)

Standard **34-2102**

.001" OS **34-2103**

.002" OS **34-2105**

.003" OS **34-2106**

21. Key

..... **50-8223-S**

22. Crankpin Nut

1937-'53 EL / 1940-'48 UL/ULH models **34-2005**

1941-early 1981 & late 1981-1984

..... **34-2104**

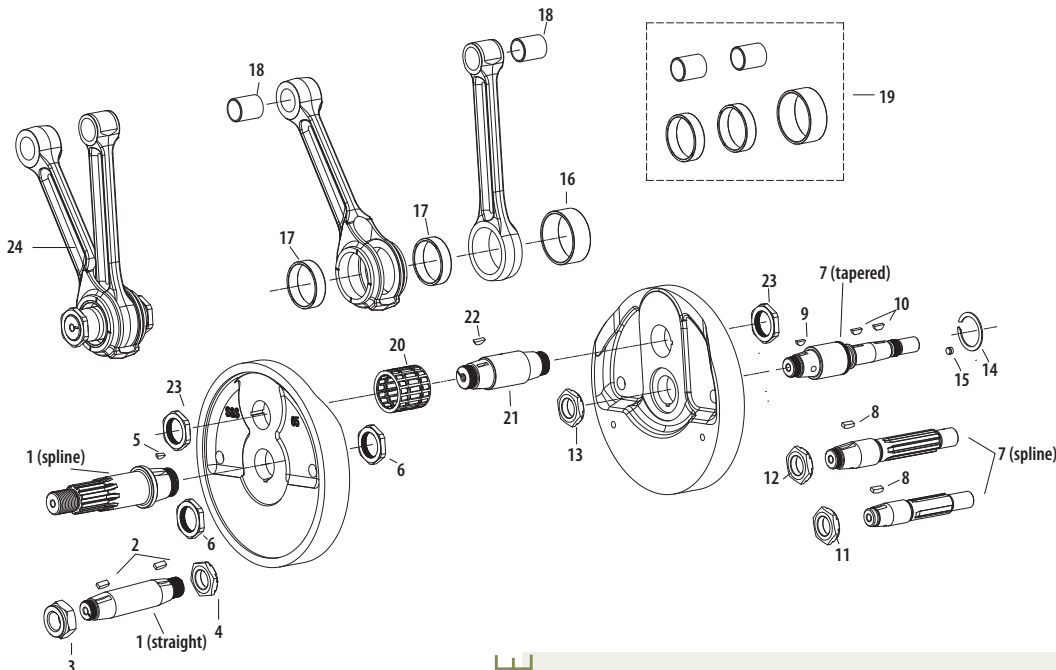
1941-1984 Special Retro Engine **34-2006**

23. Connecting Rod Assembly,

1936-1952, Heavy Duty (Stepped crankpin) **34-7003**

1941-1981, Heavy Duty **34-7004**

1981-1984, Heavy Duty **34-7011**














NOTE

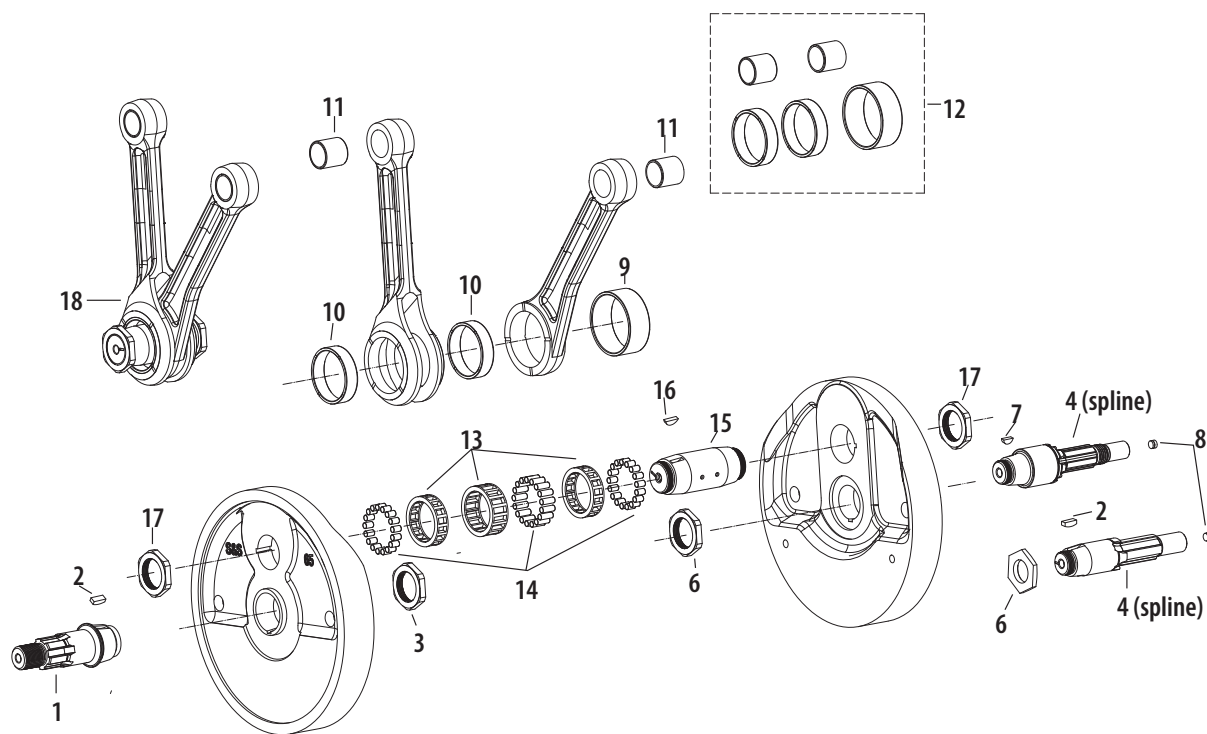
Crankpin diameters listed are nominal and it is the engine builders responsibility to confirm correct running clearances when fitting rods to crankpins.

FLYWHEEL REPLACEMENT PARTS

FOR 1957-'85 XL ENGINES












1. Sprocket Shaft (includes #2 & 3)
1957-1976 XL w/S&S SB flywheels **33-2301**
1977-1985 XL w/S&S D/SB/SBD/SCD/SC/SCDR/SCR flywheels **33-2302**
2. Key **50-8224**
3. Sprocket Shaft Nut **33-2331**
4. Pinion Shaft
Stock 1957-1976 XL and S&S B/SB flywheels (includes #5 & 6)
Standard **33-2321**
Stock 1977-early 1981 XL and S&S B/BD/SB/SBD/ flywheels (includes #5, 6, 8)*
Standard **33-2322** 
*requires 1977-1986 main bearing
Stock late 1981-1985 XL and S&S C/SC/SCD/SCDR flywheels (includes #6, 7, 8)
6. Pinion Shaft Nut **33-2332**
7. Key **50-8222-S**
5 pack **50-1009**
8. Meter Plug - stock 1977-1985 XL and S&S B/BD/SB/SBD/C/S/SCD/SCDR flywheels
.0626" **50-8316**
9. Front Rod Race **34-4505** 
10. Rear Rod Race (one) **34-4506** 
11. Wrist Pin Bushing **34-4507** 
12. Race & Bushing Set (includes #9, 10, 11)
1957-1985 XL (all stock) and all S&S rods **34-4540** 
13. Alloy Bearing Cage Set **34-4520** 
14. Bearing Set (std.) **34-4521** 
15. Crankpin (std.)

- 1957-early 1981 XL w/ S&S connecting rods (includes #16 & 17)
Standard **34-2503**
- Late 1981-1985 XL w/ S&S connecting rods (includes #7 & 17)
Standard **34-2602**
.001" OS **34-2603**
.002" OS **34-2605**
16. Crankpin Key **50-8223-S**
5 pack **50-1010**
17. Crankpin Nut **34-2504**
18. Connecting Rod Assembly
1957-early 1981 XL (stock bore) 7.440" rod length
Heavy Duty **34-7500** 
Supreme **34-7710** 
Late 1981-1985 XL (stock bore) 7.440" rod length
Heavy Duty **34-7510** 
Supreme **34-7730** 

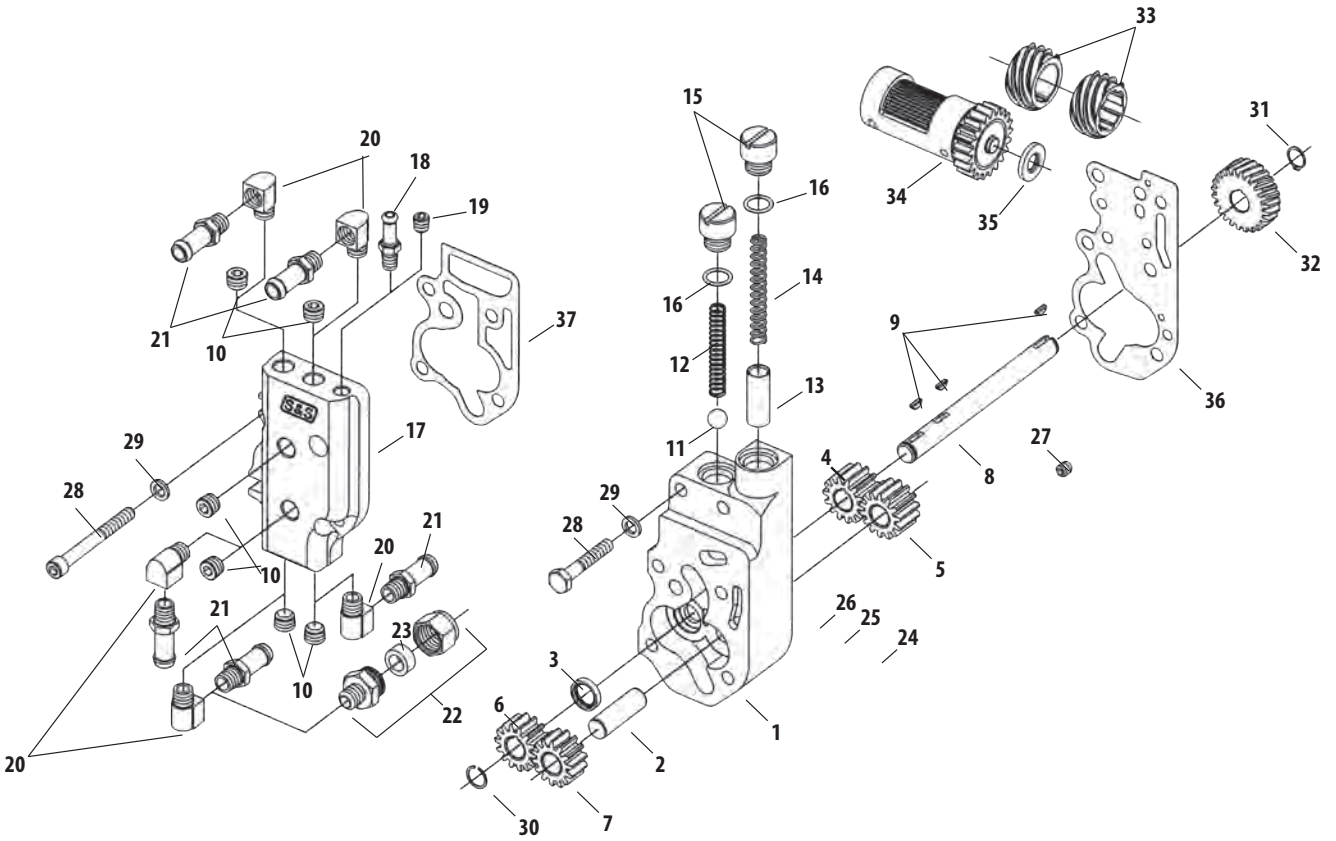


Milwaukee
Eight
2007-2017
Twin Cam
96-/103-/110"
1999-2006
Twin Cam 88"
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod™
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

STANDARD BILLET OIL PUMP KIT REPLACEMENT PARTS

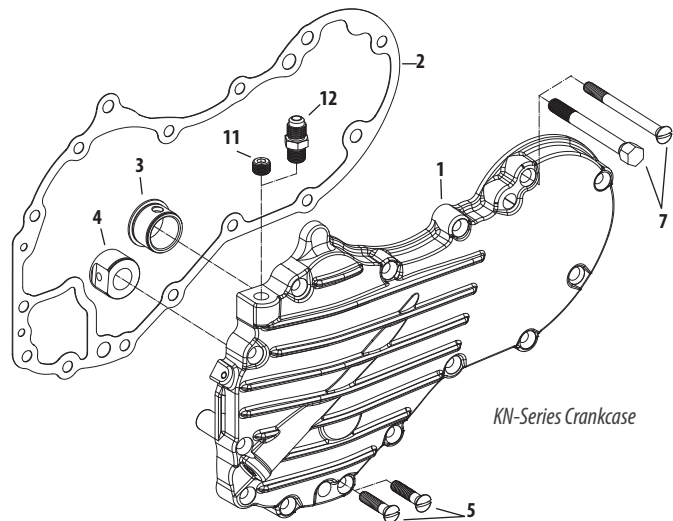
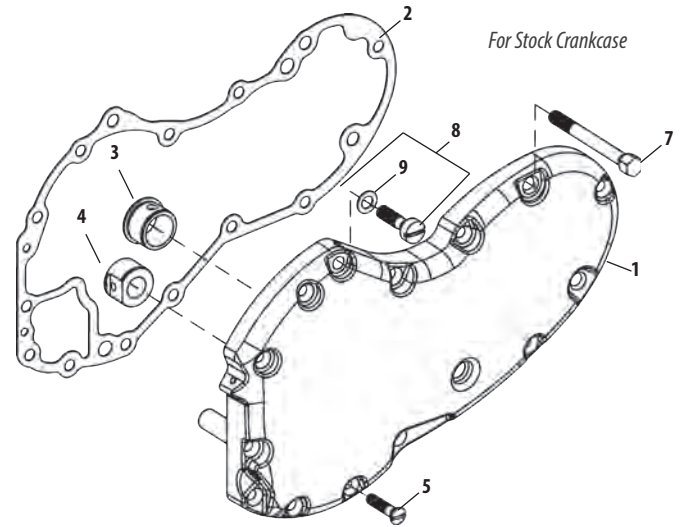
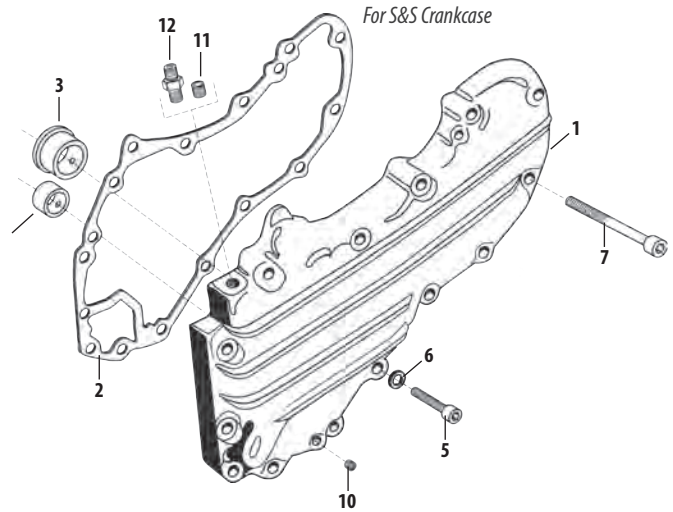
- | | |
|--|--|
| 1. Pump body assembly | |
| A. Fits 1936-'69 | 31-6048 |
| B. Fits 1965-'69 | 31-6049 |
| C. Fits 1970-'91 | 31-6050 |
| 2. Shaft, idler 26327-68 |  31-6004 |
| 3. Seal, drive shaft 26227-58 |  31-6005 |
| 4. Gear, return drive 26315-68A | |
| ..... | 31-6013 |
| 5. Gear, return idler 26317-68A |  31-6014 |
| 6. Gear, supply drive 26328-74, 26320-36 |  31-6015 |
| 7. Gear, supply idler 26326-62A | |
| ..... | 31-6016 |
| 8. Shaft, drive 26346-70 |  31-6011 |
| 9. Key, drive shaft 26347-15 each | 50-8220-S |
| 10 pack | 50-8229 |
| 10. Plug, 1/8"-27 | |
| each | 50-8331A |
| 10 pack | 50-1015 |
| 11. Check ball valve 8866, 8873 | |
| ..... | 50-8091 |
| 12. Spring, check valve 26363-36, 26363-56, 26262-80 | |
| each | 31-6022 |
| 10 pack | 31-6092 |
| 13. Relief valve 26400-82, 26400-82B | 31-6082 |
| 14. Spring, relief valve 26207-83 | |
| each | 31-6018 |
| 10 pack | 31-6084 |
| For S&S KN-Series engines (each) | 106-4679 |
| 15. Screw, check valve & relief valve cover | |
| 26263-80, 26362-36 each | 31-6021 |
| 5 pack | 31-7005 |
| 16. O-ring 11105, 11273 (each) | 50-8008 |
| 10 pack | 50-8078 |
| 17. Pump cover assembly | |
| A. Pre-1992 (Top or bottom fittings; accepts pressure gauge.) | |
| 31-6041 | 31-6059 |
| B. Pre-1992 (Custom bottom fittings only.) 31-6045 | 31-6060 |
| 18. Fitting, front chain hose | 50-8116 |
| 19. Plug, pipe 1/6"-27 x 1/4" pipe |  50-8332 |
| 20. Elbow, supply/return 26338-68, 26561-84A, 26561-81A, 26338-68A | |
| each | 106-2682 |
| 5 pack | 50-1007 |
| 21. Fitting, supply/return hose |  50-8115 |
| 22. Return fitting, compression (HD® #63523-92) | |
| ..... | 50-8120 |
| 23. Seal, tubing, 3/8" x 1/2" O.D. x 1/4" Viton | 50-8271 |
| 24. Screw, chain oiler adjusting | |
| 63610-70, 63614-72, 26383-32 | 31-6026 |
| 25. Locknut, chain oiler each 7634, 7638 | 50-5000 |
| 26. Washer, chain oiler adjuster (HD® #6156) | |
| each | 50-7008 |
| 27. Plug, 1/4"-20 | 50-0069 |
| 2 pack | 50-0069P |
| 28. Screws, mounting | |
| A. 1/4"-24 x 1 1/2" - 1936-'78 (HHCS) | |
| each | 50-0082 |
| B. 1/4"-24 x 2 1/4" - 1936-'78 (HHCS) (HD#5430W) | |
| each | 50-0088 |
| C. 1/4"-20 x 1 1/2" - 1979-'99 (HHCS) | 50-0080 |
| D. 1/4"-20 x 2 1/4" - 1979-'99 (SHCS) 4717A | 50-0078 |
| E. 1/4"-20 x 1-1/2" - 1979-'99 (SHCS) 4718A | 50-0079 |
| 29. Washer, 1/4" (each) | 50-7017 |
| 12 pack | 50-7013 |
| 30. Retaining ring #695-36, 26348-36 each | 50-8058 |
| 10 Pack | 50-8106 |
| 31. Retaining ring, external 11002 each | 50-8059 |
| 10 Pack | 50-8107 |
| 32. Gear, pump drive, 24T 26345-73 | 33-4230 |
| 33. Gear, pinion shaft pump drive | |
| A. 1939-'53 splined | 33-4237 |
| B. 1954-'89 26349-73, 26349-73A | 33-4232 |
| 34. Gear, Steel breather valve | |
| 1936-Early 47 | |
| Standard 25300-36 | 106-5070 |
| +.030" | 106-6012 |
| 1948-Early 77 | |
| Standard 25313-73 | 33-4246 |
| +.030" | 33-4247 |
| Late 1977-99 | |
| Standard 25310-82A, 25313-77B, 25311-90 | 33-4241 |
| +.030" | 33-4242 |
| 35. Shim Steel Breather Kit | |
| 8 pack (Includes one of each thickness) | 33-4249 |
| 35a. +.100" thick | 33-4200 |
| 35b. +.110" thick 25320-79 | 33-4201 |
| 35c. +.120" thick 25322-79 | 33-4202 |
| 35d. +.130" thick 25325-79, 25320-82 | 33-4203 |
| 35e. +.140" thick 25322-82, 25327-79 | 33-4204 |
| 35f. +.150" thick 25325-82 | 33-4205 |
| 35g. +.160" thick 25327-82 | 33-4206 |
| 35h. +.170" thick | 33-4207 |
| 36. Gasket rebuild kit (N/S) Includes key and retaining ring. | |
| A. 1936-'91 | 31-6271 |
| 37. Master rebuild kit - (N/S) | |
| Includes: gasket rebuild kit, seal, retaining ring, relief valve spring, check valve spring, check valve, ball, and cover screw o-rings. | |
| A. 1936-'91 | 31-6275 |
| 38. Drill jig, oil pump (N/S) | 53-0013 |
| 39. Oil pump mounting hardware kit (N/S) | 31-6288 |
| 40. Hardware kit, oil pump cover (N/S) | 31-6283± |
| 41. Primary chain oiler screw kit (N/S) | 31-6291± |

(N/S) = Not Shown



GENERATOR STYLE GEARCOVER REPLACEMENT PARTS

1. Gearcover assembly – (See page 434)
2. Gasket, Gear cover
 Stock crankcases, 1936-'69 25225-36C **106-2072**
 S&S crankcases, 1936-'69 25225-36A **31-2030**
3. Bushing, cam, 1936-'69 25581-36 **31-4025**
4. Bushing, pinion shaft
 1954-'72 25582-54A, 22582-73 **31-4020**
 1936-'53 25582-36 **31-4029**
5. Screw, gear cover mounting
 Stock crankcases
 Slotted countersunk, oval, ¼"-24 x 1½", cadmium 2341HW, 2341
 each **106-2013**
 S&S crankcases
 SHCS ¼"-20 x 7/8" **50-0025**
 Slotted countersunk ¼"-20 x 1½" **106-4732**
6. Washer (S&S crankcases only) .260" x .425" x .060 chrome
 each **50-7017[±]**
 12 pack **50-7013[±]**
7. Generator bolt
 Stock crankcases
 HH countersunk, 5/16"-24 x 3¼" cadmium **106-2107**
 Slotted countersunk oval ¼"-24 x 3" (each) **106-3814**
 S&S crankcases
 SHCS 5/16"-24 x 2¾" **50-0017**
8. Oil passage screw, slotted hollow, includes nylon washer,
 1963-'65 BT **106-2014**
9. Washer, flat, 5/16" x 5/16" x .025" white nylon **N/A**
10. Screw, SHS – ¼"-20 x 3/16" **50-0024**
 2 pack **50-0024P**
11. Pipe plug, SH 1/8"-27 each **50-8331A**
 10 pack **50-1015**
12. Oil line fitting 17330-42 **106-4734**



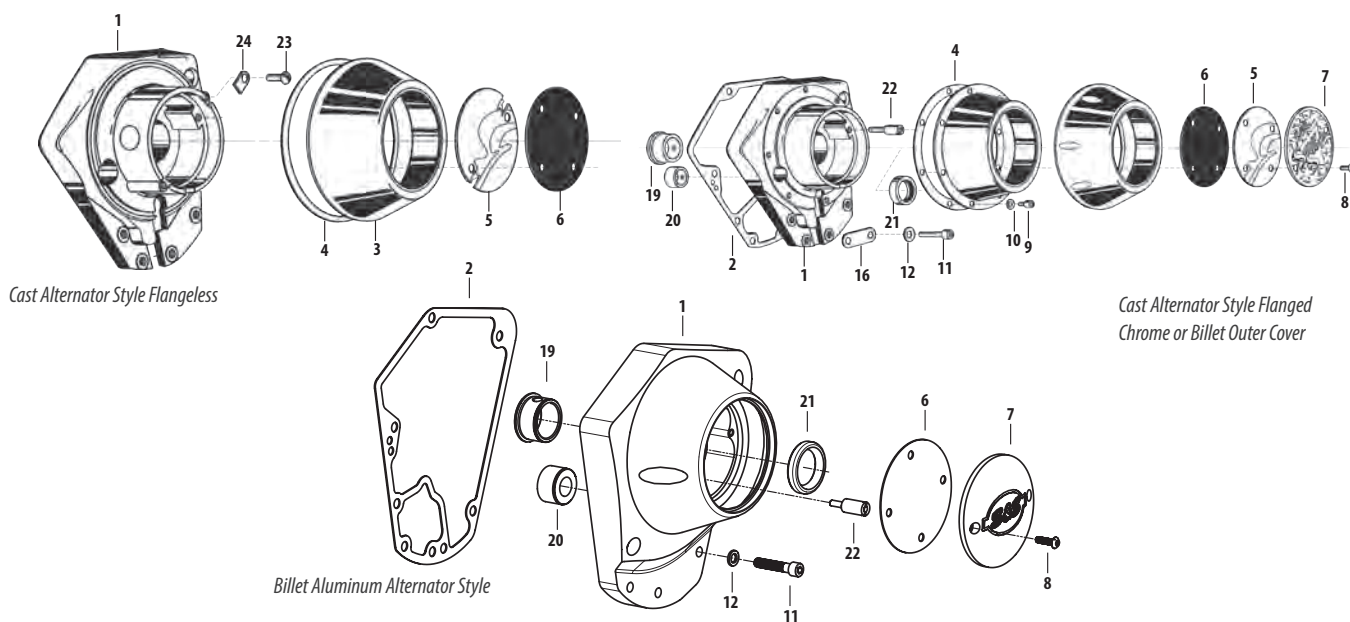
All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

GEARCOVER KIT REPLACEMENT PARTS

1. Gearcover assembly – (See page 435)
2. Gasket, gearcover
1970-'99 BT **25225-93A, 25225-93B, 25225-70C, 25257-80**
each **31-2107**
10 pack **106-0232**
3. Outer Cover for Cast Gearcovers 1970-99 bt
Flangeless type - chrome **31-0238[±]**
4. Gasket, outer cover - 1970-'99 BT
Flanged type each **31-0218**
5 pack **31-0256**
Flangeless type each) **31-0237**
5 pack **31-0261**
5. Ignition cover, inner - 1970-'99 BT
Flanged type **32504-80** **31-0215**
Flangeless type **31-0235**
6. Gasket, ignition cover - 1970-'99 BT
32591-80, 32591-70 each **31-0225**
7. Ignition cover, outer - 1970-'99 BT
Chrome, billet S&S Logo **31-0332[±]**
8. Screw, RSH - 8-32 x 1/2" (replaces stock rivets)
Stainless Steel each **50-0048**
Chrome each **50-0266-5[±]**
9. Screw, SH
10-24 x 3/8" - chrome for billet cover **50-0023[±]**
10. Washer, flat .192" x 3/16" x .035"
each **6150W** **50-7009**
11. Screw, SH - Use in all positions










- 1970-'99 BT - 1/4"-20 x 1 1/4" **4740A, 3482A**
Zinc each **50-0008**
Chrome **50-0257-5[±]**
12. Washer, flat
1/4" x .474" x .050" each **50-7020**
1/4" Flat washer, chrome, billet covers
each **50-7017[±]**
12 pack **50-7013[±]**
16. Wire harness clip **38711-93** **31-2029**
19. Cam bushing, gearcover
1970-'99 BT **25581-70** **31-4019**
20. Pinion shaft bushing, gearcover
1973-'99 BT **25582-93, 25582-73** **31-4031**
21. Gearcover oil seal 1970-'99 BT **83162-51**
each **31-4022**
22. Screw, timing mechanism **32606-82**
each **31-0224**
2 pack **31-0224P**
23. Screw, standard panhead 8-32 x 3/8" each **50-0004**
24. Clip, outer cover each **31-0233**





N/A= No longer available



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SUPER STOCK® CYLINDER HEADS REPLACEMENT PARTS FOR 1966-'84 BIG TWIN ENGINES

1. Cylinder head (See page 443)
2. Valves
 - Intake
 - 1.950" 18078-81, 18075-80, 18075-81, 18078-80, 18078-81 **90-2015**
 - 1.950" +.005" **90-2020**
 - Exhaust – 1948-'84 BT
 - 1.720" 18086-80, 18086-81, 18089-80, 18089-81 **90-2022**
 - 1.720" +.005" stem diameter. **90-2031**
3. Valve seats
 - Intake – 1.940"
 - Standard 18018-66, 18020-79, 18056-66B **90-2017**
 - +.002" oversize **N/A**
 - +.010" oversize **90-2117**
 - Exhaust – 1.750"
 - Standard 18010-79, 18055-66B, 18017-66 **90-2018**
 - +.002" oversize **90-2119**
 - +.010" oversize **90-2121**
4. Valve guide – cast – 1980-'84 BT
 - Intake or Exhaust
 - Standard 18010-79, 18055-66B, 18017-66  **90-2240**
 - +.001" 18109-81A  **90-2241**
 - +.002" 18108-81A, 90-2232  **90-2242**
 - +.003" 18107-81A, 90-2233  **90-2243**
 - +.004" 18106-81A, 90-2234  **90-2244**
 - +.006" (HD® #18110-81A)  **90-2246**
 - +.060"  **90-2249**
5. Valve guide seal – intake or exhaust
 - 1981-'84 BT 18000-81 each  **90-2019**
 - 8 pack  **90-2157**
6. Valve spring shim – Late 1981-'84 BT
 - .005" x .765" x 1.500" **50-7121**
 - .015" x .765" x 1.500" **50-7122**
 - .025" x .765" x 1.500" **50-7123**
7. Valve spring kit – Late 1981-'84
(Includes springs, top & bottom collars, keepers shims)
 - .590" lift – steel top collars **90-2063**
8. Valve spring keeper – intake or exhaust
 - 1936-'84 BT 18228-36 each **90-2037-S**
 - 8 pack **50-7165**
9. Screw, SH – 5/16" – 18 x 1" (HD® #2708A) **50-0101**
10. Lock washer – 5/16" (HD® #7041) **50-7032**
11. Exhaust pipe gasket – 1966-'84 BT (HD® #653834-68A) **93-1004-S**
12. Head mount bolt – 7/16" – 14 x 1 1/4" (HD® #3782) each **50-0171**
13. Flat washer – 7/16" x 1 5/16" x 3/8" (HD® #6495HW) **50-7064**
14. Rocker cover mounting screw – 1966-'84 BT
 - Hex head – 5/16" – 18 x 1 1/2" (HD® #2818) each **50-0109**
 - Hex head – 5/16" – 18 x 2 1/2" (HD® #3501) each **50-0104**
15. Flat washer – 5/16" 6320, 70907-07, 6016, 6702 **50-7034**
16. Rocker cover gasket 1966-'84 BT 17540-69, 17540-69A
 - each **90-4040**
 - 10 pack **90-4064**

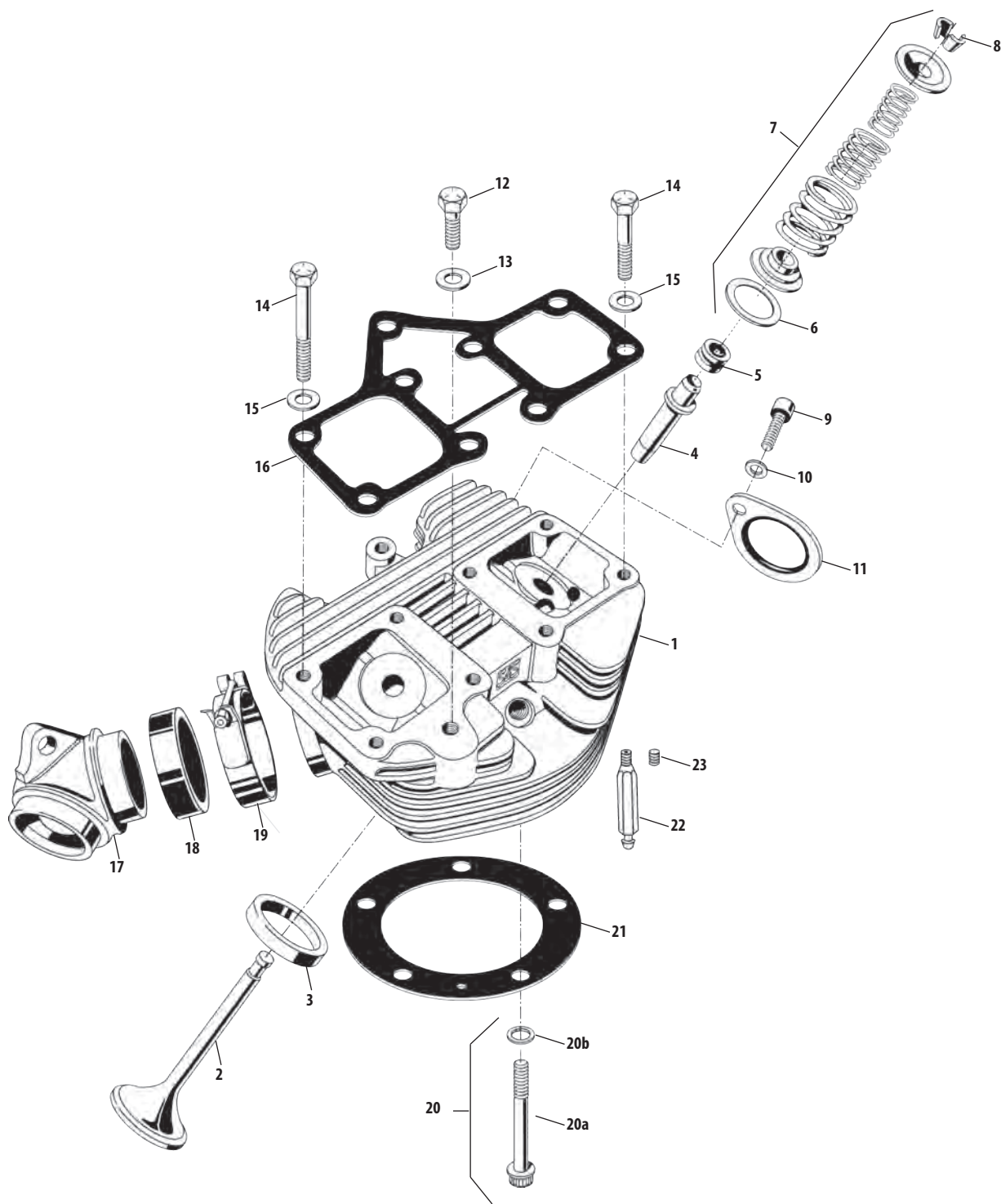
17. Intake manifold (See page 458)
 18. Manifold seal
 - O-ring – 1955-'78 BT 27060-55
 - each **50-8046**
 - 10 pack **50-8132**
 - Band – 1979-'84 BT 27062-78
 - each  **16-0238**
 - 10 pack  **16-0245**
 19. Manifold mounting clamp
 - O-ring type heads – 1955-'78 BT 27063-57 **16-0230**
 - Band type heads – 1979-'85 BT 27063-80, 27063-78  **16-0231**
 20. Head bolt assembly, stainless – 1948-'84 BT
(Includes head bolt & washer.) 6469HW
 - 10 pack  **93-3024**
 - 20a. Head Bolt, each. **93-3024-S**
 - 20b. Head bolt washer – 1936-'84 BT
(For part #90-3024, #90-3026 & #90-3040) **93-3025**
 21. Head gasket, copper – 1966-'84 BT
 - 3 7/8" & 3 1/2" bore 16770-66B each **93-1041**
 - 10 pack **93-1061**
 - 3 5/8" bore each **93-1042**
 - 10 pack **93-1062**
 22. Fitting, oil return, 1/8" – 27 pipe 63533-65, 63533-41A **31-2019**
 23. Plug, oil return, 1/8" – 27 pipe each **50-8331A**
 - 10 pack **50-1015**
- N/A= No longer available

TOP END REBUILD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS

S&S Engine Family	Year Group	Bore Size	Part #
P Series/SH-Series	1966-'84	3 5/8"	90-9501
P Series/SH-Series	1966-'84	3 1/2"	90-9500

CYLINDER HEAD GASKET KITS FOR S&S® ENGINES FOR BIG TWINS














S&S Engine Family	Year Group	Bore Size	Part #
P Series/SH-Series	1966-'84	3 5/8"	90-1918
P Series/SH-Series	1966-'84	3 1/2"	90-1917



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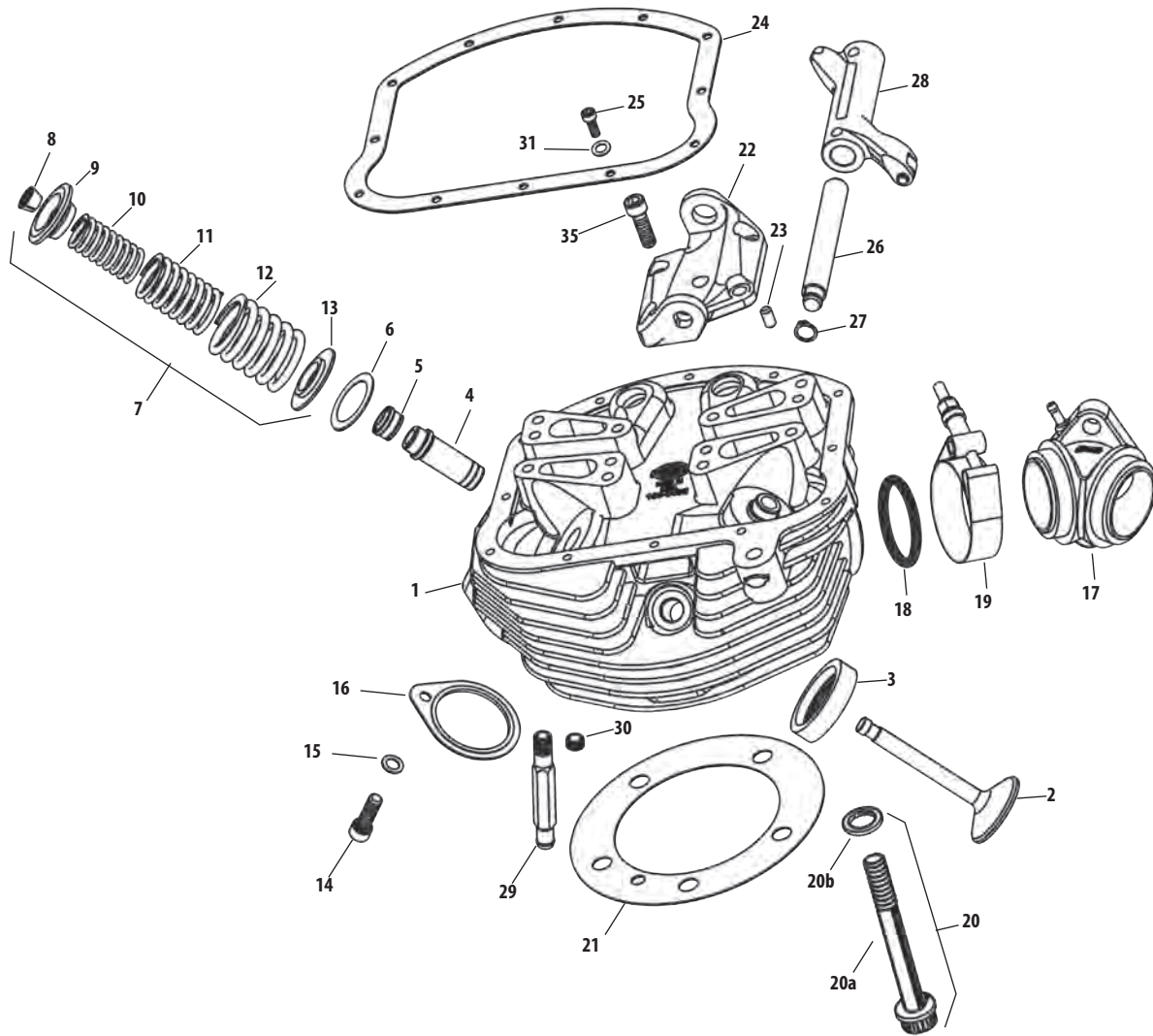
CYLINDER HEAD REPLACEMENT PARTS

FOR P-SERIES ENGINES, PANHEAD CYLINDER HEAD AND VALVE TRAIN UPDATE KIT & SHOVELHEAD RETRO CONVERSION KIT

1. Cylinder head – (See page 443)
2. Valves
 - Intake
 - 1.950" 18078-81, 18075-80, 18075-81, 18078-80, 18078-81..... **90-2015**
 - 1.950" +.005"..... **90-2020**
 - Exhaust – 1948-'84 bt
 - 1.720" 18086-80, 18086-81, 18089-80, 18089-81..... **90-2022**
 - 1.720" +.005" stem diameter..... **90-2031**
3. Valve seats
 - Intake – 1.940"
 - Standard 18018-66, 18020-79, 18056-66B..... **90-2017**
 - +.002" oversize..... **N/A**
 - +.010" oversize..... **90-2117**
 - Exhaust – 1.750"
 - Standard 18010-79, 18055-66B, 18017-66..... **90-2018**
 - +.002" oversize..... **90-2119**
 - +.010" oversize..... **90-2121**
4. Valve guide – cast – 1980-'84 bt
 - Intake or Exhaust (see valve guide diameter chart)
 - Standard.....  **90-2240**
 - +.001" 18109-81A.....  **90-2241**
 - +.002" 18108-81A, 90-2232.....  **90-2242**
 - +.003" 18107-81A, 90-2233.....  **90-2243**
 - +.004" 18106-81A, 90-2234.....  **90-2244**
 - +.006" (HD#18110-81A).....  **90-2246**
 - +.060".....  **90-2249**
5. Valve guide seal – intake or exhaust 1981-'84 bt 18000-81
 - each.....  **90-2019**
 - 8 pack.....  **90-2157**
6. Valve spring shim – Late 1981-'84 bt
 - .005" x .765" x 1.500" each..... **50-7121**
 - .015" x .765" x 1.500" each..... **50-7122**
 - .025" x .765" x 1.500" each..... **50-7123**
7. Valve spring kit – Late 1981-'84
(Includes springs, top & bottom collars, keepers shims)
 - .590" lift – steel top collars..... **90-2063**
8. Valve spring keeper – Intake or exhaust 1936-'84 bt
 - each..... **90-2037-S**
 - 8 pack..... **50-7165**
9. Top Collar, Steel, .590"..... **90-2057**
10. Inner Spring, .590"..... **90-2054**
11. Middle Spring, .590"..... **90-2055**
12. Outer Spring, .590"..... **90-2056**
13. Bottom Collar, Steel, .590"..... **90-2062**
14. Screw, SHCS, 5/16-18 x 3/4" Zinc 3275..... **50-0302-S**
15. Lock washer – 5/16"..... **50-7032**
16. Exhaust pipe gasket – 1966-'84 bt each..... **93-1004-S**
17. Intake manifold (See page 458)
18. Manifold seal – O-ring – 1955-'78 bt 27060-55
 - each..... **50-8046**
 - 10 pack..... **50-8132**
19. Manifold mounting clamp O-ring type heads
1955-'78 bt 27063-57..... **16-0230**
20. Head bolt assembly, stainless – 1948-'84 bt
(Includes head bolt & washer) 6469HW 10 Pack.....  **93-3024**
 - a. Head Bolt, 12 pt, 7/16-20 X 2-3/8" x 1" TD 1324-S
each.....  **93-3024-S**
 - b. Head bolt washer – 1936-'84 bt, each..... **93-3025**
21. Head Gaskets
 - Head, Gasket, Copper – 1966-84bt
 - 21a. 3 1/16" & 3 1/2" Bore
 - each 16770-66B..... **93-1041**
 - 10 pack..... **93-1061**
 - Head Gasket Kit..... **106-1095**
 - 21b. 3 3/8" Bore
 - each..... **93-1042**
 - 10 pack..... **93-1062**
 - Head Gasket Kit..... **106-1096**
- Head Gasket, Composite – 1948-65 bt
 - 21c. 3 3/8" Bore
 - each..... **93-1019**
 - Head Gasket, Copper – 1948-65 bt
 - 21d. 3 1/16" & 3 1/2" Bore
 - each 16770-48..... **106-5933**
 - Head Gasket Kit..... **106-5934**
 - 21e. 3 3/8" Bore
 - each..... **106-5937**
 - Head Gasket Kit..... **106-5938**
22. Rocker arm support
 - Front intake/rear exhaust..... **106-0928**
 - Rear intake/front exhaust..... **106-0929**
23. Pin, 1/4" diameter x 1/2" each..... **50-8022**
 - 2 pack..... **50-8022-2**
 - 5 pack..... **50-8105**
24. Gasket, rocker cover 1948-'65 bt each..... **900-0329**
 - Set 117541-48..... **900-0339**
25. Screw, SHC #10-24 x 3/4" 2674, 2675 each..... **106-0913**
26. Shaft, Rocker Arm, S&S P-Series.....   **106-0915**
 - 4 pack..... **106-0916**
27. Snap ring SHF-37 3/8" x .050" each..... **106-0917**
28. Roller rocker arm
 - Set..... **900-4320A**
 - Front exhaust/rear intake 17375-66A..... **900-4320FA**
 - Rear exhaust/front intake 17360-66A..... **900-4320RA**
29. Fitting, oil return, 1/8"-27 pipe 63533-65, 63533-41A..... **31-2019**
30. Plug, oil return, 1/8"-27 pipe each..... **50-8331A**
 - 10 pack..... **50-1015**
31. Flat washer, .192" x 5/16" x .035"
each..... **50-7009**
- Not Shown:**
 - 32. Head mount bolt – 7/16"-14 x 1 1/4"
each..... **50-0171**
 - 33. Flat washer – 7/16" x 1 5/16" x 1/8" 6495HW..... **50-7064**
 - 34. Cover, rocker arm, set, 1948-'65 bt 17500-48A..... **106-0919**
 - 35. Screw, SHC, 5/16-18 x 1", Zinc, ASTM A574-92
3201WA, 2708..... **50-0101**

N/A= No longer available

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TOP END REBUILD GASKET KITS FOR S&S® ENGINES

S&S Engine Family	Year Group	Bore	Part #
P Series/SH-Series	1966-'84	3 5/8"	90-9501
P Series/SH-Series	1966-'84	3 1/2"	90-9500

VALVE GUIDE DIAMETERS FOR S&S® P AND SH SERIES ENGINES AND 1980-'84 BIG TWIN

Oversize	Diameter	Part #
Std.	.6250/.6245	90-2240
+.001 18109-81A	.6260/.6255	90-2241
+.002 18108-81A, 90-2232	.6270/.6265	90-2242
+.003 18107-81A, 90-2233	.6522/.6519	90-2243
+.004 18106-81A, 90-2234	.6290/.6285	90-2244
+.006 18104-81A, 90-2236	.6310/.6305	90-2246
+.060	.6850/.6845	90-2249

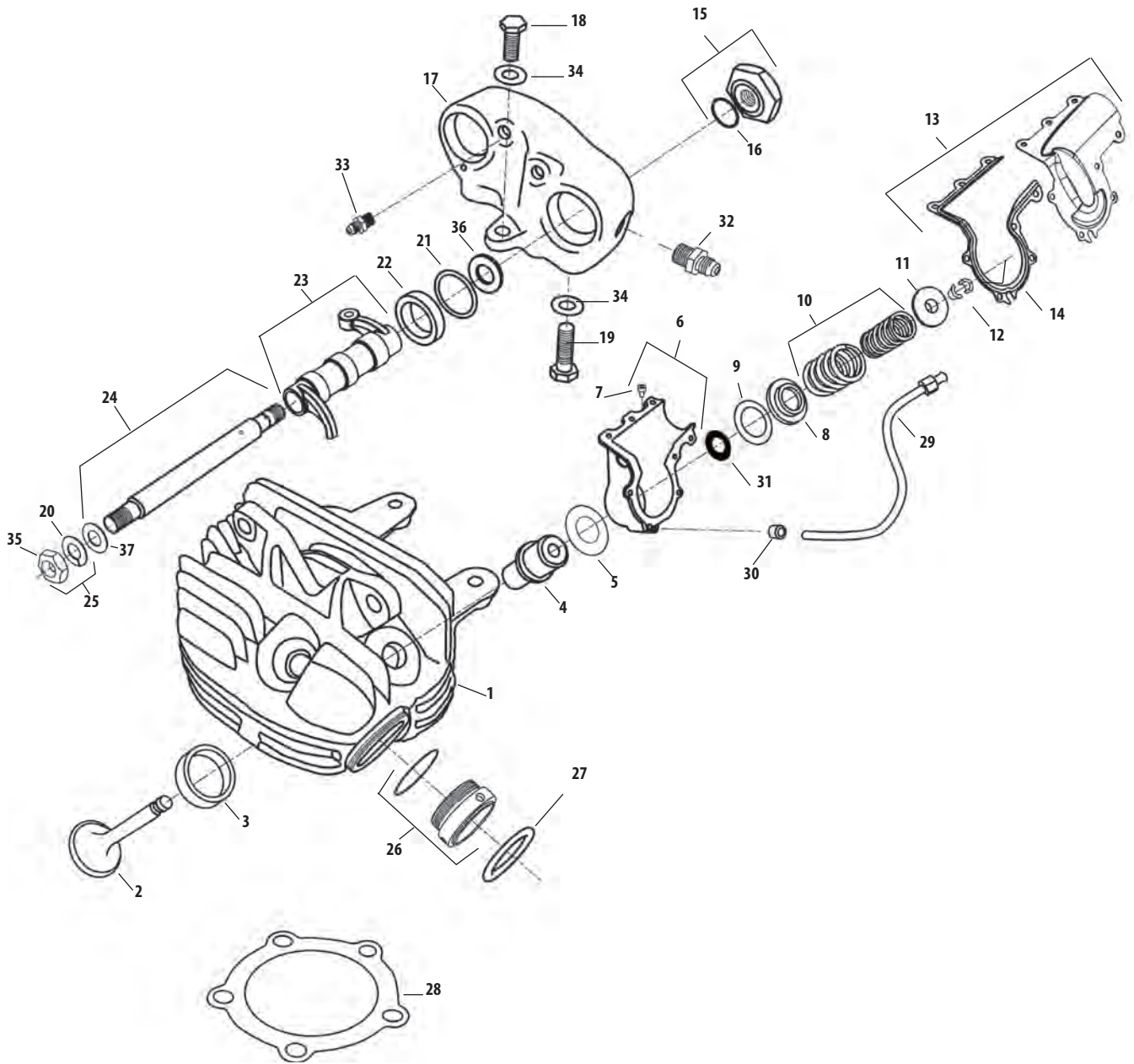
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Milwaukee Light™
 2007-2017 Twin Cam™ 96"/103"/110"
 1999-2006 Twin Cam 88™
 1986-2019 Sportster® & Buell®
 2014-2019 Street & Street Rod™
 1984-1999 Evolution®
 1926-1984 Vintage Engines
 Indian® & Victory® Models
 Tools & Shop Supplies
 Apparel
 Warranty & Company Policy
 Appendix & Index

CYLINDER HEAD REPLACEMENT PARTS

FOR 1936-'47 KNUCKLEHEADS AND KN-SERIES ENGINES

- | | |
|--|--------------------|
| 1. Head, kit, .421" dual steel
For covers, gloss black
1936-'47 OHV BT; KN-Series | 106-2403 |
| 2. Valve
Intake, 1.940" | 106-3630 |
| Exhaust, 1.750" | 106-3629 |
| 3. Valve seat
Intake, 1.940" | 106-2821 |
| Intake/Exhaust, 1.750" | 106-2822 |
| 4. Valve guide, intake/exhaust for Stock (see valve guide diameter chart)
Standard 18185-40, 18181-36 | 106-3637 |
| + .002" | 106-3948 |
| + .004" | 106-3638 |
| + .008" | 106-3639 |
| Valve guide, intake/exhaust for S&S KN-Series
Standard | 900-0526 |
| + .002" | 900-0527 |
| + .004" | 900-0528 |
| + .008" | 900-0529 |
| 5. Gasket, lower valve cover (tin), 1936-'47 OHV BT | 900-0668 |
| 6. Cover, kit, bottom, valve spring, (tins), black anodized,
(includes screws) 1938-'47 BT KN-Series | 900-0674 |
| NOTE - bottom tins will not fit stock upper tins. | |
| 7. Screw, valve spring cover 3477 | 106-3634 |
| NOTE - Valve spring components below are not interchangeable with
stock and must be used together. | |
| 8. Bottom collar, valve spring | 900-0670 |
| 9. Shim, valve spring .015" | 106-4549 |
| 10. Spring, kit, valve, dual, .421" | 106-4362 |
| Springs only, 1936-'47 OHV BT | 900-0535 |
| 11. Top collar, valve spring | 106-3828 |
| 12. Keepers, valve spring, top collar | 90-2037-5 |
| 8 Pack | 50-7165 |
| 13. Cover, kit, top, valve spring, (tins) 1938-'47 BT; KN-Series
Chrome | 106-2400± |
| Gloss Black Powder coat | 106-2893 |
| NOTE - top tins will not fit stock bottom tins. | |
| 14. Gasket, kit, valve spring cover, top, S&S only | 106-3166 |
| 15. Nut, rocker shaft, with o-ring, chrome 1936-'47 OHV BT
17447-36 each | 106-4355± |
| 16. O-ring, (-017), .676" ID x .816" OD, Black, | 50-0466 |
| 17. Housing, rocker arm, (knuckles), 1936-'47 OHV BT
Set, Polished | 900-0617 |
| Front, Polished | 900-0618 |
| Rear, Polished | 900-0619 |
| Set, As Cast | 900-0622 |
| Front, As Cast | 900-0623 |
| Rear, As Cast | 900-0624 |
| 18. Screw, HHCS, 3/8-16 x 1" - Cadmium plated | 106-4597 |
| 19. Screw, HHCS, 3/8-16 x 1 1/2" - Cadmium plated | 106-4598 |
| 20. Washer, Lock, 7/16", Zinc | 106-4357 |
| 21. Washer, packing 1936-'47 OHV BT 17482-36 | 106-4358 |
| 22. Seal, rocker arm, 1936-'47 OHV BT 17475-38 | 106-3636 |
| 23. Rocker arm, non-roller, 1:1 ratio, 1936-'47 OHV BT; KN-Series
(Includes shaft kit) Set of four | 106-2412 |
| Front Intake w/shaft | 106-2862 |
| Front Exhaust w/shaft | 106-2863 |
| Rear Intake w/shaft | 106-2864 |
| Rear Exhaust w/shaft | 106-2865 |
| 24. Shaft, set, rocker arm, 1936-'47 OHV BT; KN Series
(Set of four, Includes spacers and hardware) | 106-2413 |
| 25. Nut kit, rocker arm 7831 | 106-3632 |
| 26. Adaptor, Manifold, conversion, plumber to o-ring | 106-4654 |
| 27. O-ring, manifold 27060-55 each
10 pack | 50-8046
50-8132 |
| 28. Gasket, set, head, KN-Series, Copper
3 5/8" bore (each) | 106-2681 |
| 2 pack | 106-2432 |
| 3 7/8" bore | 106-2689 |
| 29. Oil line, Return 1936-'47 OHV BT (S&S Tins Only)
Kit of 4 | 106-4446 |
| Front Intake | 106-4447 |
| Front Exhaust | 106-4448 |
| Rear Intake | 106-4449 |
| Rear Exhaust | 106-4450 |
| 30. Seal, Oil Return Line, FHP tins only
28" OD x .18" ID x 1", Rubber Hose | 106-4456 |
| 31. O-ring | 900-0669 |
| 32. Oil supply fitting, Cad Plated 17325-42 | 106-4618 |
| 33. Oil return fittings, Parkerized 17320-38 | 106-4619 |
| 34. Washer, Lock, .385" x .680" x .094", Zinc | 50-7052 |
| 35. Nut, Jam, 7/16-20, Zinc | 106-4356 |
| 36. Washer, Thrust, Stepped, .015" 17465-36 | 106-4352 |
| 37. Washer, Thrust, Stepped, .060" | 106-4883 |
| Parts Not Shown: | |
| 38. Manifold, kit, o-ring, 1 7/8", VOES, KN93 | 106-4530 |
| 39. Gasket, kit, engine, KN-Series, with hardware | 106-2414 |
| 40. Pushrod, set, non-adjustable, KN93, steel
1936-'47 OHV BT | 930-0009 |
| 41. Cover keeper, kit, pushrod,
KN93 17949-40, 17950-66 | 93-4106 |
| 42. Oil line, supply, "Y" feed, 1936-'47 OHV BT
Stock 74", KN74, KN93, S&S/Stock Carb. | 106-4670 |
| 43. Bottom collar spacer - required when using S&S valve springs
with stock steel "tins" | 106-5094 |
| 44. Rocker arm cover gasket kit, 1936-'47 big twin | 900-0493 |



VALVE GUIDE DIAMETERS FOR S&S KN SERIES ENGINES AND 1936-'47 OHV BIG TWIN

Oversize	Diameter	Part Number
Std.	.6442/.6439	900-0526
+ .002	.6462/.6459	900-0527
+ .004	.6482/.6479	900-0528
+ .008	.6522/.6519	900-0529

BILLET ROCKER COVER REPLACEMENT PARTS FOR 1966-'84 BIG TWIN ENGINES

- 1. Rocker cover, assembly front **N/A**
- 2. Rocker cover, assembly rear **N/A**
- 3. Screw, SHS **50-0294-S**
- 4. Nut, HFH 5/16" UNC **50-8187-S**
- 5. Screw, SHS **50-0318-S**
- 6. O-ring, Viton® -019 each **50-7962-S**
- 7. O-ring, Viton 1.00 mm CS x 14.00mm **50-7963-S**
- 8. O-ring, front, Viton 1.00mm CS x 9.50mm ID **50-7965-S**
O-ring, rear, Viton 1.00mm CS x 11.00mm ID
10 pack **50-7966**
- 9. O-ring, Viton -160 **50-7961-S**
- 10. Rocker shaft set (For S&S rocker covers only.)
Set **90-4351**
Individual **90-4350**
- 11. Plug, rocker arm shaft (4 pack) **50-8340**
- 12. Roller Rocker arm 1966-'84 big twin
Set **900-4320A**
Front 17375-66A **900-4320FA**
Rear 17360-66A **900-4320RA**
- 13. Dowel pin, .187" x .635", Steel **50-8031**
10 pack **50-1015**
- 14. Gasket kit, S&S billet rocker covers (Not Shown) **90-4311**
- 15. Plug, SH pipe - 1/8"-27 **50-8331A**
10 pack **50-1015**

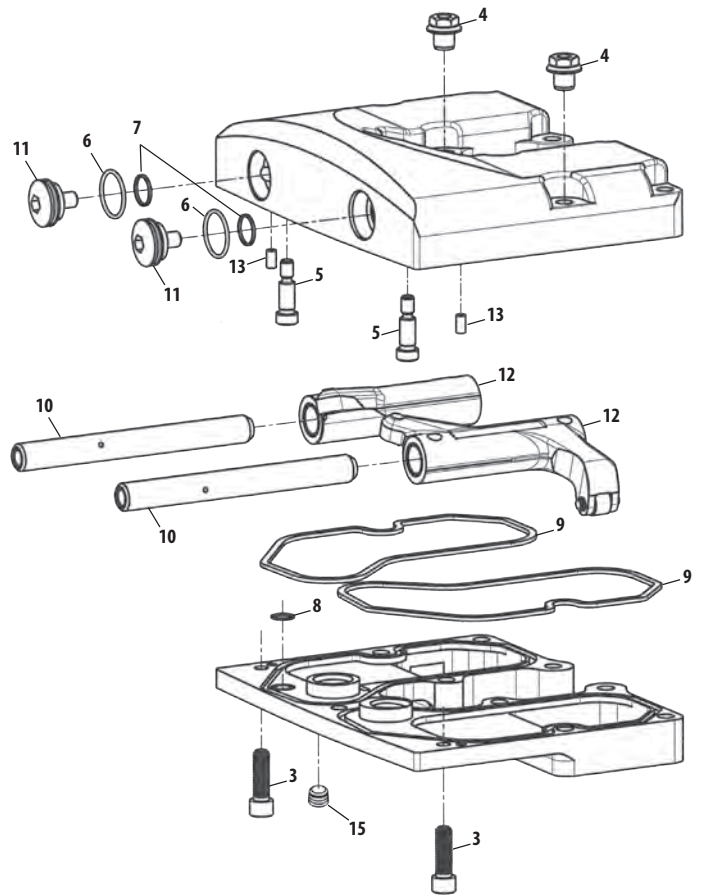
ROCKER SHAFT AND OIL LINE SEALS

Rocker Shaft Seal

S&S SH-Series and 1966-'84 bt with stock rocker covers (N/S) ... **50-8073-S**

Oil Line Seal – S&S SH-Series and 1966-'84 bt using outside oil lines (N/S)
..... **50-8074-S**

(N/S) = Not Shown



NOTE

Since top cover and base are machined together, replacements are only sold as assemblies to prevent mismatch of polished surfaces.

All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

SUPER B CARBURETOR REPLACEMENT PARTS

- 1. Throttle return spring **11-2082**
- 2. Throttle plate screw
11-2045 each **50-0055-S**
10 pack **50-0064**
- 3. Throttle shaft
Comes with two throttle plate screws **11-2083**
- 4. Throttle shaft bushing
(For repair only) **11-2134**
- 5. Enrichment device **11-2084±**
- 6. Carb body **11-2081±**
- 7. Idle mixture screw each **11-2354**
5 pack **11-2378**
- 8. Idle mixture screw spring each **11-2052**
10 Pack **11-2060**
- 9. O-ring – 1 7/8" 16-0056 **50-8013**
- 10. Throttle plate – 1 7/8" **11-2055**
- 11. Throttle arm assemble two cable type
(includes #25,26,27,28) **11-2148**
- 12. Intermediate jet – See chart on page 463
- 13. Main discharge tube **11-2085±**
- 14. Main jet – See chart See chart on page 464
- 15. Bowl gasket each **11-2086**
10 pack **11-2091**
- 16. Float
Wire type **11-2187**
Forked type **N/A**
- 17. Float retaining pin **11-2069**
- 18. Bowl
For wire type float **11-2188**
For forked type float **N/A**
- 19. Needle
For wire type float **11-2195±**
For forked type **11-2095**
- 20. Seat – For wire or forked type float **11-2065**
- 21. Bowl plug each **11-2090**
5 pack **11-2092±**
- 22. Bowl screw each **50-0034**
10 Pack **50-0063**
- 23. Spacer,Kit,Carb,1-7/8" x 1" **16-0057***
Spacer,Kit,Carb,2-1/16" x 1" **16-0357***
Spacer,Kit,Carb,2-1/4" x 1" **16-0157***
- 24. Screw,
1" x 3/8" -16 **50-0161**
1 1/4" x 3/8" -16 **50-0162**
10 pack **50-0177**
1 3/8" x 3/8" -16 **50-0163**
5 pack **50-0178**
2" x 3/8" -16 **50-0164**
5 pack **50-0185**
- 25. Spring,Idle/Accelerator Pump,Super B/D/E **11-2048**
- 26. Screw,SLTD FH,8-32 x 7/8",Zinc,Steel **50-0038**
10 pack **50-0150**
- 27. Screw,SLTD FH,8-32 x 5/8",Zinc,Steel **50-0039**
10 pack **50-0146**
- 28. Screw,SLTD FH,8-32 x 3/16",Zinc,Steel **50-0030-S**
- 29. Tube Fast Idle Pickup .125" x 2.350" **0381F**

CARBURETOR REBUILD KITS

Master Rebuild Kit

Super B

(includes #1, 2, 3, 4, 7, 8, 9, 10, 15, 17, 19, 20, 22, 25, 26, 27, & 28) **11-2914±**

Body Rebuild Kit

Super A/B

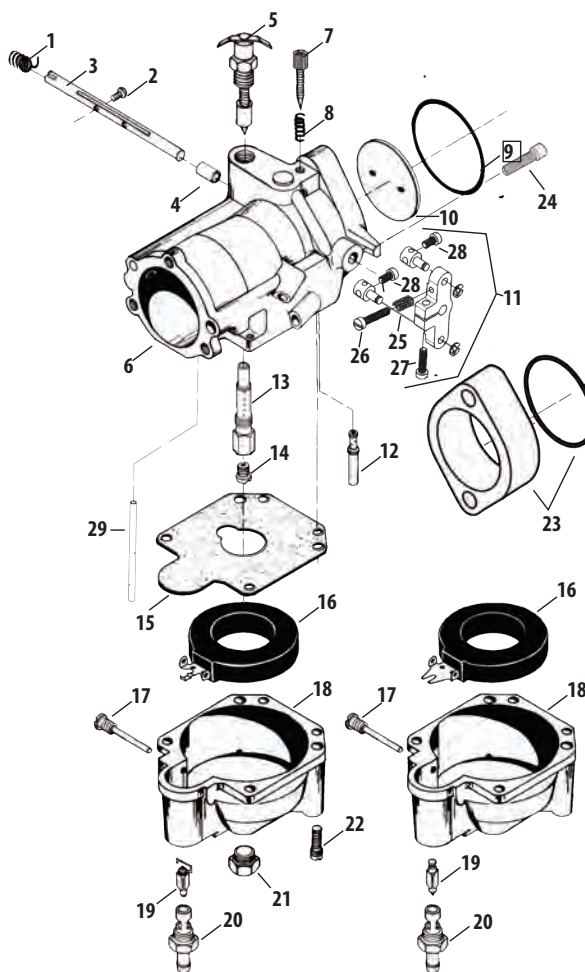
..... **11-2903±**

CARBURETOR KIT

Fully-assembled carburetor

11-0111

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.






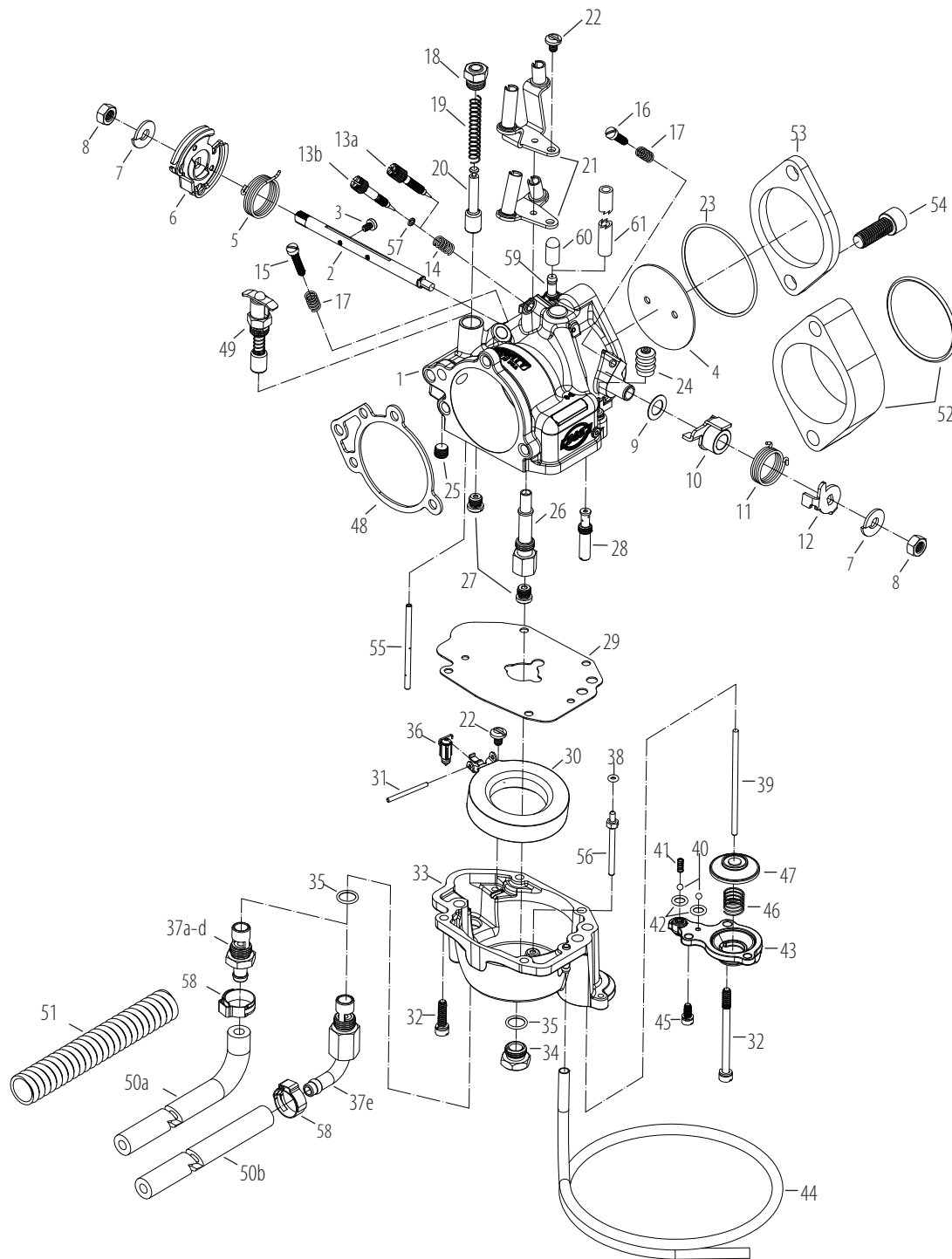
NOTE

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

- 1025"
- 2028"
- 3031"
- 4033"
- 5036"
- 6040"

SUPER E & G CARBURETOR REPLACEMENT PARTS

1. Carb body assembly		
1 7/8" Super E	11-2381 [±]	
2 1/16" Super G	11-2391 [±]	
2. Throttle shaft		
1 7/8" Super E — Includes two plate screws	11-2383	
2 1/16" Super G — Includes two plate screws	11-2483	
3. Throttle plate screw 11-2045- (two required) (each)	50-0055-S	
10 pack	50-0064	
4. Throttle plate		
1 7/8" Super E	11-2055	
2 1/16" Super G	11-2355	
5. Throttle return spring (each)	11-2382	
5 Pack	11-3502	
6. Throttle spool	11-2385	
7. Throttle shaft lock washer (two required)	50-7031	
8. Throttle shaft nut (two required) (each)	11-2350	
5 pack	11-2363	
9. Throttle shaft nylon washer (each)	50-7050	
10 pack	50-7072	
10. Pump actuator lever	11-2376	
11. Actuator spring (each)	11-2375-S	
5 pack	11-3501	
12. Pump actuator arm	11-2377	
13. Idle mixture screw		
a. Idle mixture screw, brass (each)	11-2354 [±]	
5 pack	11-2378 [±]	
b. Idle mixture screw only		
each	110-0003	
Idle mixture screw w/ 500-0036 o-ring		
each	110-0068 [±]	
5 pack	110-0069 [±]	
14. Idle mixture screw spring (each)	11-2052	
10 Pack	11-2060	
15. Idle speed screw (each)	50-0038	
10 Pack	50-0150	
16. Pump adjustment screw (each)	50-0039	
10 Pack	50-0146	
17. Idle speed/pump adjuster spring (each)	11-2048	
10 pack	11-2053	
18. Plunger nut (each)	11-2344 [±]	
5 Pack	11-2372 [±]	
19. Plunger spring (each)	11-2340	
10 Pack	11-2359	
20. Fast idle plunger	11-2343	
21. Cable guide assembly with screw		
Use with butterfly style cables	11-2339P	
Use with constant velocity style cables	11-2338P	
22. Cable clamp/float pin screw (each)	50-0041	
10 Pack	50-0062	
23. O-ring		
1 7/8" Super E (each)	50-8016	
10 Pack	50-8094	
2 1/16" Super G (each)	50-8015	
10 pack	50-8093	
24. Bellows seal (each)	11-2266	
5 Pack	11-2279	
25. Bowl vent plug (each)	50-0105	
10 pack	50-0151	
26. Main discharge tube	11-2085 [±]	
27. Main jet — See Chart on page 464		
28. Intermediate Jets — See Chart on page 463		
Series #94 fits all Super 1 7/8", 2 1/16", 2 1/4" gas carburetors.		
29. Bowl gasket (each)	11-2386	
10 pack	11-2387	
30. Float	11-2187	
31. Float pin (each)	11-2369 [±]	
5 Pack	11-2370 [±]	
32. Bowl screw		
10-24 x 3/4" — Three required (each)	50-0034	
10 Pack	50-0063	
10-24 x 2 3/8" — One required (each)	50-0040	
10 Pack	50-0061	
33. Carb bowl (only)	11-2388	
Carb bowl complete assembly	11-2388P	
34. Bowl plug (each)	11-2090	
5 pack	11-2092 [±]	
35. Seat o-ring* (required with part #11-2465 & #11-2466 only when replaces 360° style fuel inlet)		
each	50-8009	
10 pack	50-8095	
36. Needle		
1 7/8" Super E & 2 1/16" Super G	11-2195 [±]	
Racing only	11-2197 [±]	
37. Seat — Includes O-ring #35		
(Replaces obsolete seats 11-2347 and 11-2348)		
a. 1 7/8" E & 2 1/16" G (Uses part #11-2195 [±] needle)	11-2465	
b. Racing only (Uses part #11-2197 [±] needle)	11-2466	
c. Racing only — threaded fuel inlet (.6AN .157" ID)		
(Uses part #11-2195 [±] needle)	11-2395	
d. Permeation Compliant fuel inlet seat Super E or G.		
(Uses part #11-2195 [±] needle)	106-2011	
38. Ejector nozzle o-ring (each)	50-8011	
10 Pack	50-8096	
39. Pump pushrod (each)	11-2373	
5 Pack	11-2393	
40. Check ball — (two required) (each)	50-8090	
10 pack	50-8125	
41. Check ball spring (each)	11-2374	
5 Pack	11-2392	
42. Pump cap o-ring — (two required) (each)	50-8012	
10 Pack	50-8100	
43. Pump cap assembly	11-2389	
44. Overflow hose per 24" 27369-76 (each)	19-0262-S	
5 Pack	19-0263	
45. Pump cap screw 8-32 — (two required) (each)	50-0042	
10 Pack	50-0098	
46. Diaphragm spring (each)	11-2275	
10 pack	11-2278	
47. Diaphragm	11-2282	
48. Gasket, backplate (each)	106-1724	
10 pack	106-2328	
49. Enrichment device (Use with air horn only)	11-2084	
50. Fuel line		
a. Fuel line With 90° bend 19" (Use with part #11-2465 or #11-2466)		
  1,2,3	190-0006	
b. Permeation Compliant straight, 31 1/2" x .563" x 17.5"		
(Use with part #106-2011, 90° seat)	190-0001	
51. Fuel line insulator — 12"  1,2,3	19-0172	
52. Spacer, Kit, w/ O-ring		
1 7/8" x 1"	16-0057*	
2 1/16" x 1"	16-0357*	
2 1/4" x 1"	16-0157*	
* Use with 1" Spacer Block	16-0058	
53. Insulator Block, Manifold, w/ O-ring		
1 7/8" x 1/4" Super E	16-0491	
1 7/8" x 3/8" Super E	16-0497	
2 1/16" x 1/4" Super G	16-0492	
2 1/16" x 3/8" Super G	16-0498	
2 1/4" x 1/4" Super D	16-0499	
54. Screw		
1" x 3/8" — 16 (each)	50-0161	
1 1/4" x 3/8" — 16 (each)	50-0162	



- 10 pack **50-0177**
- 1 3/8" x 3/8" - 16 (each) **50-0163**
- 5 pack **50-0178**
- 2" x 3/8" - 16 (each) **50-0164**
- 5 pack **50-0185**
- 55.** Tube, Fast Idle Pick-Up, Super E/G, 125" x 2.350", Brass **0381F±**
- 56.** Tube, Ejector Nozzle, Super E/G, Flared, Brass **106-6124±**
- 57.** O-ring, 3mm x 5mm x 1mm (each) **500-0036**
- 10 pack **500-0148**
- 58.** Clamp, 5/8" - 7/8" **50-8002**
- 59.** Hose, Fitting straight, .040" **16-0134**
- 60.** VOES Fitting Cap **50-8372**
- 61.** VOES/Oil Return Hose **19-0395**

**CARBURETOR REBUILD KITS
SEE PAGE 464**

L-SERIES MGL & MGAL GAS CARBURETOR REPLACEMENT PARTS

1. Carb body assembly - MGL & MGAL 1 7/8"	N/A
2. Throttle shaft (includes 2 ea. #50-0055-S)	11-2083
3. Choke/throttle plate screw	50-0055-S
10 pack	50-0064
4. Throttle plate - 1 7/8"	11-2055
5. Throttle return spring	11-2082
6. Throttle arm assembly, 1 cable	N/A
7. Intermediate plug	N/A
9. Choke lever washer	N/A
13. Idle mixture screw	11-2354
5 pack	11-2378
14. Idle mixture screw spring	11-2052
10 pack	11-2060
18. Choke lever screw	N/A
19. Choke lever spring	N/A
20. Choke plate	N/A
23. O-ring - 1 7/8"	50-8013
26. Main discharge tube	N/A
27. Main jet - state size - see page 464	
28. Intermediate jet	N/A
29. Bowl gasket	11-2070
30. Float - forked type or original brass type	N/A
31. Float retaining pin	11-2069
32. Bowl screw - 10-24 x 3/4"	50-0032
33. Carb bowl assembly	
Original type	N/A
Forked type	N/A
34. Bottom plug	N/A
36. Needle - forked type	11-2095
37. Seat - forked/wire type	11-2065
51. Choke shaft assembly	N/A
52. Throttle shaft bushing - for repair only	11-2134
54. Lockwasher - #10	50-7000
55. Intermediate air bleed	N/A
56. Spring, Idle/Accelerator Pump, Super B/D/E	11-2048
10 pack	11-2053
57. Screw, SLTD FH, 8-32 x 7/8", Zinc, Steel	50-0038
10 pack	50-0150
58. Screw, SLTD FH, 8-32 x 5/8", Zinc, Steel	50-0039
10 pack	50-0146
59. Screw, SLTD FH, 8-32 x 3/16", Zinc, Steel	50-0030-S

CARBURETOR REBUILD KITS

Body Rebuild Kit

MGL (includes:#2,3,4,5,23,29,52)	11-2906 [±]
MGAL (includes:#2,3,4,5,23,29,52)	11-2900 [±]

Master Rebuild Kit

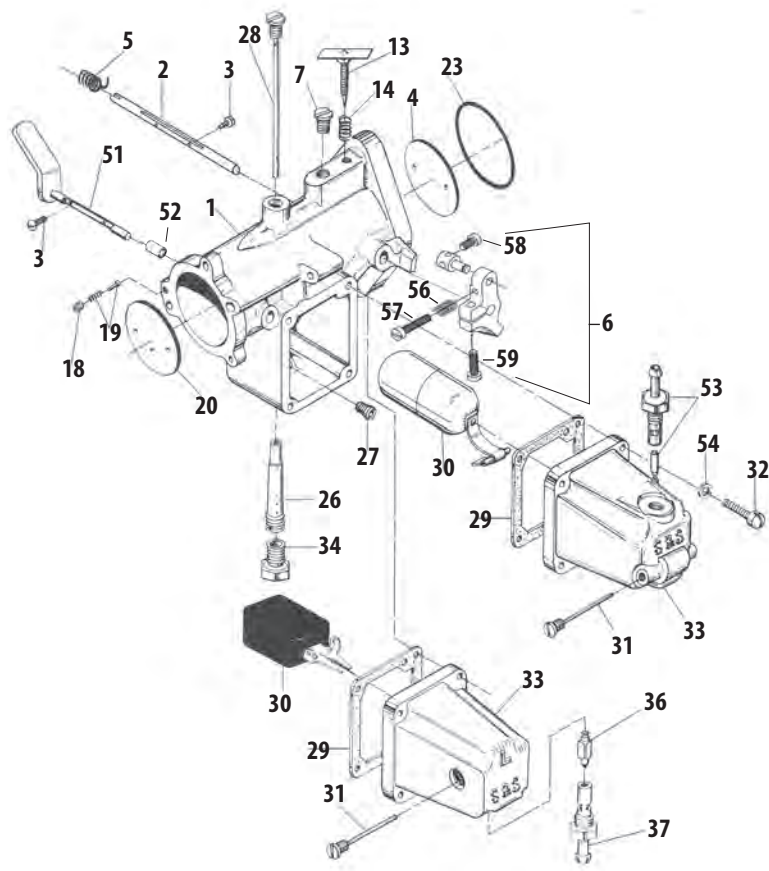
MGL (includes#2,3,4,5,13,14,23,29,31,36,37,52,56)	11-2913 [±]
MGAL (includes#2,3,4,5,13,14,23,29,31,32,52,53,54,56,57,58,59) ..	11-2911 [±]

N/A = NO LONGER AVAILABLE

N/S = NOT SHOWN

NOTE

When ordering parts, please supply the carb serial number. To order a manifold or air cleaner assembly or any related parts, refer to the Manifold or Air Cleaner sections of this catalog.



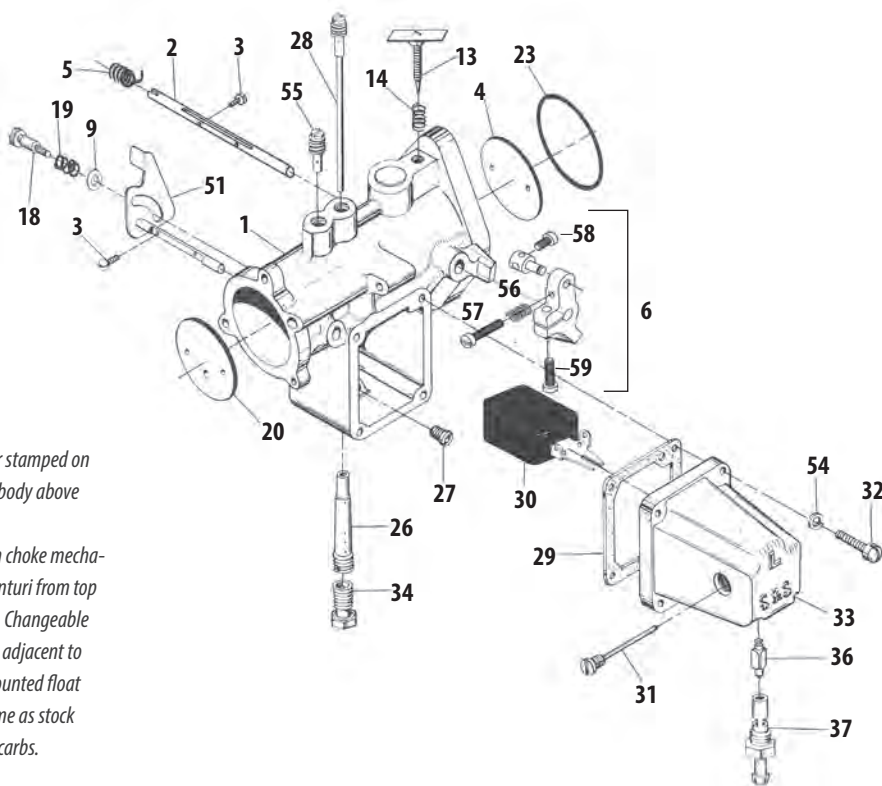
L-Series MGAL Gas Carburetor

Years Produced: 1977 to 1978

Size Produced: 1 7/8" throat

Identification Markings: Serial number stamped on body below "S&S Cycle" - "MGAL" cast on body above "S&S Cycle"

Distinguishing Characteristics: Built-in choke mechanism – intermediate jet goes through venturi from top of carb down into main discharge tube. Side mounted float bowl – bowl vent/throttle cable housing boss cast on body above float bowl. Air cleaner mounting pattern same as stock Tillotson, Bendix, Keihin butterfly type carbs.



L-Series MGL Gas Carburetor

Years Produced: 1980 to 1981

Size Produced: 1 7/8" throat

Identification Markings: Serial number stamped on body below "S&S Cycle" - "MG" cast on body above "S&S Cycle"

Distinguishing Characteristics: Built-in choke mechanism. Intermediate jet goes through venturi from top of carb down into main discharge tube. Changeable intermediate air bleed screws into boss adjacent to intermediate jet on top of carb. Side mounted float bowl. Air cleaner mounting pattern same as stock Tillotson, Bendix, Keihin butterfly type carbs.

L-SERIES GAL & GBL GAS CARBURETOR REPLACEMENT PARTS

- 1. Carb body assembly - GAL 1 $\frac{7}{8}$ " or GBL 1 $\frac{3}{4}$ " N/A
- 2. Throttle shaft (includes 2 ea. #11-2045) 11-2083
- 3. Choke/throttle plate screw 50-0055-S
10 pack 50-0064
- 4. Throttle plate
1 $\frac{7}{8}$ " (GAL) 11-2055
1 $\frac{3}{4}$ " (GBL) 11-2023
- 5. Throttle shaft bushing - for repair only 11-2134
- 6. Throttle arm assembly, 1 cable, reversible N/A
- 7. Intermediate plug N/A
- 13. Idle mixture screw 11-2354
5 pack 11-2378
- 14. Idle mixture screw spring 11-2052
10 pack 11-2060
- 18. Choke detent screw N/A
- 19. Choke detent pin & spring N/A
- 20. Choke plate N/A
- 23. O-ring - 1 $\frac{7}{8}$ " 50-8013
- 26. Main discharge tube N/A
- 27. Main jet - state size - see page 464
- 28. Intermediate jet N/A
- 29. Bowl gasket 11-2070
- 30. Float - forked type or original brass type N/A
- 31. Float retaining pin 11-2069
- 32. Bowl screw - 10-24 x $\frac{3}{4}$ " 50-0032
- 33. Carb bowl assembly
Original type N/A
Forked type N/A
- 34. Bottom plug N/A
- 36. Needle - forked type 11-2095
- 37. Seat - forked/wire type 11-2065
- 51. Choke shaft assembly N/A

- 54. Lock washer - #10 50-7000
- 55. Spring, Idle/Accelerator Pump, Super B/D/E 11-2048
10 pack 11-2053
- 56. Screw, SLTD FH, 8-32 x $\frac{7}{8}$ ", Zinc, Steel 50-0038
10 pack 50-0150
- 57. Screw, SLTD FH, 8-32 x $\frac{5}{8}$ ", Zinc, Steel 50-0039
10 pack 50-0146
- 58. Screw, SLTD FH, 8-32 x $\frac{3}{16}$ ", Zinc, Steel 50-0030-S

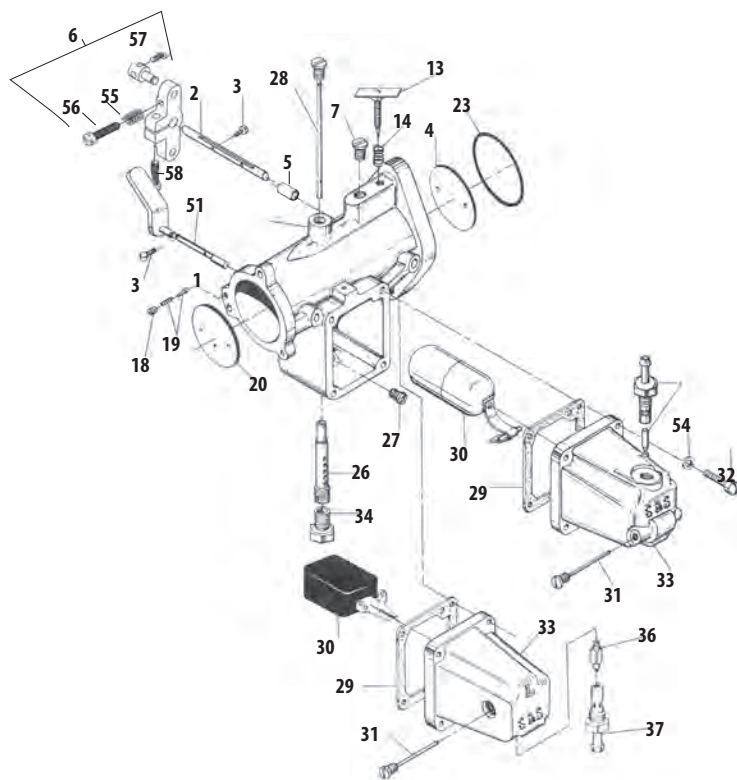
CARBURETOR REBUILD KITS

Body Rebuild Kit
GAL 1 $\frac{7}{8}$ " (includes #2,3,4,5,23,29,52) 11-2900 \pm

Master Rebuild Kit
GAL 1 $\frac{7}{8}$ "
(includes #3,4,13,14,23,29,31,32,52,53,54,55,56,57,58) 11-2911 \pm

GBL 1 $\frac{3}{4}$ " (includes #3,4,13,14,23,29,31,32,52,53,54,55,56,57,58) . 11-2912 \pm

N/A = NO LONGER AVAILABLE
N/S = NOT SHOWN



L-Series GAL & GBL Gas Carburetors

Years Produced: 1972 to 1975

Sizes Produced: 1 $\frac{3}{4}$ " and 1 $\frac{7}{8}$ " throats

Identification Markings: serial number stamped on body below "S&S Cycle"
- "GAL" means gas type with 1 $\frac{7}{8}$ " throat, late style - "GBL" means gas with 1 $\frac{3}{4}$ " throat, late style

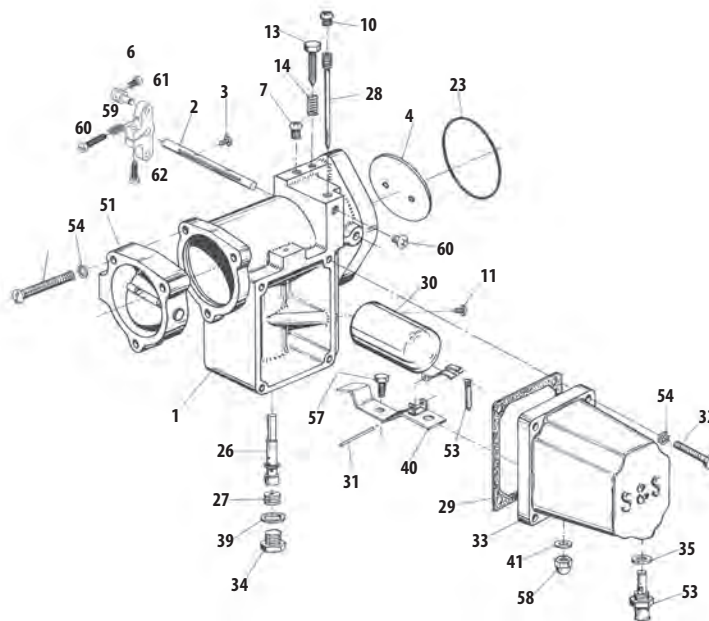
Distinguishing Characteristics: Built-in choke mechanism. Intermediate jet goes through venturi from top of carb down into main discharge tube. Side mounted float bowl. Air cleaner mounting pattern same as stock Tillotson, Bendix, Keihin butterfly type carbs

NOTE

When ordering parts, please supply the carb serial number. To order a manifold or air cleaner assembly or any related parts, refer to the Manifold or Air Cleaner sections of this catalog.

EARLY STYLE GAS & FUEL CARBURETOR

- REPLACEMENT PARTS**
1. Carb body assembly - F, FA 1 7/8", FB 1 3/4" fuel & G, GA 1 7/8", GB 1 3/4" gas..... **N/A**
 2. Throttle shaft (includes 2 ea. #11-2045)
Gas..... **11-2083**
Fuel..... **11-2184**
 3. Throttle plate screw **50-0055-S**
10 pack **50-0064**
 4. Throttle plate
1 3/4" gas & fuel **11-2023**
1 7/8" gas **11-2055**
 6. Throttle arm assembly, 1 cable reversible..... **N/A**
 7. Intermediate plug **N/A**
 10. Intermediate jet plug..... **N/A**
 11. Intermediate passage plug..... **N/A**
 13. Idle mixture screw..... **11-2354**
5 pack **11-2378**
 14. Idle mixture screw spring **11-2052**
10 pack **11-2060**
 23. O-ring -1 3/4" or 1 7/8"..... **50-8013**
 26. Main discharge tube **N/A**
 27. Main jet - gas or fuel..... **N/A**
 28. Intermediate jet **N/A**
 29. Bowl gasket **11-2070**
 30. Float **N/A**
 31. Float pin **N/A**
 32. Bowl screw - 10-24 x 3/4" **50-0032**
 33. Carb bowl assembly **N/A**
 34. Bottom plug..... **N/A**
 35. Seat o-ring **N/A**
 39. Fiber washer..... **N/A**
 40. Float mounting bracket..... **N/A**
 41. Washer - 1/4"..... **N/A**
 51. Choke assembly..... **N/A**
 52. Throttle shaft bushing - for repair only N/S **11-2134**
 53. Needle & seat assembly
Fuel **N/A**
 54. Lockwasher - #10 **50-7000**
 55. Intermediate air bleed..... **N/A**
 56. Air horn/choke mounting screw **N/A**
 57. Float bracket bolt - 1/4-28 x 1/2" **N/A**
 58. Nut - 1/4-28 **N/A**
 59. Spring, Idle/Accelerator Pump, Super B/D/E **11-2048**
10 pack **11-2053**
 60. Screw, SLTD FH, 8-32 x 7/8", Zinc, Steel **50-0038**
10 pack **50-0150**
 61. Screw, SLTD FH, 8-32 x 5/8", Zinc, Steel **50-0039**
10 pack **50-0146**
 62. Screw, SLTD FH, 8-32 x 5/8", Zinc, Steel **50-0030-S**



Early Style Gas & Fuel CarburetorS

Years Produced: Gas 1967 to 1971, Fuel 1967 to 1974

Sized Produced: 1 7/8" and 1 3/4" throats

Identification markings: Serial number stamped on body below "S&S Cycle" - "G" or "GA" means gas type with 1 7/8" throat - "GB" means gas with 1 3/4" throat - "F" or "FA" means fuel with 1 7/8" throat - "FB" means fuel with 1 3/4" throat.

NOTE - Some 1 3/4" carbs were bored out to 1 7/8".

Distinguishing Characteristics: Bolt-on choke assembly, gas type only. Side mounted float bowl. Air cleaner/air horn mounting pattern different from stock.

CARBURETOR REBUILD KITS

Body Rebuild Kit

G/GA (includes: #3, 4, 23, 29, 52) **11-2900±**

N/A = NO LONGER AVAILABLE

N/S = NOT SHOWN

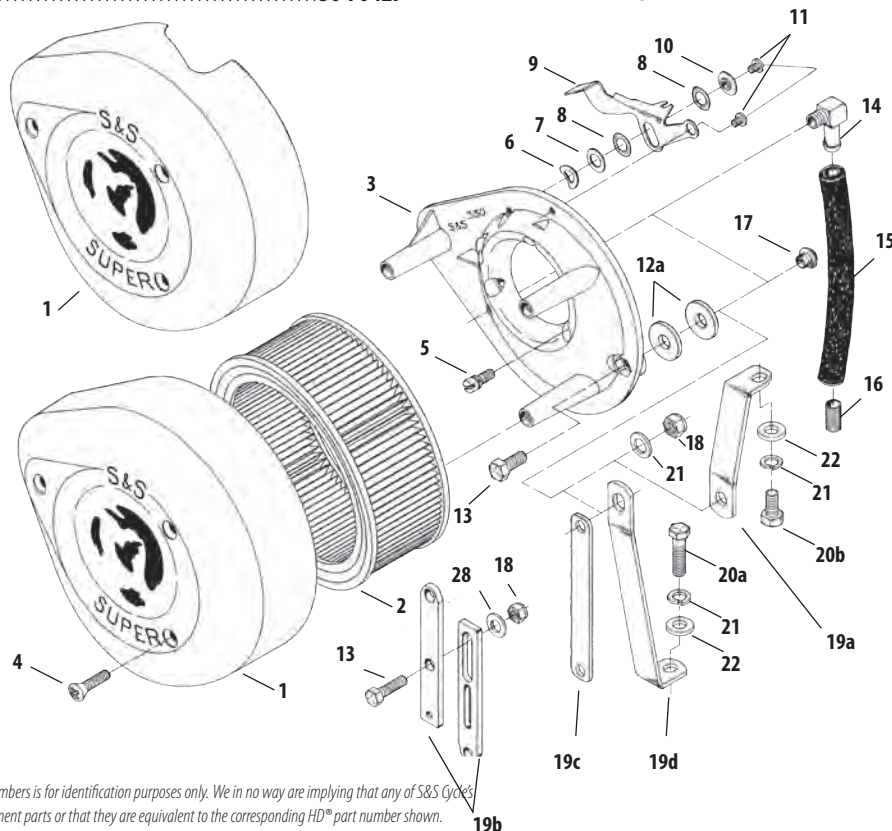
NOTE

Some fuel carbs have been converted and are equipped with two float bowls. When ordering parts, please supply the carb serial number. To order a manifold or air cleaner assembly or any related parts, refer to the Manifold or Air Cleaner sections of this catalog.

SUPER E & G AIR CLEANERS REPLACEMENT PARTS FOR 1936-'84 BIG TWINS & 1957-'85 SPORTSTER® MODELS

- | | | |
|---|-------------------|--|
| 1. Air cleaner cover – All
(Except shovelhead w/5 gallon tanks & cylinders +.075") | | |
| Chrome | 17-0378± | |
| Gloss Black | 170-0384A | |
| Slasher | 17-0004± | |
| Shovelhead w/5 gallon tanks & cylinders +.075" | 17-0372± | |
| 2. Element, pleated | 106-4722 | |
| Element, pleated carbon | 17-0375 | |
| 3. Backplate | | |
| BT 1936-'84 | 17-0330 | |
| 4. Cover screw | | |
| Nickel 1305 (each) | 50-0072 | |
| 3 pack | 50-1052 | |
| 10 pack | 50-0094 | |
| Black 902 (each) | 50-0310-S | |
| 3 pack | 50-0310 | |
| Chrome (each) | 50-0347-S± | |
| 5. Backplate screw | | |
| Zinc Plated (each) | 106-2084 | |
| 10 pack | 106-2105 | |
| 6. Fast idle friction washer (each) | 50-7035 | |
| 10 pack | 50-7058 | |
| 7. Fast idle steel washer (each) | 50-7037 | |
| 10 pack | 50-7061 | |
| 8. Fast idle nylon washer (each) | 50-7036 | |
| 10 pack | 50-7060 | |
| 9. Fast idle lever | USA 1,2,3 17-0329 | |
| 10. Fast idle brass washer (each) | 50-7007± | |
| 10 pack | 50-7010± | |
| 11. Fast idle lever screw (one required for current backplate) (each) | 50-0041 | |
| 10 Pack | 50-0062 | |
| 12. Shims | | |
| 5/16" x .125" | 50-7042 | |
| (Use on BT 1936-'84 when insulator block is installed.) | | |
| each | 50-7042P | |
| 2 pack | | |
| 13. Backplate mounting bolt – BT 1936-'84 | | |
| 5/16"-18 x 1" (each) | 50-0108 | |
| 5/16"-24 x 3/4" (Obsolete) | N/A | |
| 14. Elbow fitting (each) | 50-8110 | |
| 15. Crankcase breather hose | | |
| a. BT 1978-'92 | 17-0113 | |
| 16. Vent hose connector | 50-8111 | |
| 17. Backplate plug 1/8"-27 (each) | 50-8331A | |
| 10 pack | 50-1015 | |
| 18. Locknut – 5/16"-1 | | |
| (Use with support bracket - see #19) | 50-5021 | |
| 19. Support bracket | | |
| a. BT 1966-'82 | 17-0392 | |
| b. BT 1983-'84 (includes #13, 18, 28) | 16-0471 | |
| c. BT 1948-'65 | 16-0096 | |
| d. XL 1957-'85 | 17-0393 | |
| 20. Mounting bracket bolt – big twin | | |
| a. IH XL 1957-'85 – 5/16"-18 x 1 1/4" (each) | 50-0110 | |
| b. 1966-'82 – 5/16"-18 x 3/8" (each) | 50-0106 | |
| 21. Lockwasher – 5/16" | 50-7032 | |
| 22. Flatwasher – 5/16" x 1/8" | 50-7033 | |
| 23. Wire tie (N/S) | 50-8003 | |
| 24. Hose clamp (N/S) | 50-8002 | |
| 25. Air cleaner assembly | | |
| Includes: | | |
| Chrome cover, backplate, filter element, and hardware kit.) | | |
| BT 1936-'84/1957-'85 XL | 17-0400± | |
| BT 1966-'84 with five gallon tanks and cylinders .075" longer than stock | 17-0440± | |
| 26. Mounting hardware package (N/S) | | |
| Includes all parts needed to install following style air cleaners: | | |
| BT 1936-'84 | 17-0441± | |
| 27. Spring clamps (N/S) | 50-8001 | |
| 28. Washer, Flat, 3/4" x .688" x .065", Zinc, Steel 6320, 70907-07, 6016, 6702 | 50-7034 | |

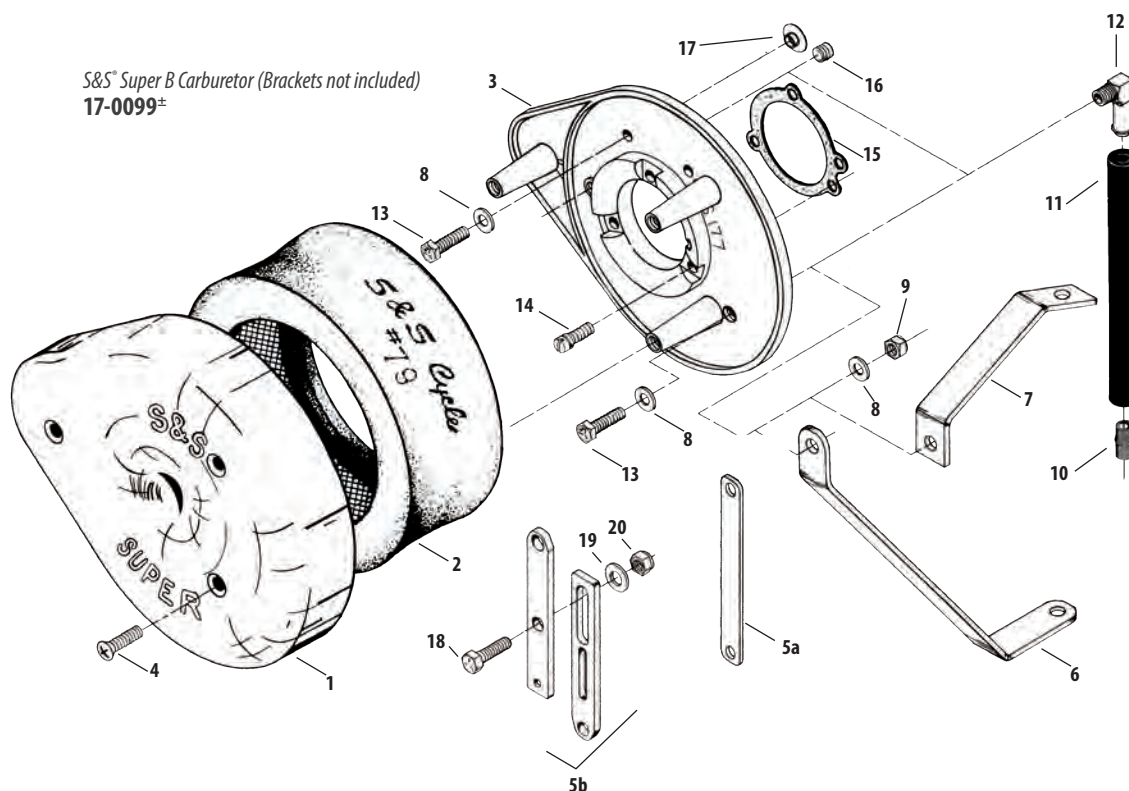
(N/S) = Not Shown
N/A= No longer available



All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

SUPER B AIR CLEANER REPLACEMENT PARTS

- | | | |
|--|----------------------------|--|
| 1. Air cleaner cover | | |
| Chrome | 17-0078[±] | |
| Black | 17-0075 | |
| 2. Air cleaner element | 17-0079 | |
| 3. Air cleaner backing plate | | |
| Super B 17 $\frac{1}{8}$ " | N/A | |
| 4. Air cleaner cover screw | | |
| Chrome 1305 (each) | 50-0072[±] | |
| 3 pack | 50-1052[±] | |
| 10 pack | 50-0094[±] | |
| Black 902 (each) | 50-0310-S | |
| 3 pack | 50-0310 | |
| 5. Support bracket | | |
| a. 1948-'65 panhead | 16-0096 | |
| b. 1983-'84 shovelhead | 16-0471 | |
| 6. Air cleaner support bracket | | |
| 1957-'85 XL | 17-0093 | |
| 7. Air cleaner support bracket | | |
| 1966-'82 BT | 17-0092 | |
| 8. Washer, Flat, .281" x .625" x .080", Zinc 6194, 6245, 6703, 6736, 6228W, 6192 (each) | 50-7021 | |
| 9. Nut, Lock, HH, 1/4-28 UNC-2B x .328", Zinc (each) | 50-5010 | |
| 10. Vent hose connector nipple | 50-8111 | |
| 11. Vent hose - 3/8" I.D. x 6" | 17-0113 | |
| 12. 90° elbow fitting (each) | 50-8110 | |
| 13. Support bracket bolt - 1/4"-28 x 7/8" | 50-0074 | |
| 14. Backplate screw, Zinc Plated (each) | 106-2084 | |
| 10 pack | 106-2105 | |
| 15. Air cleaner gasket (each) | 17-0196 | |
| 5 pack | 17-0197 | |
| 16. Allen pipe plug - 1/8" -27 | | |
| each | 50-8331A | |
| 10 pack | 50-1015 | |
| 17. Plastic plug | 50-8313 | |
| 18. Bolt, Hex Head, Gr5, 5/16-18 x 1", Zinc 3987 | 50-0108 | |
| 19. Washer, Flat, .344" x .688" x .065", Zinc, Steel 6320, 70907-07, 6016, 6702. | 50-7034 | |
| 20. Nut, Lock, HH, 5/16-18 UNC-2B x .359", Zinc | 50-5021 | |

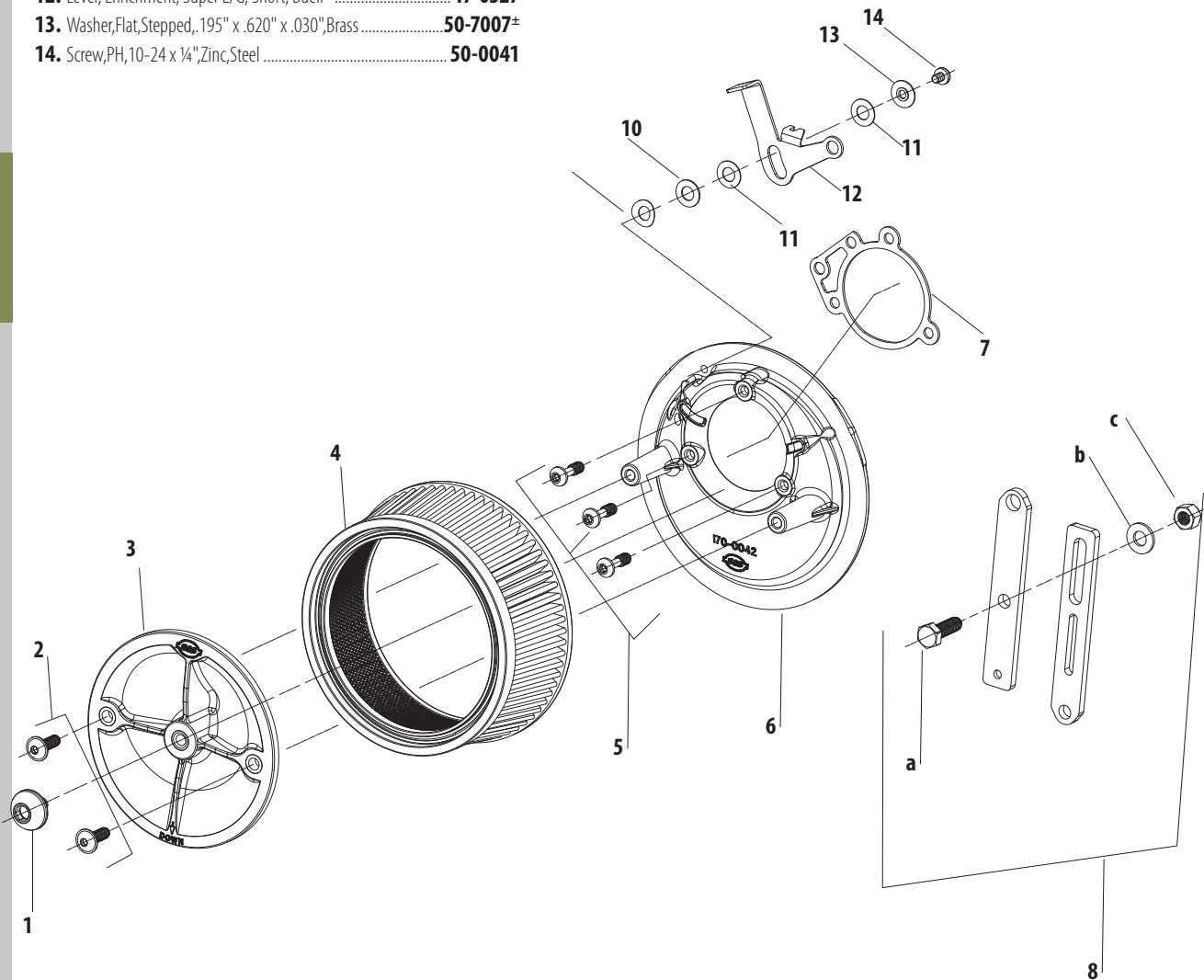


All reference to HD[®] part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD[®] part number shown.

UNIVERSAL STEALTH AIR CLEANER


REPLACEMENT PARTS

1. Screw, SHCB, 5/16-18 x .500", Polished, Stainless Steel **500-0051**
2. Screw, SHC, Flanged Button, 1/4-20 UNC x .750"
(each) 2 required **500-0060**
3. Plate, Top, Air Filter, Molded, Plastic **170-0026**
4. Filter, Air, Standard Pleated **170-0126**
5. Screw, SHCB, 1/4-20 UNC X .825" (each) 3 required **500-0059**
6. Backplate, Air Cleaner, Super E/G, Powder coated, Black, Die Cast
1936-'92 bt, 1957-'90 xl **170-0179**
7. Gasket, Backplate, Super E/G, CV Adapter, .0625" **106-1724**
8. Bracket, Kit, Support, Carb, Case To Manifold, w/ Hardware, 1966-99 bt, 1957-2003 xl
(includes 50-0108, 50-5021, & 50-7034) **16-0471**
 - a. Bolt, Hex Head, Gr5, 5/16-18 x 1", Zinc **50-0108**
 - b. Washer, Flat, .344" x .688" x .065", Zinc, Steel **50-7034**
 - c. Nut, Lock, HH, 5/16-18 UNC-2B x .359", Zinc, Steel/Nylon **50-5021**
9. Washer, Friction, Curved, .329" x .625" x .015", Zinc, Steel **50-7035**
10. Washer, Flat, .325" x .625" x .032", Zinc, Steel **50-7037**
11. Washer, Flat, .323" x .625" x .020", Nylon (each) 2 required **50-7036**
12. Lever, Enrichment, Super E/G, Short, Buell® **17-0327**
13. Washer, Flat, Stepped, .195" x .620" x .030", Brass **50-7007±**
14. Screw, PH, 10-24 x 1/4", Zinc, Steel **50-0041**

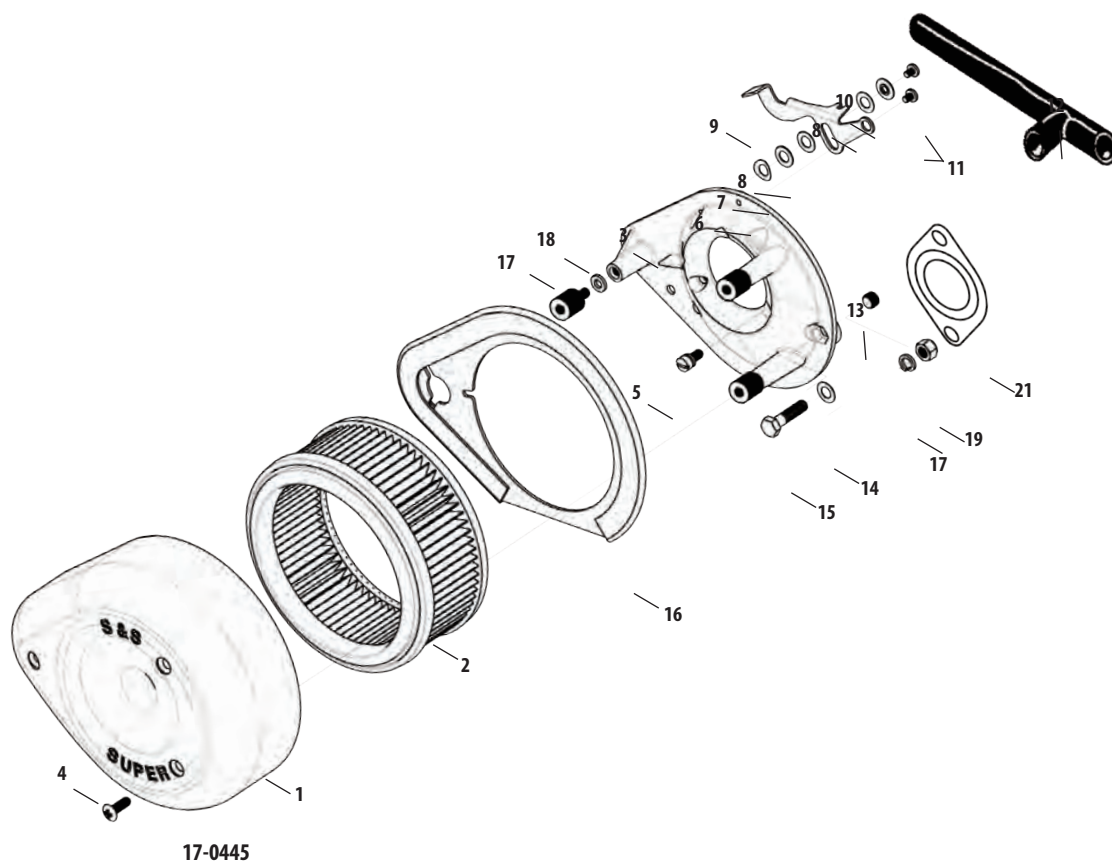


TÜV APPROVED SUPER E & G AIR CLEANER

REPLACEMENT PARTS

1. Air cleaner cover
 Chrome **17-0378[±]**
2. Element, pleated carbon – TÜV **17-0375**
3. Backplate
 1955-'84 bt TÜV **N/A**
 1955-'84 bt, 1957-'85 IH XL **17-0330**
4. Cover screw
 Nickel 1305 (each) **50-0072**
 3 pack **50-1052**
 10 pack **50-0094**
 Black #902 (each) **50-0310-S**
 3 pack **50-0310**
 Chrome (each) **50-0347-S[±]**
5. Backplate screw
 Zinc Plated (each) **106-2084**
 10 pack **106-2105**
6. Fast idle friction washer (each) **50-7035**
 10 pack **50-7058**
7. Fast idle steel washer (each) **50-7037**
 10 pack **50-7061**
8. Fast idle nylon washer (each) **50-7036**
 10 pack **50-7060**
9. Enrichment lever  **1,2,3 17-0329**

10. Fast idle brass washer (each) **50-7007[±]**
 10 pack **50-7010[±]**
 11. Fast idle lever screw (each) **50-0041**
 10 pack **50-0062**
 12. Crankcase breather hose
 TÜV 1970-'84 **17-0113**
 13. Backplate plug 1/8"-27
 each **50-8331A**
 10 pack **50-1015**
 14. Flatwasher – 5/16" x 1/16" 6320, 70907-07, 6016, 6702 **50-7034**
 15. Mounting bracket bolt 3/87 –
 5/16"-18 x 1" **50-0108**
 16. Plate, air cleaner noise reducer **17-0389**
 17. Rubber isolator mounts (each) **50-8510-S**
 18. Shim, spacers, 1/2" OD x 1/4" ID x .080" (each) **50-7971-S**
 19. Locknut, HH, 5/16" -18 **50-5021**
 20. Spring clamps (N/S)* **50-8001**
 21. Restrictor Plate **N/A**
- (N/S) = Not Shown

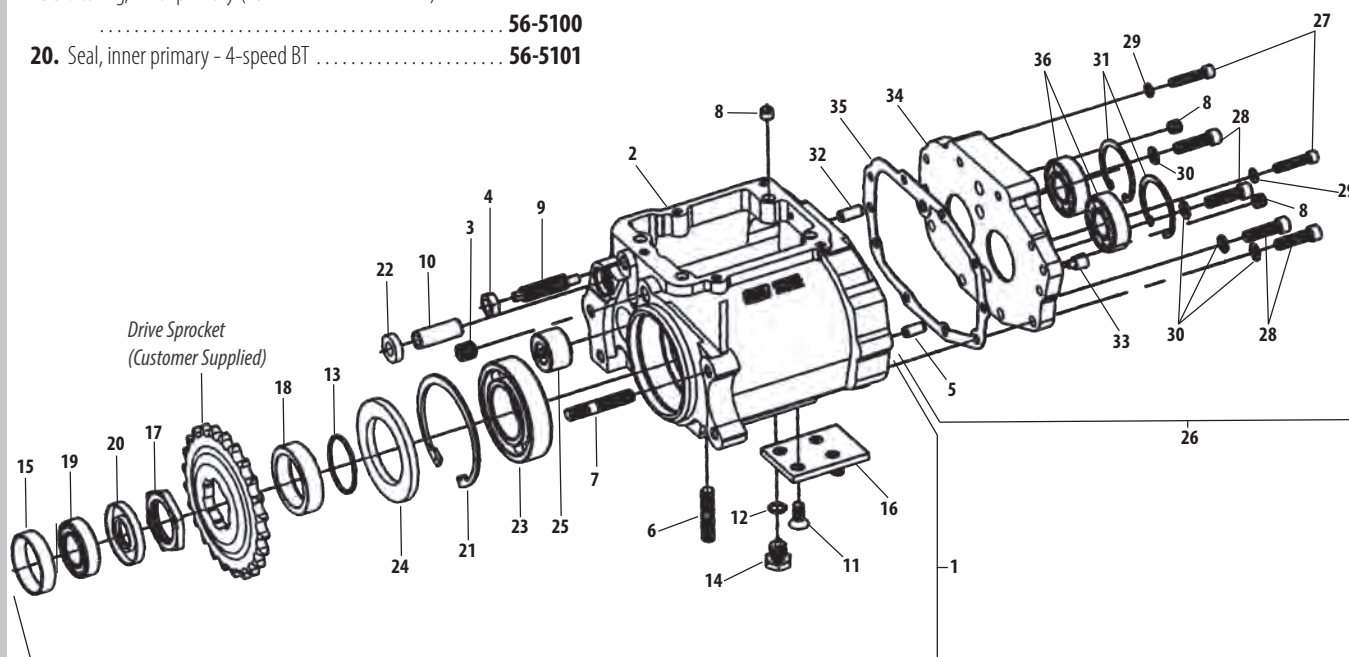


All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

5-SPEED TRANSMISSION CASE REPLACEMENT PARTS FOR 4-SPEED BIG TWIN CHASSIS

1. Transmission case assembly, 5-speed
1965-'84 4-speed BT **56-1051**
2. Transmission case only, 5-speed rigid mount
for 1965-'84 4-speed BT frame **N/A**
3. Screw, SH $\frac{1}{2}$ "-20 x $\frac{3}{8}$ " **50-0202**
4. Nut, hex - $\frac{7}{16}$ "-14 each **50-5044**
5. Pin, dowel - .308" diameter x .70"
375 **50-8029**
6. Stud - $\frac{3}{8}$ "-16; $\frac{3}{8}$ "-24 x $1\frac{1}{16}$ " (4) (BT 5-speed) **50-8085**
7. Stud - $\frac{3}{8}$ "-16; $\frac{3}{8}$ "-24 x $2\frac{5}{16}$ " (4) (5-speed BT) **50-8086**
8. Pin, Roll - $\frac{3}{8}$ " x .300" (4) 609 **50-8173**
9. Screw, shifter lever adjustment, 5-speed BT
33119-79B **56-1002**
10. Guide, shifter shaft - 5-speed rigid mount,
1986-'99 BT 33114-79 **56-1067**
11. Screw, SLTD FH, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " (4) **50-0300**
12. O-ring, $\frac{7}{16}$ " I.D. x $\frac{9}{16}$ " O.D. x $\frac{1}{16}$ " Viton
11105, 11273 each **50-8008**
10 pack **50-8078**
13. Seal, quad, $1\frac{9}{16}$ " I.D. x $1\frac{7}{8}$ " O.D. x $\frac{1}{16}$ " Buna
11165 **50-8045**
14. Plug, $\frac{1}{2}$ "-20, magnetic
..... **50-8335**
15. Spacer, mainshaft adapter, 5-speed rigid mount
1965-'84 4-speed BT **56-1068**
16. Adapter, transmission mounting stud,
5-speed rigid mount/1965-'84 4-speed BT **56-1069**
17. Nut, transmission sprocket **56-3003**
18. Spacer, transmission sprocket,
1941-'92 BT **56-3004**
19. Bearing, inner primary (25mm x 47mm x 12mm)
..... **56-5100**
20. Seal, inner primary - 4-speed BT **56-5101**

21. Ring, internal retainer, 3.734" O.D. x .109" Tru-Arc
11161, 11599 **50-8051**
22. Seal, oil shifter shaft - 1984-'99 BT
12045 **56-1064**
23. Bearing, transmission output shaft, 1984-'99 BT
8996A **56-1280**
24. Seal, oil 12067B **56-3033**
25. Bearing, transmission countershaft **56-3034**
26. Door assembly, transmission access
5-speed rigid mount, 1985-'99 BT **56-1027**
27. Capscrew, SH - $\frac{1}{4}$ "-20 x $1\frac{3}{4}$ " (2) 4740A, 3482A **50-0008**
28. Capscrew, SH - $\frac{5}{16}$ "-18 x $1\frac{1}{4}$ " (4)
3210A **50-0121**
29. Washer, flat - $\frac{1}{4}$ " x $\frac{7}{16}$ " x $\frac{1}{16}$ " (2)
each **50-7017**
12 pack **50-7013**
30. Washer, flat - $\frac{5}{16}$ " x .545" x .042" (4) **50-7026**
31. Ring, internal retainer, 2.072" O.D. x .062" Tru-Arc (2)
35021-89 **50-8053**
32. Dowel - $\frac{5}{16}$ " x $\frac{3}{4}$ " 634 (each) **50-8175**
33. Plug, magnetic - $\frac{1}{8}$ "-27 739A **50-8334**
34. Door, transmission access - 5-speed rigid mount
1985-'99 BT 35258-87C **56-1025**
35. Gasket, transmission access door
35652-79B, 35653-98A **56-1026**
36. Bearing, transmission access door (2)
8992A, 8998 **56-3026**



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INDIAN® & VICTORY®

Performance Parts

Air Cleaner Kit for Indian® Models 503

Air Cleaner Kit for Indian® Scout®,
Indian® Scout® Sixty,
Indian® Scout® Bobber
& Victory® Octane™ 502

Air Cleaner Kits for Victory® Models..... 504

Replacement Parts.....505

STEALTHTWO AIR CLEANER KIT

FOR INDIAN® SCOUT®, INDIAN® SCOUT® SIXTY, INDIAN® SCOUT® BOBBER, AND VICTORY® OCTANE™

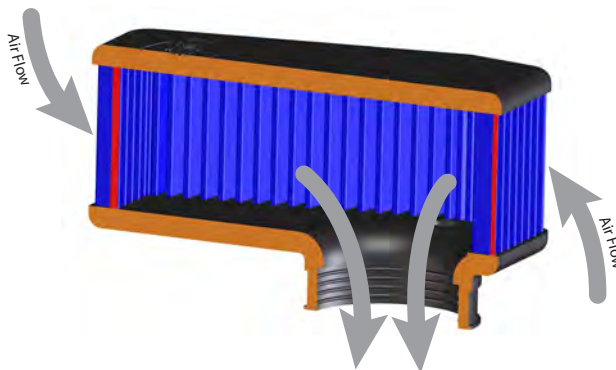
FITMENT

- 2015-2018 Indian Scout
- 2015-2018 Indian Scout Sixty
- 2015-2018 Indian Scout Bobber
- 2017 Victory Octane



FEATURES AND BENEFITS

- Bolt-on air cleaner assembly with high flow, washable filter media
- 127% increase in flow
- Simple one-piece construction
- Made in the USA
- Exempt from emissions tampering regulations under CARB EO# D-355-23



The S&S StealthTwo air cleaner features increased filter area and a radiused inlet. Together, they provide a smooth path for air to flow into the throttle body. Reduced turbulence! Increased flow! More power!

STEALTHTWO AIR CLEANER KIT

Fitment	Part #
2015-2018 Indian® Scout®, 2015-2018 Indian® Scout® Sixty, 2015-2018 Indian® Scout® Bobber & 2017 Victory® Octane™	170-0298C

Exempt from emissions tampering regulations under CARB EO# D-355-23



AIR CLEANER KIT FOR INDIAN® MODELS



FITMENT

- 2014 - 2018 Indian® Chieftain®, Classic, Vintage, & Roadmaster Models

FEATURES AND BENEFITS

- Increase of 5 hp when paired with performance mufflers and tuning
- High flow air filter provides:
 - 2x increase in surface area
 - 37% increase in airflow
 - High quality, washable cotton gauze filter
- Engineered to maintain leg clearance
- Billet aluminum for greater durability
- Show quality chrome billet cover options available



170-0227C

AIR CLEANER KIT FOR INDIAN® MODELS

FITMENT	Part #
All 2014-2018 Indian Models originally equipped with 1811cc Engines No Cover	170-0227C
All 2014-2018 Indian Models originally equipped with 1811cc Engines with S&S® Nostalgic Script Cover	170-0294C±
All 2014-2018 Indian Models originally equipped with 1811cc Engines with S&S® Cycle Logo Cover	170-0295C±

Exempt from emissions tampering regulations under CARB EO# D-355-23

PRE-FILTER

- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable nylon
- Promotes longer filter life
- Reduces the risk of water entering the intake system
- No tools required for installation

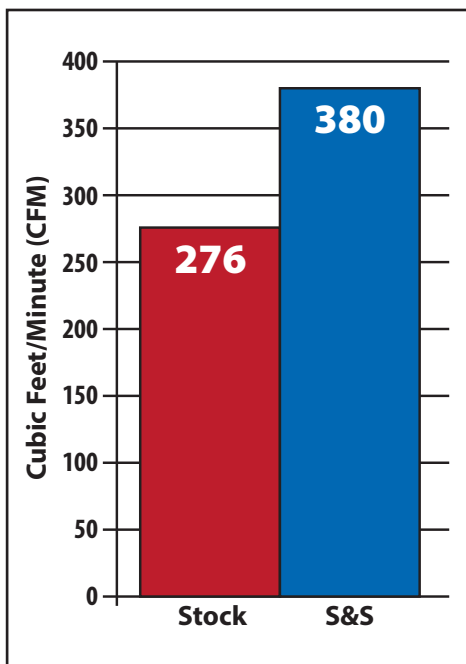
REPLACEMENT COVERS FOR S&S AIR CLEANER KIT FOR INDIAN® MODELS±

FITMENT	Part #
S&S® Nostalgic Script, Chrome	170-0239
S&S® Cycle Logo, Chrome	170-0242

PRE-FILTER

FITMENT	Part #
Air Filter	170-0255

REPLACEMENT PARTS: SEE PAGE 505



The S&S Air Cleaner Kit provides 104 cfm* (37.7%) more air than the stock air cleaner.

*Tests conducted on a Super Flow 1020 flow bench at 28 inches of water test pressure.



170-0239± S&S® Nostalgic Script



170-0242± S&S® Cycle Logo



S&S High flow air filter provides 2x increase in surface area for a 37% increase in airflow.

AIR CLEANER KITS FOR VICTORY® MODELS

FITMENT

- Available for 2003-up Freedom® engines (not for Vision™, Cross Roads™, Cross Country™ or Touring Cruiser models)
- 50-state version fits 2006-'07

FEATURES AND BENEFITS

- Increased air flow for up to 20 more hp with performance exhaust
- Calibration card included in some kits – Allows Victory dealer to load an S&S tune file in stock ECU
- Washable gauze filter element
- Polished billet construction

OPTIONS

- Versions for 2003-'07 models, 2008-up models
- Available with calibration card for Victory dealers
- Available without calibration card (non-Victory dealers)

KIT CONTENTS

- Polished billet air cleaner housing
- Pleated gauze filter
- All required hardware
- Calibration card included in some kits
- S&S decal
- Instructions



AIR CLEANER KITS FOR VICTORY® MODELS

Product Description	Part #
2003-'07 (includes calibration card)	41-0021
2003-'07 (no calibration card)	106-5130
2008-'12 (except Vision, Cross Roads, Cross Country models) (includes calibration card)	106-1319
2008-'16 (except Vision, Cross Roads, Cross Country models)(No calibration card)	106-5131

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

REPLACEMENT PARTS: SEE PAGE 506

NOTES

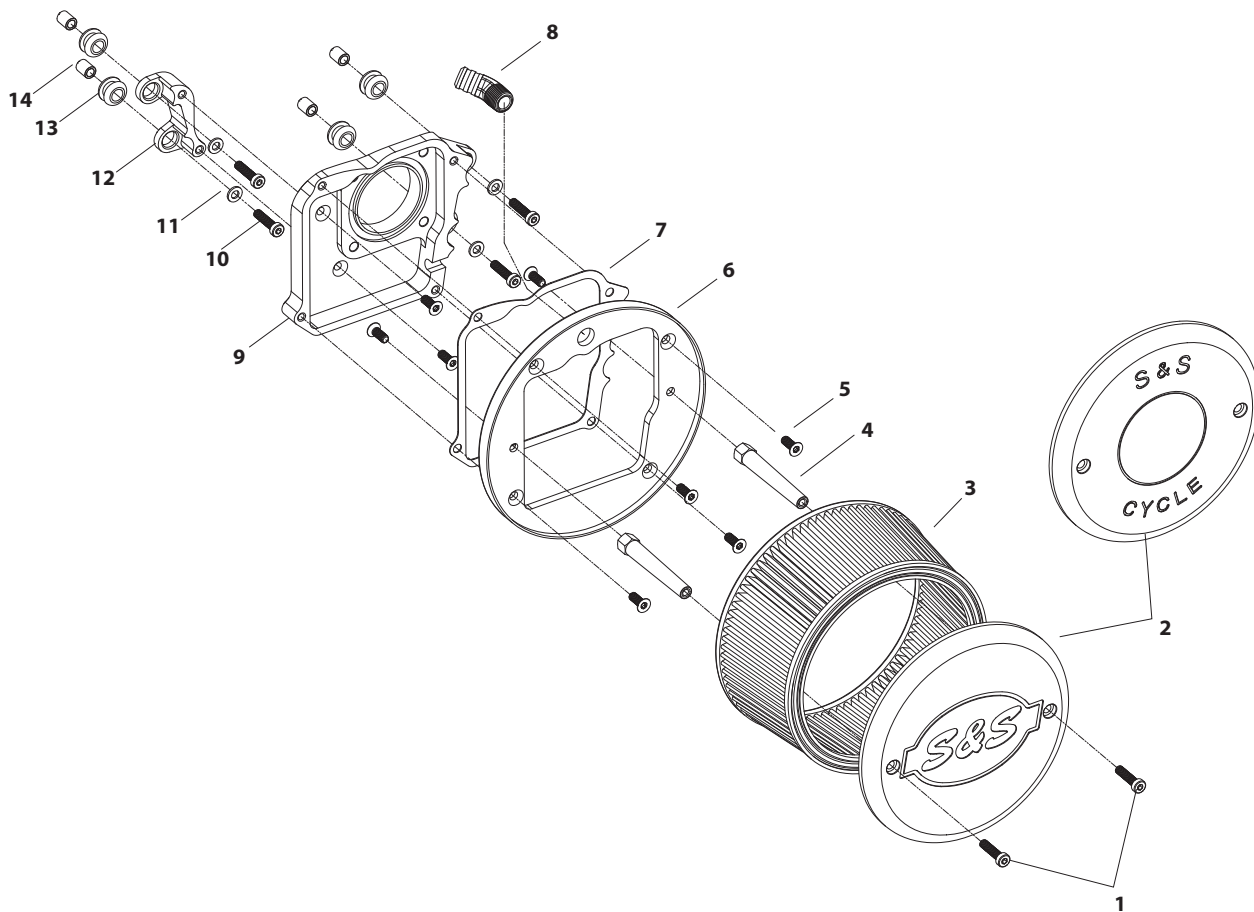
It should be noted that the calibration file for this kit was developed for use with the Victory Stage I Performance Slip-On mufflers and Victory Stage I Exhaust Systems. This tune file can only be accessed by a Victory dealer using the S&S Freedom® Performance Tuner software.

If the installer is not a Victory dealer, we recommend the Dynojet® Power Commander® for EFI tuning.

If a different exhaust is used or other engine modifications are performed, we recommend the Dynojet® Power Commander® for EFI tuning.

AIR CLEANER KIT REPLACEMENT PARTS FOR INDIAN® MODELS

- 1. Screw, SHC Low Profile, 25mm, M6 x 1, Chrome **N/A**
- 2. Cover, Air Cleaner
S&S Logo **170-0242±**
S&S Nostalgic Script **170-0239±**
- 3. Filter, Air, Tapered, Standard Pleated Cotton **170-0228**
- 4. Standoff, Air Filter **170-0232**
- 5. Screw, SHC, Flat, 16mm, M6 x 1, Zinc **500-0291**
- 6. Backplate, Air Filter Element **170-0230**
- 7. Gasket, Backplate **170-0233**
- 8. Fitting, 45°, 3/8" NPT x 5/8" Barb, Zinc Plated **500-0267**
- 9. Backplate, Throttle Body **170-0229**
- 10. Screw, SHC Low Profile, 25mm, M6 x 1, Zinc **500-0271**
- 11. Washer, Flat, M6, Zinc **500-0272**
- 12. Bracket, Backplate **170-0236**
- 13. Grommet, Backplate, Rubber **500-0269**
- 14. Spacer, Zinc **500-0270**

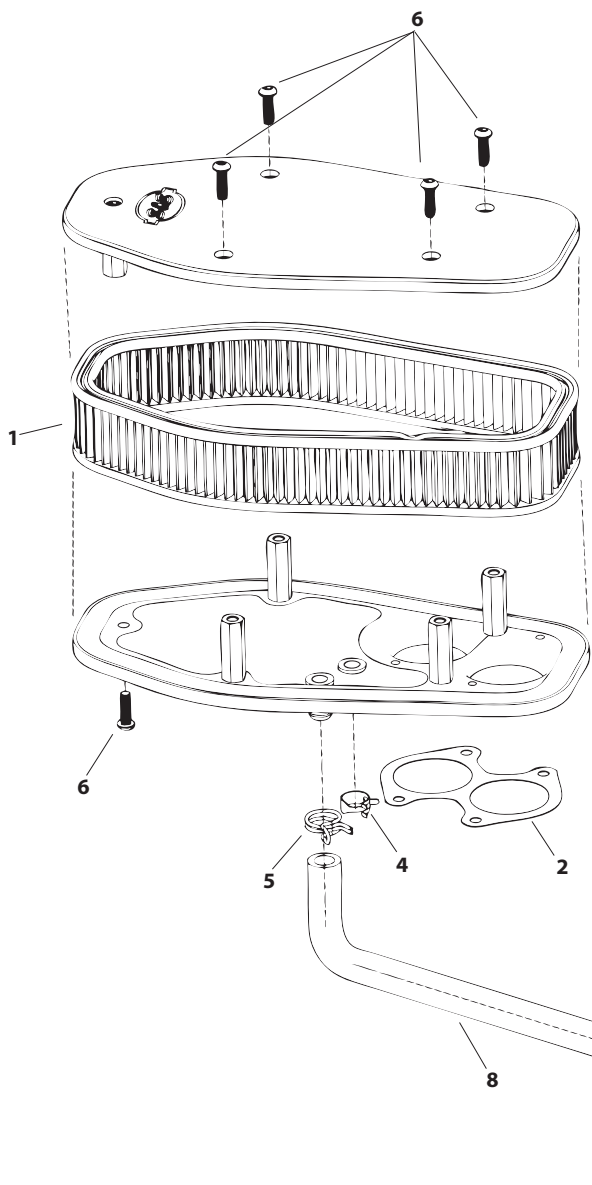


Milwaukee
Flight™
2007-2017
Twin Cam
96"/103"/110"
1999-2006
Twin Cam 88"
1986-2019
Sportster® & Buell™
2014-2019
Street &
Street Rod™
1984-1999
Evolution™
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
Appendix
& Index

BILLET AIR CLEANER KIT REPLACEMENT PARTS

FOR 2008-UP VICTORY® MODELS

- | | | | |
|--|------------------|--|------------------|
| 1. Air filter, 2008-up Victory® | 170-0264 | 6. BHC Screw, M6 X 1 X 20..... | 50-8421-S |
| 2. Gasket, Backplate, 2008-up Victory (each) | 106-1325 | 7. Decal, Speed Equipment, Black, Victory..... | 106-1968 |
| 3. Clamp, Spring, Double wire (each) | 106-1327 | 8. Hose, Breather, Formed, .500"..... | N/A |
| 4. Clamp, Spring, .660" (each)..... | 50-8076-S | | |
| 5. Clamp, Spring, Double wire..... | 50-8156-S | | |



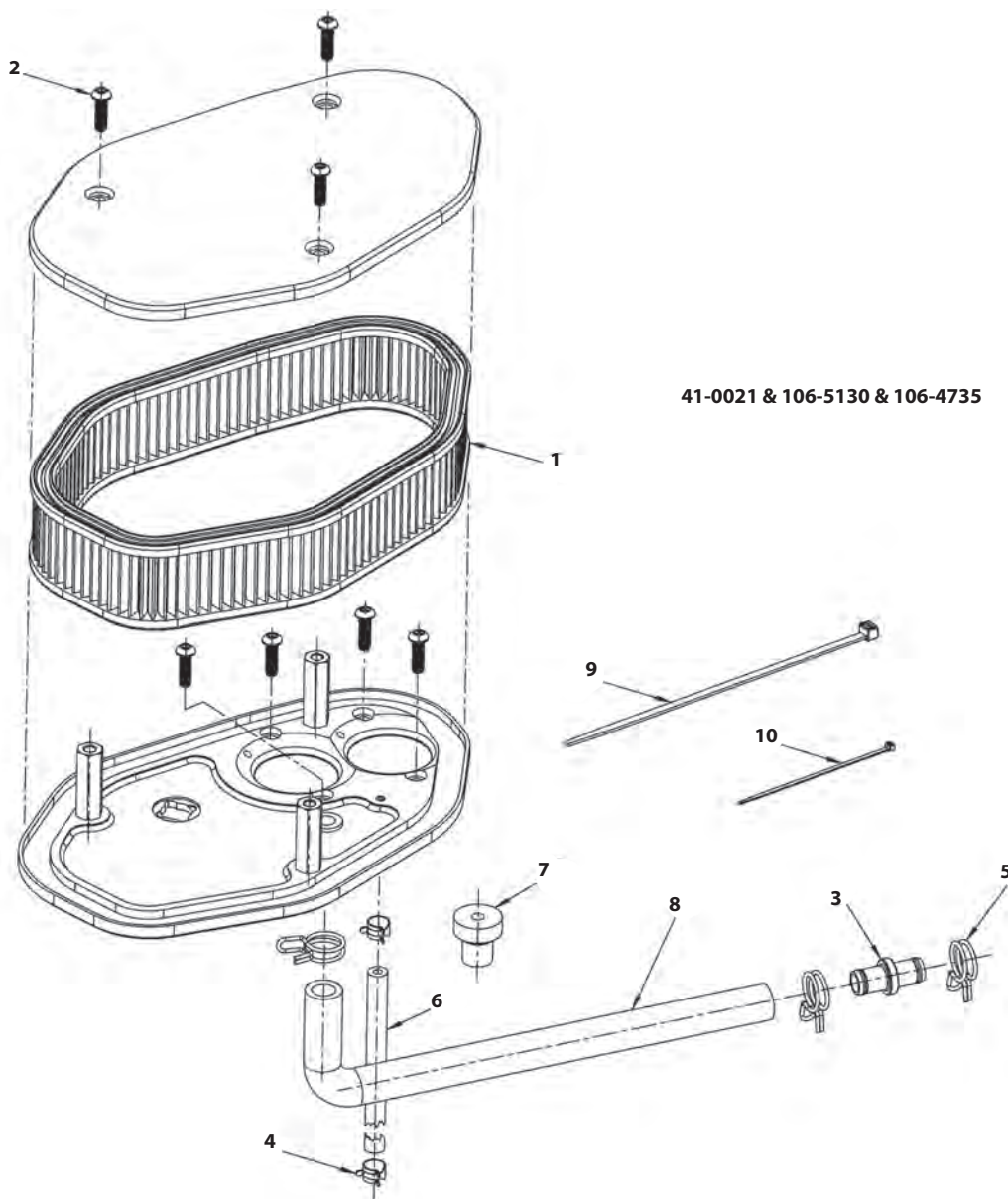
106-1319 & 106-5131



AIR CLEANER KIT REPLACEMENT PARTS

FOR 2003-2007 VICTORY® MODELS

- | | |
|---|-----------|
| 1. Filter element | 41-0006 |
| 2. SBHC Screw, M6X1 x 20 | 50-8421-S |
| 3. Breather hose union, .500" ID | 41-0008 |
| 4. Clamp, hose, spring, .440" DIA | 50-8143-S |
| 5. Double wire spring clip | 50-8156-S |
| 6. Hose, 3/8" ID x 12" | N/A |
| 7. Spacer, coil mounting | 41-0011 |
| 8. Breather hose, formed | N/A |
| 9. Wire tie, 8" Blk, Nylon 10006, 10065 | 50-8346-S |
| 10. Wire tie | 50-8003 |



TOOLS & SHOP SUPPLIES

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Top Dead Center Tool.....	513
Top End Tools.....	513
Touch Up Paint, Lubricant, Sealants	520
X-Wedge® Tools.....	512



FLYWHEEL BALANCING KITS

THE S&S® MASTER FLYWHEEL BALANCING KIT

Description	Part #
Designed to allow the average shop to rebalance stock and S&S flywheels accurately and quickly. Whether doing a stock rebuild or a performance upgrade using aftermarket parts, flywheel rebalancing is a desirable step in the engine building process. A complete set of detailed instructions is furnished with each kit. For flywheels with tapered crankpins only.	53-0027

Replacement Parts

1. Balance, Triple Beam Platform	N/A
2. Replacement balance weight set, (1-500g 2-1000g)	53-0021
3. Balance shaft, 1936-'71 OHV bt and 1957-'71 xl	53-0090
4. Balance shaft nut (each)	53-0092
5. Balance stand (each)	53-0088
6. Rod support stand (each)	53-0089
7. Taper adapter, 1972-Early '81 bt (each)	53-0086
8. Taper adapter, Late 1981-'85 bt and S&S BL, SE, SL style (each)	53-0087
9. Shaft adapter, 1977-up xl driveside (screws on) (each)	53-0093
10. Shaft adapter, 1977-up xl camside (screws on) (each)	53-0095
11. Shaft adapter, 1955-'99 bt driveside (screws on) (each)	53-0091
12. Shaft adapter, 1958-'92 bt camside (LH, screws on) (each)	53-0101
13. Shaft adapter, 1993-'99 bt camside (RH, screws on) (each)	53-0102
14. Shaft adapter, counterweight (each)	53-0099
15. Collar spacer, 1970-'99 bt (each)	53-0097
16. Collar spacer, 1986-'90 driveside for xl - .280" (each)	53-0098
17. Collar spacer, 1991-up driveside for xl - .860" (each)	53-0085
18. Bob weight assembly, 1000 gram (each)	53-0094

Repair parts for 53-0094

Screw SHC, 1/2"-13 x 3/4"	Each	50-0200
Screw SHC, 1/2"-13 x 1 1/4"	Each	50-0201

19. Shims

2.7 gram	Each	53-0110
5.4 gram	Each	53-0105
8.1 gram		53-0115
10.8 gram		53-0120
13.4 gram	Each	53-0125
50 gram		53-0150
100 gram 25566-06		53-0100

20. Shim Kit

Includes: Shims (2 each) 2.7, 5.4, 8.1, 10.8, and 13.4 grams & Shims (1 each) 50 grams and 100 grams

53-0111



53-0027

S&S® FLYWHEEL BALANCE KITS

Master Balance Kit Without Balance Scale

Includes all parts in #53-0027, except balance & platform scales **53-0028**

Triple Beam Platform Balance Scale

(2610 grams\maximum) without weights **53-0011**

Flywheel Balance Kit For 5-Piece Cranks

For 5-Piece Crank **53-0012**

Includes:

3. Balance shaft	53-0090
4. Balance shaft nut	53-0092
5. Balance stand	53-0088
6. Rod support stand	53-0089
7. Taper adapter	53-0086
8. Taper adapter	53-0087
18. Bob weight 1000 gram	53-0094
19. Shims (See previous page for individual part numbers)	

Flywheel Balance Kit For 3-Piece Cranks

For Harley-Davidson® Evolution® and Sportster® Models **53-0015**

Includes:

9. Driveside adapter sleeve for 1977-up Sportster	53-0093
10. Camside adapter sleeve for 1977-up Sportster	53-0095
11. Driveside adapter sleeve for 1955-'99 big twin	53-0091
12. Camside adapter for 1958-'92 big twin	53-0101
13. Camside adapter for 1993-'99 big twin	53-0102
14. Shaft counterweight	53-0099
15. Collar spacer for 1970-'99 big twin	53-0097
16. Collar spacer for 1986-'90 Sportster	53-0098
17. Collar spacer for 1991-up Sportster	53-0085

NOTE

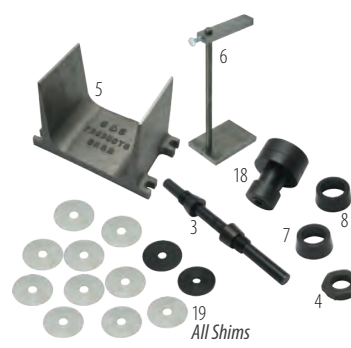
These balancing kits will not work with Harley-Davidson® Twin Cam 88® engines, 2000-up Sportster models, or any flywheel assemblies which use pressed-in crankpins.



53-0015



53-0028



53-0012

FLYWHEEL ASSEMBLY FIXTURE & TRUING SPANNER

- Includes a massive fixture to hold the flywheels, flywheel clamps and hardware to mount the flywheel to the fixture, and a spanner bar plate to be used with a length of steel pipe to fabricate a long spanner bar for truing adjustments.
- Allows the assembler to torque the mainshaft and crankpin nuts to our higher than stock torque specs. (We recommend using a torque multiplier.) Once the flywheels are assembled, the spanner bar (some assembly required) can be used to shift the flywheels in order to bring the mainshafts into true. This method is much easier, faster, and safer than hitting the flywheels with a lead or brass hammer to true the assembly.
- Works for stock and S&S flywheels for 1936–'99 big twin and 1957–'03 Sportster® models.



106-0552

FLYWHEEL ASSEMBLY FIXTURE

Description	Part #
Includes clamps, plate, and hardware	106-0552
REPLACEMENT PARTS	
Flywheel Fixture Clamp	106-0483
Spanner Bar Plate	106-0783
Hardware Kit, Flywheel Fixture <i>(includes dowel pins, nuts and screws)</i>	106-0782

BEARING PROTECTOR TOOLS FOR S&S® X-WEDGE® ENGINES

FEATURES AND BENEFITS

- Slips over the bearing surface of the X-Wedge crankshaft to prevent damage to the surface of the main bearing journal when mounting the crank on an S&S flywheel assembly fixture
- The flanged sleeve offers protection against scratches and dents
- It can also be used on the sprocket side of Victory® crankshafts
- Made of billet aluminum



Easy as 1-2-3! 106-2859 crankcase bearing protector installs in seconds, and not only protects the crankcase main bearing insert from the sharp surfaces on the sprocket shaft, but also guides the crankshaft into the bearing.



BEARING PROTECTOR TOOLS

Description	Part #
Crankshaft Main Bearing Protector	106-2858
Crankcase Main Bearing Insert Protector	106-2859

CAM ALIGNMENT TOOLS FOR X-WEDGE® ENGINES

- Three dowel pins are used to position each of the three cam belt pulleys with alignment holes in the cam plate



106-0750

CAM ALIGNMENT TOOLS

Description	Part #
Cam Alignment Dowels <i>3 pack</i>	106-0576
Cam Belt Tensioner Socket	106-0750

MAIN BEARING INSTALLATION TOOL FOR X-WEDGE® ENGINES

- Consists of a bearing guide that holds the two plain bearing halves in position and a shouldered press tool that fits through the guide to press the new bearings into the crankcase
- The press tool is also used by itself to press old bearings out of the crankcase
- For cam and driveside bearings in X-Wedge engines
- A hydraulic or arbor press is required to install or remove bearings.



MAIN BEARING INSTALLATION TOOL FOR X-WEDGE® ENGINES

Main Bearing Installation Kit	106-0718
-------------------------------	-----------------

PRIMARY INNER BEARING RACE INSTALLATION TOOL

- Primary inner bearing race installation tool, with a roller thrust bearing that decreases the effort required to install a bearing race by 30%
- Attachment for the S&S Clutch Puller that allows easy removal of the primary inner bearing race
- All of these S&S tools are CNC machined from the finest 4140 tool steel and heat treated for maximum reliability and service life.



PRIMARY INNER BEARING RACE INSTALLATION TOOL

Inner Primary Bearing Race Installer	56-5145
--------------------------------------	----------------

TOP DEAD CENTER TOOL

- Easy to find the exact top dead center of any engine
- The best way to calibrate your degree wheel when dialing in cams or performing any number of checks and modifications based on the position of the crankshaft
- Available for engines with 14mm or 12mm spark plug holes.



53-0322



53-0040



53-0452



53-0045

NOTE

Rocker covers must be removed when installing S&S compression releases. If lack of frame clearance prevents removal of rocker covers, engine must be removed from frame for compression release installation.

S&S® TOP DEAD CENTER TOOL

Description	Part #
14mm	53-0321
12mm	53-0322

S&S ROCKER COVER WRENCH SET

Helpful in areas where the motorcycle frame may prevent the use of conventional tools.	53-0040
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CONNECTING ROD CHECKING PINS

These pins are used to check alignment of connecting rods and wristpin bushings with crankcase cylinder decks.

.927"	53-0004
-------	---------

S&S COMPRESSION RELEASE SOCKET KIT

Allows in-frame installation of S&S compression releases and protects wiring from damage during installation.

For changing main jets in all S&S carburetors using #72 series jets.	53-0452
--	---------

BORING PLATE KITS FOR CYLINDER HEADS AND CRANKCASE

- Designed to simplify and reduce the time required to prepare crankcases and cylinder heads for S&S® Sidewinder® big bore kit installations
- Machined cast iron with precision ground working surfaces

BORING PLATE KIT

FOR 1936-'99 BIG TWIN AND 1986-'03 SPORTSTER® MODELS

Description	Part #
This boring plate kit has panhead and shovelhead head bolt patterns in one end. The other end is machined with the cylinder base patterns of 1936-'99 big twin engines, and 1986-'03 Harley-Davidson® Sportster models. Spacers are available for Evolution® engines which allow the cases to be bored without removing the cylinder studs (see below). Spacers are not included in this kit.	
Kit	53-0006
Boring plate (1)	N/A
Screw, 7/16" -20 x 1 1/4" Sockethead Cap	50-0172



53-0006



53-0007



53-0008

SPACERS FOR EVOLUTION CRANKCASES

Spacer part #53-0007 is required for 1986-'03 Sportster models. Spacers part #53-0007 and #53-0008 are both required for 1984-'99 big twin engines.

3 1/16" tall	53-0007
7/8" tall	53-0008

BORING PLATE KIT

FOR CRANKCASES & CYLINDERS FOR TWIN CAM 88® ENGINES

This boring plate kit is designed for boring stock crankcases of Harley-Davidson® Twin Cam 88® engines to accept S&S Super Sidewinder® 4" and 4 1/8" bore cylinders with stock cylinder stud pattern. A spacer is included with the kit which allows the cases to be bored without removing the cylinder studs.

Kit	53-0035
Boring plate	53-0036
Spacer, 3 3/4" tall	53-0037



53-0035

CYLINDER TORQUE PLATE KITS

FITMENT

- S&S 4½" bore
- 4" bore 1999–up big twin
- 3½" 1984–'99 big twin
- Harley-Davidson® Sportster® models in 3½" and 4" bore
- S&S X-Wedge® 4½" bore and 4¼" bore*

FEATURES AND BENEFITS

- S&S torque plates can be used in conjunction with an S&S boring fixture and a conventional boring bar, and they can be readily adapted to a Sunnen® type honing machine.

KIT CONTENTS

- Head end plate
- Base end plate
- Four long grade 8 socket head cap screws (holds the assembly together and supplies the pressure)
- Stop arm (keeps the cylinder and plates from turning while honing)

*These torque plates are required to bore or hone X-Wedge cylinders. They have the X-Wedge five bolt pattern and are available for 4½" bore and 4¼" bore cylinders.

CYLINDER TORQUE PLATE REPLACEMENT PARTS

(See chart for specific part numbers.)

1. Base end torque plate
2. Head end torque plate
3. Stop arm
4. Torque bolts
5. Vise tab
6. Tab bolt



S&S® CYLINDER TORQUE PLATE KITS AND REPLACEMENT PARTS										
Bore Size	Case Bolt Pattern	Kit Part #	Head End Plate	Base End Plate	Stop Arm	Bolt ⅜"-24 x 6"	Bolt 7/16"-20 x 6"	Bolt 7/16"-20 x 7"	Vise Tab	Tab Bolt 5/16"-18 x 1"
4½" - 4¼"	S&S® X-Wedge®	—	106-0837	106-0835	53-0014	106-0840	—	—	53-0034	50-0108
4¾" - 47/16"	S&S 4¾" Pattern	53-0055	53-0056	53-0057	53-0014	—	—	50-0192	53-0034	50-0108
4½"	Stock 1999–up big twin	53-0054	106-3190	106-3191	53-0014	—	—	50-0192	53-0034	50-0108
4½"	S&S 4½" Pattern	53-0051	53-0052	53-0053	53-0014	—	50-0191	—	53-0034	50-0108
3.927" - 4"	Stock 1999–up big twin	—	53-0049	53-0050	53-0014	—	—	50-0192	53-0034	50-0108
4"	S&S 4" Pattern	53-0030	—	53-0032	53-0014	—	50-0191	50-0192	53-0034	50-0108
3½"	1984–'99 big twin	53-0016	53-0017	53-0018	53-0014	—	—	50-0192	53-0034	50-0108
3½"	1984–'03 Sportster®	53-0016	53-0017	53-0018	53-0014	—	—	50-0192	53-0034	50-0108

S&S Cylinder torque plate kits are intended for aluminum cylinders including 1984–'99 Harley-Davidson® Evolution® big twin engines, 1986–'03 Sportster models, and 1999–up Twin Cam 88® engines.

S&S® CYLINDER TORQUE PLATE KITS

Bore Size	Case Bolt Pattern	Part #
4¾" - 47/16"	S&S 4¾" Pattern	53-0055
4½"	Stock 1999–up big twin	53-0054
4½"	S&S 4½" Pattern	53-0051
4"	S&S 4" Pattern	53-0030
3½"	1984–'99 big twin	53-0016
3½"	1984–'03 Sportster®	53-0016

S&S Cylinder torque plate kits are intended for aluminum cylinders including 1984–'99 Harley-Davidson® Evolution® big twin engines, 1986–'03 Sportster models, and 1999–up big twin engines.

HEAD END PLATE

Bore Size	Case Bolt Pattern	Part #
4¼"	S&S® X-Wedge®	106-0837
4¾"	S&S 4¾" Pattern	53-0056
4½"	Stock 1999-up big twin	106-3190
4½"	S&S 4½" Pattern	53-0052
4"	Stock 1999-up big twin	53-0049
3½"	1984-'99 big twin	53-0017
3½"	1984-'03 Sportster®	53-0017

BASE END PLATE

Bore Size	Case Bolt Pattern	Part #
4¼"	S&S® X-Wedge®	106-0835
4¾"	S&S 4¾" Pattern	53-0057
4½"	Stock 1999-up big twin	106-3191
4½"	S&S 4½" Pattern	53-0053
4"	Stock 1999-up big twin	53-0050
4"	S&S 4" Pattern	53-0032
3½"	1984-'99 big twin	53-0018
3½"	1984-'03 Sportster®	53-0018

STOP ARM

Bore Size	Case Bolt Pattern	Part #
All	All	53-0014

BOLT ¾"-24 X 6"

Bore Size	Bore Size	Part #
4¼"	S&S® X-Wedge®	106-0840

BOLT 7/16"-20 X 6"

Bore Size	Case Bolt Pattern	Part #	
4½"	S&S® 4½" Pattern	Each	50-0191
		4 pack	50-0191P
4"	S&S 4" Pattern	Each	50-0191
		4 pack	50-0191P

BOLT 7/16"-20 X 7"

Bore Size	Case Bolt Pattern	Part #	
4¾"	S&S 4¾" Pattern	Each	50-0192
		4 pack	50-0192P
4½"	Stock 1999-up big twin	Each	50-0192
		4 pack	50-0192P
4"	Stock 1999-up big twin	Each	50-0192
		4 pack	50-0192P
4"	S&S 4" Pattern	Each	50-0192
		4 pack	50-0192P
3½"	1984-'99 big twin	Each	50-0192
		4 pack	50-0192P
3½"	1984-'03 Sportster®	Each	50-0192
		4 pack	50-0192P

WISE TAB

Bore Size	Case Bolt Pattern	Part #
All	All	53-0034

TAB BOLT 5/16"-18 X 1"

Bore	Case Bolt Pattern	Part #
All	All 3987	Each 50-0108

DEGREE WHEEL KIT

- Multipurpose S&S® degree wheel can be used to do ignition timing, crankcase breather timing, cam degreering, or you name it
- Designed to fit the sprocket shaft of any big twin or Harley-Davidson® Sportster® model simply by using the correct adapter provided
- Each kit also comes with a pointer which is held in place with the center crankcase bolt



53-0020

S&S DEGREE WHEEL KIT

Description	Part #
Kit	53-0020
Adapter for Sportster® models (1 Each)	53-0023
Adapter for big twin (1 Each)	53-0024
Pointer (1 Each)	53-0025
Degree wheel and main adapter assembly (1 Each)	53-0026

Milwaukee
Twin Cam
96°/103°/110°
1999-2006
Twin Cam 88°
1986-2019
Sportster® & Buell®
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

CRANKPIN NUT CLEARANCING GAUGES

- Designed to simplify and eliminate clearancing problems that may arise when installing stroker flywheels in stock big twin crankcases
- By painting the bosses to be clearanced and then placing the appropriate gauge on the main bearing race, the crankcases can be marked with a scribe in the proper hole for the stroke and style connecting rod crankpin nuts to be used—*quickly and precisely.*



S&S® CRANKPIN NUT CLEARANCING GAUGES

Description	Part #
1958–'99 Big Twin Gauge	53-0005

ANTI-ROTATION BRACKET

This handy bracket slides over the sprocket shaft splines of big twin engines and bolts to one of the primary bolt holes of the crankcase to keep the crank from rotating. It's like an extra set of hands while installing pistons and cylinders.



50-9870

Fitment	Part #
1970–2006 Big Twin (except '06 Dyna®)	50-9870
2007–up Big Twin, 2006 Dyna®	530-0018

CRANKCASE OIL PASSAGE DRILLING JIG

DRILL JIG IS USED TO DRILL...

- Primary chain oil supply passage from the breather valve gear cavity to the back side of the oil pump body on late generator and early alternator crankcases.
- Pressure relief passage from behind the main oil pressure valve to the gear cavity on alternator crankcases.
- Crankshaft and main bearings supply passage on generator crankcases.
- Crankshaft and main bearings supply passage on early alternator crankcases.



S&S CRANKCASE OIL PASSAGE DRILLING JIG

Description	Part #
The S&S crankcase oil passage drilling jig is used to perform crankcase drilling modifications when installing an S&S oil pump assembly on early big twin crankcases. Made of hardened steel for durability, this fixture enables the builder to do four modifications.	53-0013

TAPPET BLOCK ALIGNMENT TOOL

- Aligns tappet block so the tappet rollers run straight on the cam lobe to prevent camshaft wear



S&S® TAPPET BLOCK ALIGNMENT TOOL

Description	Part #
Tool, Tappet Guide, Alignment	530-0014

S&S® OIL

FEATURES AND BENEFITS

- Ultimate protection
- Superior lubrication for reduced engine wear and lower oil temperatures
- Provides consistent viscosity, and resists thermal breakdown and oxidation at elevated temperatures
- Includes a oil drain plug oring for convenience



S&S® OIL CHANGE KIT

Description	Part #
Harley-Davidson® big twin & Sportster® Models with Evolution® engines <i>(using OEM filter #63796-77A, 63806-83, 63805-80A)</i>	3601-0412
Harley-Davidson® Twin Cam 88®/96™/103™/110™ engines <i>(using OEM filter #63798-99, 63731-99A)</i>	3601-0413
2017-2019 Harley-Davidson® Models with Milwaukee-Eight® engine	3601-0492

S&S® OIL

Description	Part #
20W50 Synthetic, 1 quart	3601-0407
20W50 Synthetic, 2.5 Gallon	3601-0408
Primary, Synthetic, 1 quart	3603-0044
80W140 Gear, Synthetic, 1 quart	3604-0007
Chain/Gear, Synthetic, 1 quart	3604-0008

OIL FILTERS

FEATURES AND BENEFITS

- Captures smaller particles than stock filters
- Low restriction to oil flow
- Direct bypass —bypass oil does not pass over dirty filter media
- Smaller diameter for easier installation
- Black or chrome finish



S&S® OIL FILTERS

Year Application	Micron Rating	QTY	Chrome	Black
1984-'99 Evolution®, 1986-'17 XL and 1991-'02 Buell®	30µ	each	31-4102A	31-4101A
		12 pack	310-0240 63796-77A	310-0239 63805-80A
1999-'17* Twin Cam 88®/96™/103™ and all X-Wedge®	10µ	each	31-4104A	31-4103A
		12 pack	310-0242 63798-99A	310-0241 63731-99A

*Contains an anti-drain back valve

CHAMPION® SPARK PLUGS



55-1322

CHAMPION® SPARK PLUGS

Application	Size	QTY	Part #
Twin Cam 88®/96™/103™, Sportster®, X-Wedge® & S&S 4 1/8" bore engines	12mm Long Reach <i>Champion® #RA8HC</i>	each	55-1320 32317-86A, 32362-04
		2 pack	55-1322 32317-86A, 32362-04
Evolution®, Vintage Models (SH-Series, Iron XL, KN-Series, P-Series) & S&S 3 3/8" & 4" bore engines	14mm Long Reach <i>Champion® #RN12YC</i>	each	55-1321 32342-04, 32311-83
		2 pack	55-1323 32342-04, 32311-83

Milwaukee
Eight™
2007-2017
Twin Cam
96-/103-/110™
1999-2006
Twin Cam 88®
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod™
1984-1999
Evolution®
1926-1984
Vintage Engines
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Victory® Models
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JETS & CARB REBUILD KITS FOR S&S SUPER E & G CARBURETORS

For those who need to rejet their carburetor because of engine modifications, exhaust modifications, or changes in altitude, we have extra jet kits available which are designed to cover most jetting situations.

DEALER JET KITS[±]

Description	Part #
S&S Carb Parts Kit (Contains needed parts to maintain S&S Super E and G carburetors)	11-3103
S&S Jet Kit (Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)	11-3102



11-3103[±]

JET PACKS[±]

Description	Part #
Low Range Jet Pack – For jetting most stock and moderate performance engines. <i>Includes one each intermediate jets (.025", .0265", .028", .0295", .031", .032", .033") and one each main jets (.062", .064", .066", .068", .070", .072", .074").</i>	11-7270
High Range Jet Pack – For jetting some stock and all performance engines. <i>Includes one each intermediate jets (.025", .0265", .028", .031", .032", .033") and one each main jets (.072", .074", .076", .078", .080", .082", .084").</i>	11-7271
Master Jet Pack – For jetting all Super B, E, and G equipped engines. <i>Includes one each intermediate jets (.025", .0265", .028", .0295", .031", .032", .033") and one each main jets (.062", .064", .066", .068", .070", .072", .074", .076", .078", .080", .082", .084").</i>	11-7272



11-3102[±]

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION[±]

Size	QTY	Part #	Size	QTY	Part #
.025	each	11-0250	.032	each	11-0320
	3 pack	11-7107		3 pack	11-7112
.0265	each	11-0265	.033	each	11-0330
	3 pack	11-7108		3 pack	11-7113
.028	each	11-0280	.036	each	11-0360
	3 pack	11-7109		3 pack	11-7114
.0295	each	11-0295	.040	each	11-0400
	3 pack	11-7110		3 pack	11-7115
.031	each	11-0310	Blank	each	11-0000
	3 pack	11-7111			



11-7272[±]



106-3517[±]

Early Series #94 gas jets were stamped with single digit numbers. Conversions for these numbers are:

1.....	.025"	4.....	.033"
2.....	.028"	5.....	.036"
3.....	.031"	6.....	.040"

NOTES

No returns or exchanges on jets.
Refer to Section 10: Racing for the S&S fuel and turbo carburetors.

MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION[±]

Size	QTY	Part #	Size	QTY	Part #
.040	each	11-4040	.080	each	11-4080
	5 pack	11-7220		5 pack	11-7240
.042	each	11-4042	.082	each	11-4082
	5 pack	11-7221		5 pack	11-7241
.044	each	11-4044	.084	each	11-4084
	5 pack	11-7222		5 pack	11-7242
.046	each	11-4046	.086	each	11-4086
	5 pack	11-7223		5 pack	11-7243
.048	each	11-4048	.088	each	11-4088
	5 pack	11-7224		5 pack	11-7244
.050	each	11-4050	.090	each	11-4090
	5 pack	11-7225		5 pack	11-7245
.052	each	11-4052	.092	each	11-4092
	5 pack	11-7226		5 pack	11-7246
.054	each	11-4054	.094	each	11-4094
	5 pack	11-7227		5 pack	11-7247
.056	each	11-4056	.096	each	11-4096
	5 pack	11-7228		5 pack	11-7248
.058	each	11-4058	.098	each	11-4098
	5 pack	11-7229		5 pack	11-7249
.060	each	11-4060	.100	each	11-4100
	5 pack	11-7230		5 pack	11-7250
.062	each	11-4062	.102	each	11-4102
	5 pack	11-7231		5 pack	11-7251
.064	each	11-4064	.104	each	11-4104
	5 pack	11-7232		5 pack	11-7252
.066	each	11-4066	.106	each	11-4106
	5 pack	11-7233			
.068	each	11-4068	.110	each	11-4110
	5 pack	11-7234		5 pack	11-7255
.070	each	11-4070	.115	each	11-4115
	5 pack	11-7235		5 pack	11-7256
.072	each	11-4072	.120	each	11-4120
	5 pack	11-7236		5 pack	11-7257
.074	each	11-4074			
	5 pack	11-7237			
.076	each	11-4076			
	5 pack	11-7238			
.078	each	11-4078			
	5 pack	11-7239			

MAIN JET AIR BLEED KIT[±] (One Jet Each Size)

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518



190-0005[±]

S&S[®] CARBURETOR REBUILD KITS

To insure that you continue to get the utmost in performance from your S&S carburetor, we have put together a series of rebuild kits that are designed to provide the proper parts to return a worn carburetor to top shape. We have assembled different types of kits to cover the different degrees of rebuild necessary.

MASTER REBUILD KITS

Master rebuild kits contain a body rebuild kit, accelerator pump rebuild kit (Super E and G only), all new fasteners, springs, idle mixture screw, seat, and needle assembly. Everything needed to completely rebuild one carburetor.

MASTER REBUILD KIT[±]

Description	Part #
Super E	11-2923
Super G	11-2924

BODY REBUILD KITS

Body rebuild kits for Super E and G carbs also contain throttle shaft nuts, nylon washers, accelerator pump o-ring, and accelerator pump boot. Body rebuild kits for Super E and G carbs do not contain throttle shaft bushings since these carbs have stainless steel throttle shaft bushings already installed.

BODY REBUILD KIT[±]

Description	Part #
Super E	11-2906
Super G	11-2907

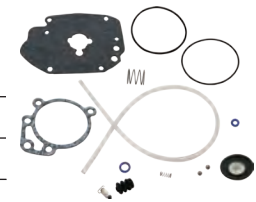


BASIC REBUILD KIT

A gasket and seal kit for low mileage Super E & G carbs. Perfect to reassemble carbs taken apart for inspection and cleaning.

BASIC REBUILD KIT[±]

Description	Part #
Super E & G	110-0067

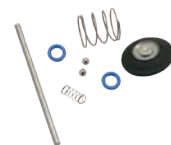


ACCELERATOR PUMP REBUILD KITS

Accelerator pump rebuild kits contain diaphragm, diaphragm spring, check balls, check ball spring, pump pushrod, and required hardware and o-rings.

ACCELERATOR PUMP REBUILD KIT

Description	Part #
Super E & G	11-2918



FUEL LINE KIT

Fuel Line Kit for Super E and G Carburetors p/n 190-0005[±]

Fuel Line, Kit, Carb, Super E/G, Swivel Retrofit.....	190-0005[±]
Fuel Line, .311" x .563" x 17.5", SAE 30R14.....	190-0001 (replacement fuel line only)

Milwaukee
Eight
2007-2017
Twin Cam
96"/103"/110"
1999-2006
Twin Cam 88"
1986-2019
Sportster® & Buell®
2014-2019
Street &
Street Rod®
1984-1999
Evolution®
1926-1984
Vintage Engines
Indian® &
Victory® Models
Tools
& Shop Supplies
Apparel
Warranty &
Company Policy
& Index

TOUCH UP PAINT, LUBRICANT AND SEALANTS



106-3023



51-9000



51-9009



51-9002



500-0143

TOUCH UP PAINT

Description	Part #
S&S touch up paint is included with each powdercoated S&S engine, but it's handy to have a spare! Keep one in the shop and one in your saddle bag. Sold in ½ oz. bottles with applicator cap.	
Wrinkle Black ½ oz, matte finish (used after April 2009)*	510-0053
Silver ½ oz	106-3023
Stone Gray ½ oz	510-0350

**NOTE: Wrinkle Black (51-9001) has a slightly glossy finish. Wrinkle Black (510-0053) has a matte finish with no gloss.*

LUBRICANT AND SEALANTS

Use what the pros use! S&S assembles a lot of engines and customers often ask what sealants and lubricants we use. We recommend and use the following:

Torco® Engine Assembly Lube

Protect engine components during assembly and initial start up!

4 oz. Bottle	51-9000
1 oz. Tube	51-9002

Gasgacinch® Gasket Sealer

4 oz. (118ml) Can	51-9009
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ThreeBond® Liquid Gasket 1194

Great for sealing crankcases! 3.5 oz. (100g) Tube	500-0143
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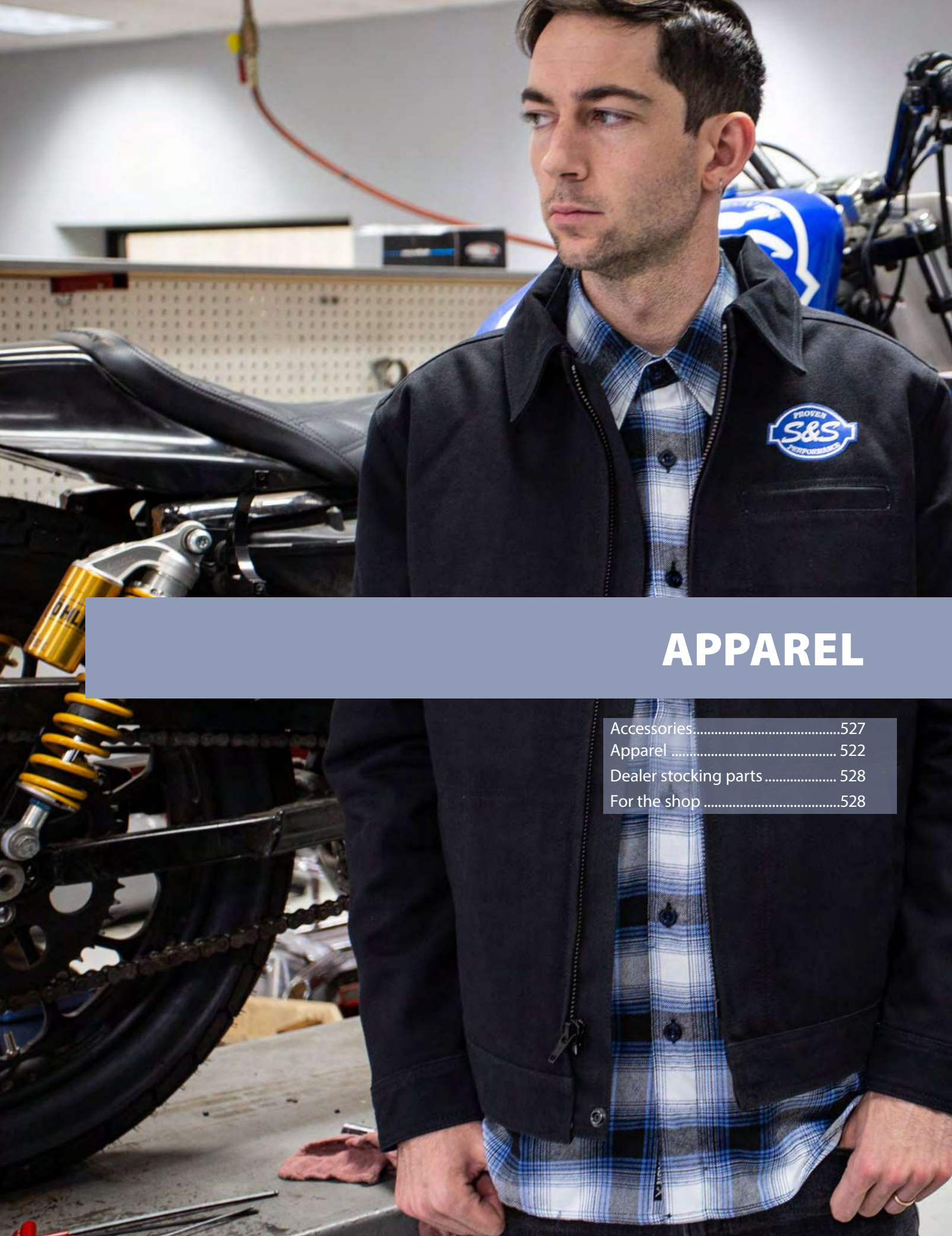
ENGINE STANDS

- An economical way to hold an engine on the work bench, for shipping, or for display
- Constructed of heavy gauge stamped steel with "S&S" laser cut in both ends
- Bullet proof, blue powder coat finish gives the stands a professional appearance that is suitable for display and protects them from corrosion and minor abrasions



S&S® ENGINE STANDS

Application	Part #
S&S X-Wedge® Engines	53-0147
1936-'99 Big Twin Engines	53-0141
1999-Up Unbalanced Big Twin Engines	53-0143
1999-'06 Balanced Big Twin Engines	53-0145



APPAREL

Accessories.....	527
Apparel	522
Dealer stocking parts	528
For the shop	528

APPAREL'S MANUALS & INSTRUCTION SHEETS

S&S® Classic Pocket Tee

- Super soft ring-spun 100% cotton
- Classic front pocket on chest
- Pre-shrunk to minimize shrinkage
- Slimmer fit, order a size up for a more standard fit
- Water based screenprint
- Screen printed inside label
- Printed in the USA

S..... **510-0616**
 M..... **510-0617**
 L..... **510-0618**
 XL..... **510-0619**
 XXL..... **510-0620**



back



S&S® Flat Track Tee

- Black
- Pre-shrunk
- Super soft ring-spun 100% cotton
- Slimmer fit, order a size up for a more standard fit
- Water-based screenprint
- Printed in the USA

S..... **510-0543**
 M..... **510-0493**
 L..... **510-0494**
 XL..... **510-0495**
 XXL..... **510-0496**
 XXXL..... **510-0497**

S&S® T-143 Diagram Tee

- Grey
- Pre-shrunk
- Standard fit
- Classic style, heavier weight
- Water-based screenprint
- Printed in the USA

S..... **510-0541**
 M..... **510-0503**
 L..... **510-0504**
 XL..... **510-0505**
 XXL..... **510-0506**
 XXXL..... **510-0507**





S&S® Ladies Old School V-Neck Tee

- Black
- Pre-shrunk
- Extremely soft, drapey style
- Water-based screenprint
- Printed in the USA

S..... **510-0538**
 M..... **510-0523**
 L..... **510-0524**
 XL..... **510-0525**
 XXL..... **510-0526**

S&S® Ladies Flat Track Racerback Tank

- Black
- Pre-shrunk
- Extremely soft, drapey style
- Water-based screenprint
- Printed in the USA

S..... **510-0527**
 M..... **510-0528**
 L..... **510-0529**
 XL..... **510-0530**



S&S® Mechanics Work Shirt

M..... **510-0168**
 L..... **510-0169**
 XL..... **510-0170**
 XXL..... **510-0171**
 XXXL..... **510-0172**



APPAREL MANUALS & INSTRUCTION SHEETS

S&S® Ride Fast Knee High Sock

- Black & Blue
- One size fits most
- Durable and breathable
- Ideal for riding

510-0622



S&S® Ride Fast Crew Sock

- Black & Blue
- One size fits most
- Durable and breathable
- Ideal for riding

510-0621

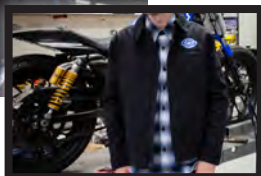


S&S® Race Socks

- White
- One size fits most
- Durable and breathable
- Ideal for riding

510-0482





S&S® Shop-Style Jacket with Embroidered Logo

- Canvas shop jacket
- Center zipper with collar
- Crop center with button snap
- Two Slash Pockets with snap buttons
- Left chest pocket
- Pocket on left shoulder
- Inside pocket on left side
- Tapered sleeves
- Side button relief
- Quilted liner

S.....	510-0636
M.....	510-0637
L.....	510-0638
XL.....	510-0639
XXL.....	510-0640

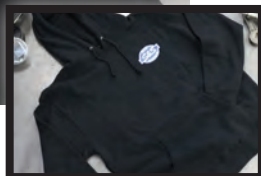


back

S&S® Windbreaker

- Black
- 100% nylon with waterproof coating
(seams may not be waterproof)
- Antique brass snaps and eyelets
- Hip Length

S.....	510-0550
M.....	510-0551
L.....	510-0552
XL.....	510-0553
XXL.....	510-0554
XXXL.....	510-0555



front

S&S® Classic Hoodie

- Black
- Standard fit

S.....	510-0544
M.....	510-0545
L.....	510-0546
XL.....	510-0547
XXL.....	510-0548
XXXL.....	510-0549



S&S® Ride Fast Roper Glove

- Men's classic unlined short cuff MC glove
- Touch tech fingers

S.....	510-0631
M.....	510-0632
L.....	510-0633
XL.....	510-0634
XXL.....	510-0635

APPARELS MANUALS & INSTRUCTION SHEETS

S&S® Classic 6 Panel Snapback

- Classic shape
- Premium wool blend
- Matching plastic snap
- Hard buckram
- Classic green undervisor
- 8 rows of stitching on visor

510-0627



S&S® Classic Snapback with Camo Visor

- High quality Woodland Camo print on visor
- Black plastic snap
- Hard buckram
- Black undervisor
- 8 rows of stitching on visor

510-0626



S&S® Classic 5 Panel Trucker Hat

- Contrast trucker mesh
- Matching plastic snap
- Hard buckram
- Matching undervisor
- 8 rows of stitching on visor

510-0628



S&S® Trucker Hat

- Contents: 100% Polyester/100% Nylon
- One Size Fits Most
- Thick, 6 mm sponge backing
- High quality foam trucker cap
- Plastic snap matching with trucker mesh
- Matching undervisor

510-0563



S&S® Beanie Hat

- One size fits most

510-0584



ACCESSORIES

1. S&S® Cycle Logo Patch

3" 510-0194

6" 510-0193

2. S&S® Logo 6" Decal

3" 106-4459

6" 510-0195

3. S&S® Embossed Aluminum Sign

16.5" x 11"

510-0192

4. S&S® Teardrop Belt Buckle

Polished nickel white metal finish.

510-0184

5. S&S® Spark Plug Gauge Tool

510-0189



1



2



4



5



3

OWNER'S MANUALS & INSTRUCTION SHEETS

FOR THE SHOP

S&S® LOGO DECAL

3" Blue/White S&S Logo (weatherproof)	106-4459
---------------------------------------	-----------------

BANNERS

Printed on one side of water resistant reinforced vinyl. Features metal grommets on the top and bottom of hemmed edges for easy display.

BANNERS

S&S® Logo (42" x 30")	51-0161
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S&S® COUNTER MAT

S&S® Counter Mat 26x17	51-0196
------------------------	----------------

S&S® METAL SIGN

Features the blue S&S logo design. Measures 16" x 24"	51-0194
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S&S® BUSINESS HOURS DECAL

For S&S Dealer windows. Displays business hours. Write-on/wipe off capability.

S&S® BUSINESS HOURS DECAL

Blue and white, 6" x 9"	51-0211
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51-0161



51-0211



51-0196

DEALER STOCKING PARTS KITS

S&S® DEALER CARB PARTS KIT[±]

Contains replacement parts for S&S Super E and G carbs	11-3103
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S&S® DEALER JET KIT[±]

A complete jetting kit for all S&S Super gasoline carbs	11-3102
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COMPANY POLICY



Disclaimer

The names Harley®, Harley-Davidson®, H-D® and all trademarks owned by Harley-Davidson and its affiliated companies, and all H-D and Buell® part numbers and model designations are used for reference only. S&S Cycle is in no way associated with or authorized by Harley-Davidson Motor Co. to manufacture and sell any of the engine parts described in this catalog.

The installation of any S&S part may void or otherwise adversely affect your factory warranty. In addition, such installation and use may violate certain federal, state and local laws, rules and ordinances as well as other laws when used on motor vehicles operated on public highways, especially in states where pollution laws may apply.

Always check federal, state, and local laws before modifying your motorcycle.

It is the sole and exclusive responsibility of the user to determine the suitability of the product for his or her use, and the user shall assume all legal, personal injury risk, and liability and all other obligations, duties and risks associated therewith. S&S parts are intended for the very experienced off-road rider only.

Sales

S&S parts are obtainable from many distributors and dealerships throughout the world. Please reference our Dealer Locator on the S&S website for an authorized Dealer near you.

In order to receive dealer prices, new customers must complete a Dealer Application through the S&S Customer Support Department.

In order to receive distributor prices, new customers must provide, in addition to all of the dealer requirements listed above, a copy of your dealer catalog and dealer price list for consideration. It is left to S&S' sole discretion as to whom it allows to distribute S&S products.

Terms

Dealers and Distributors: UPS will no longer allow its drivers to collect cash for COD shipments.

S&S accepts Visa, MasterCard, and American Express

New Dealers and Distributors: For a period of six months following the acceptance of a completed Customer Application form, component orders for all new S&S customers shipped in the continental United States and abroad will be sent COD – payable with a money order or cashier's check at the time of delivery. A refused COD shipment will immediately set the account to prepaid. If customers prefer to avoid COD charges, orders may be prepaid by company check, money order, certified check, wire transfer or credit card. All complete and partial engine assembly orders for new S&S customers shipped in the continental United States and abroad will be sent prepaid by credit card, cashier's check, wire transfer, or money order.

Existing Dealers and Distributors: After six months as an S&S customer, dealers and distributors with a satisfactory payment and performance history may request company check or open account status from their Customer Support representative.

International: Any orders from outside the United States must be prepaid in United States funds. Freight charges may be prepaid by the customer or order may be shipped freight collect. S&S will fax an order acknowledgement that includes the customer's shipping preference each time an order is received. S&S will not place the order until the order acknowledgement form is signed and returned.

Telephone orders are left to S&S' discretion as to whether or not prepayment is required before the order is shipped.

Individuals: S&S requires that parts are purchased through a dealer; S&S will not ship a parts order to a retail customer. Credit card orders for apparel items may be placed online or by telephone.

Service Charges: S&S reserves the right to levy additional charges under the following circumstances:

Insufficient Funds: Any customer that has a check returned to S&S for lack of funds will be charged 25.00 and will be immediately placed on pre-paid status.

Past Due: Any account that is 30 days past due will be assessed a charge of 1.5% on the balance due for each month the account is in arrears. The account will be put on hold until it is current.

Duplicate Manufacturer's Statement of Origin (MSO): Any customer requesting a duplicate MSO will be charged 60.00 for each separate MSO required. Please be aware that a sworn affidavit must be completed and submitted to S&S before the duplicate MSO can be prepared.

NOTE:
Distributors are authorized to sell to dealers only. Retail sales are prohibited.

MINIMUM ADVERTISED PRICE (MAP) POLICY

S&S Cycle will issue printed price lists indicating Manufacturer's Suggested Retail Pricing (MSRP) and maintain a current listing with effective date of MSRP on its internet website which can be amended at any time by S&S Cycle at its sole discretion. Any priced advertisement in any media such as but not limited to internet or similar electronic media, radio, television, flyers, posters, catalogs, mail order catalogs, magazines, e-mail newsletters, e-mail solicitations, coupons, mailers, inserts, newspapers, and public signage must be not less than the current MSRP as indicated on the printed price list or S&S internet website. Any pricing advertised that does not match or exceed that shown on the current printed price list or MSRP list on the S&S Cycle website will be a violation of this MAP policy and subject to enforcement procedures as identified later in this document.

Sales of any S&S products listed on the current price list through third party retailing (such as eBay and Amazon) is allowed providing the listed price is not below MSRP.

This MAP Policy applies only to advertised prices and does not apply to the actual price that S&S Cycle products are sold or offered for sale to an individual consumer within Reseller's location or over the telephone. Resellers are free to sell S&S Cycle products at any price they choose under these circumstances.

The inclusion in advertising of any free or discounted products with a product covered by this MAP Policy would be contrary to this MAP Policy if it has the effect of discounting the advertised price of the included S&S Cycle product below current MSRP as indicated on the S&S Cycle internet website or printed price list.

This MAP Policy does not establish maximum advertised prices. Resellers may offer S&S Cycle products at any price in excess of current MSRP.

Pricing listed on an internet site is considered an "advertised price" and must adhere to this MAP Policy. Once the pricing is associated with an intent to purchase (adding to shopping cart or order), the price becomes the selling price and is not bound by this MAP Policy. Statements such as "add to basket to see price," "we will match any price," "call for price," or similar phrases are acceptable as long as the price advertised or listed for the products is not below current MSRP. In addition, discounts applied at checkout to the customer's entire order based on customers purchasing history with the Reseller, such as discounts for "frequent shoppers," do not violate this MAP Policy.

S&S Cycle reserves the right to offer promotions on certain products. In such an event, we reserve the right to modify or suspend this MAP Policy in whole or in part by notifying all Resellers of the nature and duration of the change. S&S Cycle further reserves the right to adjust the MSRP with respect to all or certain products at its sole discretion. Such changes shall apply equally to all resellers.

Enforcement Procedures:

S&S has included its MAP Policy Enforcement Procedures in the Dealer Agreement to ensure all dealers signing the "acknowledgement" page is aware of the severity in which S&S will deal with violators of this policy. Any determinations by S&S under these enforcement procedures shall be binding upon the violator.

First Offense:

Dealer will receive notification of the nature of the violation and will be given thirty (30) calendar days to remove the offending print advertisements from publication and distribution and three (3) business days to remove any offending electronic advertisements from web pages, internet sites, or other electronic media.

Second Offense:

Dealer will receive a notification and the account will be placed on a non-ship basis for thirty (30) days from the date of notice.

Third Offense:

Dealer will receive a notification and the account will be placed on a non-ship basis for sixty (60) days from the date of notice. •

Fourth Offense:

Dealer will receive a notification and the account will be placed on a non-ship basis indefinitely

ORDERING AND RETURN POLICY

Ordering

Orders may be placed online or by telephone or email. Special forms for written orders are not necessary. Special order parts will require payment in full by certified check, credit card or wire transfer before the order is placed, and in most cases a special order form is also required. S&S® requires specific information when ordering parts. Refer to the appropriate section of the catalog that contains the parts you want to order for the required information.

How To Order By Fax, Mail or Email

Email orders should be sent to your Customer Support Representative.

When placing an order by letter, fax, or email, please include the following information:

1. First and Last Name.
2. Customer Number.
3. Company Name.
4. Street Address, City, State, and Zip Code.
(UPS will not deliver to a post office box.)
5. Phone Number where you can be reached between 8:00 a.m. and 5:00 p.m. Central Standard Time.
6. Shipping Preference. Customer must specify the method of shipment e.g. UPS one-day air, UPS two-day air, UPS ground, Federal Express, Truck, or U.S. Mail.
NOTE: S&S ships most domestic and international orders via UPS.
7. Year and model of motorcycle for each kit ordered.
8. Information that is helpful in establishing the correct S&S part has been ordered. Examples of information to include are: engine displacement, bore and stroke, cylinder height, and existing modifications to the motor.
9. S&S part number and quantities required.
NOTE: The customer is responsible for determining & ordering the appropriate part number.
10. Deposit applies only to individual customers or orders for special parts.

How To Order By Phone

When placing an order by phone please provide the information below:

1. Customer Number.
2. Name of person placing the order.
3. Company Name.
4. Street Address, City, State, and Zip Code. For dealers and distributors, S&S Customer Support Representative will verify current address against our computer listing each time an order is placed.
5. Shipping Preference. Customer will be asked to determine the method of shipment e.g. UPS one-day air, UPS two-day air, UPS ground, Federal Express, Truck, or U.S. Mail.
NOTE: S&S ships most domestic and international orders via UPS.
6. S&S part numbers and quantities required. NOTE: The customer is responsible for determining and ordering the appropriate part number.
7. Information that is helpful in establishing the correct S&S part has been ordered. Examples of information to have available include: engine displacement, bore and stroke, cylinder height, and existing motor modifications.

Backorders

Through continual expansion of equipment and facilities, S&S is making an ongoing effort to improve parts availability, however, backorders cannot always be avoided.

Items not in stock at the time the initial order is shipped may be backordered for a period of up to 14 days. The customer may request to hold the backordered parts for a full 30 days or cancel them at an earlier date.

During the backorder period if the customer decides the parts are no longer needed, it is the customer's responsibility to notify S&S that the order should be cancelled.

Shipping charges and restocking fees will be applied to any backorders that are refused in the same way they are applied to other orders that are refused.

Refused Shipments

Orders that are refused or returned to S&S® for reasons such as insufficient funds or having no one available when the shipment is delivered are subject to a 20% restocking fee. The customer will then be put on Pre-Pay status and remain there for a minimum of 6 months.

Upon review of transactions for that 6 month period, the customer may go back to COD status at the discretion of S&S Cycle, Inc.

In addition, the customer is liable for all shipping charges. Any restocking fees and shipping charges that total 50.00 or more must be paid before any additional orders will be accepted. Charges below 50.00 will be added to the customer's next purchase.

Prices

The prices for all S&S parts are FOB La Crosse, Wisconsin. S&S reserves the right to change prices and/or discounts without notice and to charge the prevailing prices at the time of shipment.

Special Orders

All special order parts must be paid for in full before the part will be released for production. In addition, the customer must complete special order sheet and sign a copy of the sales order to verify that the specifications are correct. Once production has started, the order may not be cancelled. Special order parts are not returnable if they are machined to the customer's specifications. * NOTE: Distributors of S&S Cycle, Inc. are not authorized to order Special Order items as this is a Race and Dealer only program.

There are three categories of special order parts:

Level 1: Special Order parts are parts that do not have special attributes that require additional engineering. An example of a level 1 part would be a special racing cylinder with a head bolt pattern that is in common usage and that S&S offers as a standard option.

Level 2: Special Order parts are unique parts that S&S has made in the past and has charged the customer for engineering and programming time on the first order. The original customer may order that part again for the cost of the part plus a small fee for loading the NC program. Any other customer who wants a similar part may either buy it from the original customer or may order it directly from S&S as a level three special order part.

Level 3: Special Order parts are special parts that S&S has never made before. An example of a level 3 part would be a special racing cylinder with a unique head bolt pattern. A customer ordering a level 3 part will be charged for the cost of the part plus any engineering time required to produce machining prints and for NC programming time.

Special Order Payment

Placement of a special order must include full payment of the total cost of the part and the labor charge to complete the modification. The order will not be released for production until payment is received. Special orders cannot be cancelled or returned. Modification of some standard parts may void the normal S&S Parts Warranty.

Returns

Shipments must be inspected by the customer immediately upon receipt to insure they are complete and undamaged. If damaged parts are discovered, an immediate claim must be made with the carrier. S&S must be notified within five (5) working days of the receipt of a shipment that has been determined to have shortages or contain incorrect or defective parts. It is advisable to phone S&S as soon as possible as issues can frequently be resolved more quickly over the phone.

The following requirements must be satisfied to receive credit, a refund, or to exchange merchandise.

1. Call S&S to obtain a Return Authorization (RA) number before the parts are returned. The RA number must be visible and clearly written on the container.
2. Return the parts to S&S within 10 days.
3. Package the parts to prevent any damage occurring during shipping. If parts being returned to S&S are damaged in transit because of inadequate packaging, they will be returned to the customer at the customer's expense. Repackaging parts using S&S containers does not always ensure the items are packaged properly. S&S original containers may be reused but good judgment must be applied to determine if additional protection is required.
4. All returns must be sent to S&S insured and prepaid. No CODs will be accepted.
5. All returns must be accompanied by a copy of the original invoice of purchase and a note explaining in sufficient detail the reason for the return. The Return Authorization number must be visible and clearly written on the container and the explanatory note.
6. Under no circumstances are damaged, altered, rusty, used or otherwise un-saleable parts eligible to be returned for credit. S&S will not issue an RA number for anything altered, used, unpackaged or deemed obsolete by S&S. S&S will also not issue an RA for anything invoiced over one year old.

Upon acceptance of the returned parts by S&S under the requirements described above, the customer will be charged a minimum restocking fee equal to 20% of the total value of the parts.

APPENDIX & INDEX

Appendix

Identification of flywheels	534
Ordering S&S Manifolds	535
Year codes	540
Custom head bolt length.....	541

Index.....542



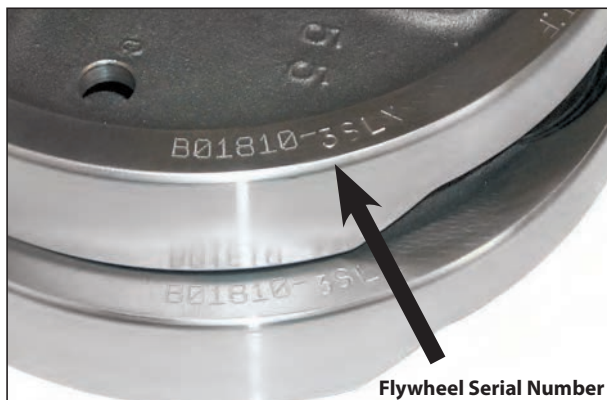
IDENTIFICATION OF FLYWHEELS

S&S® flywheels are manufactured in sets only. We do not sell individual right or left flywheels, nor do we recommend mixing flywheels. This is because the manufacturing techniques and/or tooling changes periodically. To prevent mixing flywheels, as well as to identify each set, the right and left flywheels are stamped with identical serial numbers (see picture).

Serial Number Identification Information

Serial Number ID, B01810-3SLX, deciphered as follows:

- (B01810)** Serial Number: From this number, S&S can determine when the flywheels were made and sold, to whom they were sold, and how the flywheels were originally balanced
- (3)** Stroke Code: Determines the stroke of the flywheels. In this case the stroke is 4¾"
- (SL)** Year Code: The year of the engine the flywheels were machined to fit and that the flywheels were machined to accept an S&S design sprocket shaft
- (X)** Diameter Code: Diameter of the flywheels. In this case the diameter is 8¼"

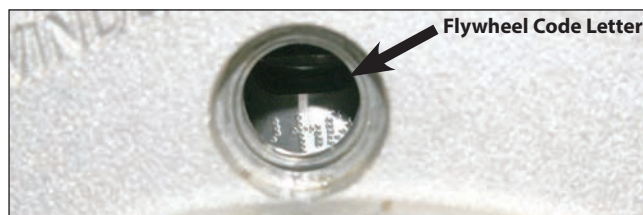


S&S® FLYWHEEL IDENTIFICATION CODES FOR 1936-UP BIG TWIN								
Stroke Code	Stroke	Year Code	Engine Year	Sprocket Shaft	Pinion Shaft	Crankpin Type	Diameter Code	Flywheel Diameter
1	4¾"	E	1936-'54	Stock	Stock	1941-'81	None	8½" (Stock)
2	4½"	L	1955-'71	Stock	Stock	1941-'81	A	8¾"
3	4¾"	AL	1972-Early '81	Stock	Stock	1941-'81	X	8¼"
4	5"	SE	1955-Early '81	S&S	Stock	1941-'81		
5	4¼" (Stock 80")	BL	Late 1981-'99	Stock	Stock	1981-'99		
6	4½"	SL	Late 1981-'99	S&S	Stock	1981-'99		
9	Special order	SF	1999-up	Press In	Press In	Press In		
12	5¼"	SG	S&S 4½" Bore	Press In	Press In	Press In		
13	3½" (Stock 61")	SM	1995-'99 EFI	Press In	S&S	1981-'99		
14	3¾" (Stock 74")	Y	74'/80" Indian®	Stock	Stock	Stock		
16	5½"							
17	4"							
18	3¾"							
19	4½"							
TA	3¾"							
TB	4450"	Titan Special						

FLYWHEEL CODES:

Codes that pertain to the most common regular production flywheels have been listed. Many other codes for racing flywheels and special orders also exist. If you have a question about a set of S&S flywheels with codes different than those shown, contact an S&S technical assistant to properly identify what you have.

Flywheel ID codes that end with an "A" or an "X" designate flywheels with a smaller than stock diameter. Stock big twin flywheels measure 8½", and stock flywheels for Harley-Davidson® Sportster® models are 7¾" in diameter. Typically, "A" means ⅛" smaller, and "X" means ¼" smaller. To verify the code, it is best to measure the flywheels.



Serial numbers can be seen through the timing hole to identify the stroke of an assembled engine. Keep in mind they will appear upside down in the hole.

S&S® FLYWHEEL IDENTIFICATION CODES FOR HARLEY-DAVIDSON® SPORTSTER® & BUELL® MODELS									
Stroke Code	Stroke	Year Code	Engine Year	Sprocket Shaft	Pinion Shaft	Crankpin Type	Rod Bearing Type	Diameter Code	Flywheel Diameter
1	4½"	None	1957-'76	Stock	Stock	Stock	Stock	None	7¾" (Stock)
2	4¾"	B	1957-Early '81	Stock	Stock	Stock	Stock	A	7¾"
3	4½"	SB	1957-Early '81	S&S	Stock	Stock	Stock	X	7¾"
4	4½"	BD	1957-Early '81	Stock		Stock	Stock		
6	4½"	SBD	1977-Early '81	S&S		Stock	Stock		
7	4¾"	C*	Late 1981-'85	Stock	Stock	Stock	Stock		
8	5"	SC	Late 1981-'85	S&S	Stock	Stock	Stock		
9	Special Order	SCD	Late 1981-'85	S&S		Stock	Stock		
11	4½"	SCR	Late 1981-'85	S&S	Stock	Stock	1987-Up		
12	5¼"	SCDR	Late 1981-'85	S&S		Stock	1987-Up		
15	3¾"	D	Late 1986-'03	S&S	S&S	S&S	S&S		
16	5½"	DR	Late 1986-'03	S&S	S&S	S&S	1987-Up		
17	4"	PS	S&S Prostock	Press In	Press In	Press In			
18	3¾"	KRS	45" WR/KR	Stock	Stock	1957-'81 XL	1957-'81 XL		
19	4½"	YS	45" Indian	Stock	Stock	Stock	Stock		

* Obsolete - S&S no longer makes this design

ORDERING S&S[®] MANIFOLDS

We make one style of manifolds for both Harley-Davidson[®] Evolution[®] and Twin Cam 88[®] engines to fit stock cylinder heads and S&S cylinder heads — meaning manifolds supplied in S&S carburetor kits can be used with stock or S&S Super Stock[®] cylinder heads. The only thing that you have to keep in mind is that due to the slightly larger port diameter, these manifolds must be used with S&S manifold seals.

Replacement & Special Order Intake Manifolds

Stock, S&S Engine or S&S Kit: To order a replacement manifold, refer to the manifold size chart for your particular engine type. Manifolds are listed for various sized carburetors and throttle bodies in the correct lengths for engines and kits offered by S&S.

Custom Engine: If the effective cylinder length is different from the standard offerings, a special manifold can be machined to your specifications. Order manifolds using the special order part numbers listed in the charts. Allow two weeks for delivery

Specifying Manifold Length

When ordering a special manifold, specify the length of the manifold required for your application. There are several methods to specify the length of a manifold:

Port-To-Port Distance: S&S Manifold Measuring Tools

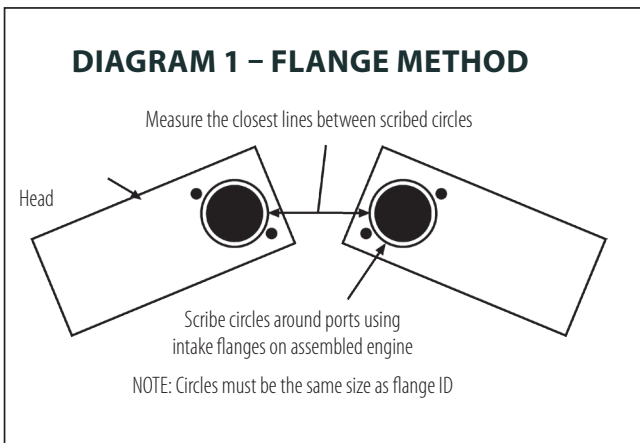
The most accurate method for specifying length for a special order manifold:

- Use the S&S Manifold Measuring Tools to measure port-to-center to port-to-center distance on an engine or an existing manifold.
- Specify whether the measurement was from an engine or from an existing manifold. (Manifold measurements will be approximately 0.30" shorter than engine measurements due to clearance normally built into the manifold).

Port-To-Port Distance: Flange Method

Another accurate method of specifying manifold length for special order is to measure the port-to-port distance on an assembled or mock-up engine :

- Assemble or mock-up the engine & install the intake flanges on heads
- Scribe a circle around the port using the mounting flange as a template. The circle must be the same size as the ID of the flange. (It is recommended that front flange be installed upside down on the rear head and vice versa, to avoid inaccuracy in the circle diameter).
- Remove the flanges and measure the shortest distance between the scribed circles. See Diagram 1



Effective Cylinder Length

Ordering a special manifold by effective cylinder length is commonly used since it does not require any special tools, however, this method will not account for machining inaccuracy in the cases or heads .

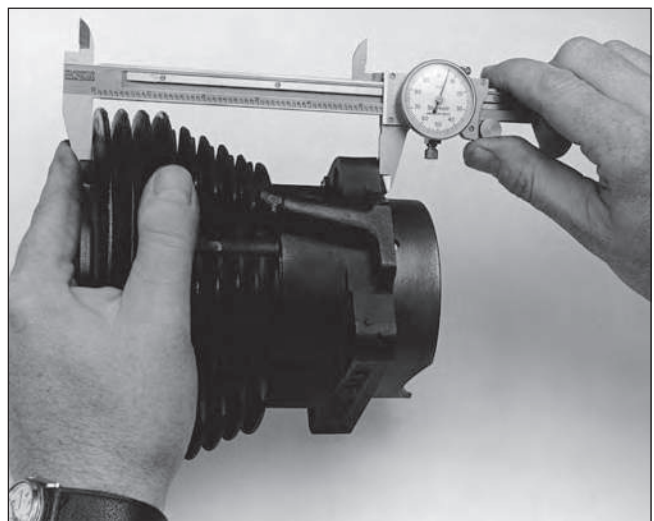
- Measure the cylinder length from gasket-surface to gasket-surface without the head and base gaskets in place. (A precision measuring instrument, such as a dial caliper, should be used to insure accurate results).
- If all components except the cylinder are stock, the actual cylinder length and the effective cylinder length are equal. However, if base plates will be used under the cylinders or if the crankcase deck height is taller than stock, the thickness of the base plates and any extra base gaskets, or the change in deck height must be added to the cylinder length to determine the effective cylinder length.
- If the cylinder heads have been decked to increase compression, the amount they have been shortened must be subtracted from the effective cylinder length.
- If the effective cylinder length is equal to or no more than 0.30" longer than the cylinder length listed for a specific manifold in a chart, that manifold will fit the engine.
- If the effective cylinder length is significantly different from any manifold that is available, the manifold must be special ordered. (When placing an order for a special manifold by effective cylinder length, you will be asked for actual dimensions of the cylinders and other components. S&S will calculate the effective cylinder length).

Manifold Size Number

Specifying the length of a special order manifold by size number has proven not to be a reliable method. Many manifolds ordered by this method have proved to be too long because the customer took a size number from a part that had been shortened and no longer matched the original specifications. Manifolds ordered by size number are not returnable because of fitment problems.

Manifolds For Panhead & Knucklehead Engines

Port-to-port measurement is easy since the ports are parallel to each other. On an assembled or mocked up engine, a measurement from head-to-head on opposite sides of each port should ideally be taken before the head bolts and base nuts are tightened. To insure that the ports are parallel, the heads and cylinders should be positioned so both measurements are equal. A precision measuring instrument, such as a dial caliper, should be used to ensure accurate results.



YEAR CODES FOR OUR SERIALIZED PRODUCTS

S&S serial numbers begin with the following manufacturing year codes. Year codes coincide with S&S Cycle's fiscal year, which starts on Oct 1st of the previous calendar year. A product with serial number beginning with the letter "A" was manufactured in fiscal year 1978, between 10-01-77 and 09-31-78, or in the fiscal year 2000.

A	1978	R	1992	I .....	.NOT USED
B	1979	S	1993	J	2008
C	1980	T	1994	K	2009
D	1981	U	1995	L	2010
E	1982	V .....	.NOT USED	M	2011
F	1983	W	1996	N	2012
G	1984	X	1997	O .....	.NOT USED
H	1985	Y	1998	P	2013
I .....	.NOT USED	Z	1999	Q .....	.NOT USED
J	1986	A	2000	R	2014
K	1987	B	2001	S	2015
L	1988	C	2002	T	2016
M	1989	D	2003	U	2017
N	1990	E	2004	V .....	.NOT USED
O .....	.NOT USED	F	2005	W	2018
P	1991	G	2006		
Q .....	.NOT USED	H	2007		

OLDER S&S® CARBURETOR REPLACEMENT PARTS

When ordering parts for older S&S carburetors, it is necessary to determine the correct style of float, needle and bowl. S&S has used two different mechanisms to connect the float to the inlet needle.

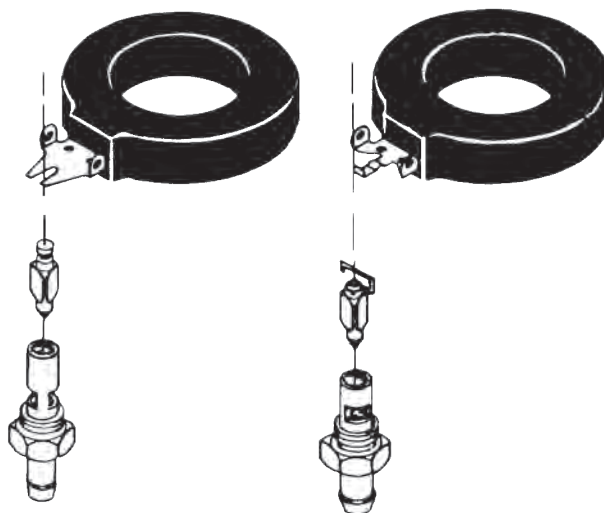
Forked Mechanism: Older style that utilizes a forked float tang, which slides into a slot in the top of the needle.

Wire Mechanism: Current style that features a needle with a wire hook which attaches to the tang of the float.

Parts of differing styles may not be used together. For example, although the carburetor bowls of the two styles look very similar, they are not interchangeable due to differences in the float retaining pin position. Some parts are no longer available for carbs with forked style mechanisms. If these parts must be replaced, the entire bowl assembly must be replaced with wire mechanism style components.

**FORKED TYPE MECHANISM
(OBSOLETE)**

WIRE TYPE MECHANISM



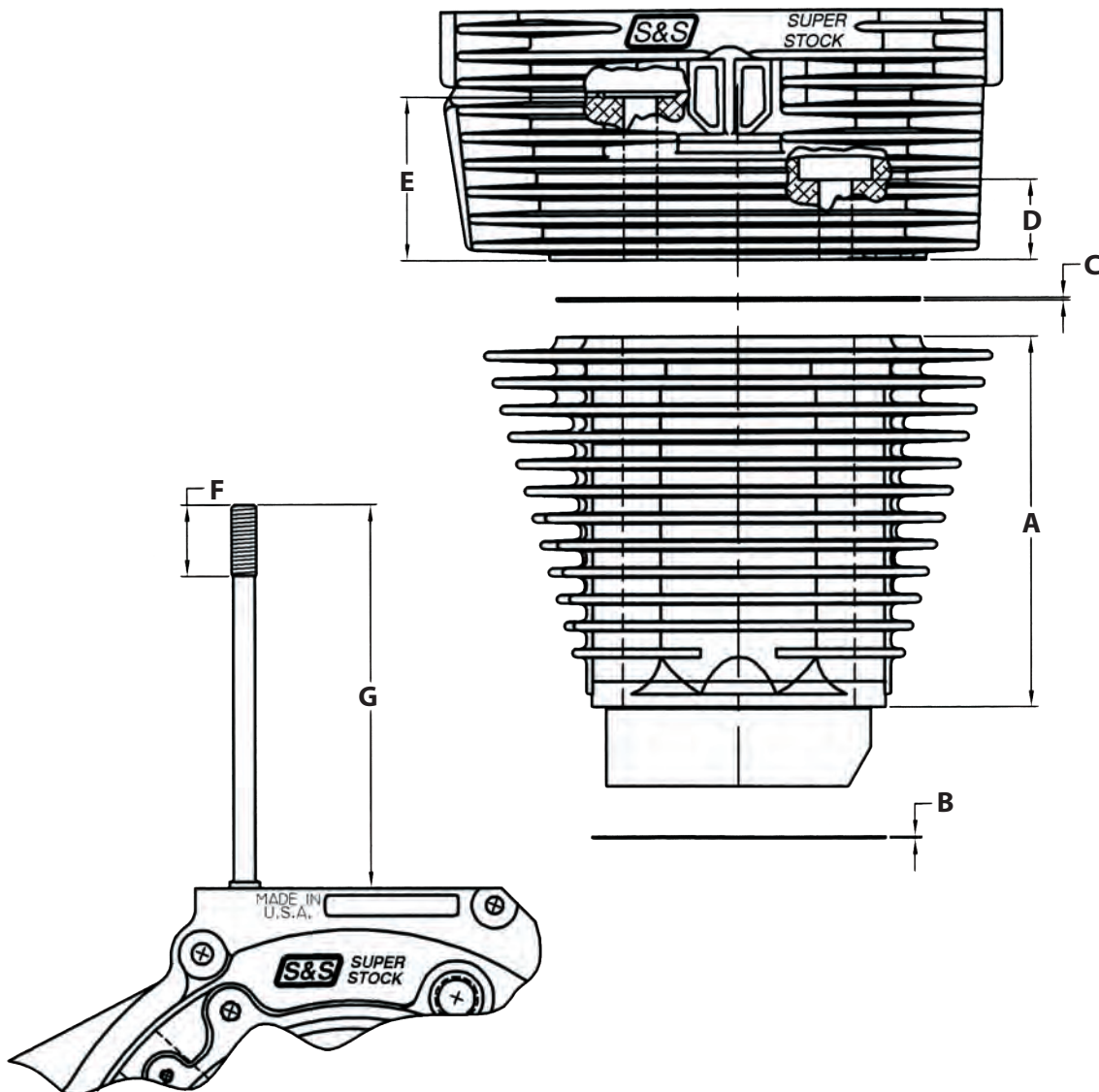
CALCULATING CUSTOM HEAD BOLT LENGTHS

Add:

- A** **Cylinder Length**
(Gasket surface to gasket surface measurement)
- + B** **Base Gasket Thickness**
- + C** **Head Gasket Thickness**
- + D or E** **Cylinder Head Thickness**
(Gasket surface to head bolt washer pad measurement):
 - D** **Short Side**
All S&S = 1.207"
Late 1985-'90 Stock = 1.207"
1991-up Stock = 1.405"
 - E** **Long Side**
All S&S = 2.700"
All Stock = 2.700"
- + F** **Desired thread engagement .563"**
Usually 1½ times stud diameter - stock studs are ⅜"

Subtract:

- G** **Cylinder Stud Installed Height**
(Crankcase deck to top of stud measurement)



A

AIR CLEANERS

AIR CLEANER KIT

2003-2015 VICTORY® MODELS	504
REPLACEMENT PARTS FOR 2003-2007 VICTORY MODELS	506
REPLACEMENT PARTS FOR 2008-UP VICTORY® MODELS	506
2014-2015 INDIAN® MODELS	502, 503
REPLACEMENT PARTS	505

SINGLE BORE TUNED INDUCTION SYSTEM

1984-1999 BIG TWINS	317
REPLACEMENT PARTS	387
1999-2006 BIG TWINS	149
REPLACEMENT PARTS	218
2007-2016 BIG TWINS	55
REPLACEMENT PARTS	124, 125
SPORTSTER® & BUELL® MODELS	244
REPLACEMENT PARTS	292

STEALTH AIR CLEANER KITS

1926-1984 VINTAGE	408
REPLACEMENT PARTS	498
1984-1999 BIG TWINS	314
COVERS	243, 315
REPLACEMENT PARTS	386
1999-2006 BIG TWINS	145, 146, 147
COVERS	148, 305
REPLACEMENT PARTS	217
2007-2016 BIG TWINS	51, 52, 53
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COVERS	54
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REPLACEMENT PARTS	30
SPORTSTER® & BUELL® MODELS	240, 241, 242
REPLACEMENT PARTS	289
STREET® MODELS	303
REPLACEMENT PARTS	306
STREET ROD™	304
REPLACEMENT PARTS	307

STEALTHTWO AIR CLEANER KITS

INDIAN® MODELS	502
VICTORY® MODELS	502

TEARDROP AIR CLEANER KITS

1926-1984 VINTAGE	409, 460
REPLACEMENT PARTS	496, 497, 499
1984-1999 BIG TWINS	316
REPLACEMENT PARTS	388, 392
1999-2006 BIG TWINS	150
REPLACEMENT PARTS	224
2007-2016 BIG TWINS	56
REPLACEMENT PARTS	126-127
SPORTSTER® & BUELL® MODELS	245
REPLACEMENT PARTS	294, 296

AIR FILTER

HIGH FLOW AIR FILTER KIT

1984-1999 BIG TWINS	318
1999-2006 BIG TWINS	151
2007-2016 BIG TWINS	57
SPORTSTER® & BUELL® MODELS	246

PRE-FILTERS

1984-1999 BIG TWINS	318
1999-2006 BIG TWINS	151
2007-2016 BIG TWINS	57
SPORTSTER® & BUELL® MODELS	246
STANDARD REPLACEMENT FILTERS	
1984-1999 BIG TWINS	318
1999-2006 BIG TWINS	151
2007-2016 BIG TWINS	57
SPORTSTER® & BUELL® MODELS	246

APPAREL

APPAREL	522
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B

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INNER PRIMARY BEARING RACE

1984-1999 BIG TWINS	362
1999-2006 BIG TWINS	195
2007-2016 BIG TWINS	99

BREATHER GEARS

STEEL ROTARY BREATHER GEAR

1926-1984 VINTAGE	433
1984-1999 BIG TWINS	336

BREATHER REED VALVES

CRANKCASE BREATHER REED VALVES

1984-1999 BIG TWINS	336
1999-2006 BIG TWINS	162
REPLACEMENT PARTS	230
2007-2016 BIG TWINS	68

C

CAM PLATES

1999-2006 BIG TWINS	164
REPLACEMENT PARTS	206
2007-2016 BIG TWINS	70
REPLACEMENT PARTS	113
MILWAUKEE-EIGHT®	24

CAMSHAFTS

CAM CHEST UPGRADES

1999-2006 BIG TWINS	174
2007-2016 BIG TWINS	81

CAM RELATED REPAIR PARTS

1999-2006 BIG TWINS	173
2007-2016 BIG TWINS	80

CAMSHAFTS

1926-1984 VINTAGE	428, 429, 430
1984-1999 BIG TWINS	343
1999-2006 BIG TWINS	170
2007-2016 BIG TWINS	77
SPORTSTER® & BUELL® MODELS	260

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1926-1984 VINTAGE	443
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REPLACEMENT PARTS	380

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1926-1984 VINTAGE	443
REPLACEMENT PARTS	482
1984-1999 BIG TWINS	350, 351
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CYLINDERS

1926-1984 VINTAGE	438
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D

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GATES® HIGH STRENGTH FINAL DRIVE BELTS

1984-1999 BIG TWINS	362
1999-2006 BIG TWINS	197
2007-2016 BIG TWINS	100

E

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1984-1999 BIG TWINS	360
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2007-2016 BIG TWINS	97

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1926-1984 VINTAGE	466
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V111 ENGINES

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V124 ENGINES

1984-1999 BIG TWINS	325
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1984-1999 BIG TWINS	328
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STREET® MODELS

REPLACEMENT PARTS	308
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GRAND NATIONAL® 4" SLIP-ONS

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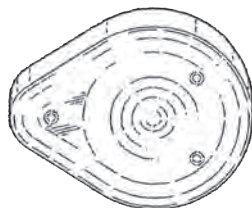
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Evolution®	Heritage Softail®	Twin Cam 88B™
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Body Parts	IST	Sidewinder
Dealer Focus	Performance Times	SPO
EZFI	Power Tune	Super Stock
Frame Lock	Proven Performance	X-Wedge
G-Extreme	S&S	Flathead Power
Hot Set Up Kit	S&S Service & Speed Center	Viola V-Twin



S&S Cycle, Inc. reserves the right to change prices, terms, availability, and specifications without prior notice.



**PARTS FOR
X-WEDGE[®] ENGINES**



STEALTH AIR CLEANER KITS

- Air directional stinger cone
- Can be used with any of several S&S designed covers
- Pre-filters and high flow (1" taller) filter kit available — See below



STEALTH AIR CLEANER KIT

170-0200 (No Cover)

HIGH FLOW AIR FILTER KIT (includes spacers), 1" Taller

170-0127

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

FILTER REPLACEMENTS

Standard Filter Only	Stealth	170-0126
1" Taller Filter Only	Stealth	170-0154
Spacer	Stealth, 1" Taller	50-5009-5

STEALTH AIR CLEANER KIT COVERS



Carbon Fiber



Mini in Chrome



Mini in Gloss Black



Tri-Spoke



Torker



Air 1



Airstream in Chrome



Airstream in Gloss Black



Muscle in Chrome



Muscle in Gloss Black



Bobber-dished

CARBON FIBER	MINI		TRI-SPOKE	TORKER	AIR 1
Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights
170-0501	170-0367±	170-0366	170-0210	170-0206	170-0214

AIRSTREAM		MUSCLE		BOBBER-DISHED		BOBBER-DOMED	
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	Chrome	Wrinkle Black	Chrome	Wrinkle Black
170-0118±	170-0396	170-0121±	170-0463	170-0119±	170-0123	170-0120±	170-0124



PRE-FILTERS

- Water resistant
- Prevents large debris from prematurely clogging filter
- Washable nylon
- Promotes longer filter life
- Reduces the risk of water entering air intake system

Standard	170-0193
1" Taller	170-0197

SINGLE BORE TUNED INDUCTION SYSTEM

- Bolt-on performance—over twice the filtering area over stock intake system
- Increases horsepower and torque across the rpm range using air column inertia and carefully timed gas dynamic pressure waves
- Smooth intake tract of carefully selected tuned lengths increases performance
- High flow washable and reusable cotton media provides performance, protection, and economy



Fitment	Fuel Delivery	Finish	Part #
CTO	Specify	Specify	106-5337

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REPLACEMENT PARTS: SEE PAGE 18

AIR FILTER COVERS

- Water resistant and filters out large debris, allowing the filter media to stop small dirt particles from getting into your engine
- Washable nylon

HIGH FLOW REPLACEMENT FILTER

- High flow washable and reusable cotton media provides performance, protection, and economy
- Choice of red or blue—red filters come standard with all S&S Single Bore Tuned Induction kits
- Kit includes one filter and one clamp

AIR FILTER OIL

- Use after cleaning the cotton media – brings back the vibrance of your filter
- Designed for S&S air filters and is available in red or blue



ACCESSORIES

Description		Part #
Air Filter (each sold with clamp)	Red	17-1020
	Blue	17-1023
Air Filter Oil, 8 oz. Bottle	Red	106-1163
	Blue	106-1164
Nylon Air Filter Cover	each	106-0247
	2 pack	106-0248



CRANKCASES

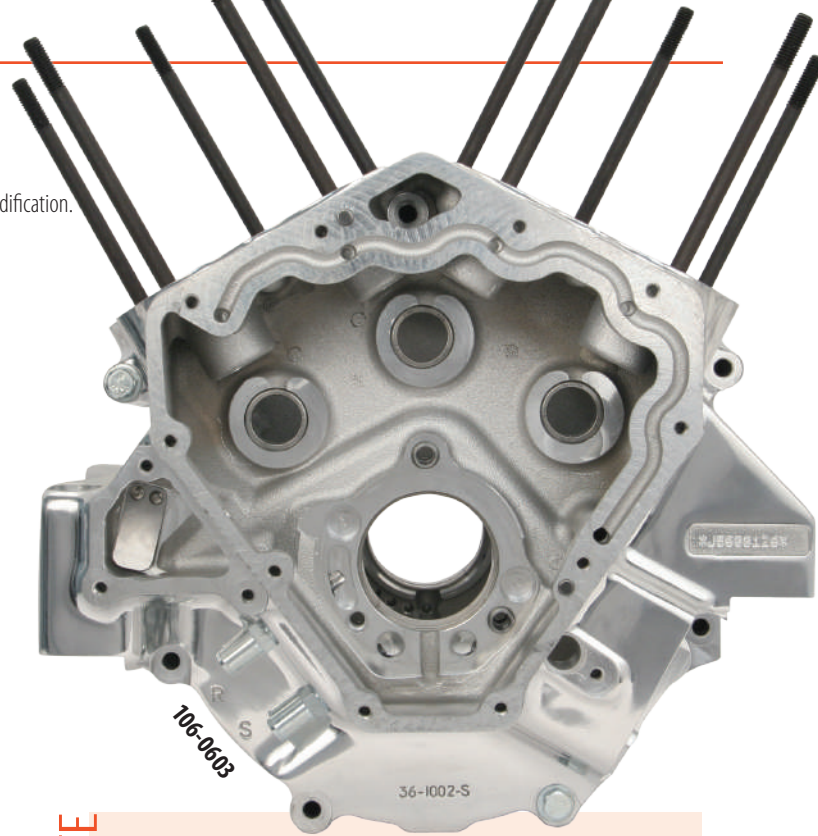
- Cylinder deck height of 6.125" and will accommodate 4 $\frac{1}{8}$ " up to 4 $\frac{3}{8}$ " bore cylinders without modification.
- Silver powder coat, wrinkle black (WBlack) powder coat, or polished finish

KIT CONTENTS

- S&S crankcase, hardware, seals

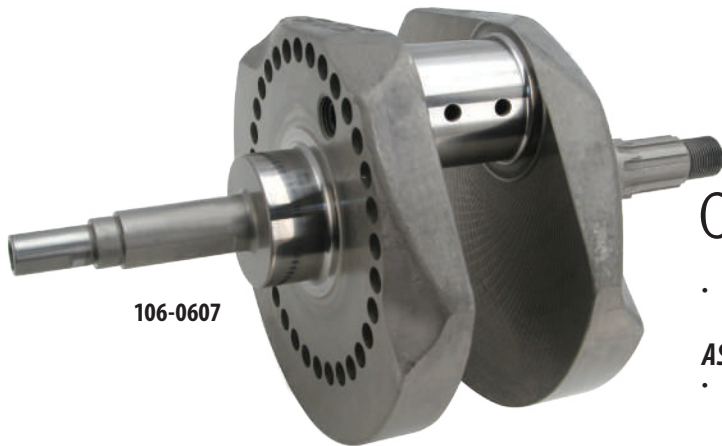
Silver powder coat	106-0604
WBlack powder coat	106-0605
Full Polish	106-0603

REPLACEMENT PARTS: SEE PAGE 20



NOTE

S&S recommends using Permatex Right Stuff® for sealing crankcases.



CRANKSHAFTS

- Crankshafts are machined and ready to assemble with standard bearings.

ASSEMBLY CONTENTS

- Crank assembly includes rods and bearings

Engine	Stroke	Crankshaft Only	Crankshaft Assembly
X117/X132	4 $\frac{3}{8}$ "	106-0607	106-0609
X114/X121/X128	4 $\frac{1}{4}$ "	106-0606	106-0608

CONNECTING RODS

- These forged rods are 7.400" plain bearing, automotive style, with a two piece design, 2.200" journal diameter, and .927" wristpin diameter
- Since the front and rear rods are identical, rods are not sold in sets but are available individually
- Bearings are not included and must be purchased separately

Connecting Rod Front or Rear	106-0583
Bearing Inserts Standard (<i>set of 4</i>)	106-0569
Bearing Cap Screws 12 pt, 7/16"-20 x 1.60"	50-0346-S



BELT COVERS

- Direct replacement for the belt cover on any X-Wedge engine
- Updated vented cover providing additional cooling promoting longer belt life
- Chrome

106-0587±



REPLACEMENT PARTS: SEE PAGE 16

OIL PUMP

- Direct replacement for the oil pump in any X-Wedge engine

106-0680

REPLACEMENT PARTS: SEE PAGE 15



CYLINDERS & PISTONS

FOR S&S® X114, X117 & X121 X-WEDGE® ENGINES

- For X114, X117 & X121 X-Wedge engines
- The front and rear cylinders and pistons are interchangeable
- Cylinders can be honed to the specified size and any piston of the correct oversize will fit with the correct clearance.
- Silver powder coat, wrinkle black (WBlack) powder coat, or polished finish



INDIVIDUAL CYLINDERS ONLY FOR S&S® X-WEDGE® ENGINES

Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Silver	WBlack	Full Polished
114" / 117"	4.25" / 4.375"	4.125"	4.645"	8.5:1 / 9.75:1	91-7461	91-7463	91-7465
121"	4.25"	4.25"	4.645"	9.75:1	–	91-7469	91-7471

Pistons are sold separately. See chart below.

FORGED INDIVIDUAL PISTONS FOR S&S® X-WEDGE® ENGINES

Displacement	Standard
114"	106-0108
117"	106-0108
121"	106-0109A

All individual pistons include one piston, rings, wristpin, and clips. Due to piston coating, piston measurements are not reliable. Bore cylinders to nominal diameter +/- .0005" for correct clearance.

REPLACEMENT WRISTPINS AND KEEPERS

Description	Part #
Wristpin	X114 & X117 & X121 106-1000
Keeper	All Displacements 94-9278-S

REPLACEMENT MOLY FACED RINGS FOR X-WEDGE PISTONS

Description	Standard
X114 & X117	2 pack 106-0011
X121	1 pack 106-0709A
	2 pack 106-0012

X-WEDGE® GASKETS & DOWELS

Description	Bore	Part #
Head Gasket	4 $\frac{3}{8}$ "	each 93-1132
	4 $\frac{1}{4}$ "	each 93-1131
	4 $\frac{1}{8}$ "	each 93-1130
Base Gasket	All	each 93-1120
Dowel Pin .187" x .635"	each	50-8031

4³/₈" BORE CYLINDERS & PISTONS UPGRADES FOR X-WEDGE® X128 AND X132 ENGINES

Increase the displacement of your X-Wedge engine with these bolt-on cylinder and piston kits. A 1/8" bore increase will take an X121 to X128, and a 1/4" bore increase will take an X117 to X132! No changes to the crankcases or flywheels are required.

- Bolt-on performance
- Increase displacement without crankcase modifications
- Silver powder coat, wrinkle black (WBlack) powder coat or polished finish



Pistons are sold separately

4³/₈" BORE CYLINDER ONLY SETS FOR S&S® X-WEDGE® ENGINES

Displacement	Stroke	Bore	Cylinder Length	Compression Ratio	Silver	WBlack	Full Polished
128" / 132"	4.250" / 4.375"	4.375"	4.645"	10.3:1	910-0002	910-0001	910-0003

Cylinders are honed and ready for assembly. Cylinder sets include front and rear cylinders. Includes head and base gaskets. Pistons are sold separately. See chart below.

FORGED PISTON SETS FOR S&S® X-WEDGE® ENGINES

Displacement	Standard	+.010"	
128"	920-0003	920-0006	
132"	920-0002	920-0004	

All piston sets are for two pistons and include rings, wristpin, and clips. Due to piston coating, piston measurements are not reliable. Bore cylinders to nominal diameter +/- .0005" for correct clearance.

REPLACEMENT MOLY FACED RINGS FOR X-WEDGE PISTONS

Description	Standard
X128 & X132	2 pack 94-4285X

REPLACEMENT WRISTPINS AND KEEPERS

Description	Part #
Wristpin	94-9277
Keeper	94-9278-S

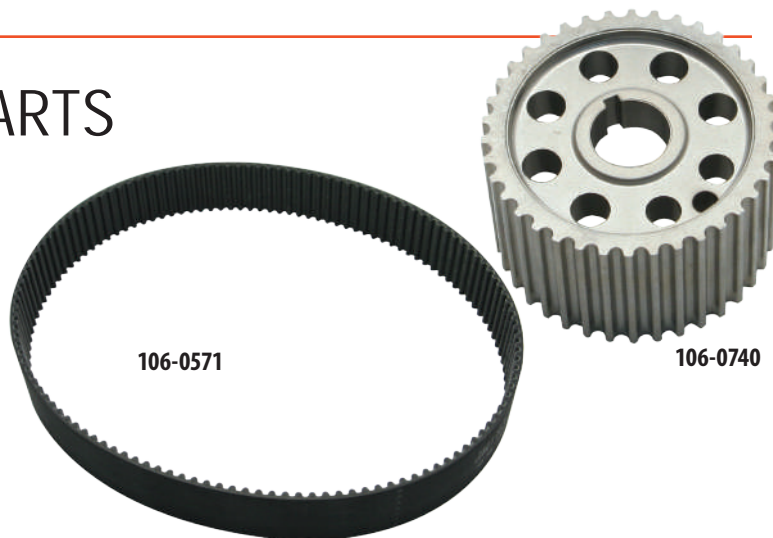
X-WEDGE® GASKETS

Description	Bore		Part #
Head Gasket	4 ³ / ₈ "	each	93-1132
Base Gasket	All	each	93-1120



CAM CHEST REPLACEMENT PARTS

Description	Part #
Cam sprocket, 38-tooth	106-0740
Belt, cam drive, 127-tooth, 30mm	106-0571
Belt tensioner, 30mm	370-0007
Pinion Update Kit	370-0015



CAM BEARING REPLACEMENT PARTS

Description	Part #
Inner Cam Bearing for S&S X-Wedge®	31-4080
Outer Cam Bearing for S&S X-Wedge®	106-1424



X-WEDGE® EASY START CAMS

RECOMMENDED APPLICATIONS FOR S&S X-WEDGE CAMS

548 CAMS – Stock replacement cams for X114, X117, and X121 engines. Emissions compliance is maintained when these cams are installed. Use with stock pushrods. Non-interference.

569 CAMS – Bolt-in performance upgrade cams for any displacement X-Wedge engine from 9.8:1 to 10.2:1 compression ratio. Use with stock pushrods. These cams are non-interference, but are not emissions compliant.

618 CAMS – Performance upgrade cams for any displacement X-Wedge engine from 9.8:1 to 10.3:1 compression ratio. The 618 cams can be installed as a bolt-in. The 618 cams are not non-interference cams, and are not emissions compliant. Due to the smaller diameter cam base circle, the X618 cams require a special, slightly longer pushrod set #930-0021, or billet aluminum rocker arm set #900-0213.



S&S® X-WEDGE® EASY START CAMS SPECIFICATIONS

Cam Name	Valve Timing (open/close) ¹		Valve Duration		Valve Lift ²	Centerline		Lift@TDC ³	
	Intake	Exhaust	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust
	Open BTDC/ Close ABDC	Open BBDC/ Close ATDC							
548	5°/55°	57°/0°	240°	237°	0.548"	115°	118.5°	0.136"	0.080"
569	9°/40°	47°/17°	229°	244°	0.569"	105.5°	104.5°	0.137"	0.179"
618	9°/43°	62°/23°	232°	264°	0.618"	107°	109°	0.140"	0.224"

¹Timing designation is a function of zero lash @ 0.053" off base circle. ²Valve lift is calculated from a 1.76:1 ratio rocker arm. ³TDC lift is measured at the valve and is for reference only.

548 (3 cams)	569 Easy Start (3 cams)	618 Easy Start (3 cams)	COMPRESSION RELEASE 548 UPDATE KIT
106-0577	330-0047	330-0074	(2 exhaust cams) 106-3809

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HIGH PERFORMANCE HYDRAULIC TAPPETS



37-0030 (each)

NOTE

Tappets for S&S X-Wedge engines are not designed for use with S&S HL₂T limited travel kits.

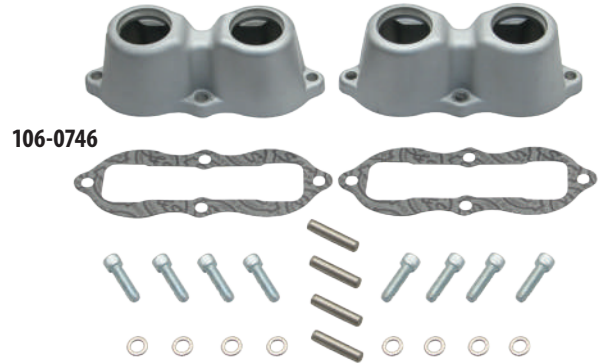
TAPPET COVERS

- Silver powder coat, wrinkle black powder coat, or polished finish
- Two tappet guides, gaskets, dowel pins, and mounting hardware

Silver Powder coat	106-0746
Wrinkle Black Powder coat	106-0747
Polished	106-0745

REPLACEMENT PARTS

Gasket (each)	37-0006
---------------	----------------



106-0746



PUSHRODS

X-Wedge® Pushrod Sets—All displacements with stock rocker arms

Stock Length (for use with 545, 548 and 569 cams)	106-0699
---	-----------------

SIDEWINDER® VALVE SPRINGS



S&S® SIDEWINDER® VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift	Max RPM
.585"	2.00"	85 lb.	264 lb.	5750

- 585 Sidewinder Springs:
- Lower spring force results in reduced valve train noise, increased valve stability, and longer valve train component life
- Stock replacement in X-Wedge
- Valve keepers, springs, top collars, bottom collars, 0.015" and 0.030" shims

900-0595 |

REPLACEMENT PARTS: SEE PAGE 22



CNC PORTED CYLINDER HEADS

- CNC machined ports for a consistent performance increase from original heads
- Choice of two different chamber machinings (100cc or 103cc)
- Great throttle response, high velocity port without losing low RPM torque
- Assembled with performance valves and .650 springs
- Full polished, silver, wrinkle black powdercoat

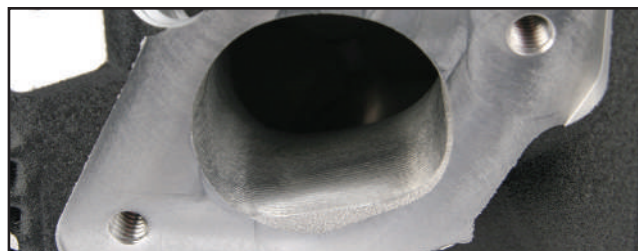
SERVICE OPTIONS

- Buy New CNC, or...
- Rework Service
 - Heads sent to S&S
 - Get the same set of heads back with CNC machined ports & chambers
 - The best option for heads with a special cosmetic treatment
 - Allow 2 week turn-around
- Custom CNC Port Duplication
 - S&S can digitize your port design and machine it in your heads, ask an S&S customer service representative for details

106-6480

		Stock Heads	CNC Ported by S&S®
Valve Size	Intake	2.00"	2.2"
	Exhaust	1.605"	1.675"
Max "Free Spin" Valve Lift*		0.0580"	0.0580"
Port Flow	Intake	261.2 cfm	315 cfm
	Exhaust	190.8 cfm	215 cfm
Compression Ratio	128"	9.7:1	10:1
	132"	9.9:1	10.3
Cylinder Heads Decked		—	0.030"
Chamber Volume		103 cc	100 cc**

**Free Spin" valve lift controlled by valve reliefs in piston. **After decking.
Flow testing performed on a SuperFlow® 1020 flow bench at 28" of water test pressure at .600" lift through radiused inlet.



Shown is an intake port from a CNC machined X-Wedge® cylinder head. Notice the detailed machining that gives our CNC ported heads the performance that your big-inch engine demands.



Digitized port shapes are faithfully reproduced in X-Wedge cylinder heads on our 5-Axis CNC machining center. Intake port, exhaust port and combustion chamber are all modified. This head will be assembled with new valves and high lift valve springs to complete the package.

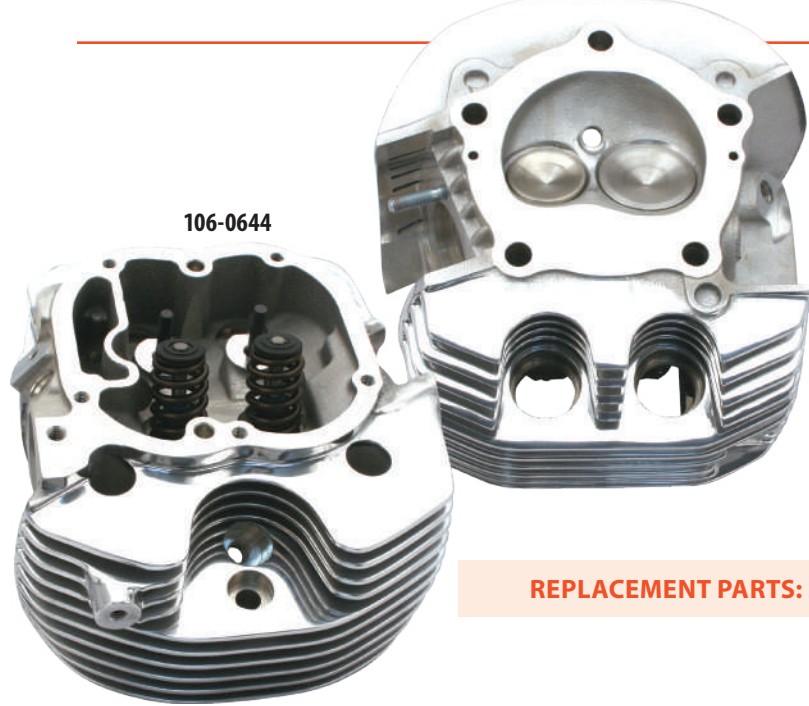
INDIVIDUAL PARTS FOR X-WEDGE® CNC PORTED HEADS

Spring		106-5689
Intake Valve		900-0275
Exhaust Valve		900-0276
Valve Guide Seal	4 pack	900-0737
Top Collar		106-5690
Bottom Collar		106-3827
Valve Keeper	each	90-2094-S
	8 pack	50-7166

CNC porting is not available for previously ported heads, heads that have been structurally damaged, or heads that are determined to be unserviceable during initial inspection. These heads will be returned to the customer without modification. In these cases customer will be notified and options reviewed. New CNC ported heads are available for purchase.

Due to variations in cylinder head castings, all inside surfaces of the ports may not "clean up" during machining. As a result, the inside of one or more ports may not appear to be completely machined. This does not effect performance and is not considered a defect.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



CYLINDER HEADS

- .585" Street Performance springs
- Powder metal valve guides
- Completely assembled stock heads—ready to bolt-on
- Silver powder coat, Wrinkle Black (WBlack) powder coat, or Full Polished Finish

Silver	106-0646
WBlack	106-0647
Full Polished	106-0644

REPLACEMENT PARTS: SEE PAGE 22

HEAD BOLTS

Will fit any production X-Wedge engine regardless of displacement. 10 are required for complete replacement.

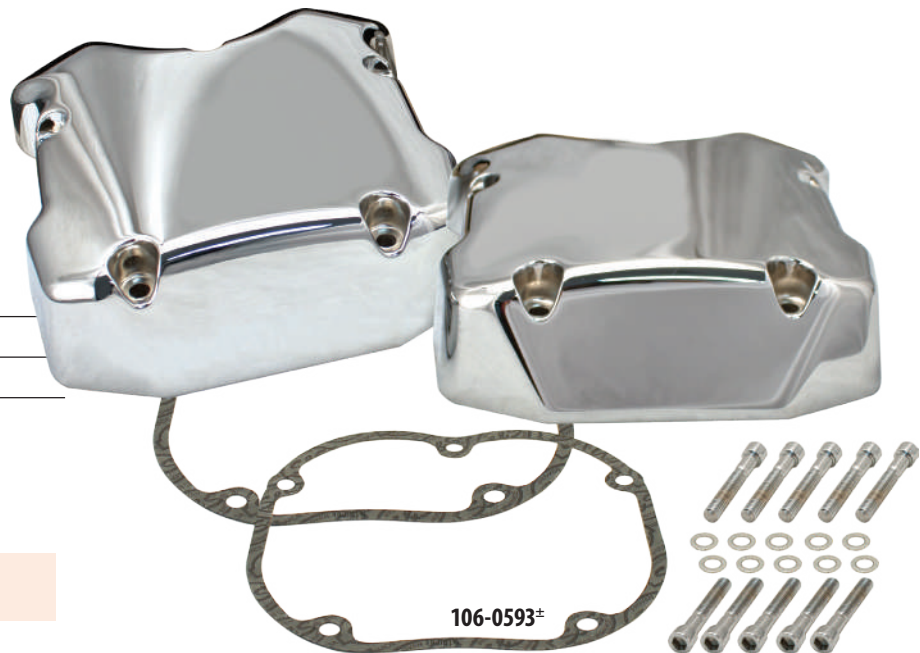
Head bolt	93-3028-S (each)
Washer (.150")	50-0418-S (each)



ROCKER COVERS

- OEM stock replacement—same as original equipment
- Covers are interchangeable for front or rear cylinder heads
- Die-cast aluminum with show chrome finish
- Rocker cover(s), mounting hardware, gasket(s)

Single Rocker Cover (with hardware & gasket)	106-0600 ±
Rocker Cover Set (with hardware & gaskets)	106-0593 ±



REPLACEMENT PARTS: SEE PAGE 22

THROTTLE BODY

58mm	106-3960*
52mm	106-3141

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FUEL PUMP FOR FUEL INJECTED CUSTOM BIKES

- Mounts in nearly any tank
- Hollow mounting bolts secure the pump flange to the bottom of the tank and provide an outlet for wiring and pressurized fuel
- A fiber media filter, placed at the lowest point in the tank prevents contaminants from damaging the fuel pump
- Fuel pump, inlet hose, an in-tank filter, mounting hardware, and instructions

S&S® IN-TANK FUEL PUMP SPECIFICATIONS

Manufacturer	Pressure	Capacity	Current Draw
Walbro	4 Bar/58 PSI	45 Lt/Hr	5 Amps

For Fuel Injected Custom Bikes	55-5089
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REPLACEMENT PARTS FOR FUEL PUMP

Filter	19-0458
Hardware Kit	55-5094



NOTE

This is not a stock replacement pump for Harley-Davidson® motorcycles.

TOOLS FOR S&S® X-WEDGE® ENGINES

BEARING PROTECTOR TOOLS

- Slips over the bearing surface of the X-Wedge crankshaft to prevent damage to the surface of the main bearing journal when mounting the crank on an S&S flywheel assembly fixture
- The flanged sleeve offers protection against scratches and dents
- It can also be used on the sprocket side of Victory® crankshafts
- Made of billet aluminum



Crankshaft Main Bearing Protector	106-2858
Crankcase Main Bearing Insert Protector	106-2859



Easy as 1-2-3! 106-2859 crankcase bearing protector installs in seconds, and not only protects the crankcase main bearing insert from the sharp surfaces on the sprocket shaft, but also guides the crankshaft into the bearing.

CAM ALIGNMENT TOOLS

- Three dowel pins are used to position each of the three cam belt pulleys with alignment holes in the cam plate
- Cam Belt Tensioner Socket allows for the easy removal and installation of cam drive belt

Cam Alignment Dowels	106-0576 (3 pack)
Cam Belt Tensioner Socket	106-0750

106-0750



MAIN BEARING INSTALLATION TOOL

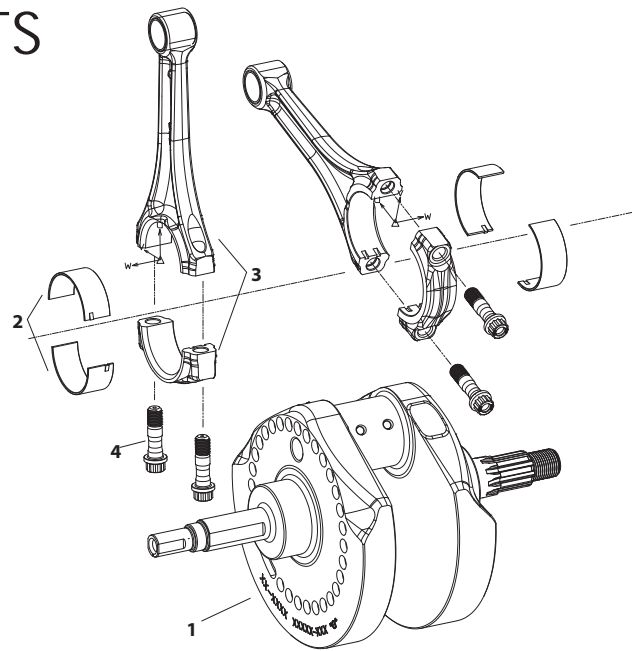
- Consists of a bearing guide that holds the two plain bearing halves in position and a shouldered press tool that fits through the guide to press the new bearings into the crankcase
- The press tool is also used by itself to press old bearings out of the crankcase
- For cam and driveside bearings in X-Wedge engines
- A hydraulic or arbor press is required to install or remove bearings.

106-0718 |



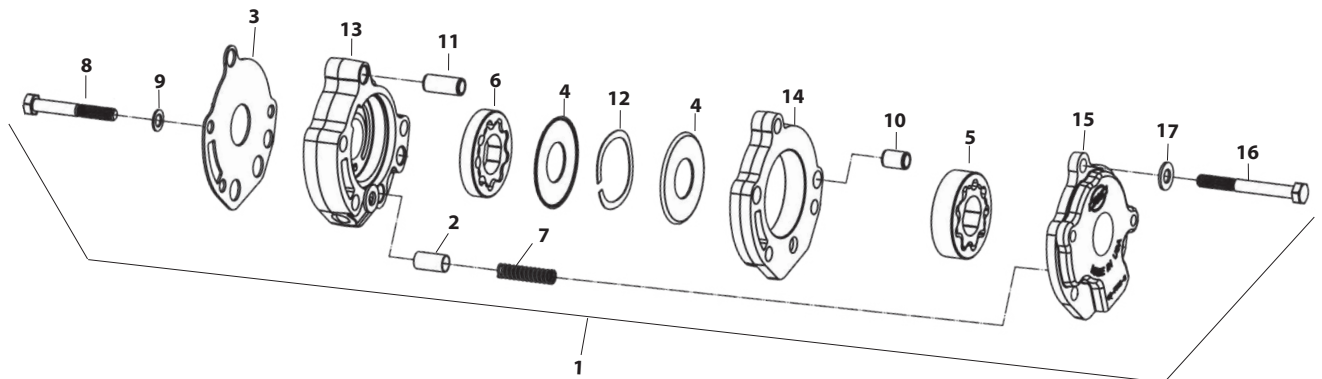
CRANKSHAFT REPLACEMENT PARTS

1. Crankshaft Assembly (includes #2, 3, 4)
 - All X-Wedge w/ 4 $\frac{3}{8}$ " stroke - X117/X132 **106-0609**
 - All X-Wedge w/ 4 $\frac{1}{4}$ " stroke - X114/X121/X128 **106-0608**
2. Bearing Insert (4 pack) **106-0569**
3. Connecting Rod (each) - front or rear **106-0583**
4. Bearing Cap Screw (each) **50-0346-S**



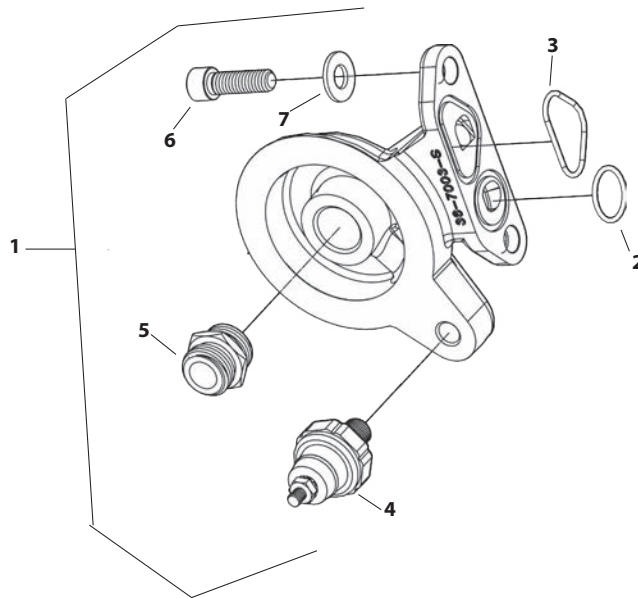
OIL PUMP REPLACEMENT PARTS

- | | | | |
|--|------------------|---|-----------------|
| 1. Oil pump, kit, X-Wedge..... | 106-0680 | 11. Dowel pin, .437" x 1" (each)..... | 50-8284 |
| 2. Valve, pressure relief, X-Wedge..... | 106-0774 | 12. Spring, wave, 1.60" x 2" x .085"..... | 106-0773 |
| 3. Plate, S&S oil pump, X-Wedge..... | 106-0694 | 13. Oil pump, body, supply, X-Wedge..... | 106-0679 |
| 4. Plate, divider, S&S oil pump, X-Wedge (each)..... | 36-7005 | 14. Oil pump, body, return, X-Wedge (Includes dowel pin #11)..... | 106-0678 |
| 5. Rotor, set, oil pump return, X-Wedge..... | 106-0717 | 15. Cover, oil pump, return, X-Wedge..... | 106-0596 |
| 6. Rotor, set, oil pump supply, X-Wedge..... | 36-7021-S | 16. Screw, HHC, GR8, 5/16-18 x 3..... | 106-1694 |
| 7. Spring, relief valve, X-Wedge (each)..... | 36-7041 | 17. Washer, flat, .344" x .688" x .065", zinc, steel..... | 50-7034 |
| 8. Screw, HHC, 5/16-18 x 2 1/4 (each)..... | 50-0462 | | |
| 9. Washer, flat, zinc, .319" (each)..... | 50-7026 | | |
| 10. Dowel pin, .437" diameter x .610" (each)..... | 50-8177 | | |
| 4 pack..... | 50-8177-4 | | |



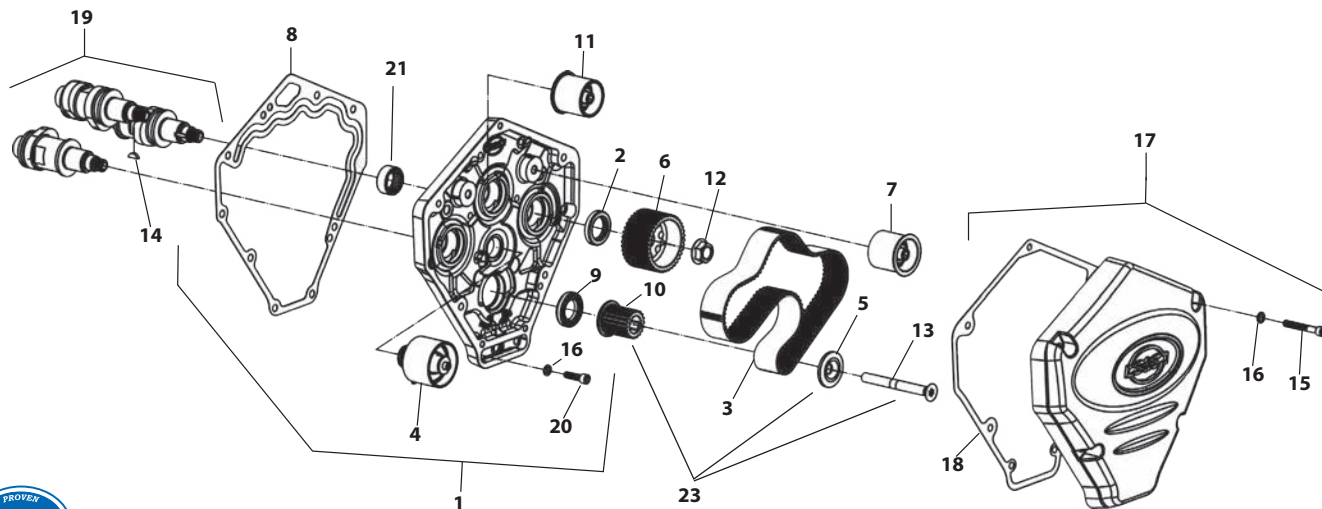
OIL FILTER BRACKET REPLACEMENT PARTS

- 1. Bracket, oil filter, X-Wedge
Polished **106-0572**
Silver **106-0573**
Wrinkle black **106-0574**
- 2. O-ring, Viton, -017 **50-0466**
- 3. O-ring, Viton, size -022 (each) **50-8005**
- 4. Switch, oil pressure, packaged, X-Wedge **106-0744**
- 5. Fitting, straight, 3/4-16 UNF 2a (each) **50-8197-S**
- 6. Screw, SHC, 5/16-18 x 1, zinc **50-0101**
- 7. Washer, flat, 5/16 x 1 1/16 x 1/16, zinc, steel **50-7034**



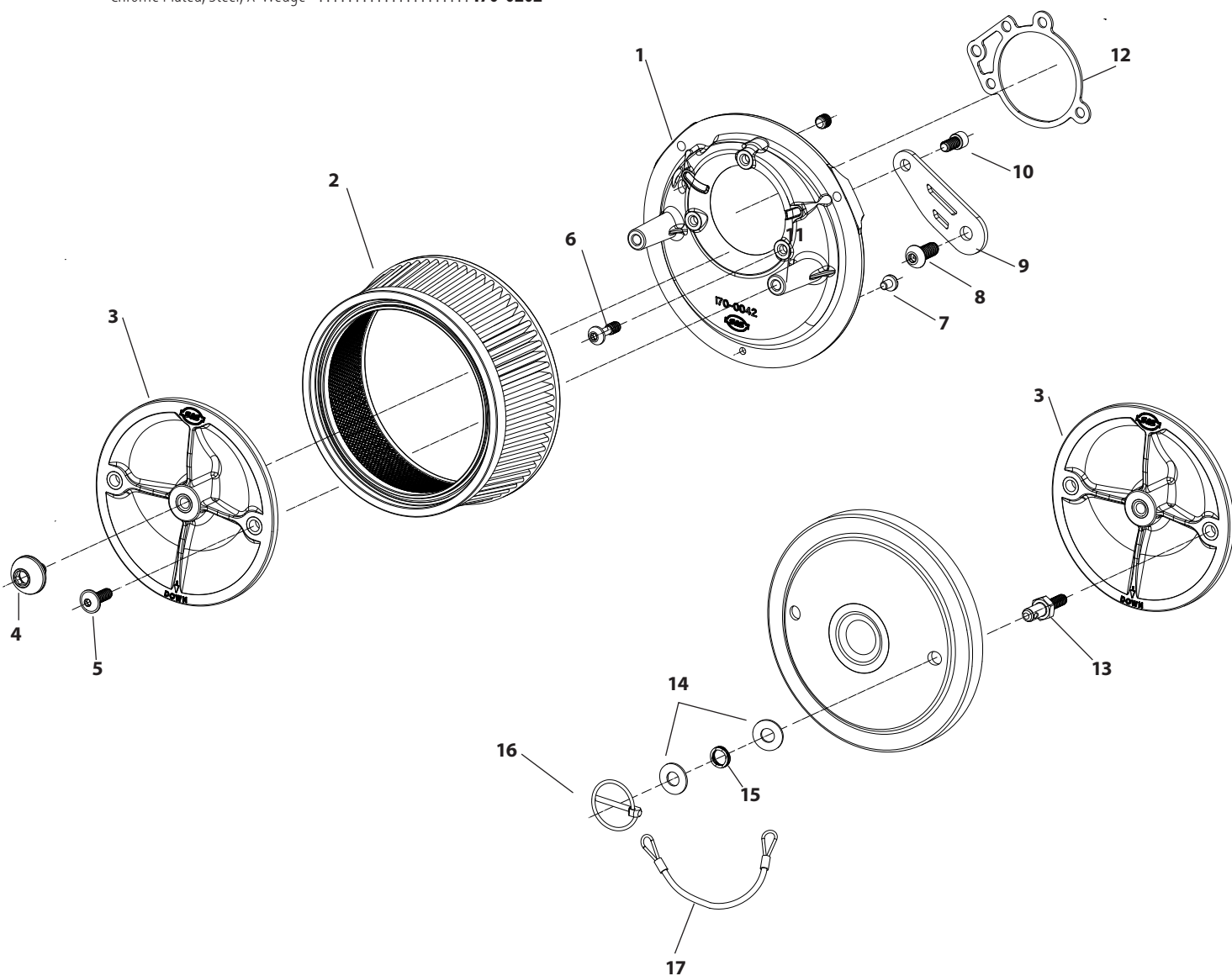
CAMS AND RELATED VALVE TRAIN COMPONENTS REPLACEMENT PARTS

- 1. Cover, intermediate cam (includes gasket and hardware)
Polished **106-0590**
Silver **106-0591**
Wrinkle black **106-0592**
- 2. Seal, cam cover/cam, .875" x 1.375" x .250", viton
each **37-0230**
- 3. Belt, cam drive, 127 tooth, 30mm **106-0571**
- 4. Tensioner, belt, packaged, 30mm **370-0007**
- 5. Washer, pinion sprocket, flanged **500-0324**
- 6. Sprocket, cam, 38-tooth **106-0740**
- 7. Pulley, front, idler, 1.50" x 30mm **106-0696**
- 8. Gasket, intermediate cam cover **37-0097**
- 9. Seal, pinion, dual lip, 22mm x 35mm x 7mm **37-0044**
- 10. Sprocket, pinion, 19-tooth **N/A**
- 11. Pulley, rear, idler, 1.50" x 30mm **106-0697**
- 12. Nut, Jam, HH, 1/2-20, Zinc **500-0325**
- 13. Bolt, 3/8" Wrenching, Flanged, 12 pt, 3/8-24 **500-0322**
- 14. Key, woodruff, .125" x .500" x .491", steel
each **50-8223-S**
5 pack **50-1010**
- 15. Screw, SHC, 1/4-20 x 1 3/4", chrome **50-0488±**
- 16. Washer, flat, .260" x .425" x .060", chrome, steel
each **50-7017±**
12 pack **50-7013±**
- 17. Cover, belt drive
Chrome **106-0587±**
- 18. Gasket, belt drive cover **106-0087**
- 19. Camshaft, kit, .548 **106-0577**
- 20. Screw, SHCS, 1/4-20 x 7/8" **50-0025**
- 21. Bearing, assembly, outer **106-1424**
- 22. Installation kit (Not Shown) **36-0481**
- 23. Pinion Update Kit **370-0015**



STEALTH AIR CLEANER KIT REPLACEMENT PARTS

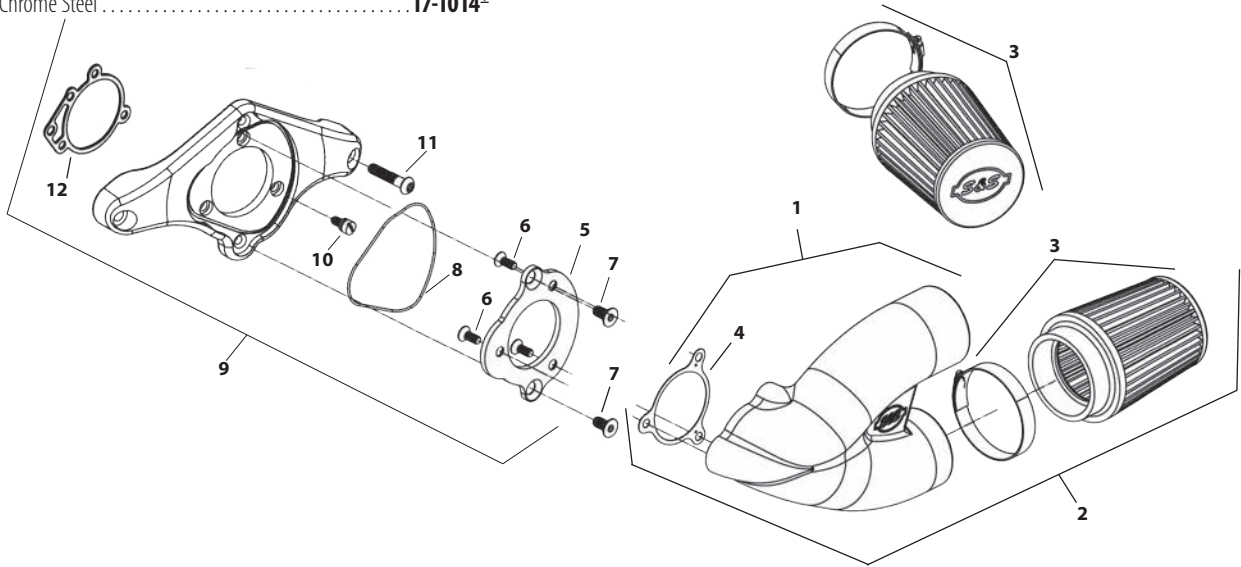
- | | | | |
|--|------------------|---|-----------------|
| 1. Backplate, Air Cleaner, Stealth, Machined, Powder coated, WBlack, Die Cast, X-Wedge® | 170-0199 | 10. Screw,SHC,w/ Thread Lock,1/4-20 x 1/2", Zinc Plated,Alloy Steel | 106-2084 |
| 2. Filter, Air, Tapered, Standard Pleated, 5.500" x 6.000" x 2.375", Cotton, Stealth Air Cleaner Kit | 170-0126 | 11. Plug,Pipe,3/4 Taper,1/6-27 NPTF x .156",Zinc,Steel | 50-8332 |
| 3. Plate, Top, Air Filter, Molded, Plastic | 170-0026 | 12. Gasket,Backplate Throttle Body, Stock CV/EFI Standard | 106-1724 |
| 4. Screw, SHCB, 5/16-18 x .500", Polished, Stainless Steel | 500-0051 | Lanyard Style | 170-0137 |
| 5. Screw, SHC, Flanged Button, 1/4-20 UNC x .750" | 500-0060 | 13. Screw, Hex, Hood-pin, 1/4-20, UNC | 500-0113 |
| 6. Screw, SHCB, 1/4-20 UNC X .825" | 500-0059 | 14. Washer, Fender, Chrome Plated | 500-0094 |
| 7. Screw,PH,10-24 x 1/4",Zinc,Steel (each) | 50-0041 | 15. Spring, Wave Washer, Stainless Steel | 500-0093 |
| 10 pack | 50-0062 | 16. Lynch Pin | 500-0083 |
| 8. Screw,BHC,w/ Thread Lock,5/16-18 x 3/4",Chrome, ASTM A574-92A | 50-0269-5 | 17. Lanyard, 6" Stainless Steel | 500-0095 |
| 9. Bracket, Backplate Mounting, Stealth Air Cleaner, Chrome Plated, Steel, X-Wedge® | 170-0202 | 18. Sealant, Loctite®, #243, 5ml, Blue (not shown) | 51-9003 |



SINGLE BORE TUNED INDUCTION SYSTEM

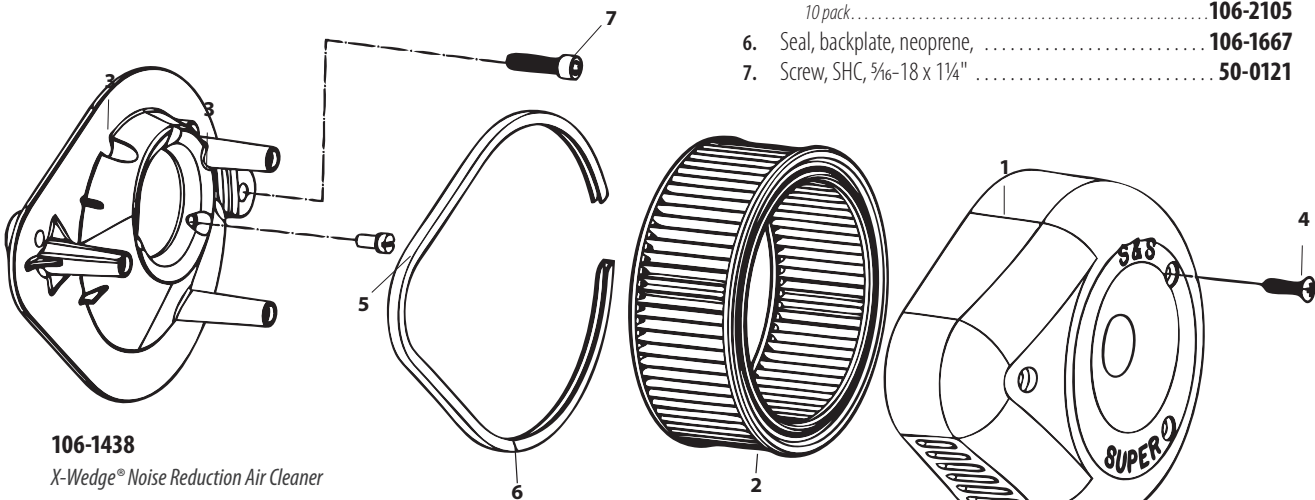
REPLACEMENT PARTS

- | | | | |
|--|------------------|--|-------------------|
| 1. Tuned Intake Kit, 2.19" Single Bore | | 6. FHSC ¼-20 x ⅝" (each) | 50-0433 |
| Wrinkle Black | 106-4966 | 7. FHSC ⅝-18 x ¾" (each) | 50-0432 |
| Chrome Plated | 106-4967± | 8. O-Ring, Adapter Plate Bracket, 3⅝" O.D. x 3½" I.D. ⅛ CS, Viton® | |
| 2. Tuned Intake Assembly, 2.19" Single Bore | | each | 50-0446 |
| Natural | 106-4968 | 9. Bracket Kit, S&S X-Wedge® | 106-4972 |
| Wrinkle Black | 106-4969 | 10. Backplate Screw LSHC Black Oxide (X-Wedge Only) | 106-0817 |
| Chrome Plated | 106-4970± | 11. Screw, Button Head Cap Screw, ⅝-18 x 1½" Grade 5, Chrome | |
| 3. Air Filter, with Clamp, Stainless Cap – Conical – 2⅞" I.D. x 4" | | each | 50-0309-5± |
| Red (each) | 17-1020 | 12. Gasket, Backplate (each) | 106-1724 |
| Blue (each) | 17-1023 | 10 pack | 106-2328 |
| 4. Gasket, Intake – Adapter Plate, 2.19" Single Bore Tuned Intake | | 13. Filter oil, 8oz. bottle (N/S) | |
| ..... | 17-1022 | Red | 106-1163 |
| 5. Plate, Adapter, 2.19" Single Bore Tuned Intake | | Blue | 106-1164 |
| Chrome Steel | 17-1014± | | |




TEARDROP AIR CLEANER REPLACEMENT PARTS

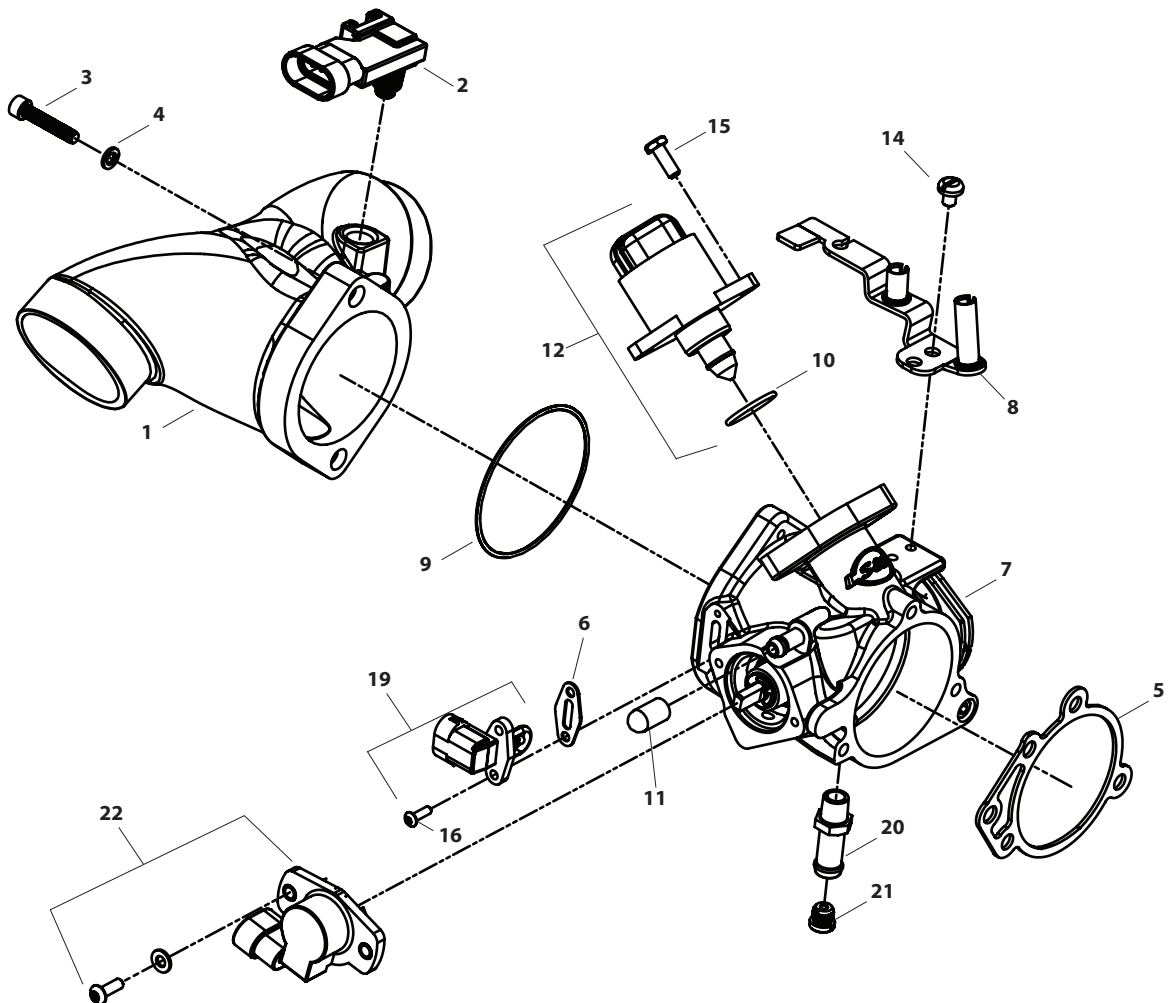
- | | | | |
|---------------------------|-----------------|--------------------------------------|-----------------|
| 1. Air Cleaner Cover | | 4. Screw, oval ¼-20 x 1 (each) | 50-0072 |
| Chrome, Slasher | 17-0004± | 3 pack | 50-1052 |
| 2. Element, pleated | 106-4722 | 10 pack | 50-0094 |
| 3. Backplate SBFF1 | 106-0568 | 5. Backplate screw, Zinc Plated | |
| | | each | 106-2084 |
| | | 10 pack | 106-2105 |
| | | 6. Seal, backplate, neoprene, | 106-1667 |
| | | 7. Screw, SHC, ⅝-18 x 1¼" | 50-0121 |



106-1438
X-Wedge® Noise Reduction Air Cleaner

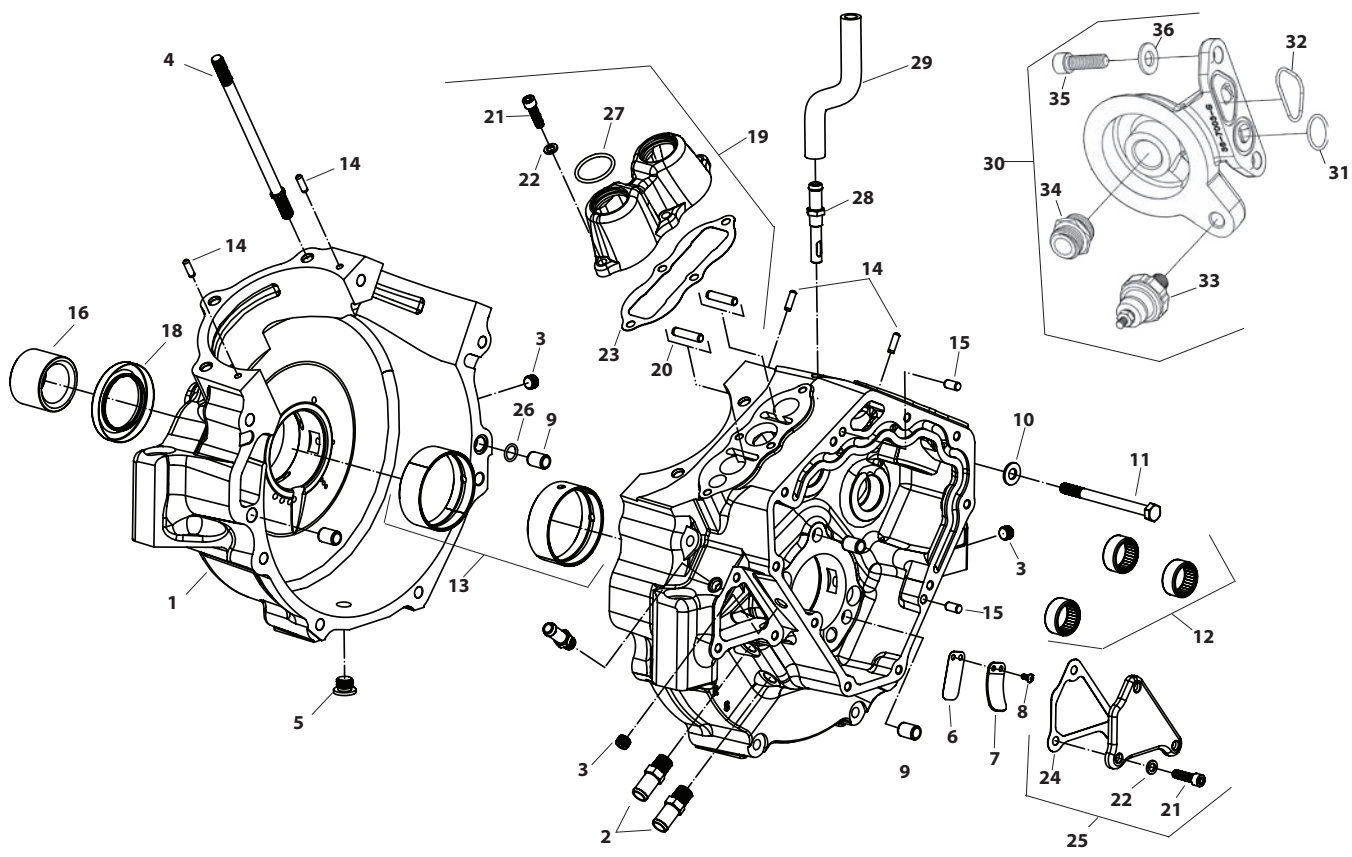
THROTTLE BODY AND RELATED REPLACEMENT PARTS

- | | | | |
|---|------------------|---|--|
| 1. Manifold, SBEFI, 2 $\frac{1}{16}$ " X-Wedge
Natural | 106-0674 | 12. Motor, kit, idle air control, EFI | 55-5085\pm |
| 2. Sensor kit, map, IST, w/VOES fitting | 55-1037 | 14. Screw, SLTD, PH, 10-24 x $\frac{1}{4}$ (each) | 50-0041\pm |
| 3. Screw, SHSC, 10-24 x 1" (each) | 50-0359-S | 10 pack | 50-0062 |
| 4. Washer, lock, .200" x .334" x .047", zinc, steel | 50-7000 | 15. Screw, 10-24 x .500 trimmed HXHD m/s (each) | 50-0356-S |
| 5. Gasket, backplate, Super E & G
52mm (each) | 106-1724 | 16. Screw, torx, m3 x 10mm, zinc, steel | 50-0357-S |
| 10 pack | 106-2328 | 19. Sensor, kit, temperature, intake air | 55-5041 |
| 58mm | 106-4662 | 20. Fitting, hose, straight, $\frac{1}{8}$ -27 NPTF x .375", w/ $\frac{3}{16}$ T, zinc, steel
each | 106-2981\pm |
| 6. Gasket, Air Temperature Sensor, S&S $\text{\textcircled{R}}$ VFI | 16-5009-S | 21. Jet, Main, Series 72, .100" (each) | 11-4100 |
| 7. Throttle body, assembly, single bore, w/tps, natural
52mm | 106-3141 | 5 pack | 11-7250 |
| 58mm | 106-3960 | 22. Throttle position sensor VFI with hardware
27271-95 |  55-5058 |
| 8. Guide, throttle cable, w/hardware, X-Wedge | 106-0634 | | |
| 9. O-ring, (-036), 2.364" ID x 2.504" OD, nitrile | 50-7967-S | | |
| 10. O-ring, (-018) .739" ID x .879" OD x .070, viton | 50-8149-S | | |
| 11. Cap, canister purge fitting (each) | 50-8266-S | | |



CRANKCASE REPLACEMENT PARTS

1. Crankcase Set - See page 5	
2. Fitting, pipe, straight ¼-18 NPTF x 1.510 x ½, zinc	50-8158-S
3. Plug ⅞-27 NPT with taper (each)	50-8331A
10 pack	50-1015
4. Stud, cylinder base, 6.68", black oxide (each)	31-2321-S
8 pack	31-2321
5. Transmission crankcase drain plugs with o-ring Plug, magnetic, SH, ½-20	50-8335
6. Reed, breather valve, X-Wedge	36-7031
7. Stop, breather reed valve, X-Wedge	36-7032
8. Screw, BHS, 6-32 x ⅝", stainless steel	50-0060-S
9. Pin, dowel, .438 diameter x .610 (each)	50-8177
4 pack	50-8177-4
10. Washer, flat, ⅝ x ⅞ x ⅞	50-7034
11. Screw, HHCS, ⅝-18 x 3¾, zinc	50-0011
12. Bearing, assembly, inner, needle, cam, 1999-up BT	31-4080
13. Bearing, main journal, standard, plain	34-8640-S
14. Dowel pin, .187" x .635" (each)	50-8031
15. Dowel pin, ¼" x ½" (each)	50-8022
2 pack	50-8022-2
5 pack	50-8105
16. Spacer, charging system, 1.75" x 1.25"	106-0736
17. Fitting, pipe, straight, male, chrome, steel, ⅞-27 NPTF x 1.344" x .375" (each)	50-8129-S±
18. Left main bearing oil seal 1970-up BT (each)	31-4010
5 pack	31-4110
Main bearing oil seal, X-wedge® engines for Morgan®	500-0132
19. Tappet cover, set, X-Wedge	
Polished	106-0745
Silver	106-0746
Wrinkle black	106-0747
20. Pin, dowel, .250" x 1.125"	50-8287
21. Screw, SHCS, ¼-20 x ⅞"	
Bright zinc	50-0025
Chrome	106-0534±
22. Washer, flat, .260" x .425" x .060", chrome, steel (each)	50-7017±
12 pack	50-7013±
23. Gasket, tappet cover, X-Wedge (each)	37-0006
24. Gasket, reed pocket, X-Wedge (each)	36-0097
25. Cover, reed pocket, X-Wedge	
Polished	106-0597
Silver	106-0598
Wrinkle black	106-0599
26. O-ring, oil feed line (-13), .437" I.D. x .565" O.D., Viton®	
each	50-8008
10 pack	50-8078
27. O-ring, bottom, pushrod tube (-122), 1.112" I.D. Viton	50-7964-S
28. Fitting, hose, straight, ⅞-27 NPTFx.500	50-8218-S
29. Hose, vent, breather, .375" x .625"	106-3011
30. Bracket, oil filter, X-Wedge	
Polished	106-0572
Silver	106-0573
Wrinkle black	106-0574
31. O-ring, Viton, -017	50-0466
32. O-ring, Viton, size -022 (each)	50-8005
33. Switch, oil pressure, X-Wedge	106-0744
34. Fitting, straight, ¾-16 UNF 2a	50-8197-S
35. Screw, SHC, ⅝-18 x 1, zinc	50-0101
36. Washer, flat, ⅝ x ⅞ x ⅞, zinc, steel	50-7034
NOT SHOWN:	
Crank position sensor	106-0734



CYLINDER HEAD REPLACEMENT PARTS

1. Head, kit, .585", SW steel, X-Wedge
 - Full polished..... **106-0644**
 - Silver..... **106-0646**
 - Wrinkle black..... **106-0647**
2. Valve
 - Intake, 2" x 4.450", @ 1.943" gauge..... **90-2000**
 - Exhaust, 1.605" x 4.428", @ 1.509" gauge..... **90-2001**
3. Valve seat
 - Intake, 2.000"..... **90-2002**
 - Exhaust, 1.605"..... **90-2003**
4. Valve guide, intake/exhaust..... **106-2162**
5. Head bolt, kit, S&S heads, w/washer, 12 pt
 - 3/8-16 x 1.940" x .950" TD..... **93-3028**
6. Washer, .515" x .900" x .150"..... **50-0418-S**
7. Gasket, exhaust, stainless steel (each)..... **106-5029**
 - 10 pack..... **93-1072**
8. Exhaust port stud 5/16" x 1.7" (each)..... **50-0493**
 - 5 pack..... **50-1028**
9. Screw, SHCS, 5/16-18 x 1", zinc..... **N/A**
10. Bolt, mounting, HH, grade 5, 5/16-18 x 1", zinc (each)..... **50-0108**
11. Washer, flat, .344" x .688" x .065", zinc..... **50-7034**
12. Flange, manifold, X-Wedge (each)..... **16-0150**
13. Seal, manifold, 2.060" x 2.285" x .0240" (each)..... **16-6601**
 - 10 pack..... **106-0676**
14. Sensor, kit, knock, IST, w/o bracket..... **N/A**
15. Sensor, temperature, cylinder head, 4 1/8"..... **55-1014**
16. Gasket, head, .043", graphite
 - 4 1/8"..... **93-1130**
 - 4 1/4"..... **93-1131**
 - 4 3/8"..... **93-1132**
17. O-ring, (-220), 1.375" ID x 1.625" OD, viton (each)..... **50-8245-S**
18. Pushrod cover, set, X-Wedge..... **106-0698**
19. Stud, 5/16-24, 7/16-14 x 2.44" (each)..... **50-0497**
20. Retainer, Set, alignment, rocker arm support..... **106-0730**
21. Rocker arm, set, X-Wedge..... **106-0716**
22. Nut, Lock, HH, Gr8, 5/16-24 x 1 1/4", Zinc Plated, Steel (each)..... **106-1749**
23. Washer, flat, .344" x .688" x .065", zinc..... **50-7034**
24. O-ring, bottom, injector, .310" ID x .580" OD..... **50-8265-S**
25. Fuel injector, assembly, style B, 31.3lbs/hr@58psi..... **55-5005**
26. O-ring, top, injector, .290" ID x .570" OD..... **50-8264-S**
27. Insulator, hold down, fuel injector (each)..... **106-1303**
28. Clamp, front, hold-down, fuel injector..... **106-0578**
30. Screw, SHC, 1/4-20 x 7/8, zinc..... **50-0025**
31. Valve, bleed, 1/16-27 NPT..... **N/A**
32. Fuel line, cut to size, 5/16" x 12", black, rubber (each)..... **106-0159**
33. Fuel line, cut to size, 5/16" x 2.250", black, rubber (each)..... **106-0157**
34. Clamp, Hose, Stepless® Ear, 15.3mm..... **106-2250**
35. Fitting, hose, tee, 5/16", black, glass filled, nylon (each)..... **106-0409**
36. Rocker Cover Gasket (each)..... **39-0010A**
 - 2 pack..... **106-0622**
37. Rocker Cover (includes cover screw, washers and gasket(s))
 - Front or Rear..... **106-0600**
 - Set..... **106-0593**
38. Washer, Flat, .319" x .545" x .042", Zinc, Steel (each)..... **50-7026**
39. Screw, SHC, 5/16-18 x 1-7/8" Polished Chrome (10 pack) **106-1058±**

.585" Lift Street Performance Valve Springs

40. Spring, valve, Sidewinder .585"..... **900-0444**
41. Collar, top, valve spring, .585", steel..... **900-0550**
42. Valve seal (4 pack)..... **900-0737**
43. Collar, Bottom..... **900-0600**
44. Valve keeper (each)..... **90-2094-S**
 - 8 pack..... **50-7166**
45. Shim (for rebuild only)
 - .015" (each)..... **90-2086**
 - 5 pack..... **50-7161**
 - .030" (each)..... **90-2087**
 - 5 pack..... **90-2198**

.650" Lift Sidewinder® Valve Springs

46. Spring, Valve .650" (each)..... **106-5689**
 - (set of 4)..... **106-5927**
47. Collar, Top, Steel..... **106-5690**
48. Collar, Bottom, Steel..... **106-3827**
49. Valve Keeper
 - each..... **90-2094-S**
 - 8 pack..... **50-7166**
50. Shim
 - .015" (each)..... **500-0013**
 - .030" (each)..... **500-0014**

GASKET KITS

Description	Bore Size	Part #
Top End Rebuild Kit	4 1/4"	90-9701
	4 1/8"	106-1262
Complete Engine Rebuild Kit	4 1/8"	106-1030
	4 1/4"	106-1029
	4 3/8"	106-1031







2019

Performance
EXHAUST



SIDEWINDER 2:1 TOURING EXHAUST SYSTEM

FITMENT

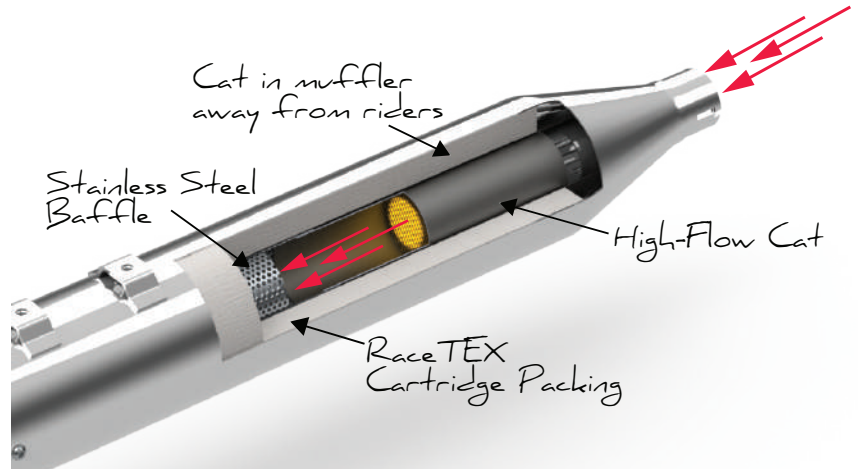
- 2017–'19 Harley-Davidson® touring models with Milwaukee-Eight® engine
- 2007–'16 touring models

FEATURES & BENEFITS

- 2:1 styling for high-performance baggers
- High-flow cat
- Increased power and torque
- Available in show chrome or ceramic black finish
- Machined aluminum endcap
- Includes adapters that allow use of wide band or stock O2 sensors
- Stainless steel stepped header
- Deep 2:1 performance exhaust note
- Removable dB reducer
- SAE J2825 Sound Level Compliant
- 50-state legal on some models
- All hardware included
- Made in USA!



Removable dB reducer





SIDEWINDER 2:1 EXHAUST SYSTEM FOR 2017-'18 M8 TOURING MODELS — 50-STATE COMPLIANT*

Finish	S&S Part #	Drag Part #
Chrome	550-0758A [±]	1800-2343
Black	550-0759A	1800-2342

SIDEWINDER 2:1 EXHAUST SYSTEM FOR 2017-'19 M8 TOURING MODELS — RACE ONLY*

Chrome	550-0728 [±]	1800-2270
Black	550-0729	1800-2271

[±]Exempt from emissions tampering regulations under CARB EO# K-010-2 for all 2017-2018 FL Touring Models

*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.



SIDEWINDER 2:1 EXHAUST SYSTEM FOR 2007-'16 TOURING MODELS — 50-STATE COMPLIANT*

Finish	S&S Part #	Drag Part #
Chrome	550-0771A [±]	1800-2387
Black	550-0772A	1800-2388

SIDEWINDER 2:1 EXHAUST SYSTEM FOR 1995-'16 TOURING MODELS — RACE ONLY**

Chrome	550-0776 [±]	1800-2389
Black	550-0777	1800-2390

[±]Exempt from emissions tampering regulations under CARB EO# K-010-3 for all 2007-2016 FL touring models

**DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on EPA pollution controlled vehicles originally equipped with catalyist. *Qualified manufacturer declared emissions replacement part on FL touring models listed below:
California Models: Fuel Injected Non-CVO FL Touring Model Years: 1995-2003 and 2007. CVO FL Touring Model Years: 2000-2003
49 State Models: Fuel Injected Non-CVO FL Touring Model Years: 1995-2005 and 2007-2009. CVO FL Touring Model Years: 2000-2005





SHADOW PIPE

FOR 1995-'19 TOURING MODELS WITH S&S SIDEWINDER® 2-1 EXHAUST

FEATURES & BENEFITS

- Available in show chrome and black ceramic finishes
- Shadow left side muffler fills cutout in extended bags when running Sidewinder 2-1
- Matching endcap for left side is a mirror image of right side Sidewinder 2-1 Cap
(not available on any of our slip-on or El Dorado products)
- Bold 4.5" design
- All hardware included
- Made in USA!



2009-'19 TOURING MODELS EQUIPPED WITH S&S® SIDEWINDER 2-1 EXHAUST	S&S Part #	Drag Part #
Chrome	550-0829	Coming Soon
Black	550-0831	Coming Soon
1995-'08 TOURING MODELS EQUIPPED WITH S&S® SIDEWINDER 2-1 EXHAUST		
Chrome	550-0828	Coming Soon
Black	550-0830	Coming Soon

IF YOU HAVE...		...YOU WILL NEED	
SIDEWINDER PART #	DESCRIPTION / FINISH	1995-'08 FITMENT SHADOW PIPE PART #	2009-'19 FITMENT SHADOW PIPE PART #
550-0728 / 1800-2270	Race Only 2009-'19 touring models / Chrome	550-0829	550-0829
550-0729 / 1800-2271	Race Only 2009-'19 touring models / Black	550-0831	550-0831
550-0758A / 1800-2343	50 State 2009-'19 touring models / Chrome	550-0829	550-0829
550-0759A / 1800-2342	50 State 2009-'19 touring models / Black	550-0831	550-0831
550-0771A / 1800-2387	50 State 1995-'08 touring models / Chrome	550-0828	550-0829
550-0772A / 1800-2388	50 State 1995-'08 touring models / Black	550-0830	550-0831
550-0776 / 1800-2389	Race Only 1995-'08 touring models / Chrome	550-0828	550-0829
550-0777 / 1800-2390	Race Only 1995-'08 touring models / Black	550-0830	550-0831

Mk45 SLIP-ON MUFFLERS

FITMENT

- 2017–'19 Harley-Davidson® touring models with Milwaukee-Eight® engine
(Does not fit Trike or Freewheeler® models)
- 1995–2016 touring models

FEATURES & BENEFITS

- Bold 4.5" design — with stainless steel baffle and RaceTEX cartridge packing
- Available in show quality chrome or ceramic black finish
- Choose from S&S® Thruster or Tracer endcap designs in chrome or black
- SAE J2825 Sound Level Compliant
- 50-state legal on most models
- Removable dB reducer
- Made in USA!



Removable dB reducer

Mk45 4.5" SLIP-ON MUFFLERS FOR 2017–'19 TOURING MODELS

Muffler Body Finish	Endcap Finish & Style	S&S Part #	Drag Part #
Chrome	Chrome Thruster	550-0665±	1801-1074
	Highlight Machined Thruster	550-0664±	1801-1075
	Chrome Tracer	550-0669±	1801-1078
	Highlight Machined Tracer	550-0668±	1801-1079
Black	Chrome Thruster	550-0667	1801-1076
	Highlight Machined Thruster	550-0666	1801-1077
	Chrome Tracer	550-0671	1801-1080
	Highlight Machined Tracer	550-0670	1801-1081

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017-2019 FL Touring models



Chrome w/Chrome Thruster



Chrome w/Machined Thruster



Chrome w/Chrome Tracer



Chrome w/Machined Tracer

Mk45 4.5" TOURING MUFFLERS FOR 1995–2016 TOURING MODELS

Muffler Body Finish	Endcap Finish & Style	S&S Part #	Drag Part #
Chrome	Chrome Thruster	550-0620±	1801-0846
	Highlight Machined Thruster	550-0619±	1801-0847
	Chrome Tracer	550-0624±	1801-0850
	Highlight Machined Tracer	550-0623±	1801-0851
Black	Chrome Thruster	550-0622	1801-0848
	Highlight Machined Thruster	550-0621	1801-0849
	Chrome Tracer	550-0626	1801-0852
	Highlight Machined Tracer	550-0625	1801-0853



Black w/Chrome Thruster



Black w/Machined Thruster



Black w/Chrome Tracer



Black w/Machined Tracer

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the FL Touring Models Listed Below. California FL Touring Models: Fuel Injected MY 1995-2003, 2007, and 2009-2016; CVO MY 2000-2003, and 2009-2016. 49 State FL touring Models: Carbureted MY 1995-2005; Fuel Injected MY 1995-2005, and 2007-2016; CVO MY 2000-2005, and 2009-2016.

EL DORADO TOURING EXHAUST SYSTEM

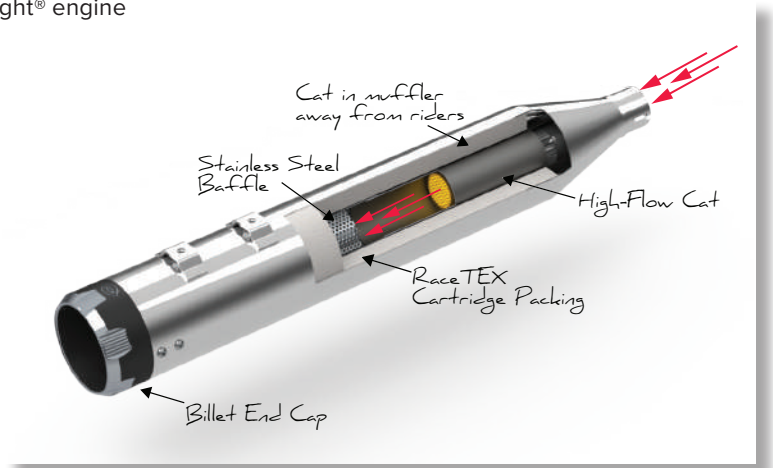
Mk45 MUFFLER/HEADER PACKAGE

FITMENT

- 2017-'18 Harley-Davidson® touring models with Milwaukee-Eight® engine
- 2009-'16 touring models

FEATURES & BENEFITS

- Improved power and torque
- Deep bass rumble throughout the RPM range
- Stainless steel header construction
- Includes adapters for OE or wide band O2 sensors
- O2 sensor location same as stock
- 50-state legal CARB EO# K-010 & EO# K-010-1
- SAE J2825 Sound Level Compliant
- High Flow Cats increase exhaust flow for optimum torque
- Catalysts located in mufflers moves heat away from rider
- Show chrome or ceramic black finish
- Highlight Machined Thruster or Tracer endcaps
- Made in USA!





Black w/Thruster



Chrome w/Thruster



Black w/Tracer



Chrome w/Tracer

EL DORADO EXHAUST SYSTEM FOR 2017-'18 TOURING MODELS — 50-STATE COMPLIANT



Finish	Endcap	S&S Part #	Drag Part #
Chrome	Highlight Machined Thruster	550-0699A [±]	1800-2258
Chrome	Highlight Machined Tracer	550-0701A [±]	1800-2260
Black	Highlight Machined Thruster	550-0700A	1800-2259
Black	Highlight Machined Tracer	550-0702A	1800-2261

Exempt from emissions tampering regulations under CARB EO# K-010-1 for all 2017-2018 FL Touring Models[±]

EL DORADO EXHAUST SYSTEM FOR 2009–2016 TOURING MODELS — 50-STATE COMPLIANT



Finish	Endcap	S&S Part #	Drag Part #
Chrome	Highlight Machined Thruster	550-0677A [±]	1800-2188
Chrome	Highlight Machined Tracer	550-0678A [±]	1800-2189
Black	Highlight Machined Thruster	550-0679A	1800-2190
Black	Highlight Machined Tracer	550-0680A	1800-2191

Exempt from emissions tampering regulations under CARB EO# K-010 for all 2007–2016 FL touring models[±]



GRAND NATIONAL® SLIP-ON MUFFLERS

FITMENT

- 2017–'19 FLH touring models
- 1995–2016 Harley-Davidson® touring models with non-catalyst mufflers
- 2009–'19 Tri Glide® models

FEATURES & BENEFITS

- Show quality chrome or ceramic black finish
- Race inspired Grand National endcap
- High flow baffle
- Aggressive sound & excellent HP
- SAE J2825 Sound Level Compliant
- 50-state legal on most models
- Removable dB reducer
- Made in USA!



Removable dB reducer

GRAND NATIONAL® 4" MUFFLERS FOR 2017–'19 TOURING MODELS EXCEPT FREEWHEELER® OR TRIKE MODELS

Finish	S&S Part #	Drag Part #
Chrome	550-0693±	1801-1203
Black	550-0694	1801-1204

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017-2019 FL Touring models

GRAND NATIONAL® 4" MUFFLERS FOR 1995–2016 TOURING MODELS AND 2017–'19 TRI GLIDE® MODELS

Finish	S&S Part #	Drag Part #
Chrome	550-0689±	1801-1205
Black	550-0690	1801-1206

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified manufacturer declared emissions replacement part on the FL touring models listed below. California FL Touring Models: Fuel Injected MY 1995-2003, 2007, and 2009-2016; CVO MY 2000-2003, and 2009-2016; 49 State FL touring Models: Carbureted MY 1995-2005; Fuel Injected MY 1995-2005, and 2007-2016; CVO MY 2000-2005, and 2009-2016



SLASH CUT MUFFLERS

FITMENT

- 2017–'19 FLH touring models
- 1995–2016 Harley-Davidson® touring models with non-catalyst mufflers
- 2009–'19 Tri Glide® models

FEATURES & BENEFITS

- Show quality chrome or ceramic black finish
- Economical price
- High flow baffle
- Aggressive sound & excellent HP
- Excellent clearance on trike models
- SAE J2825 Sound Level Compliant
- 50-state legal on most models
- Removable dB reducer
- Made in USA!



Removable dB reducer



SLASH CUT 4" TOURING MUFFLERS FOR 2017–'19 TOURING MODELS EXCEPT TRIKE MODELS (SEE CHART BELOW)

Finish	S&S Part #	Drag Part #
Chrome	550-0695 [±]	1801-1207
Black	550-0696	1801-1208

Qualified manufacturer declared U.S. 50-state legal emissions replacement part on all MY 2017-2019 FL Touring models

SLASH CUT 4" TOURING MUFFLERS FOR 1995–2016 BIG TWINS AND 2009–'19 TRI GLIDE® MODELS

Finish	S&S Part #	Drag Part #
Chrome	550-0691 [±]	1801-1209
Black	550-0692	1801-1210

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the FL Touring Models Listed Below.

California FL Touring Models: Fuel Injected MY 1995-2003, 2007, and 2009-2016; CVO MY 2000-2003, and 2009-2016

49 State FL touring Models: Carbureted MY 1995-2005; Fuel Injected MY 1995-2005, and 2007-2016; CVO MY 2000-2005, and 2009-2016



POWER TUNE® DUAL HEADERS

FITMENT

- Replacement for the El Dorado 50-state compliant Exhaust System for 2017-'18 touring models
- 1995–2016 Non-catalyst equipped Harley-Davidson® touring models

FEATURES & BENEFITS

- Adds up to 8 horsepower over stock header pipes
- Independent dual look with hidden crossover
- Exclusive design moves the rear cylinder header away from the passenger to reduce radiated heat
- Full chrome or ceramic black heat shielding with 220° coverage
- Updated styling to give the bike a modern look
- Oxygen sensor bungs**
- Durable 16 gauge construction
- Spherical inlet design for improved sealing and exhaust gasket durability
- Hardware included to mount crossover pipe
- Compatible with all equal size inlet slip-on mufflers
- Exhaust port gaskets included
- All hardware included
- Made in USA!



REPLACEMENT HEADER FOR EL DORADO 50-STATE M8 HIGH PERFORMANCE EXHAUST SYSTEM

Finish	S&S Part #	Drag Part #
Chrome	550-0704 [±]	1802-0390
Black	550-0705	1802-0391

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle. This part is emissions compliant only when used as part of a complete El Dorado exhaust package.

POWER TUNE® DUAL HEADERS FOR 1995–2016 TOURING MODELS

Fitment	Finish	S&S Part #	Drag Part #
1995-'08** touring	Chrome [±]	550-0003A ^{††}	1802-0382
	Black	550-0142A ^{††}	1802-0389
2009-'16 touring and 2009-'19 Tri Glide ^{††} models	Chrome [±]	550-0004B ^{†††}	1802-0372
	Black	550-0143B ^{†††}	1802-0373



**Has 18mm sensor fittings in the stock locations for 2007-'08 bikes. If not equipped with oxygen sensors, the ports can be used for tuning. Plugs are included if ports are not used.

[±]Requires the Pipe Extension Adaptor Kit, part # 550-0799

^{††}DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on EPA pollution controlled vehicles originally equipped with catalyst. *Qualified manufacturer declared emissions replacement part on FL touring models listed below. California Models: FL Touring Fuel Injected MY 1995-2003, and 2007. CVO FL Touring MY 2000-2003. 49 State Models: FL Touring Carbureted MY 1995-2005. FL Touring Fuel Injected MY 1995-2005 and 2007-2008. CVO FL Touring MY 2000-2005

^{†††}DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with a catalyst exhaust *Qualified Manufacturer Declared Emissions Compliant Part for 2009 Harley-Davidson 49-State Non-CVO FL Touring Models Only



SUPERSTREET 2:1 EXHAUST SYSTEM FOR 2018 HD® SOFTAIL® MODELS WITH THE MILWAUKEE-EIGHT® ENGINE

FEATURES AND BENEFITS

- Classic 2-1 styling with world famous S&S performance!
- Fits floorboard and forward controls and fits mid mounts with S&S brake pedal kit
- Full heat shields on both front and rear headers
- Stainless steel stepped header construction
- S&S engineered high flow catalyst (49 state model) brings legal performance to the street!
- New multi-faceted machined endcap design
- Available in chrome or ceramic black finish
- Oxygen sensor ports allow use of wide band or stock O2 sensors
- Removable dB reducer (included) meets SAE J2825 sound standard
- Made in the USA!



Removable dB reducer



SUPERSTREET 2 INTO 1 EXHAUST SYSTEM — 49-STATE†

Finish	S&S Part #	Drag Part #
Black with Black Endcap	550-0789	1800-2403
Chrome with Black Endcap	550-0791±	1800-2402

SUPERSTREET 2 INTO 1 EXHAUST SYSTEM — RACE ONLY††

Black with Black Endcap	550-0788	1800-2401
Chrome with Black Endcap	550-0790±	1800-2400

Available to California dealers pending CARB's approval of S&S Cycle's EO application for certification.

†DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE

*Qualified Manufacturer Declared 49-State Federal Emissions Compliant Catalyst Exhaust System

††DISCLAIMER: FOR CLOSED COURSE COMPETITION USE ONLY. NOT INTENDED FOR STREET USE.

LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY.



GRAND NATIONAL® 2:2 EXHAUST SYSTEM FOR 2018–'19 HD® FAT BOB® MODELS WITH THE MILWAUKEE-EIGHT® ENGINE



FEATURES AND BENEFITS

- 2:2 Free-flow design equals solid HP gains
- Hidden crossover provides performance benefits of 2:1
- Full heat shields on both front and rear headers
- Stainless steel header construction
- High Flow catalytic converter maintains the performance of a straight through system
- CARB EO# K-010-4, 50 State Legal
- Race inspired Grand National® endcap
- Available in chrome or ceramic black finish
- Oxygen sensor ports allow use of wide band or stock O2 sensors.
- Removable dB reducers (*included*) meet SAE J2825 sound standard
- Right side passenger peg relocation bracket available
- Made in USA!



Removable dB reducer



GRAND NATIONAL® 2:2 EXHAUST SYSTEM — 50-STATE COMPLIANT FOR 2018–'19 HD® FAT BOB® MODELS†

Finish	S&S Part #	Drag Part #
Chrome	550-0781A±	1800-2393
Black	550-0780A	1800-2394

GRAND NATIONAL 2:2 EXHAUST SYSTEM — RACE ONLY††

Chrome	550-0761±	1800-2367
Black	550-0760	1800-2366

†Exempt from emissions tampering regulations under CARB EO# K-010-4 for 2018 to 2019 Fat Bob models

††DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. Not legal for sale or use on any EPA pollution controlled motor vehicle.

GRAND NATIONAL® MUFFLERS FOR 2018-'19 HD® FAT BOB® MODELS WITH THE MILWAUKEE-EIGHT® ENGINE

FEATURES & BENEFITS

- Up to 12% more horsepower and 6% more torque *(when used with Stealth Air Cleaner Kit)*
- Race inspired design
- Ceramic black finish
- Deep performance rumble replaces stock whisper tone
- No mapping required
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer

GRAND NATIONAL® SLIP-ON MUFFLERS FOR 2018-'19 FAT BOB® MODELS

Description	S&S Part #	Drag Part #
Grand National Slip-on Mufflers for 2018-'19 HD® Fat Bob®	550-0734	1801-1234

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2018-2019 Fat Bob models.



GRAND NATIONAL® MUFFLERS FOR 2018–'19 SOFTTAIL® MODELS WITH THE MILWAUKEE-EIGHT® ENGINE

FEATURES & BENEFITS

- Up to 12% more horsepower and 6% more torque
(when used with Stealth Air Cleaner Kit)
- Race inspired Grand National endcap design
- Deep performance rumble replaces stock whisper tone
- Show chrome or ceramic black finish
- Removable dB reducer
- SAE J2825 Sound Level Compliant
- Made in USA!



Removable dB reducer



GRAND NATIONAL MUFFLERS FOR 2018–'19 M8 SOFTTAIL® MODELS — 49-STATE COMPLIANT^{††}

Fitment	Muffler Body Finish	S&S Part #	Drag Part #
M8 Softail models, <i>except Heritage Softail® Classic & Softail® Deluxe</i>	Black	550-0754	1801-1357
M8 Softail models, <i>except Heritage Softail Classic & Softail Deluxe</i>	Chrome	550-0755 [±]	1801-1358
M8 Heritage Softail Classic & Softail Deluxe models	Chrome	550-0757 [±]	1801-1359

GRAND NATIONAL MUFFLERS FOR 2018 M8 SOFTTAIL® MODELS — RACE ONLY[†]

M8 Softail models, <i>except Heritage Softail® Classic & Softail® Deluxe</i>	Black	550-0737	1801-1360
M8 Softail models, <i>except Heritage Softail Classic & Softail Deluxe</i>	Chrome	550-0738 [±]	1801-1361
M8 Heritage Softail Classic & Softail Deluxe models	Chrome	550-0740 [±]	1801-1362

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^{††}DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE

[±]Qualified Manufacturer Declared 49-State Emissions Compliant Catalyst Exhaust Component

NOTE: Excludes Fat Bob® model. For Fat Bob fitment, use Grand National Slip-on part #550-0734/1801-1234. See previous page.

SLASH CUT MUFFLERS FOR 2018–'19 SOFTTAIL® MODELS WITH THE MILWAUKEE-EIGHT® ENGINE

FEATURES & BENEFITS

- Up to 12% more horsepower and 6% more torque
(when used with Stealth Air Cleaner Kit)
- Wake up your bike without breaking your budget
- Classic slash cut styling
- Show chrome or ceramic black finish
- Removable dB reducer
- SAE J2825 Sound Level Compliant
- Made in USA!



Removable dB reducer



SLASH CUT MUFFLERS FOR 2018–'19 M8 SOFTTAIL® MODELS — 49-STATE COMPLIANT^{††}

Fitment	Muffler Body Finish	S&S Part #	Drag Part #
M8 Softail models, <i>except Heritage Softail® Classic & Softail® Deluxe</i>	Black	550-0752	1801-1351
M8 Softail models, <i>except Heritage Softail Classic & Softail Deluxe</i>	Chrome	550-0753 [±]	1801-1352
M8 Heritage Softail Classic & Softail Deluxe models	Chrome	550-0756 [±]	1801-1353

SLASH CUT MUFFLERS FOR 2018–'19 M8 SOFTTAIL® MODELS — RACE ONLY[†]

M8 Softail models, <i>except Heritage Softail® Classic & Softail® Deluxe</i>	Black	550-0735	1801-1354
M8 Softail models, <i>except Heritage Softail Classic & Softail Deluxe</i>	Chrome	550-0736 [±]	1801-1355
M8 Heritage Softail Classic & Softail Deluxe models	Chrome	550-0739 [±]	1801-1356

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^{††}DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE

[±]Qualified Manufacturer Declared 49-State Emissions Compliant Catalyst Exhaust Component

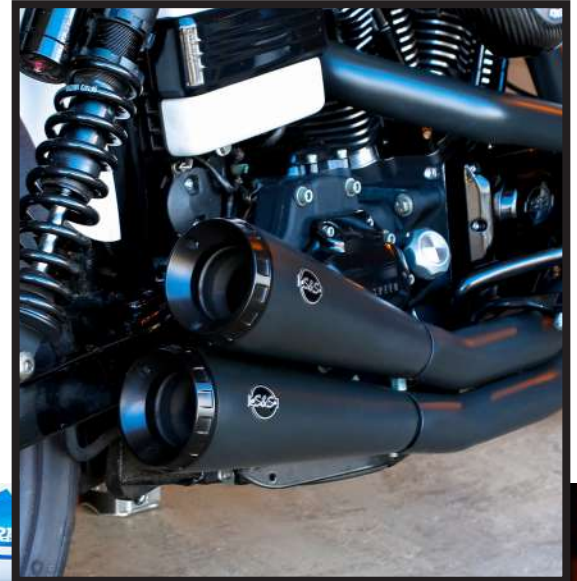
GRAND NATIONAL® 2:2 EXHAUST SYSTEM FOR DYNA® MODELS

FITMENT

- 2006–2007 Dyna models

FEATURES AND BENEFITS

- 2:2 Free-flow design equals solid HP gains
- Hidden crossover provides performance benefits of 2:1
- Full heat shields on both front and rear headers
- Stainless steel header construction
- Race inspired Grand National endcap
- Available in chrome or ceramic black finish
- Oxygen sensor ports allow use of wide band or stock O2 sensors
- Right side passenger peg relocation bracket available
- SAE J2825 Sound Level Compliant
- Removable dB reducers
- Made in USA!



Removable dB reducer



GRAND NATIONAL® 2:2 EXHAUST SYSTEM FOR 2006–2007 DYNA® MODELS

Finish	S&S Part #	Drag Part #
Chrome	550-0743±	1800-2282
Black	550-0742	1800-2283

GRAND NATIONAL® 2:2 EXHAUST SYSTEM FOR 2008–2017 DYNA® MODELS — RACE ONLY

Chrome	550-0743±	1800-2282
Black	550-0742	1800-2283

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. NOT LEGAL FOR SALE OR USE ON EPA POLLUTION CONTROLLED MOTORCYCLES ORIGINALLY EQUIPPED WITH MUFFLERS CONTAINING CATALYST. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna® Models Listed Below. California Models: MY 2006–2007, Except CVO® models. 49 State Models: MY 2006–2009, Except CVO models

GRAND NATIONAL® SLIP-ON MUFFLERS FOR DYNA® MODELS

FITMENT

- 1995–2009 Dyna models with staggered exhaust
- 2008–'17 Dyna models with 2-1-2 exhaust
(2008–'17 Fat Bob®, 2010–'17 Wide Glide®, & 2017 Low Rider® S)

FEATURES AND BENEFITS

- Up to 17% more horsepower and 9% more torque
(when used with Stealth Air Cleaner Kit)
- Race inspired Grand National endcaps
- Show chrome or ceramic black finish
- Deep performance rumble
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



GRAND NATIONAL® MUFFLERS FOR 1995–2009 DYNA® MODELS WITH STAGGERED EXHAUST†

Finish	S&S Part #	Drag Part #
Chrome	550-0719 [±]	1801-1275
Black	550-0721	1801-1276

GRAND NATIONAL MUFFLERS FOR 2008–2017 DYNA® MODELS WITH 2-1-2 EXHAUST††

Chrome	550-0723 [±]	1801-1276
Black	550-0725	1801-1278

†DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below. California Models: MY 2006–2007, Except CVO models. 49 State Models: MY 1995–2009, Except CVO models

††DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLES. Not legal for sale or use on EPA pollution controlled motorcycles originally equipped with mufflers containing catalyst. *Qualified Manufacturer Declared Emissions Replacement Part on the Dyna Models Listed Below. California Models: Fat Bob MY 2008, 2010–2017; Wide Glide MY 2010–2017; Low Rider S MY 2017. 49 State Models: Fat Bob MY 2008–2017; Wide Glide MY 2010–2017; Low Rider S MY 2017

SLASH CUT SLIP-ON MUFFLERS FOR DYNA® MODELS

FITMENT

- 1995–2009 Dyna® models with staggered exhaust
- 2008–'17 Dyna® models with 2-1-2 exhaust

FEATURES & BENEFITS

- Up to 16% more horsepower and 10% more torque
(when used with Stealth Air Cleaner Kit)
- Wake up your bike without breaking your budget
- Classic slash cut styling
- Show chrome or ceramic black finish
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!



Removable dB reducer



SLASH CUT MUFFLERS FOR 1995–2009 DYNA® MODELS WITH STAGGERED EXHAUST†

Finish	S&S Part #	Drag Part #
Chrome	550-0718 [±]	1801-1271
Black	550-0720	1801-1272

SLASH CUT MUFFLERS FOR 2008–2017 DYNA® MODELS WITH 2-1-2 EXHAUST††

Chrome	550-0722	1801-1273
Black	550-0724 [±]	1801-1274

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GRAND NATIONAL® 4" SLIP-ON MUFFLERS

FOR 2014-'19 HD® STREET® XG750, XG500, & STREET ROD™

FEATURES & BENEFITS

- 10% increase in HP & torque when coupled with S&S® Stealth Air Cleaner Kit
- Race inspired sound & stainless steel baffle
- Ceramic black finish matches stock header pipe
- SAE J2825 Sound Level Compliant
- 50-state legal
- Removable dB reducer
- Made in USA!

GRAND NATIONAL® 4" SLIP-ON 2014-'19 HD® STREET® XG750, XG500 & STREET ROD™

Description	S&S Part #	Drag Part #
Grand National 4" Slip-on for 2014-'19 HD Street XG750, XG500 & Street Rod	550-0703	1801-1169

*Qualified Manufacturer Declared Emissions Replacement Part on all 2014-2019 Street Models





EC SLIP-ON MUFFLERS FOR M8 SOFTAIL® MODELS



FEATURES & BENEFITS

- EC approved with S&S performance & style
- Race-inspired Grand National® endcap design or the classic slash cut design complements any bike style
- Show chrome or ceramic black finish
- 82mm can with perforated stainless steel baffle and RaceTex cartridge packing
- Equipped with S&S engineered high-flow catalytic converter
- dB reducer included
- All hardware and gaskets included

GRAND NATIONAL® EC SLIP-ON MUFFLERS FOR 2018 M8 SOFTAIL® MODELS

Description	Finish	S&S Part #	Drag Part #
M8 Softail® Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® models	Black	550-0824	1801-1383
M8 Softail® Street Bob, Low Rider, Slim®, Fat Boy & Breakout models	Chrome	550-0825	1801-1382
M8 Softail® Heritage Classic & Deluxe® models	Chrome	550-0826	1801-1380

EU Type-Approval: e9*134/2014*2018/295H*11028*00

SLASH CUT EC SLIP-ON MUFFLERS FOR 2018 M8 SOFTAIL® MODELS

M8 Softail® Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® models	Black	550-0821	1801-1385
M8 Softail® Street Bob, Low Rider, Slim, Fat Boy & Breakout models	Chrome	550-0822	1801-1384
M8 Softail® Heritage®/Deluxe® models	Chrome	550-0823	1801-1381

EU Type-Approval: e9*134/2014*2018/295H*11027*00





EC GRAND NATIONAL® 100MM SLIP-ON MUFFLERS FOR 2018 M8 HD® FAT BOB® SOFTAIL® MODELS

FEATURES AND BENEFITS

- EC approved with S&S performance & style
- Race-inspired Grand National® endcap design
- High temperature black ceramic finish
- 100mm can with perforated stainless steel baffle & RaceTex cartridge packing
- dB reducer included
- All hardware and gaskets included



EC GRAND NATIONAL® 100MM SLIP-ON FOR 2018 HD® SOFTAIL® FAT BOB® MODELS

Description	S&S Part #	Drag Part #
M8 Softail® Fat Bob® models	550-0827	1801-1379

EU Type-Approval: e9*134/2014*2018/295G*11029*00



EC STEALTH AIR CLEANER KITS

FITMENT

- 2018-'19 M8 HD® Softail® models (e9 11026G)
- 2007-'19 EFI 883 Sportster® models (e9 11003G)
- 2007-'19 EFI 1200 Sportster models (e9 11002G)
- 103" Harley-Davidson Dyna & Softail Models up to 2017 (e9 11003G)
- 110" Harley-Davidson® Dyna® & Softail® Models up to 2017 (e9 11002G)

FEATURES AND BENEFITS

- Simple installation
- Radiused inlet and unique S&S® stinger cone to allow smoother faster air flow for more power
- Kit includes back plate, filter element, top cover, hardware, and instructions
- Covers sold separately



EC STEALTH AC KITS

Description	S&S Part #	Drag Part #
2018-2019 M8 Softail® models	170-0521	1010-2497
2007-'19 EFI 883 Sportster® models	170-0329	1010-2053
2007-'19 EFI 1200 Sportster models	170-0330	1010-2054
Cable Throttle Body 103" HD® Dyna® & Softail® models up to 2017	170-0331	1010-2055
Throttle by Wire 103" HD Dyna & Softail models up to 2017	170-0332	1010-2056
Cable Throttle Body 110" HD Dyna & Softail models up to 2017	170-0333	1010-2057
Throttle by Wire 110" HD Dyna & Softail models up to 2017	170-0334	1010-2059





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