



2020

S&S® Cycle Dealer Catalog • Late Model
Parts & Accessories for 1999–and later models*

*including 1986 & later xl and Indian® models



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MILWAUKEE-EIGHT® ENGINES

Exciting new performance products for motorcycles with the 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.

INDIAN®

Performance parts for 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.

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.



S&S Cycle's products designed to meet California's emissions standards.



S&S Cycle products that are EC-approved have an e mark from the European Commission in accordance with the mandatory members of the EU Directive and are legal for sale and use in Europe.

MISSION STATEMENT AND TRADEMARK INFORMATION

MISSION STATEMENT: Proven Performance® for the Powersports Industry.

DISCLAIMER: The names Harley, Harley-Davidson, Buell, H-D, and all trademarks owned by Harley-Davidson and its affiliated companies, and all Harley-Davidson 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 FOLLOWING ARE TRADEMARKS OF HARLEY-DAVIDSON® MOTORCYCLE COMPANY: BUELL® • Dyna® •

Evolution® • Evo™ • Harley® • Harley-Davidson® • HD® • H-D® • Heritage Softail® • Milwaukee-Eight® • Screamin' Eagle® • Softail® •

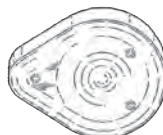
Sportster® • Twin Cam 88® • Twin Cam 88B™ • Twin Cam 96™ • Twin Cam 96B™ • Twin Cam 103™ • Twin Cam 110™ • Tri Glide™

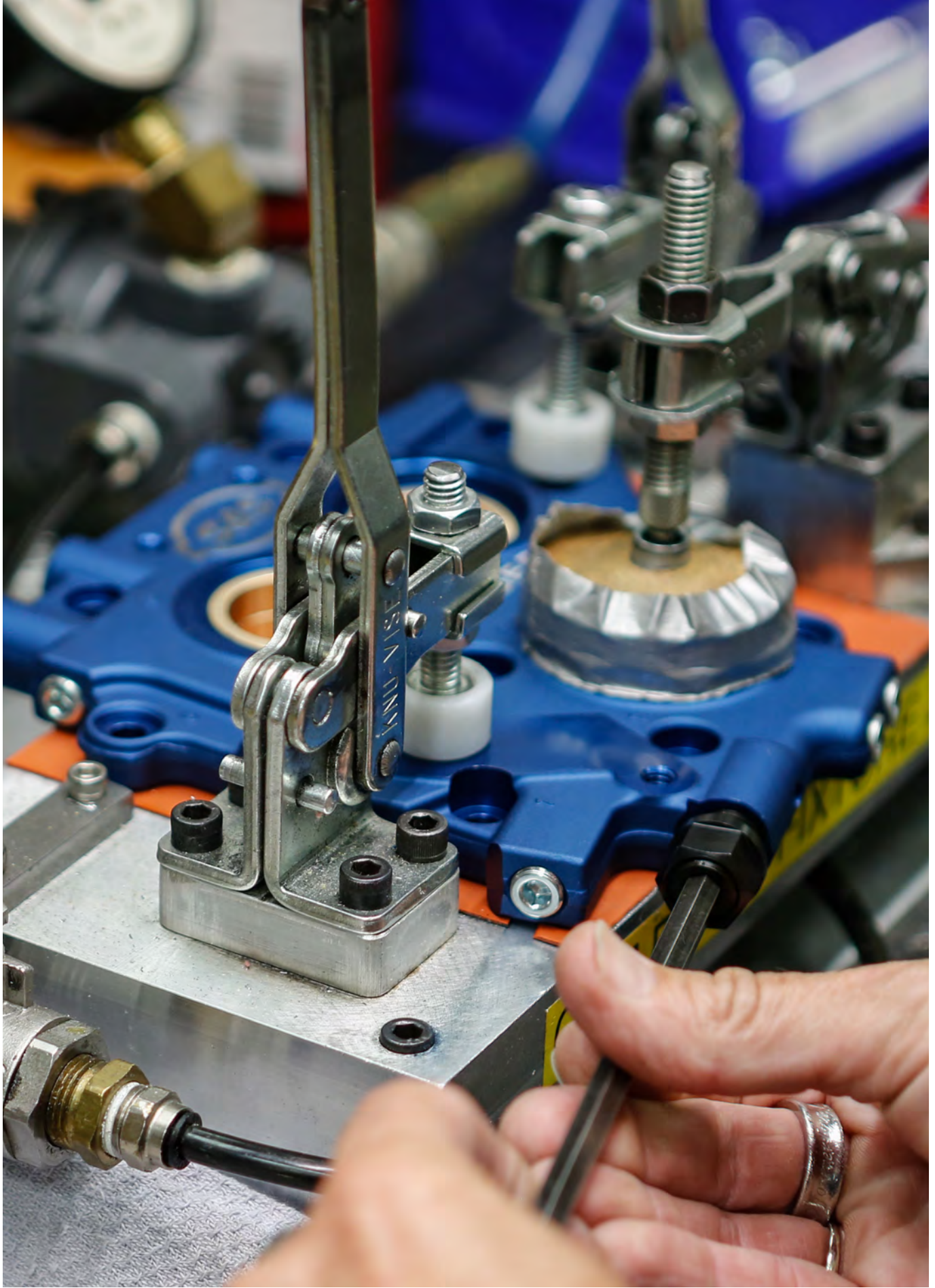
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THE FOLLOWING ARE TRADEMARKS OF S&S CYCLE INC.

Body Parts • Dealer Focus • EZFI • Frame Lock • G-Extreme • Hot Set Up Kit • IST • Performance Times • Power Tune • Proven Performance • S&S • S&S Service & Speed Center • Sidewinder • SPO • Super Stock • X-Wedge • Flathead Power • Viola V-Twin





MILWAUKEE-EIGHT®

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Mk45 TOURING MUFFLERS

FITMENT

- 2017–2020 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 Race TEX 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
- Removable dB reducer
- Made in USA!

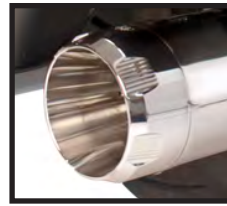


Removable dB reducer

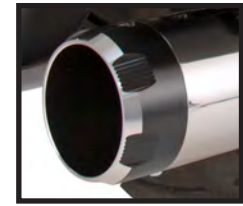
MK45 4.5" SLIP-ON MUFFLERS

Muffler Body Finish	Endcap Finish & Style	Part #
Chrome	Chrome Thruster	550-0665
	Black Highlight Machined Thruster	550-0664
	Chrome Tracer	550-0669
	Black Highlight Machined Tracer	550-0668
Black	Chrome Thruster	550-0667
	Black Highlight Machined Thruster	550-0666
	Chrome Tracer	550-0671
	Black Highlight Machined Tracer	550-0670

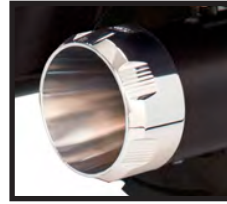
*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017-2020 FL Touring models
 ⚠️ WARNING: Cancer and Reproductive Harm



550-0665



550-0664



550-0667



550-0666



550-0669



550-0668



550-0671



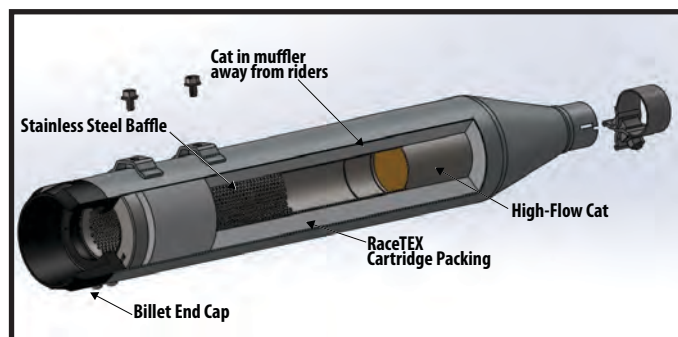
550-0670



REPLACEMENT PARTS: SEE PAGE 37

EL DORADO M8 HIGH PERFORMANCE EXHAUST SYSTEM—STREET LEGAL

- 50 State legal—CARB compliant: EO# K-010-10
- Improved power & torque for greater rideability
- Available in show quality chrome or ceramic black heat shields and muffler bodies
- Bold 4.5" mufflers with billet endcaps
- Highlight Machined Thruster and Tracer, as well as Chrome Tracer tip options
- O2 sensor location same as stock
- Includes adapters that allow use of wide band or stock O2 sensors
- Stainless steel header construction
- High flow cats increase exhaust flow for optimum torque
- Produces a deep bass rumble throughout the RPM range
- Relocation of cats to mufflers reduces rider heat
- Meets SAE J2825 sound standard
- Made in the USA!



EL DORADO EXHAUST SYSTEM FOR 2017-'19 TOURING MODELS — STREET LEGAL

Finish	Endcap	Part #
Chrome	Black Highlight Machined Thruster	550-0699B
Black	Black Highlight Machined Thruster	550-0700B
Chrome	Black Highlight Machined Tracer	550-0701B
Black	Black Highlight Machined Tracer	550-0702B
<small>NEW FOR 2020</small> Chrome	Chrome Tracer	550-0851

*NOTE: Does not fit Trike models

Exempt from emissions tampering regulations under CARB EO# K-010-10 for all 2017-2019 FL Touring Models

WARNING: Cancer and Reproductive Harm



Black w/Tracer



Black w/Thruster



Chrome w/Thruster



Chrome w/Tracer



Chrome w/Chrome Tracer

REPLACEMENT PARTS: SEE PAGE 44



GRAND NATIONAL® 4" SLIP-ON MUFFLERS FOR 2017–2020 FLH TOURING MODELS

FITMENT

- 2017–2020 FLH touring models

FEATURES AND BENEFITS

- Show quality chrome or ceramic black finish
- Race inspired Grand National endcap
- High flowing baffle design
- Aggressive sound and excellent horsepower
- SAE J2825 sound level compliant
- Removable dB reducer
- Excellent choice for Trike models (See chart)
- Made in USA!



GRAND NATIONAL® 4" MUFFLERS FOR 2017–2020 TOURING M8 ENGINES* EXCEPT FREEWHEELER® OR TRIKE MODELS

Finish	Part #
Chrome	550-0693
Black	550-0694

GRAND NATIONAL® 4" MUFFLERS TOURING MUFFLERS FOR 2017–2020 TRIKE MODELS**

Chrome	550-0689
Black	550-0690

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017–2020 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 2017 to 2020 Touring Trike Models Only

 WARNING: Cancer and Reproductive Harm

Grand National



REPLACEMENT PARTS: SEE PAGE 40

SLASH CUT 4" SLIP-ON MUFFLERS

FITMENT

- 2017–2020 touring models

FEATURES AND BENEFITS

- Classic slash cut styling
- Available in show chrome or ceramic black finish
- Stripped down styling
- Aggressive sound
- Economical price
- SAE J2825 sound level compliant
- Removable dB reducer included
- Excellent choice for Trike models (See chart)
- Made in USA!



SLASH CUT 4" TOURING MUFFLERS FOR 2017–2020 TOURING M8 ENGINES* EXCEPT FREEWHEELER® OR TRIKE MODELS


Finish	Part #
Chrome	550-0695
Black	550-0696

SLASH CUT 4" TOURING MUFFLERS FOR 2017–2020 TRIKE MODELS (SEE PAGE 56 FOR MORE DETAILS)**

Chrome	550-0691
Black	550-0692

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2017-2020 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 2017 to 2019 Touring Trike Models Only

 WARNING: Cancer and Reproductive Harm



REPLACEMENT PARTS: SEE PAGE 40



SIDEWINDER 2:1 EXHAUST SYSTEM

FITMENT

- 2017–2020 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 stepped header construction
- Deep 2:1 performance exhaust note
- SAE J2825 sound level compliant
- Removable dB reducer included (*Race only version*)
- Made in USA!



Removable dB reducer



See next page for Left Side *Shadow Pipe*

SIDEWINDER 2:1 EXHAUST SYSTEM FOR 2017–'19 M8 TOURING MODELS — STREET LEGAL†

Finish	Part #
Chrome	550-0758B
Black	550-0759B

SIDEWINDER 2:1 EXHAUST SYSTEM FOR 2017–2020 M8 TOURING MODELS — RACE ONLY††

Chrome	550-0728
Black	550-0729

†Exempt from emissions tampering regulations under CARB EO# K-010-11 for all 2017-2019 FL Touring Models

††DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

⚠ WARNING: Cancer and Reproductive Harm



REPLACEMENT PARTS: SEE PAGE 41

SHADOW PIPE

FOR 1995–2020 TOURING MODELS WITH S&S SIDEWINDER® 2:1 EXHAUST

FEATURES AND BENEFITS

- Available in show chrome and ceramic black finish
- Shadow muffler fills left side 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
- 4.5" design
- All hardware included



2009–2020 TOURING MODELS EQUIPPED WITH S&S® SIDEWINDER® 2:1 EXHAUST

Chrome	550-0829
Black	550-0831

If you have...			...you'll need
BIKE	FINISH	SIDEWINDER PART #	SHADOW PIPE PART #
2017–2020 touring model	Chrome	550-0728	550-0829
		550-0758B	
	Black	550-0729	550-0831
		550-0759B	



REPLACEMENT PARTS: SEE PAGE 42

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88"

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

Tools &
Shop Supplies

Warranty &
Company Policy

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SUPERSTREET 2:1 EXHAUST SYSTEM

FITMENT

- 2018–2020 HD® Street Bob®, Low Rider®, Softail Slim®, Fat Bob®, Deluxe, Sport Glide® & Heritage® models®
- 2018–2020 HD® Softail® Fat Boy®, Breakout® & FXDR® models

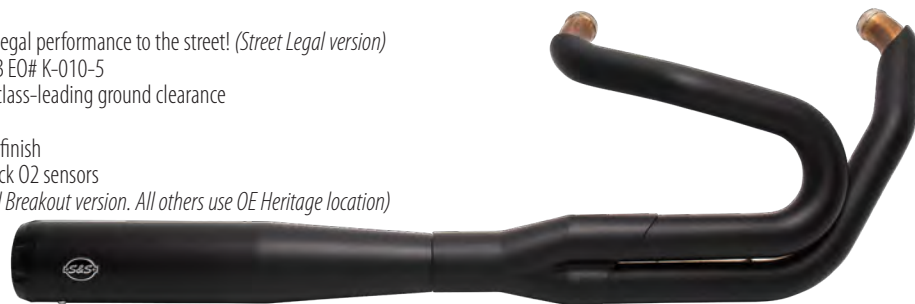
FEATURES AND BENEFITS

- 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 (560-0259)
- Saddlebag support compatible! Works with OEM and similar size saddlebags (like Heritage® or Sport Glide® models)
- Full heat shields on both front and rear headers
- Stainless steel stepped header construction
- S&S engineered high performance catalyst brings legal performance to the street! (Street Legal version)
- 50 State legal for 2018–2019 Softail models! CARB EO# K-010-5
- Computer aided design and precision bending for class-leading ground clearance
- New multi-faceted machined endcap design
- Available in show quality chrome or ceramic black finish
- Oxygen sensor ports allow use of wide band or stock O2 sensors
- Passenger peg bracket included (Fat Boy, FXDR and Breakout version. All others use OE Heritage location)
- SAE J2825 sound level compliant
- Removable dB reducer included (Race only version)
- Made in the USA!



NOTE:

Mid mounts require brake pedal kit (part # 560-0259/ msrp \$119.95)



CARB
compliant
CARB EO K-010-5

SUPERSTREET 2:1 EXHAUST SYSTEM — STREET LEGAL*

Fitment	Finish	Part #
2018–'19 HD® Street Bob®, Low Rider®, Softail Slim®, Fat Bob®, Deluxe, Sport Glide® & Heritage® models®	Black with Black Endcap	550-0789A
	Chrome with Black Endcap	550-0791A
2018–'19 HD® Softail® Fat Boy®, Breakout® & FXDR® models	Black with Black Endcap	550-0846A
	Chrome with Black Endcap	550-0847A

SUPERSTREET 2:1 EXHAUST SYSTEM — RACE ONLY†

2018–2020 HD Street Bob, Low Rider, Softail Slim, Fat Bob, Deluxe, Sport Glide & Heritage models	Black with Black Endcap	550-0788
	Chrome with Black Endcap	550-0790
2018–2020 HD Softail Fat Boy, Breakout & FXDR models	Black with Black Endcap	550-0857
	Chrome with Black Endcap	550-0858

*Exempt from emissions tampering regulations under CARB EO# K-010-5 for all 2018–2019 Softail models

†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.

⚠ WARNING: Cancer and Reproductive Harm



REPLACEMENT PARTS: SEE PAGE 36

GRAND NATIONAL® 2:2 EXHAUST SYSTEM

FOR 2018–2020 HD® STREET BOB®, LOW RIDER®, SLIM®, FAT BOB®, & DELUXE MODELS

FEATURES AND BENEFITS

- 2:2 Free-flow design equals solid HP gains
- Fits floorboard and forward controls and fits mid mounts with S&S brake pedal kit (part #560-0259 for \$119.95)
- Hidden crossover provides performance benefits of 2:1
- Full heat shields on both front and rear headers
- Stainless steel header construction
- High flow catalytic converters maintain the performance of a straight through system
- Race inspired Grand National® endcap
- Available in chrome or ceramic black finish
- Oxygen sensor ports allow use of wide band or stock O2 sensors.
- SAE J2825 sound level compliant
- Removable dB reducer included (*Race only version*)
- Right side passenger peg relocation bracket (part #550-0801 for \$69.95)
- Made in USA!

CARB compliant
CARB EO K-010-4

CARB compliant
CARB EO K-010-7



Passenger Peg
Relocation Bracket



NOTE:
Mid mounts require brake pedal kit
(part # 560-0259/ msrp \$119.95)

GRAND NATIONAL® 2:2 EXHAUST SYSTEM FOR 2018–'19 M8 FAT BOB® MODELS — STREET LEGAL*

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

GRAND NATIONAL® 2:2 EXHAUST SYSTEM FOR 2018–'19 HD® STREET BOB®, LOW RIDER, SLIM, FAT BOB, & DELUXE MODELS — STREET LEGAL**

Chrome	550-0816A
Black	550-0815A

GRAND NATIONAL 2:2 EXHAUST SYSTEM FOR 2018-2020 HD STREET BOB, LOW RIDER, SLIM, FAT BOB, & DELUXE MODELS — 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

**Exempt from emissions tampering regulations under CARB EO# K-010-7 for all 2018-2019 Softail Models

***DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

⚠ WARNING: Cancer and Reproductive Harm

Grand National



REPLACEMENT PARTS: SEE PAGE 43



GRAND NATIONAL® SLIP-ON MUFFLERS FOR 2018–2020 HD® FAT BOB® MODELS

FITMENT

- 2018–2020 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
- Removable dB reducer
- Made in USA!



Removable dB reducer



GRAND NATIONAL® SLIP-ON MUFFLERS FOR 2018–2020 HD® FAT BOB® MODELS

Description	Part #
Black	550-0734

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2018-2020 Fat Bob models.

 WARNING: Cancer and Reproductive Harm

Grand National



REPLACEMENT PARTS: SEE PAGE 38

GRAND NATIONAL® SLIP-ON MUFFLERS

FOR 2018–2020 HD® SOFTAIL® MODELS (EXCEPT FAT BOB®, SPORT GLIDE®, & FXDR MODELS)

FITMENT

- Fits 2018–2020 HD® Softail® Street Bob®, Low Rider®, Slim®, Fat Boy®, Breakout®, Heritage Classic & Deluxe® models

FEATURES AND BENEFITS

- Race inspired Grand National endcap design
- Show chrome or ceramic black finish
- All hardware and gaskets included
- Deep performance rumble replaces stock whisper tone
- SAE J2825 sound level compliant
- Removable dB reducer included (*Race only version*)
- Made in USA!



GRAND NATIONAL® MUFFLERS FOR 2018–'19 M8 HD® SOFTAIL® MODELS — STREET LEGAL[†]

Fitment	Muffler Body Finish	Part #
M8 HD Softail models: Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® models	Black	550-0754A
M8 HD Softail models: Street Bob, Low Rider, Slim, Fat Boy & Breakout models	Chrome	550-0755A
M8 HD Heritage Softail Classic & Softail Deluxe models	Chrome	550-0757A

GRAND NATIONAL MUFFLERS FOR 2018–2020 M8 HD® SOFTAIL® MODELS — RACE ONLY^{††}

Fitment	Muffler Body Finish	Part #
M8 HD Softail models: Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® models	Black	550-0737
M8 HD Softail models: Street Bob, Low Rider, Slim, Fat Boy & Breakout models	Chrome	550-0738
M8 HD Heritage Softail Classic & Softail Deluxe models	Chrome	550-0740

[†]Exempt from emissions tampering regulations under CARB EO# K-010-6 for all 2018-2019 Breakout, Fat Boy, Low Rider, Slim, Street Bob, Deluxe, and Heritage Classic Softail Models

^{††}DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

WARNING: Cancer and Reproductive Harm



REPLACEMENT PARTS: SEE PAGE 39



SLASH CUT SLIP-ON MUFFLERS

FOR 2018–2020 HD® SOFTAIL® MODELS (EXCEPT FAT BOB®, SPORT GLIDE®, & FXDR MODELS)

FITMENT

- Fits 2018–2020 HD® Softail® Street Bob®, Low Rider®, Slim®, Fat Boy®, Breakout®, Heritage® & Classic® models

FEATURES AND BENEFITS

- Classic Slash Cut styling
- Show chrome or ceramic black finish
- All hardware and gaskets included
- Deep performance rumble replaces stock whisper tone
- SAE J2825 sound level compliant
- Removable dB reducer included (*Race only version*)
- Made in USA!



SLASH CUT MUFFLERS FOR 2018–'19 HD® SOFTAIL® MODELS — STREET LEGAL†

Fitment	Muffler Body Finish	Part #
M8 HD Softail models: Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® models	Black	550-0752A
M8 HD Softail models: Street Bob, Low Rider, Slim, Fat Boy & Breakout models	Chrome	550-0753A
M8 HD Heritage Softail Classic & Softail Deluxe models	Chrome	550-0756A

SLASH CUT MUFFLERS FOR 2018–2020 M8 SOFTAIL® MODELS — RACE ONLY††

M8 HD Softail models: Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® models	Black	550-0735
M8 HD Softail models: Street Bob, Low Rider, Slim, Fat Boy & Breakout models	Chrome	550-0736
M8 HD Heritage Softail Classic & Softail Deluxe models	Chrome	550-0739

†Exempt from emissions tampering regulations under CARB EO# K-010-6 for all 2018–2019 Breakout, Fat Boy, Low Rider, Slim, Street Bob, Deluxe, and Heritage Classic Softail 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.

 WARNING: Cancer and Reproductive Harm



REPLACEMENT PARTS: SEE PAGE 39

EC SLIP-ON MUFFLERS FOR 2018–2020 HD SOFTAIL MODELS (FOR EUROPE)



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 Race TEX cartridge packing
- All hardware and gaskets included
- Made in USA



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 45



NEW FOR
FROM S&S CYCLE
2020

EC GRAND NATIONAL® SLIP-ON MUFFLERS FOR 2018–2020 M8 HD® FAT BOB® SOFTAIL® MODELS (FOR EUROPE)

FEATURES AND BENEFITS

- EC approved with S&S performance & style
- Race-inspired Grand National® endcap design
- High temperature ceramic black finish
- 100mm can with perforated stainless steel baffle & Race TEX cartridge packing
- dB reducer included
- All hardware and gaskets included



GRAND NATIONAL® EC 100MM SLIP-ON FOR 2018–2020 HD® SOFTAIL® FAT BOB® MODELS

Description	Part #
Black	550-0827

EU Type-Approval: e9*134/2014*2018/295G*11029*00

NEW FOR
FROM S&S CYCLE
2020

EC Mk45 SLIP-ON MUFFLERS FOR 2017–2020 M8 MODELS (FOR EUROPE)

FEATURES AND BENEFITS

- EC approved with S&S performance and style
- Bold 4.5" design — with stainless steel baffle and Race TEX cartridge packing
- Choose from S&S Thruster or Tracer endcap designs in chrome or black
- Performance 2.5" stainless steel perforated baffle
- Made in USA!

Mk45 EC 4.5" SLIP-ON MUFFLERS FOR 2017–2020 TOURING MODELS

Muffler Body Finish	Endcap Finish & Style	Part #
Chrome	Chrome Thruster	550-0861
	Black Highlight Machined Thruster	550-0860
	Chrome Tracer	550-0864
	Black Highlight Machined Tracer	550-0863
Black	Black Highlight Machined Thruster	550-0862
	Black Highlight Machined Tracer	550-0865

EU Compliant per 11032 G

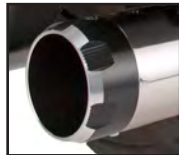
EC-Type Approval for non-original motorcycle noise abatement device



REPLACEMENT PARTS: SEE PAGE 37



Chrome with Chrome Thruster



Chrome with Machined Thruster



Chrome with Chrome Tracer



Chrome with Machined Tracer



Black with Machined Thruster




Black with Machined Tracer

NEW FOR
FROM S&S CYCLE
2020

STEALTH TRIBUTE AIR CLEANER KITS

CLASSIC DESIGN — STEALTH FITMENT

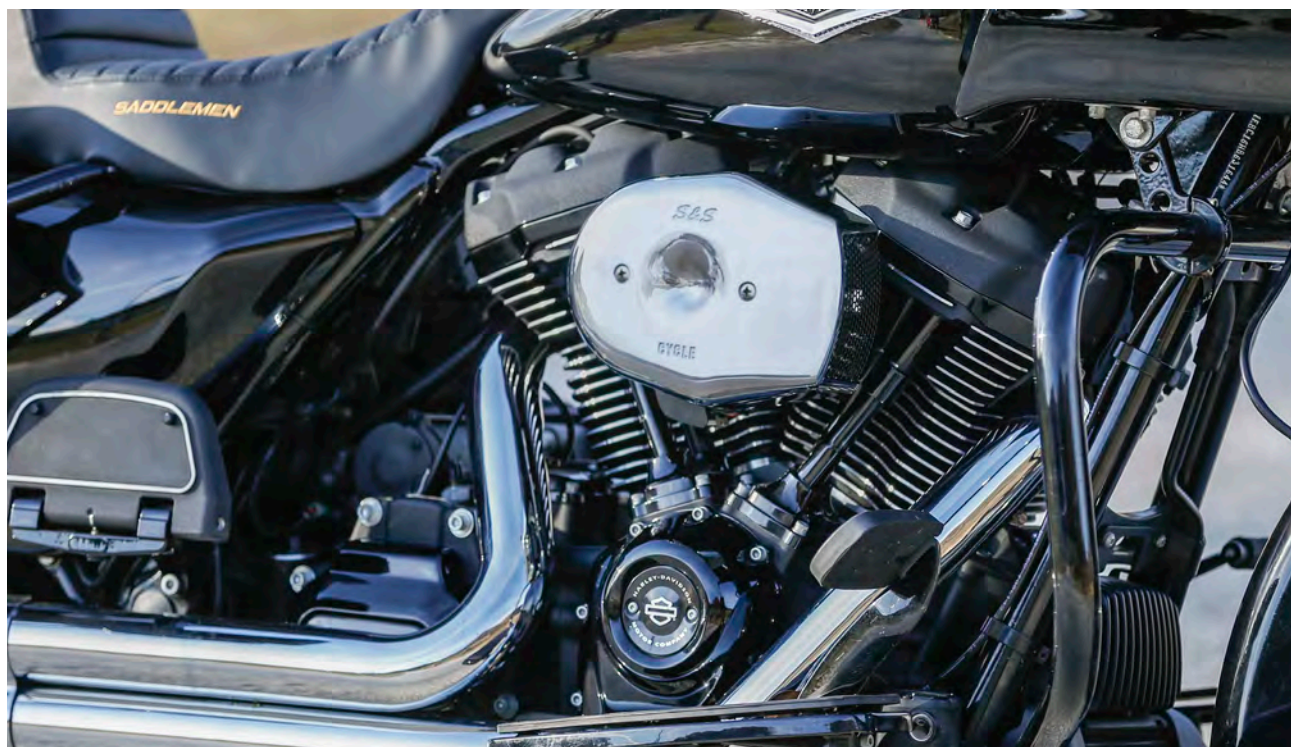
Conceived by S&S founder and brought to market by his son George B. Smith, the Classic Two Throat carb and matched air cleaner served as a performance milestone in the v-twin space for over a decade. Inspired by the unique style of our Two Throat intake, S&S has created the new "Tribute" air cleaner cover and wrapped it around our proven Stealth filter system creating a classic look combined with modern performance.

STEALTH TRIBUTE AIR CLEANER KITS		
2017-'19 M8 Touring & 2018-'19 Softail® Models*	Chrome±	170-0595
	Gloss Black	170-0598
KIT INCLUDES STEALTH AIR CLEANER 170-0354B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27		
±  WARNING: Cancer and Reproductive Harm		



COVERS ONLY

Chrome	170-0592
Gloss Black	170-0593



Milwaukee-Eight™

2007-2017 Twin Cam
96/103/110™

1999-2006
Twin Cam 88*

1986-2019
Sportster® & Buell®

2014-2019 Street® &
Street Rod™

Indian® Models

Tools &
Shop Supplies

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Index



STEALTH AIR CLEANER KITS

NEW STEALTH TRIBUTE COVERS SEE PAGE 21

FITMENT

- 2017–2020 Harley-Davidson® models with Milwaukee-Eight® engine
- Works with Screamin' Eagle® 64mm throttle body

FEATURES AND BENEFITS

- Use with any S&S Stealth cover (see page 23)
- 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-355-27 for all fuel injected models




STEALTH AIR CLEANER KITS

Description	Part #
Carbon Fiber Teardrop plus Stealth Kit (170-0354B)	170-0498A
Chrome Teardrop plus Stealth Kit (170-0354B)	170-0524A[±]
Gloss Black Teardrop plus Stealth Kit (170-0354B)	170-0525A
Chrome Mini Cover plus Stealth Kit (170-0354B)	170-0435B[±]
Gloss Black Mini Cover plus Stealth Kit (170-0354B)	170-0436B
Chrome Airstream cover plus Stealth Kit (170-0354B)	170-0390B[±]
Gloss Black Airstream cover plus Stealth Kit (170-0354B)	170-0397B
Tri-Spoke cover plus Stealth Kit (170-0354B)	170-0392B
Torker cover plus Stealth Kit (170-0354B)	170-0393B
Air 1 cover plus Stealth Kit (170-0354B)	170-0394B

KIT ONLY — NO COVER

Stealth Air Cleaner Kit for Stock M8 and 64mm throttle body	170-0354B
Adapter for Stock M8 Air Cleaner Cover	170-0352

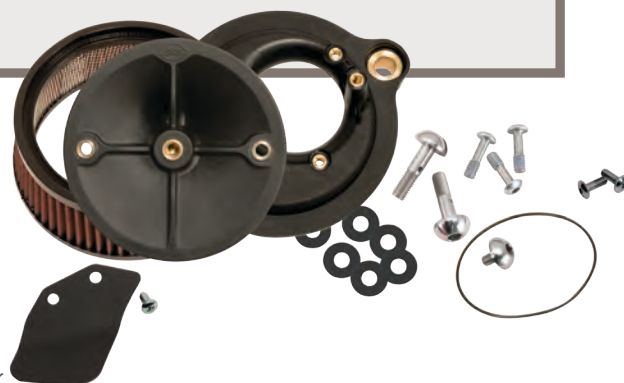
Exempt from emissions tampering regulations under CARB EO# D-355-27 for all fuel injected models

[±]  WARNING: Cancer and Reproductive Harm

CARB
compliant
EO #D-355-27



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 35

EC STEALTH AIR CLEANER KITS (FOR EUROPE)

- 2018–'19 M8 Softail® models (e9 11026G)
- 2017–'19 M8 touring models

EC STEALTH AC KITS

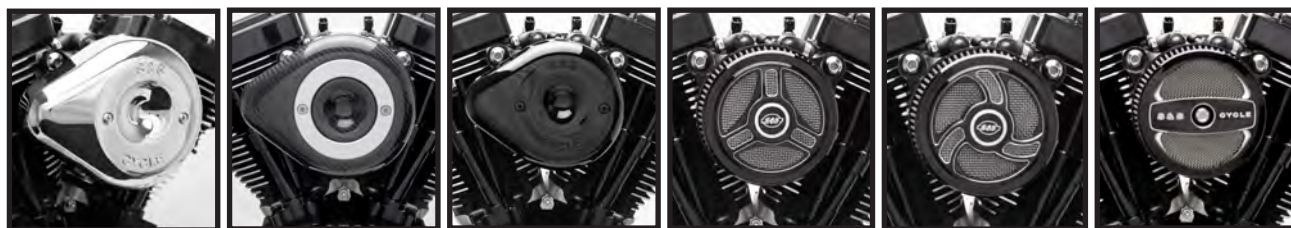
2018–'19 M8 Softail® models <i>cover sold separately</i>	170-0521
2017–'19 M8 touring models <i>cover sold separately</i>	170-0521

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



STEALTH AIR CLEANER COVERS (ONLY)

NEW STEALTH TRIBUTE COVERS SEE PAGE 21



Teardrop

Carbon Fiber

Mini in Gloss Black

Tri-Spoke

Torker

Air 1



Airstream in Chrome



Airstream in Gloss Black



Muscle in Chrome



Muscle in Gloss Black

STEALTH COVERS

Teardrop		Teardrop—Slasher		Carbon Fiber	Mini	Tri-Spoke	Torker	Air 1
Chrome	Gloss Black	Chrome	Gloss Black	Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights
170-0530	170-0531	170-0532	170-0533	170-0501	170-0367	170-0366	170-0210	170-0206
								170-0214

Airstream		Muscle		Displacement		
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	111	124	143
170-0118	170-0396	170-0121	170-0463	170-0319	170-0321	170-0323

WARNING: Cancer and Reproductive Harm

124" & 128" BIG BORE KITS

FITMENT:

- 2017–2020 touring models
- 2018–2020 Softail® models

FEATURES AND BENEFITS:

- 107" to 124" Big Bore Kit
- 114" to 128" Big Bore Kit
- 114" & 117" CVO™ 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"	4.250	4.375	Forged	11.1
128"	4.250	4.5	Forged	11.1

124" & 128" BIG BORE KITS FOR 2017–2020 TOURING MODELS & 2018–2020 SOFTAIL® MODELS

Displacement	Finish	Part #
124"	Wrinkle Black with Non-Highlighted Fins	910-0681
	Wrinkle Black with Highlighted Fins	910-0625
128"	Wrinkle Black with Non-Highlighted Fins	910-0685
	Wrinkle Black 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. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT.



BIG BORE CYLINDERS

FITMENT:

- 2017–2020 touring models
- 2018–2020 Softail® models

FEATURES AND BENEFITS:

- 4.250" Bore
- Wrinkle black or black granite finish
- Available with or without highlighted fins

CYLINDER SETS

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

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BIG BORE PISTON KITS

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



4.250" BORE PISTON KIT FOR M8 MODELS

Displacement	Deck Height	Stroke	Standard	+.010
124"	1.143"	4.375"	920-0135	920-0141
128"	1.0805"	4.500"	920-0140	920-0142

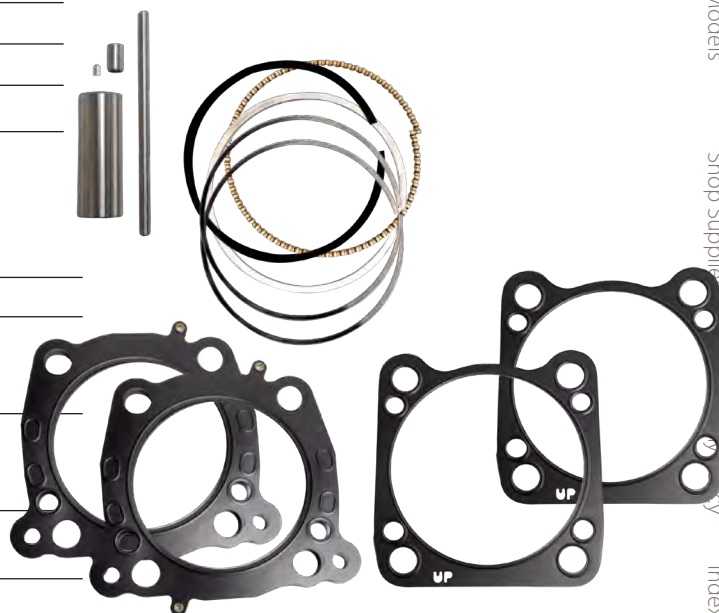
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REPLACEMENT PARTS FOR PISTONS

Piston Ring Set	2 Pack	940-0060
Piston +.010" Ring Set	2 Pack	940-0062
Wristpin Keeper		94-9278-5
Wristpin, .927" x 2.500"		940-0037

GASKET KIT

Description	Part #
Head gasket, 4.250" Bore, Stock bolt pattern	2 Pack 930-0140
Base gasket, Stock to 4.250" Bore, Stock bolt pattern	2 Pack 930-0139
Gasket Kit, includes Head, Base, & Exhaust, 4.25" Bore	900-0955
Plug	500-0835
Cylinder Dowel Pin	4 Pack 500-0849
HARDWARE KIT	910-0677



124" POWER PACKS



107" TO 124" BIG BORE KIT:

- 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
- 44% flow increase on supply side & 58% flow increase on scavenge side
- Pressure relief valve is adjustable with unit installed in engine
- Kits now include updated oil pump with groove for optional OEM oil seal

PUSHRODS:

- Quickee pushrods
- Chrome or gloss black pushrod tubes available

TAPPETS:

- S&S Precision 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

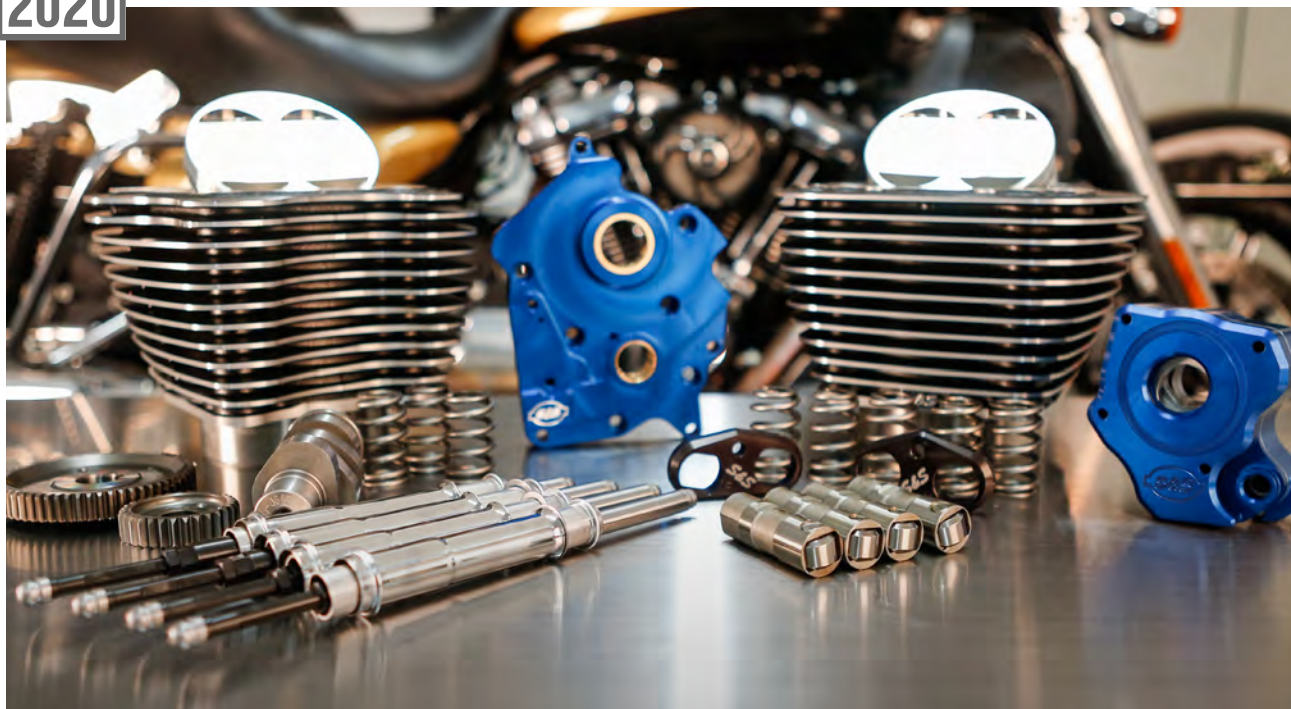
124" POWER PACKAGE KIT FOR 2017 TOURING MODELS & ALL 2018–2020 HD® MODELS WITH 107" ENGINE

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

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NEW FOR
FROM S&S CYCLE
2020

128" POWER PACKS FOR 2017-2020 M8 MODELS W/4.500" STROKE



114" TO 128" BIG BORE KIT &

114" & 117" CVO TO 128" BIG BORE KIT:

- Wrinkle black or black granite finish
- Available with or without fin highlighting for wrinkle black
- Bolt-on kit — No case machining required
- 4.250" Bore
- Forged pistons
- 11.1:1 Compression ratio

OIL PUMP/CAM PLATE:

- Precision machined from billet aluminum
- Passage plugs removable for servicing
- Independent scavenge sections for flywheel cavity & 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
- Kits now include updated oil pump with groove for optional OEM oil seal

PUSHRODS:

- Quicke pushrods with chrome covers

TAPPETS:

S&S Precision 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:

- Work well with cams up to .605 Lift
- High performance conical single wire spring
- Includes top collars, keepers, & valve seals/bottom collars

128" POWER PACKAGE KIT FOR 2017-2020 M8 MODELS WITH 4.500" STROKE

Cooling System	Finish	Drive	Part #
Water	Wrinkle Black with Highlighted Fins	Chain	310-1101A
Water	Wrinkle Black with Highlighted Fins	Gear	310-1102A
Oil	Wrinkle Black with Highlighted Fins	Chain	310-1103A
Oil	Wrinkle Black with Highlighted Fins	Gear	310-1104A
Oil	Wrinkle Black with Non-Highlighted Fins	Chain	310-1105A
Oil	Wrinkle Black with Non-Highlighted Fins	Gear	310-1106A
Water	Black Granite with Highlighted Fins	Chain	310-1107A
Water	Black Granite with Highlighted Fins	Gear	310-1108A
Oil	Black Granite with Highlighted Fins	Chain	310-1109A
Oil	Black Granite with Highlighted Fins	Gear	310-1110A

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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™

Indian® Models

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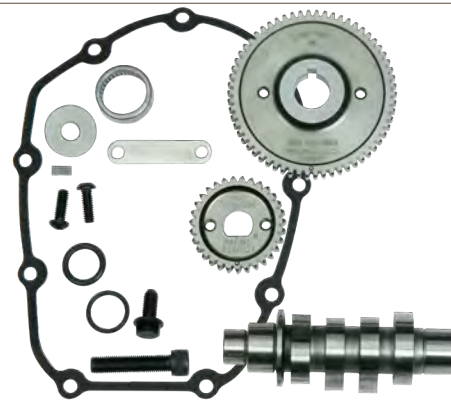
CAM KITS

FITMENT

- 2017–2020 touring and 2018–2020 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



CHAIN DRIVE CAMSHAFTS FOR 2017–2020 HD® MODELS WITH M8 ENGINE

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

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GEAR DRIVE CAMSHAFTS FOR 2017–2020 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 NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

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

CAMSHAFT INSTALLATION KITS FOR M8 2017–2020 M8 MODELS

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

REPLACEMENT PARTS: SEE PAGE 48

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

CAM PLATE & OIL PUMP KITS

FITMENT

- 2017–2020 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

- Kits now include updated oil pump with groove for optional OEM oil seal
- 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	310-0997B
Cam Plate & Oil Pump/Oil-Cooled	310-0998B
CAM PLATE ONLY	310-0939A
OIL PUMP ONLY	
Description	Part #
Water-Cooled	310-0947A
Oil-Cooled	310-0959A



**REPLACEMENT PARTS:
SEE PAGE 46 & PAGE 47**

CAM CHEST KITS

FITMENT

- 2017–2020 touring models
- 2018–2020 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
- Kits now include updated oil pump with groove for optional OEM oil seal

PUSHRODS:

- Quickee Pushrods
- Chrome or Gloss Black pushrod tubes available

TAPPETS:

- S&S Precision 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 2017–2020 TOURING MODELS & 2018–2020 SOFTAIL® MODELS

Cooling system	Cam	Pushrods	Part #
Oil Cooled	Chain Drive 550C	Chrome	310-1082A
	Chain Drive 475C	Chrome	310-1004A
	Chain Drive 465C	Chrome	310-1003A
	Gear Drive 550G	Chrome	310-1083A
	Gear Drive 475G	Chrome	310-1006A
	Gear Drive 465G	Chrome	310-1005A
	Chain Drive 475C	Black	310-1012A
	Chain Drive 465C	Black	310-1011A
	Gear Drive 475G	Black	310-1014A
	Gear Drive 465G	Black	310-1013A
Water Cooled	Chain Drive 550C	Chrome	310-1080A
	Chain Drive 475C	Chrome	310-1000A
	Chain Drive 465C	Chrome	310-0999A
	Gear Drive 550G	Chrome	310-1081A
	Gear Drive 475G	Chrome	310-1002A
	Gear Drive 465G	Chrome	310-1001A
	Chain Drive 475C	Black	310-1008A
	Chain Drive 465C	Black	310-1007A
	Gear Drive 475G	Black	310-1010A
	Gear Drive 465G	Black	310-1009A

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

TAPPET CUFFS

Factory tappet guides are constructed of plastic and are at risk for allowing the tappets to twist under heavy stress. S&S Tappet Cuffs capture the tappets without impacting vertical motion and keep them perfectly aligned, even in high stress, high RPM situations

FITMENT

- 2017–2020 touring models
- 2018–2020 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 #
2017–2020 HD® touring models 2018–2020 HD Softail® models	330-0655



Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"1999–2006
Twin Cam 88®1986–2019
Sportster® & Buell®2014–2019 Street® &
Street Rod™

Indian® Models

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NEW FOR
-FROM S&S CYCLE-
2020

PRECISION TAPPETS

High performance tappets are a cornerstone of the S&S line up and we are always looking to improve our products. After months of research and countless hours of testing we are excited to reveal the latest in performance tappets. The S&S Cycle Precision Tappets replace both our standard as well as premium tappets. Each Precision Tappet is hand assembled to exacting tolerances and designed for quiet operation and rapid pump up and all are made in the USA.

FITMENT

- 2017–2020 big twins with 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

PRECISION TAPPETS

Set of 4 tappets	330-0718
------------------	-----------------



QUICKEE ADJUSTABLE PUSHRODS

GLOSS BLACK ALSO AVAILABLE

FITMENT

- 2017–2020 big twins with 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 arms not needed
- No threads on wrench flats

KIT CONTENTS

- Pushrods, gloss black or chrome pushrod covers, o-rings, and cover keepers



QUICKEE ADJUSTABLE PUSHRODS

Description	Part #
Gloss Black Pushrod Kit <i>(includes black pushrod covers, o-rings & cover keepers)</i>	930-0137
Chrome Pushrod Kit <i>(includes chrome pushrod covers, o-rings, & cover keepers)</i>	930-0123[‡]
Pushrods Only	93-5122



PUSHROD COVER / KEEPER SET FOR 2017–2020 BIG TWINS WITH THE M8 ENGINE

Description		Part #
Pushrod Cover Kit <i>(includes top & bottom covers, cover cap, cover spring, spring washer, & o-rings for four pushrods)</i>	Gloss Black	930-0124
	Chrome	106-1340[‡]
Pushrod Cover Keeper Kit (2.200")	Gloss Black	930-0138
	Chrome	930-0129

[‡] WARNING: Cancer and Reproductive Harm



NOTE

S&S quickee pushrods require S&S aftermarket tubes.

VALVE SPRINGS

FEATURES AND BENEFITS

- Works 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 2017–2020 Models	900-0958



REPLACEMENT PARTS FOR VALVE SPRING KITS

Description	Part #
Valve Keeper	900-0956
Top Collar	900-0952
Valve Stem Oil Seal, Hat Style, 6mm, M8 models	8 pack 900-0959

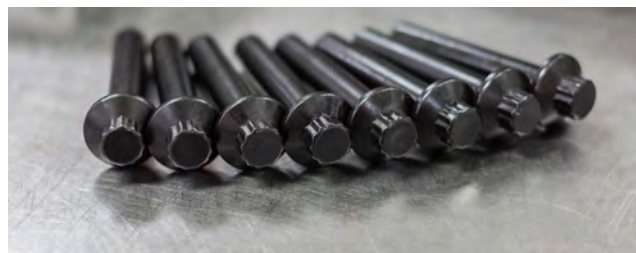
NEW FOR 2020 HEAD BOLTS

FEATURES AND BENEFITS

- 14% increase in strength over stock
- Heat treated 8640 steel
- 200,000 psi ultimate tensile strength
- Durable black oxide coating
- 5/16" 12 point head with integral washer
- Formed threads
- Cold formed head
- Compatible with both MLS & graphite head gaskets
- Reusable

HEAD BOLTS

Description	Part #
Sold as set of 8	900-1006



NEW FOR 2020 ROCKER ARM STUD KIT

FEATURES AND BENEFITS

- Extend the life of your cylinder heads
- Prevent damage to rocker arm towers
- Install studs and safely re-torque nuts
- Black oxide finish
- 12 pt nuts

ROCKER ARM STUD KIT

Rocker Arm Stud Kit for M8 2017–2020 Models	900-1013
---	-----------------



GASKETS

GASKETS

Cam Cover		310-0911
Exhaust Gaskets	each	106-5029
	10 pack	93-1072
Head gasket, 4.25" Bore, Stock bolt pattern	2 pack	930-0140

Base gasket, Stock to 4.250" Bore, Stock bolt pattern	2 pack	930-0139
Gasket Kit, includes Head, Base, & Exhaust, 4.250" Bore		900-0955
O-ring kit, Oil Pump		500-0850

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 an oil drain plug o-ring for convenience

S&S® OIL CHANGE KIT

Description	Part #
2017–2020 Harley-Davidson® models with Milwaukee-Eight® engine 5 quarts of SAE 20W-50 synthetic engine oil with chrome oil filter	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

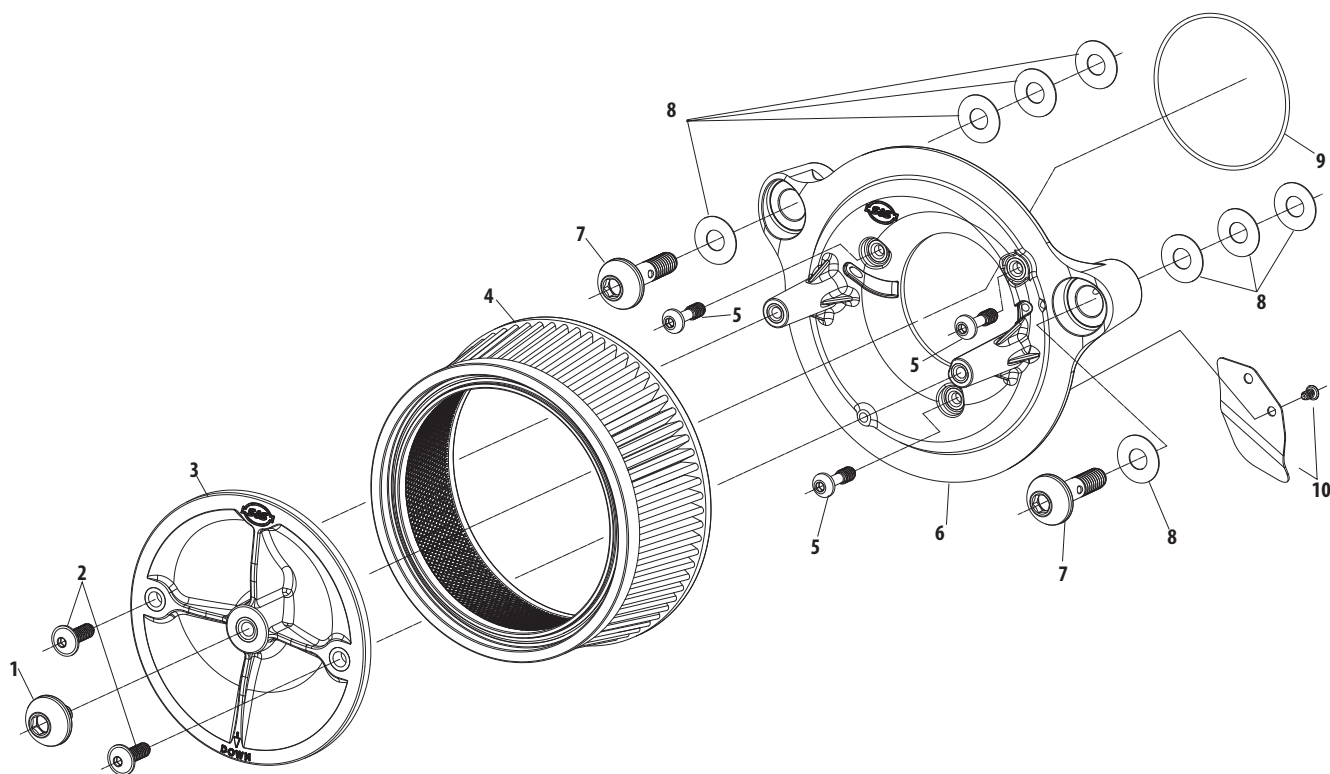
Year Application	Micron Rating	QTY	Chrome	Black
1999–'17* Twin Cam 88°/96™/103™ and Milwaukee-Eight® engines	10µ	each	31-4104A	31-4103A
		12 pack	310-0242	310-0241

*Contains an anti-drain back valve



STEALTH AIR CLEANER KIT REPLACEMENT PARTS INCLUDING EC VERSIONS

1. Screw, SHCB, 5/16-18 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 **170-0353**
EC Backplate **N/A**
7. Screw, Backplate Vent, SHCB, 3/8-16 x 1-1/2",
Polished, Stainless Steel (Each) 2 required **170-0045**
8. Washer, Flat, .380" x .880" x .024", Nitrile Rubber Coated, Cold Rolled
Steel (8 pack) **50-7054**
9. O-ring, 2.75" ID x 2.875 OD, X 1/16" Buna, (-039) **50-8207-S**
10. Cover, Kit, Electrical Plug, Throttle by Wire, Aluminum,
M8 **170-0356**

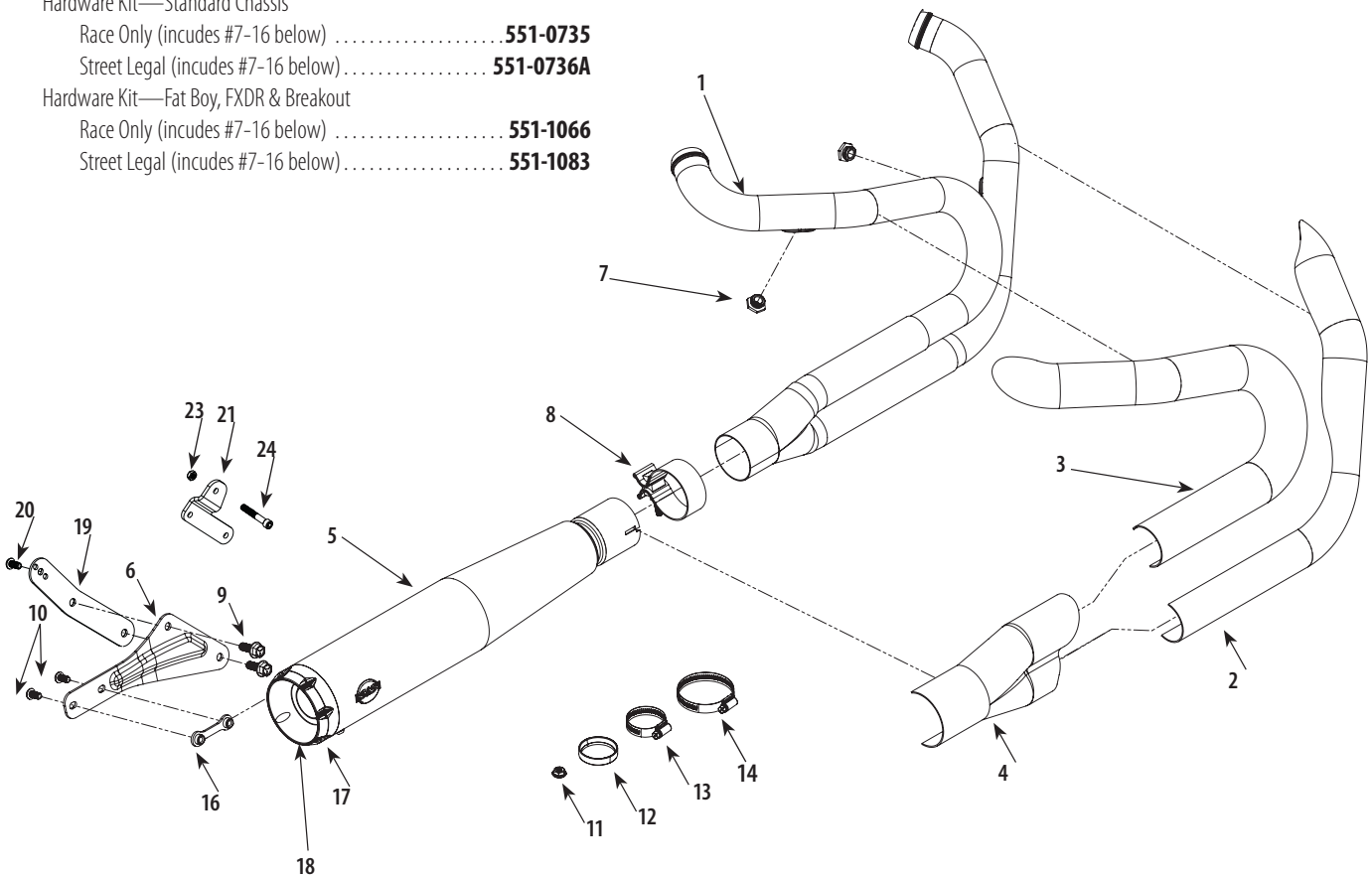


SUPERSTREET 2:1 EXHAUST SYSTEM REPLACEMENT PARTS

- | | | |
|--|-------|--------------------|
| 1. Pipe, Header, Super Street, 2 into 1, Weldment, 2018-20 M8 Softail™, Standard Chassis | ..... | 551-0761 ± |
| Fat Boy, FXDR & Breakout | ..... | 551-1050 ± |
| 2. Front Shield (Standard Chassis) | | |
| Black | ..... | 551-0764 |
| Chrome | ..... | 551-0766 ± |
| Front Shield (Fat Boy, FXDR & Breakout) | | |
| Black | ..... | 551-1057 |
| Chrome | ..... | 551-1060 ± |
| 3. Rear Shield (Standard Chassis) | | |
| Black | ..... | 551-0769 |
| Chrome | ..... | 551-0771 ± |
| Rear Shield (Fat Boy, FXDR & Breakout) | | |
| Black | ..... | 551-1055 |
| Chrome | ..... | 551-1059 ± |
| 4. Collector Shield | | |
| Black | ..... | 551-0774 |
| Chrome | ..... | 551-0776 ± |
| 5. Muffler—Race Only | | |
| Black | ..... | 551-0750 |
| Chrome | ..... | 551-0754 ± |
| Muffler—Street Legal | | |
| Black | ..... | 551-0751A |
| Chrome | ..... | 551-0755A ± |
| 6. Bracket | ..... | 551-0734 |
| Hardware Kit—Standard Chassis | | |
| Race Only (includes #7-16 below) | ..... | 551-0735 |
| Street Legal (includes #7-16 below) | ..... | 551-0736A |
| Hardware Kit—Fat Boy, FXDR & Breakout | | |
| Race Only (includes #7-16 below) | ..... | 551-1066 |
| Street Legal (includes #7-16 below) | ..... | 551-1083 |
| 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,Steel7593 | ..... | 50-5025-S |
| 12. Gasket,Exh,Tapered,Stainless Steel 65324-83B, 65324-83A | ..... | 106-5029 |
| 13. Clamp, Hose, Worm Drive, SAE #20 | ..... | 551-0527 |
| 14. Clamp, Hose, Worm Drive, SAE #40 | ..... | 551-0402 |
| 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 | ..... | 551-0931 |
| 19. Bracket, Bag Mount, (Standard Chassis) | ..... | 551-1095 |
| 20. Screw, BHC, 5/16-18 x 5/8", Zinc Plated | ..... | 500-0763 |
| 21. Passage Peg Bracket (Fat Boy, FXDR & Breakout) | ..... | 551-1219 |
| 22. Screw, SHC, 3/8-16 x 2-1/2", Zinc, Steel | ..... | 500-1206 |
| 23. Nut, Lock, Nylon Insert, Gr8, 3/8-16, Low Carbon Steel | ..... | 500-1207 |

Not Shown:

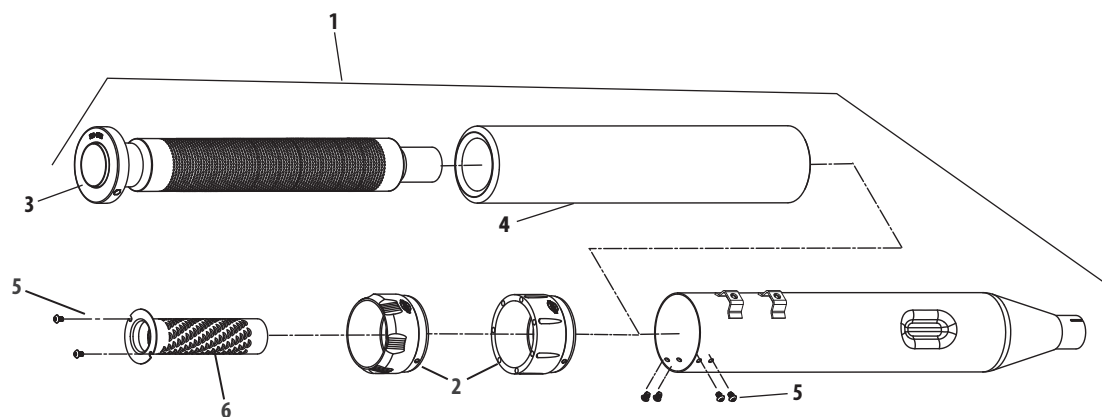
- | | | |
|------------------------|-------|-----------------|
| dB Reducer | ..... | 551-0063 |
| Screw, SHC 10-32 x 3/4 | ..... | 500-0569 |



± WARNING: Cancer and Reproductive Harm

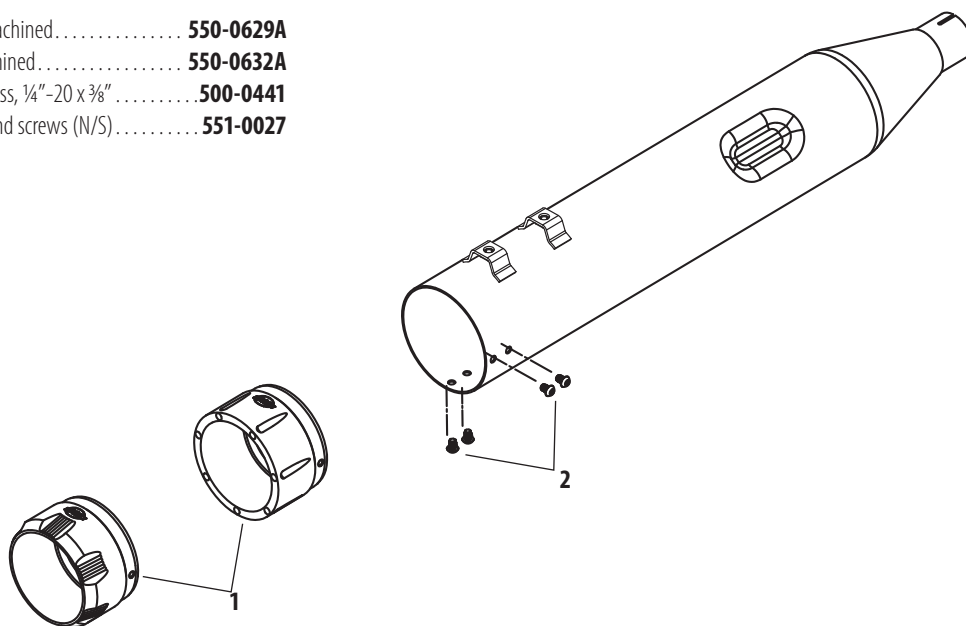
Mk45 4.5" MUFFLER REPLACEMENT PARTS INCLUDING EC VERSION

- | | | | |
|---|-------------------|----------|--|
| 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. Endcap | | | |
| Thruster chrome..... | 550-0634A± | | |
| Thruster Black Highlight Machined..... | 550-0629A | | |
| Tracer chrome..... | 550-0636A± | | |
| Tracer Black Highlight Machined..... | 550-0632A | \$159.95 | |
| | | | |
| 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 clamp and screws (N/S) | | | |
| Left..... | 551-0027 | | |
| Right..... | 551-0148 | | |



Mk45 REPLACEMENT MUFFLER SYSTEM FOR EL DORADO M8 HIGH PERFORMANCE EXHAUST SYSTEM—STREET LEGAL

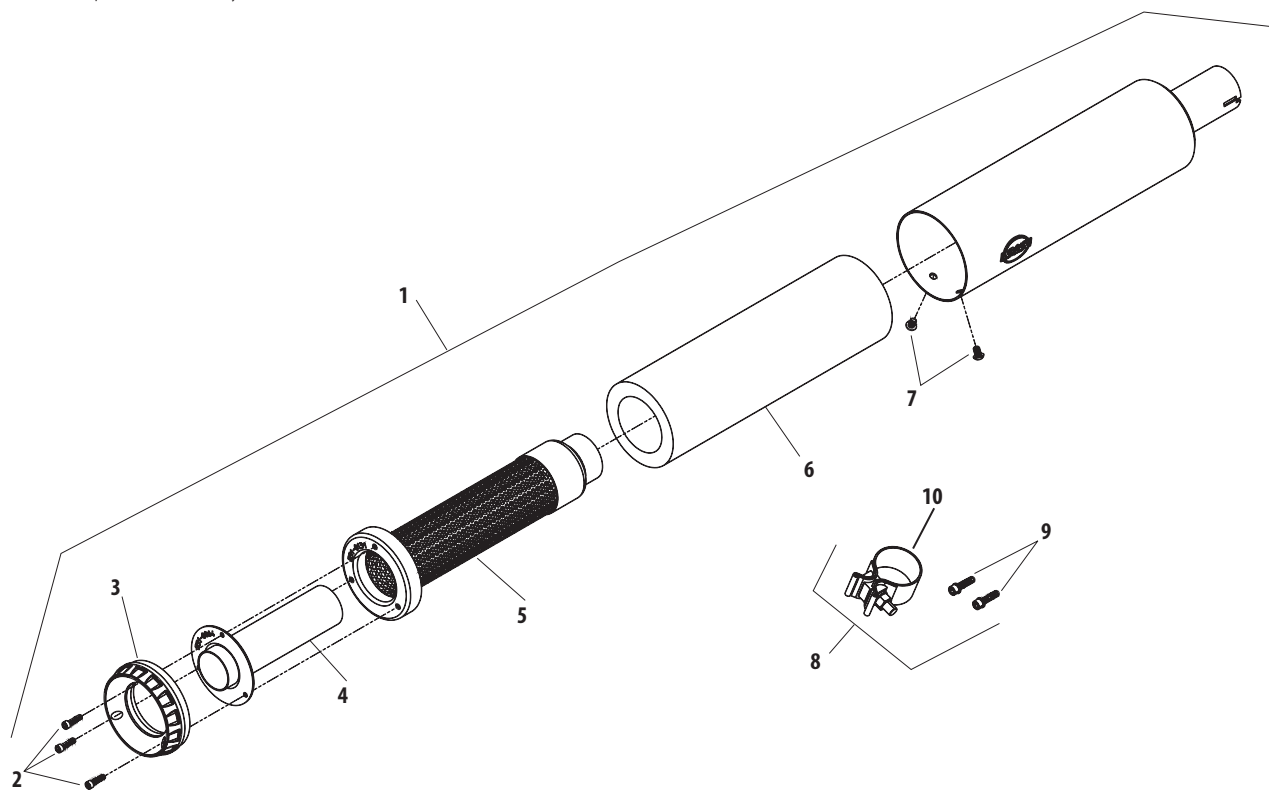
- | | |
|--|------------------|
| 1. Endcap | |
| Thruster Black Highlight Machined..... | 550-0629A |
| Tracer Black Highlight Machined..... | 550-0632A |
| 2. Button head cap screw, Stainless, ¼"-20 x ¾"..... | 500-0441 |
| 3. Hardware kit, muffler clamp and screws (N/S)..... | 551-0027 |



± WARNING: Cancer and Reproductive Harm

GRAND NATIONAL® MUFFLER REPLACEMENT PARTS FOR 2018–2020 FAT BOB® MODELS

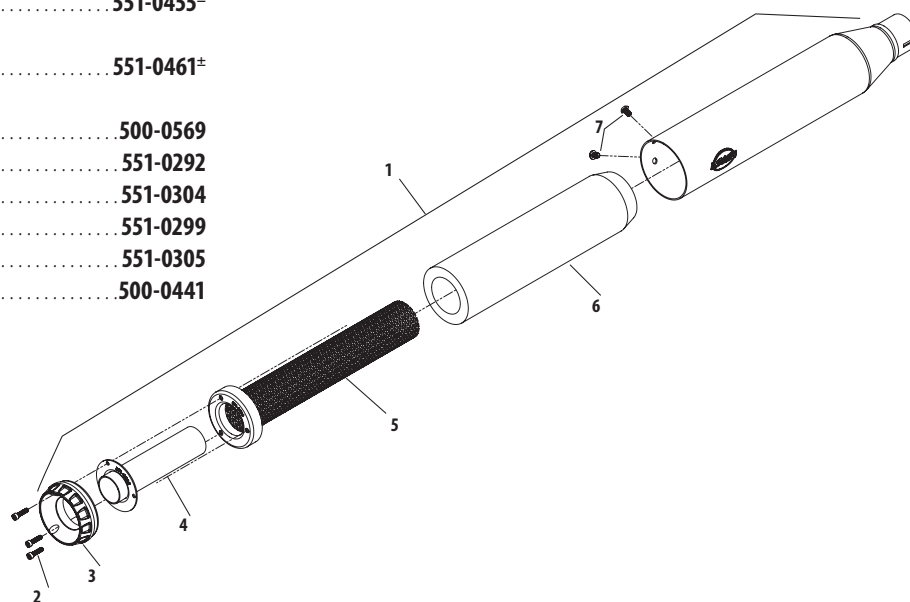
1. Muffler, Grand National, Black, 2018–2020 M8 Fat Bob®
Front/Rear **551-0431**
2. Screw, Shc, High Temp Lock Patch, 10-32 X 3/4",
Stainless Steel **500-0569**
3. 4" Endcap, Grand National, Black **551-0291**
4. dB Reducer Baffle Assembly **551-0063**
5. Baffle, Assembly **551-0422**
6. Fiberglass Wrap, Pillow, 12" X 13" **551-0276**
7. Screw, BHC, High Temp Lock Patch, 1/4-20 **500-0441**
8. Hardware Kit, Muffler, 2018 M8 Fat Bob® **551-0425**
Screw, Shcs, W/ Flat Washer, 1/4-20 X 1",
9. Zinc, Astm A574-92A 4741A **50-0092-5**
10. Clamp, Muffler, Band Style, 1.75" **551-0569**



GRAND NATIONAL® MUFFLER REPLACEMENT PARTS FOR 2018-'19 SOFTAIL® MODELS (EXCEPT FAT BOB®, SPORT GLIDE®, & FXDR MODELS)

- Muffler Assembly
M8 HD® Softail® Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® models
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±**
- Screw, SHC, High Temp Lock Patch,
10-32x3/4", Stainless Steel **500-0569**
- 3.25" Endcap, Grand National, Black **551-0292**
- dB Reducer Baffle Assembly **551-0304**
- Baffle Assembly **551-0299**
- Fiberglass Wrap **551-0305**
- Screw, BHC, High Temp Lock Patch, 1/4-20 **500-0441**

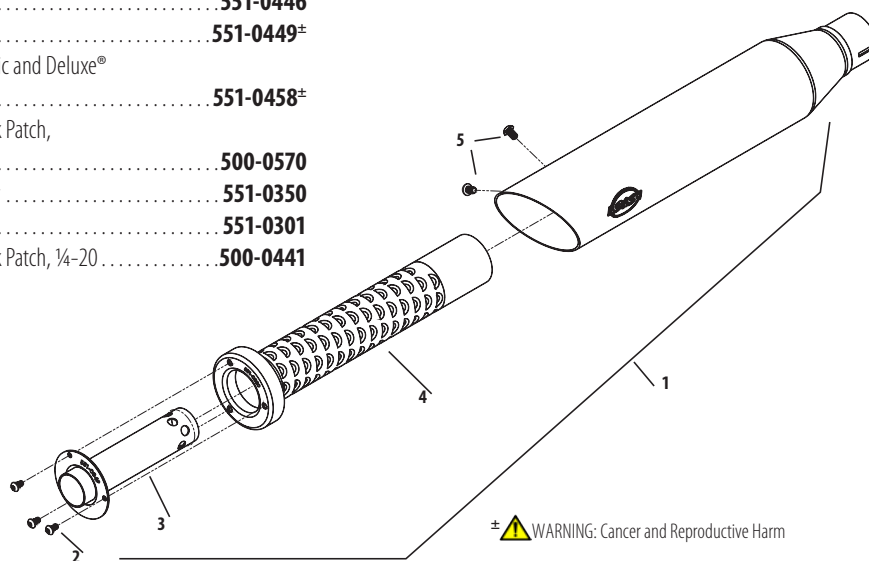
- Parts Not Shown**
- Hardware Kit, Muffler, 2018 M8 Fat Bob® **551-0425**
 - Screw, SHCS, w/Flat Washer, 1/4-20x1" 4741A **50-0092-5**
 - Clamp, Muffler, Band Style, 1.75" **551-0028**
 - Muffler Gasket **551-0360**
 - Bracket Cover (Exc. Heritage® Classic and Deluxe) **551-0538**



SLASH CUT MUFFLER REPLACEMENT PARTS FOR 2018-'19 SOFTAIL® MODELS (EXCEPT FAT BOB®, SPORT GLIDE®, & FXDR MODELS)

- Muffler Assembly
M8 HD® Softail® Street Bob®, Low Rider®, Slim®, Fat Boy® & Breakout® models
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±**
- Screw, BHC, High Temp Lock Patch,
10-32x3/8", Stainless Steel **500-0570**
- dB Reducer Baffle Assembly **551-0350**
- Baffle Assembly **551-0301**
- Screw, BHC, High Temp Lock Patch, 1/4-20 **500-0441**

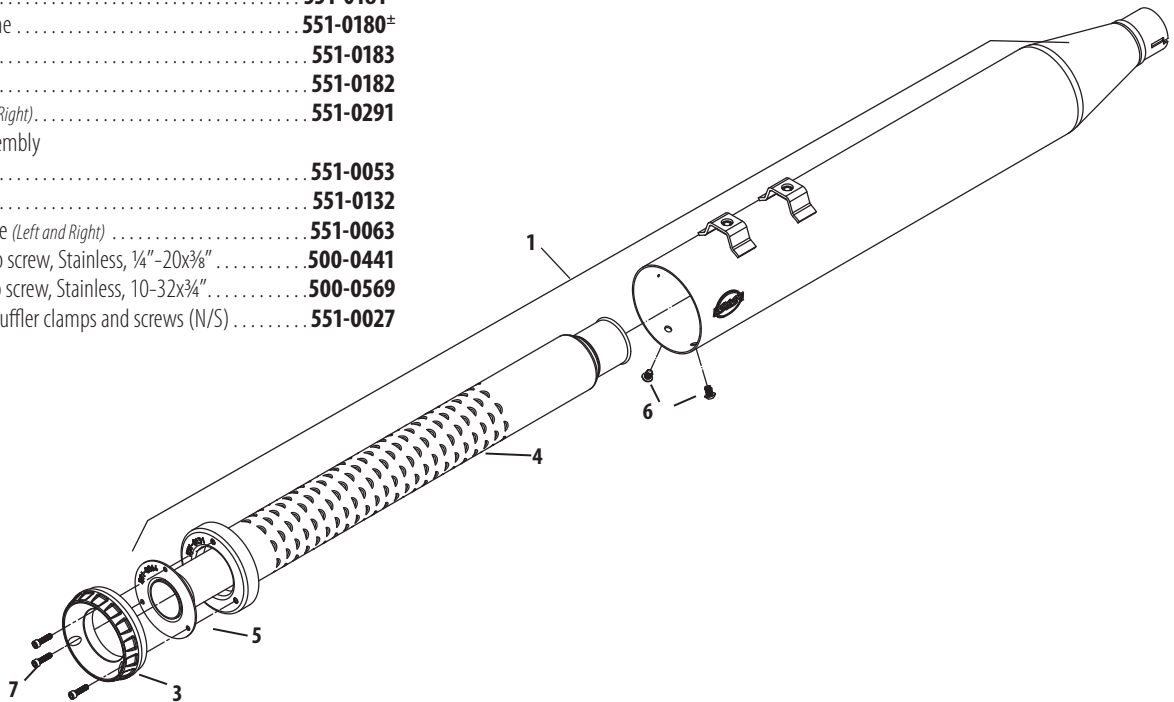
- Parts Not Shown**
- Hardware Kit, Muffler **551-0425**
 - Screw, SHCS, w/Flat Washer, 1/4-20x1" 4741A **50-0092-5**
 - Clamp, Muffler, Band Style, 1.75" **551-0028**
 - Muffler Gasket **551-0360**
 - Bracket Cover (Exc. Heritage® Classic and Deluxe®) **551-0538**



± WARNING: Cancer and Reproductive Harm

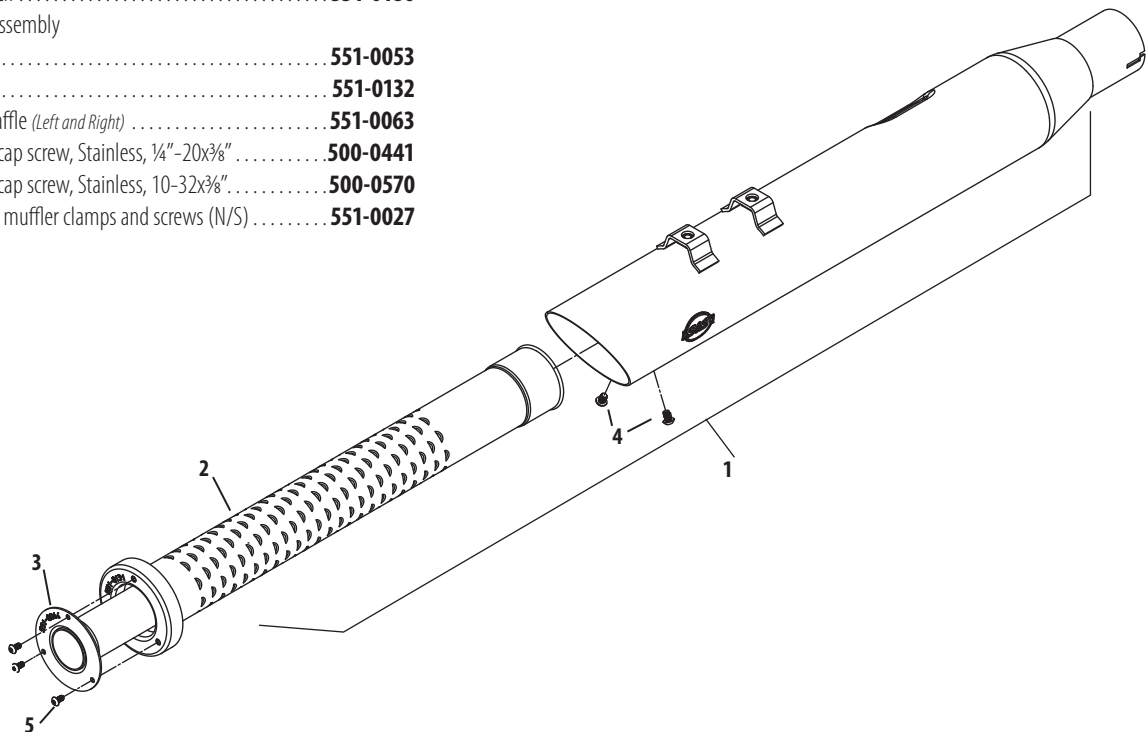
GRAND NATIONAL® 4" MUFFLERS REPLACEMENT PARTS

1. 4" Muffler assembly with Grand National Endcap
 - Left, Chrome..... **551-0181±**
 - Right, Chrome..... **551-0180±**
 - Left, Black..... **551-0183**
 - Right, Black..... **551-0182**
3. Endcap (*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

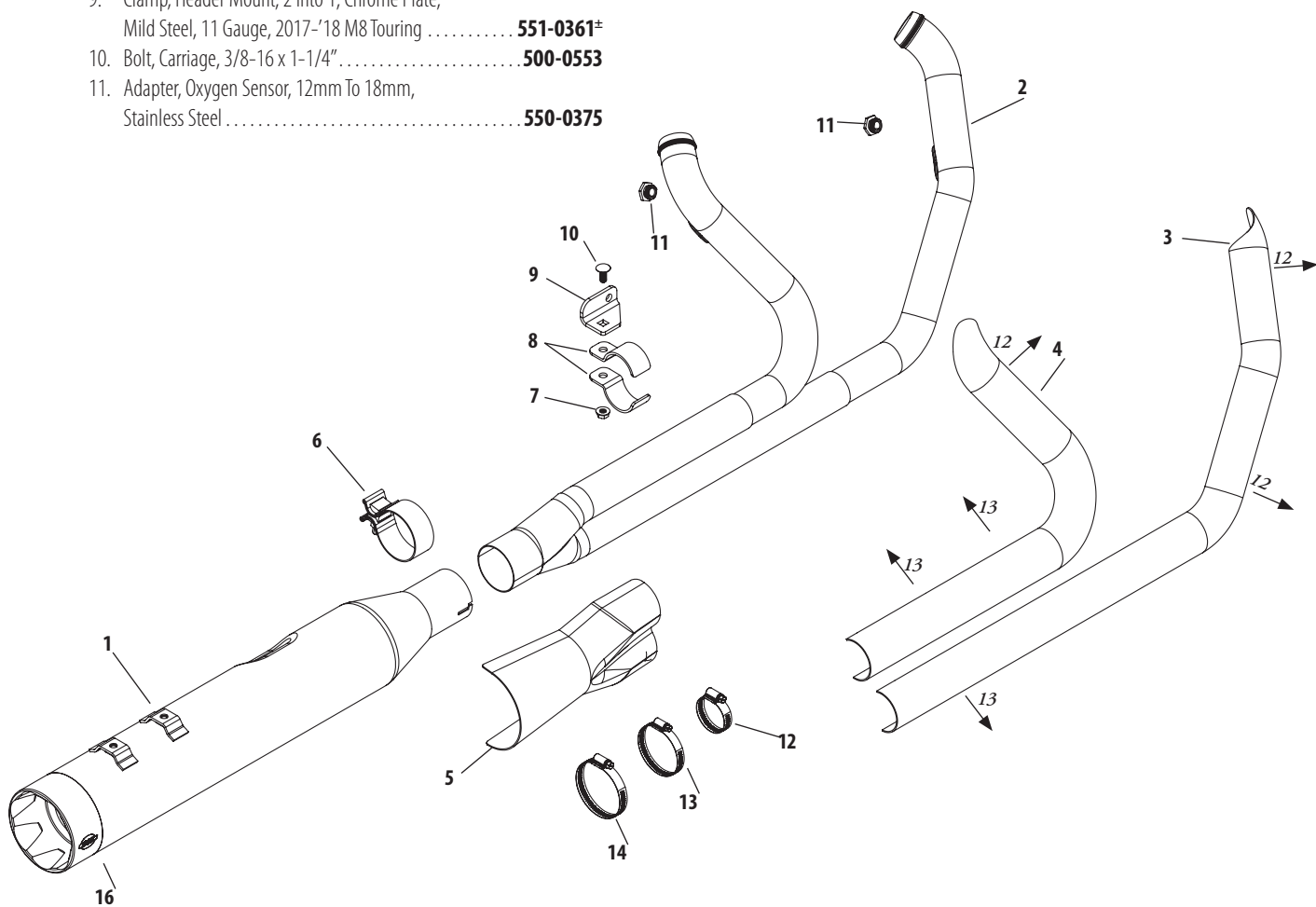
1. 4" Muffler assembly Slash Down
 - Left, Chrome..... **551-0185±**
 - Right, Chrome..... **551-0184±**
 - Left, Black..... **551-0187**
 - Right, Black..... **551-0186**
2. Main baffle assembly
 - Left..... **551-0053**
 - Right..... **551-0132**
3. dB reducer baffle (*Left and Right*)..... **551-0063**
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**



± WARNING: Cancer and Reproductive Harm

SIDEWINDER 2:1 EXHAUST SYSTEM REPLACEMENT PARTS

- | | |
|--|-------------------|
| 1. Muffler, Assembly, 2 Into 1, 2017-'18 M8 Touring | |
| Race, Chrome..... | 551-0403± |
| Race, Black..... | 551-0394 |
| Street Legal, Chrome..... | 551-0529A± |
| Street Legal, 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, 3/8-18..... | 500-0554 |
| 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, 3/8-16 x 1-1/4"..... | 500-0553 |
| 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 |
| 16. Endcap, Sidewinder 2:1..... | 551-0395 |



Milwaukee-Eight™

2007-2017 Twin Cam
96"/103"/110"

1999-2006
Twin Cam 88"

1986-2019
Sportster® & Buell®

2014-2019 Street® &
Street Rod™

Indian® Models

Tools &
Shop Supplies

Warranty &
Company Policy

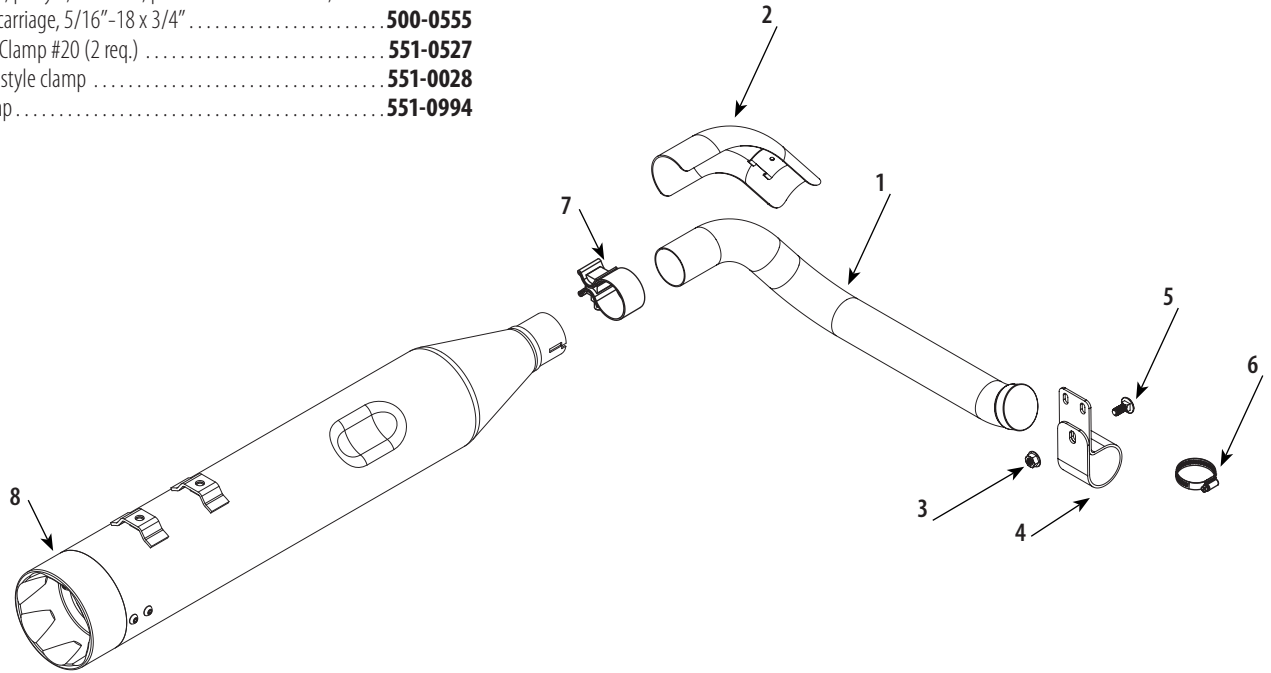
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± WARNING: Cancer and Reproductive Harm



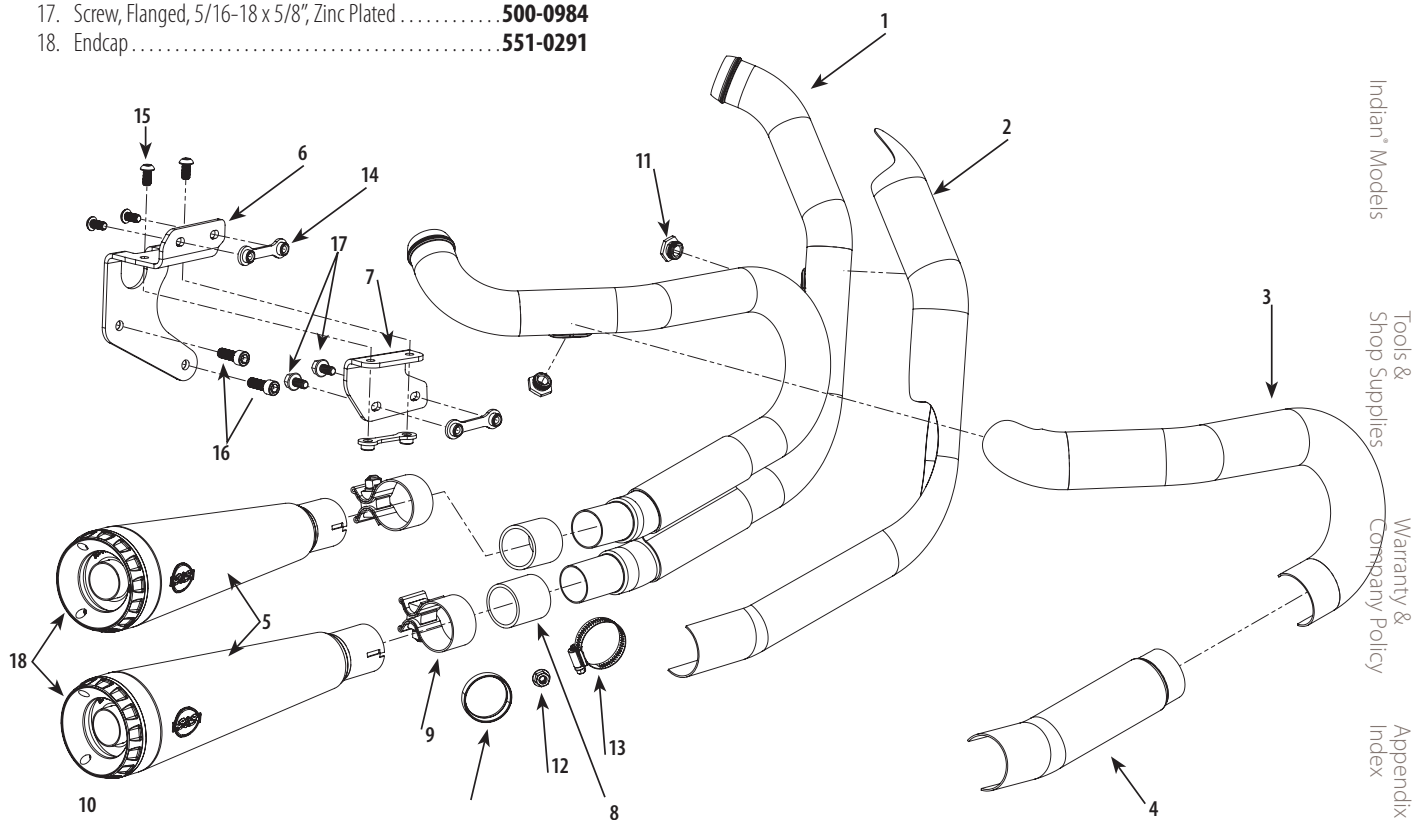
SHADOW PIPE REPLACEMENT PARTS

- 1. Tube, crossover, power tune dual, formed **551-0080**
- 2. Shield, left, power tune dual,
 Chrome **551-0115***
 Black **551-0116**
- 3. Nut, HSFH, 5/16-18 UNC-2b x .283", Zinc, steel **50-5053-S**
- 4. Clamp, p-style, crossover, power tune dual header, **551-0121**
- 5. Bolt, carriage, 5/16"-18 x 3/4" **500-0555**
- 6. Hose Clamp #20 (2 req.) **551-0527**
- 7. Band style clamp **551-0028**
- 8. Endcap **551-0994**



GRAND NATIONAL® 2:2 EXHAUST SYSTEM REPLACEMENT PARTS

1. Pipe, Header, 2 into 2, Weldment, M8 Softail™
except Fat Boy™, and Breakout™ **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[‡]**
Street Legal
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 **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 **500-0763**
16. Screw, SHCS, 3/8-16 x 1" **50-0161**
17. Screw, Flanged, 5/16-18 x 5/8", Zinc Plated **500-0984**
18. Endcap **551-0291**



[‡] WARNING: Cancer and Reproductive Harm

POWER TUNE® DUAL REPLACEMENT HEADER SYSTEM FOR EL DORADO M8 HIGH PERFORMANCE EXHAUST SYSTEM—STREET LEGAL

REPLACEMENT HEADER FOR EL DORADO M8 HIGH PERFORMANCE EXHAUST SYSTEM—STREET LEGAL

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.

 WARNING: Cancer and Reproductive Harm



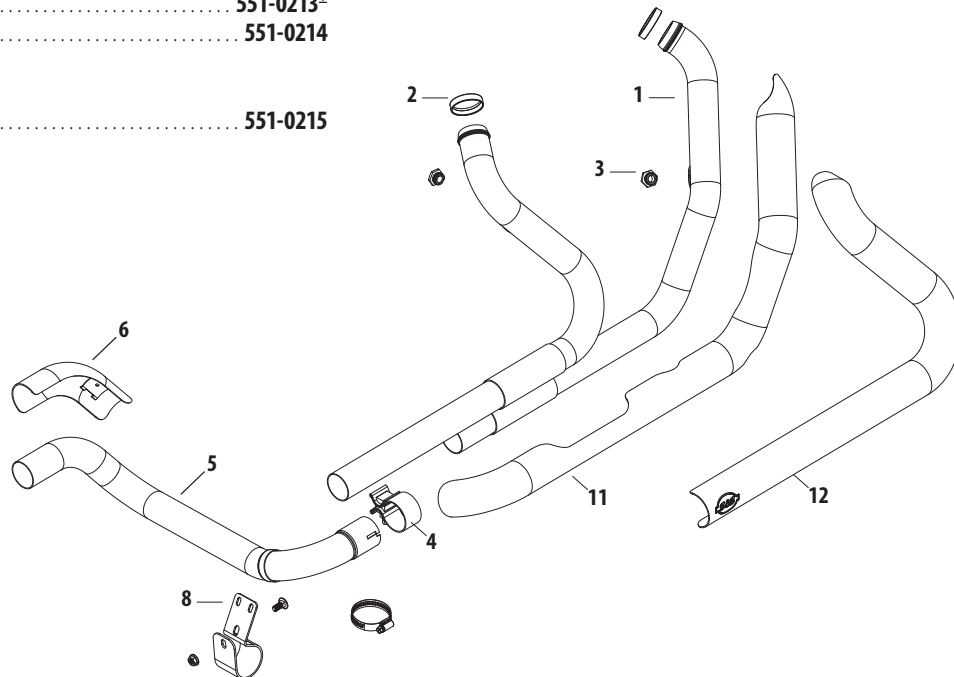
POWER TUNE® DUAL HEADER REPLACEMENT PARTS FOR EL DORADO M8 HIGH PERFORMANCE EXHAUST SYSTEM—STREET LEGAL

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

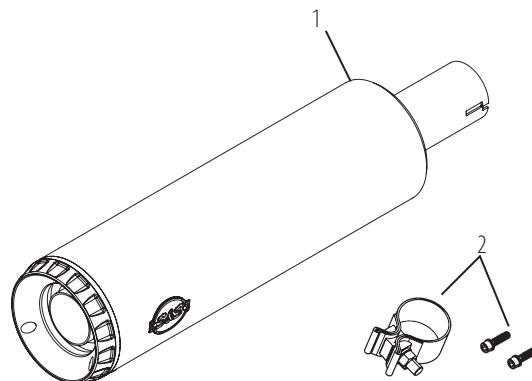
Includes items 2, 3, 4, 7, 8, and 9 **551-0215**



 WARNING: Cancer and Reproductive Harm

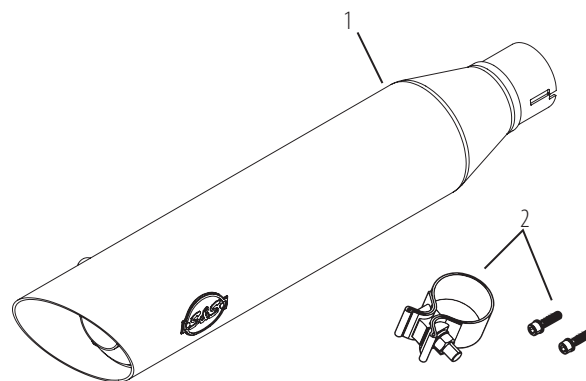
GRAND NATIONAL® EC SLIP-ON MUFFLER REPLACEMENT PARTS

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**



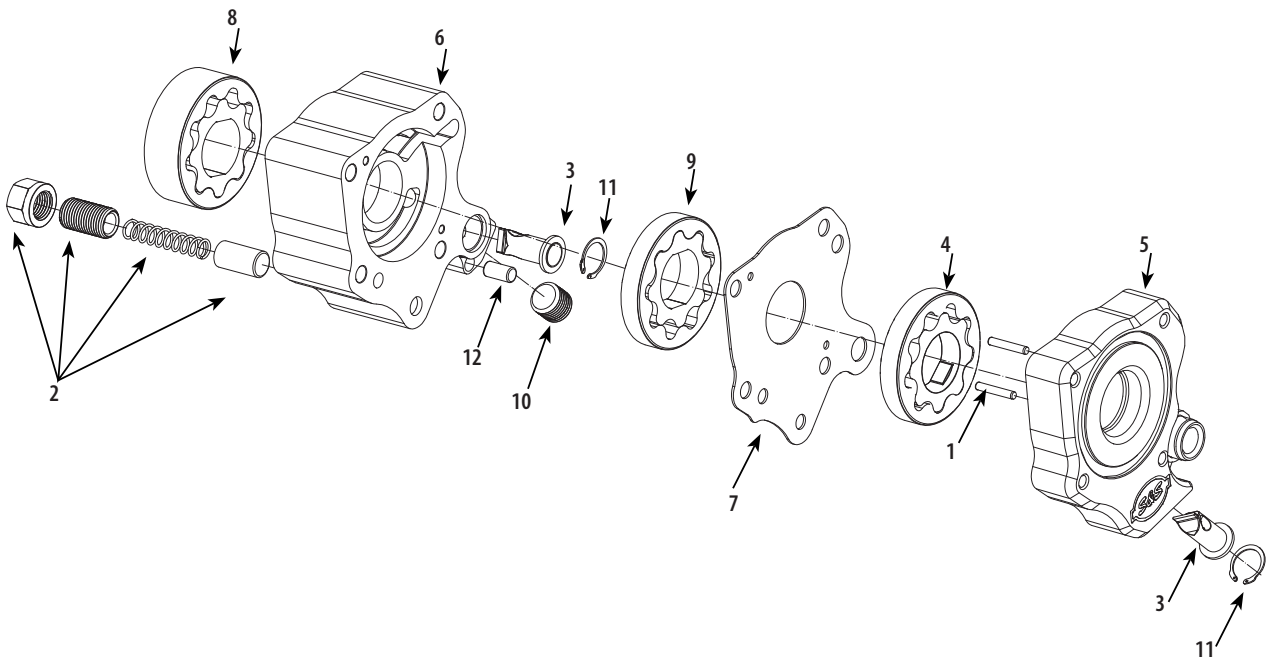
SLASH-CUT EC SLIP-ON MUFFLER REPLACEMENT PARTS

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**



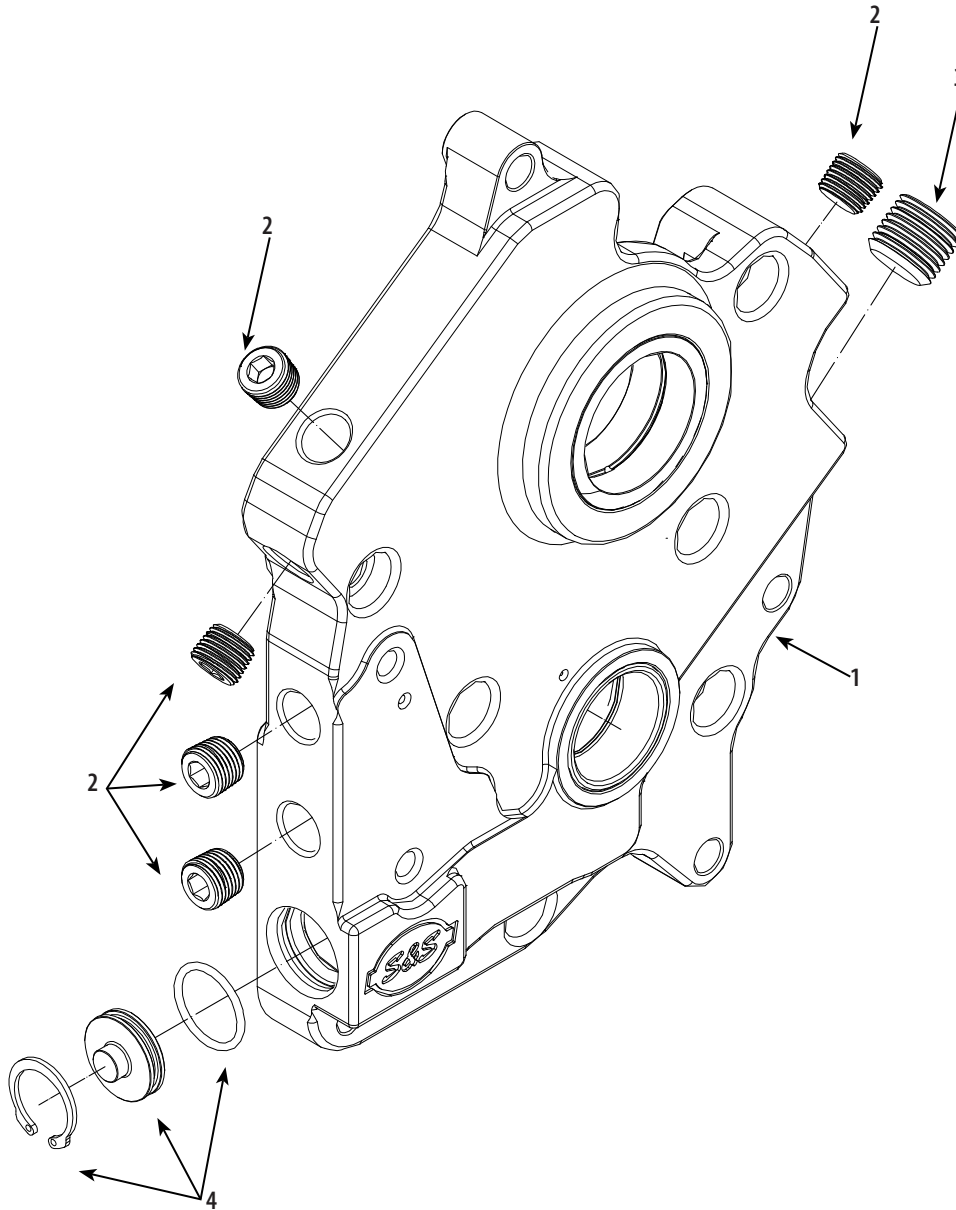
OIL PUMP REPLACEMENT PARTS

1. Dowel pin, 0.125"x0.750", 2 Pack **500-0967**
2. Pressure Relief Valve Assembly **500-0949**
3. Stainless Steel Mesh Screen (2) **310-0546**
4. Rotor Set, Oil Pump, Cam Chest Scavenge **310-1092**
5. Oil Pump Housing, Return Side **N/A**
6. Oil Pump Housing, Supply Side,
Oil Cooled **N/A**
- Oil Pump Housing, Supply Side
Water Cooled **N/A**
7. Divider Plate **310-0948**
8. Rotor Set, Oil Pump Oil Cooled Feed Gear **310-0955**
- Rotor Set, Oil Pump, Water Cooled Feed Gear **310-1048**
9. Rotor Set, Oil Pump, Flywheel Scavenge **310-0148**
10. 1/4" Pipe Plug 5 Pack **500-0969**
11. Retaining Ring 5 Pack **500-0968**
12. Magnet, .250" x .500" **500-0350**



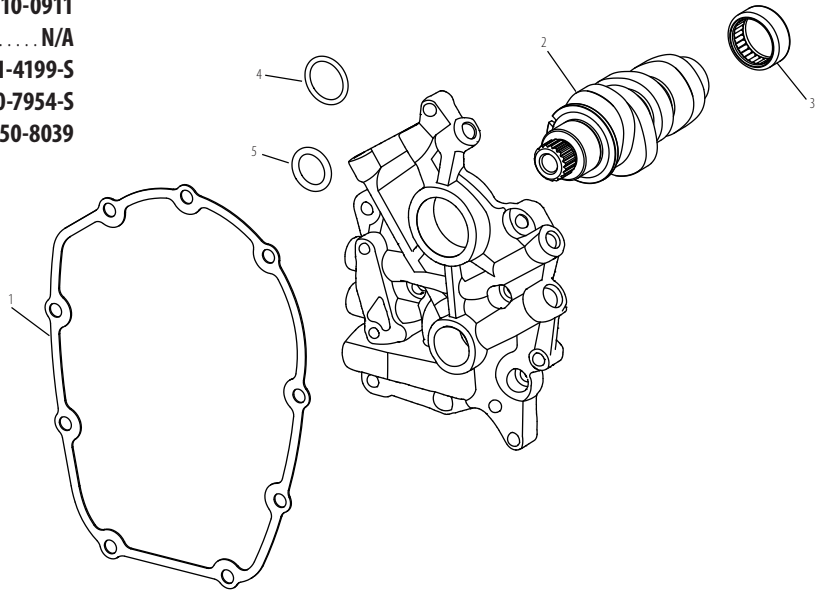
CAM SUPPORT PLATE REPLACEMENT PARTS

1. Cam support plate N/A
2. 1/8" pipe plug, 45830-48 10 pack 50-1015
3. 1/4" pipe plug, 5 pack 500-0969
4. M8 cam support plate oil supply plug kit 500-0966
5. Hydraulic tensioner block off plate kit N/S 310-0962
6. O-ring kit N/S 500-0850



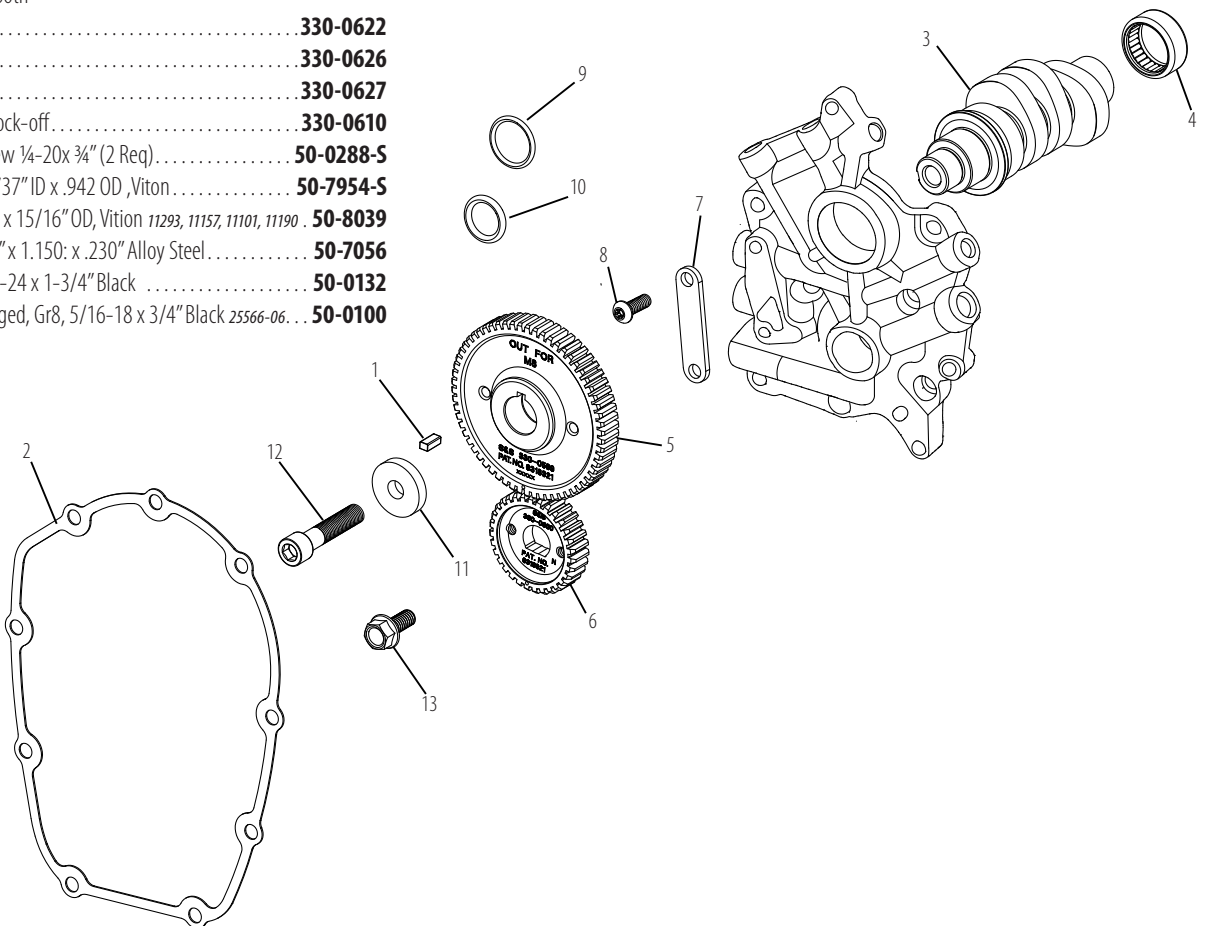
CAM KIT REPLACEMENT PARTS—CHAIN

- 1. Gasket Cam Cover M8..... **310-0911**
- 2. Cam Shaft **N/A**
- 3. Inner Cam Bearing 9275..... **31-4199-S**
- 4. O-Ring, (-116) .737" ID x .942 OD, Viton..... **50-7954-S**
- 5. O-Ring, 11/16 ID x 15/16" OD, Viton 11293, 11157, 11101, 11190 . **50-8039**



CAM KIT REPLACEMENT PARTS—GEAR

- 1. Parallel Key **106-1348**
- 2. Gasket Cam Cover M8..... **310-0911**
- 3. Cam Shaft **N/A**
- 4. Inner Cam Bearing 9275..... **31-4199-S**
- 5. Gear, Cam Drive..... **330-0621**
- 6. Gear, Pinion 31 tooth
Standard Size..... **330-0622**
Undersized..... **330-0626**
Oversized..... **330-0627**
- 7. Plate, Oil Hole Block-off..... **330-0610**
- 8. Button Head Screw ¼-20x ¾" (2 Req)..... **50-0288-S**
- 9. O-Ring, (-116) .737" ID x .942 OD, Viton..... **50-7954-S**
- 10. O-Ring, 11/16 ID x 15/16" OD, Viton 11293, 11157, 11101, 11190 . **50-8039**
- 11. Flat Washer, .405" x 1.150: x .230" Alloy Steel..... **50-7056**
- 12. Screw, SHCS, 3/8-24 x 1-3/4" Black **50-0132**
- 13. Screw, HHC, Flanged, Gr8, 5/16-18 x 3/4" Black 25566-06... **50-0100**



2007–2017 BIG TWINS

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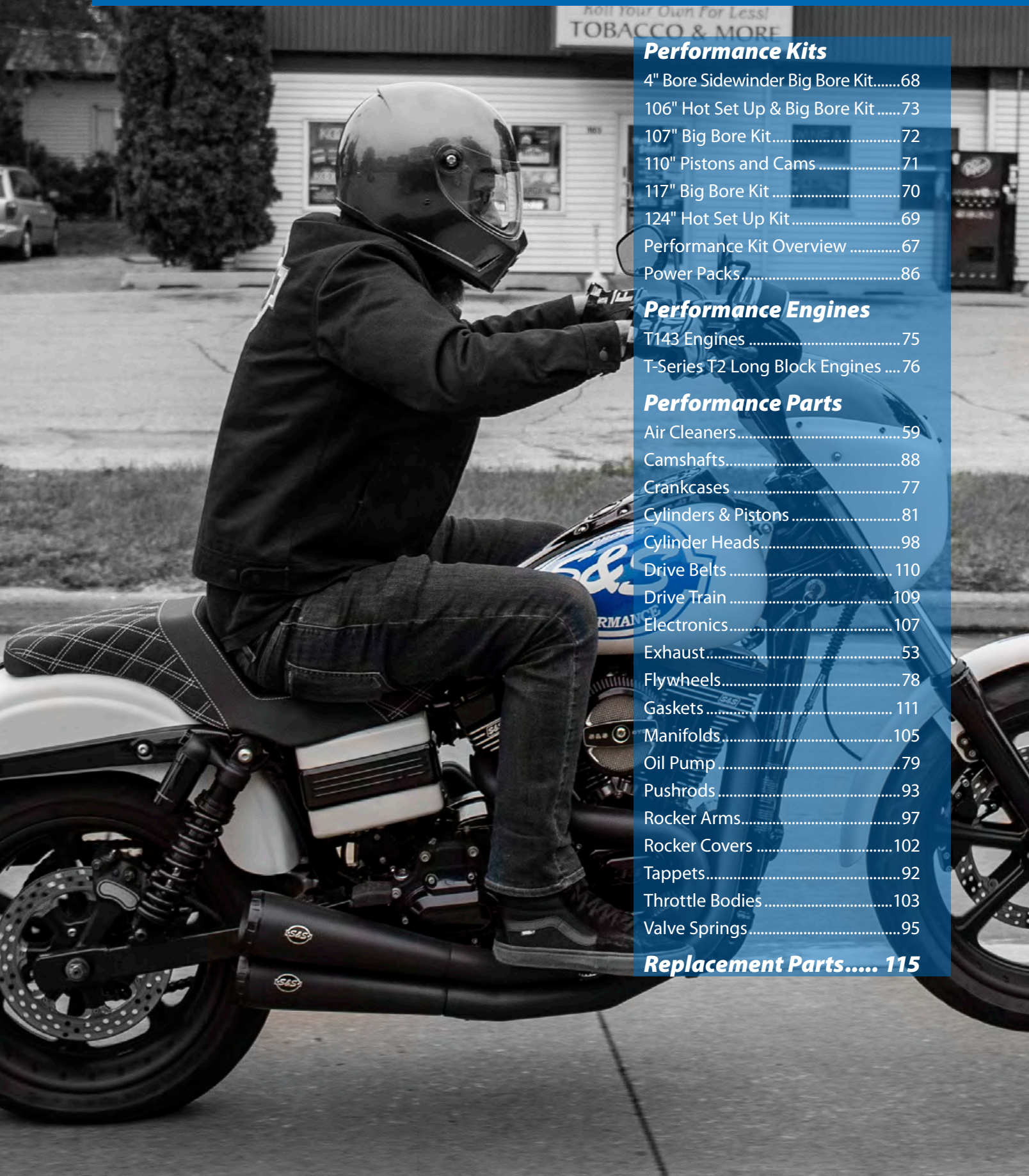
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SIDEWINDER® 2:1 EXHAUST FOR 1995-'16 TOURING MODELS



- 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 stepped 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 — STREET LEGAL[†]

Finish	Part #
Chrome with Black Highlighted Machined Endcap	550-0771A
Black with Black Highlighted Machined Endcap	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 Endcap	550-0776
Black with Black Highlighted Machined Endcap	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



WARNING: Cancer and Reproductive Harm



REPLACEMENT PARTS: SEE PAGE 144

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 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 (*part #550-0801 for*
- 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

⚠ WARNING: Cancer and Reproductive Harm



REPLACEMENT PARTS: SEE PAGE 145

Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88™

1986–2019
Sportster® & Buell™

2014–2019 Street® &
Street Rod™

Indian® Models

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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 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 2009–2016 TOURING MODELS — STREET LEGAL

Description/Finish	Endcap	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

WARNING: Cancer and Reproductive Harm

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 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	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

⚠WARNING: Cancer and Reproductive Harm

REPLACEMENT PARTS: SEE PAGE 140



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

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	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

⚠ WARNING: Cancer and Reproductive Harm

REPLACEMENT PARTS: [SEE PAGE 141](#)

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 endcaps.

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 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!

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



Mk45 4.5" TOURING MUFFLERS W/ENDCAPS

Muffler Body Finish	Endcap Finish & Style	Part #
Chrome	Chrome Thruster	550-0620
	Black Highlight Machined Thruster	550-0619
	Chrome Tracer	550-0624
	Black Highlight Machined Tracer	550-0623
Ceramic black	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, 2007-2016

CVO MY 2000-2005, and 2009-2016

WARNING: Cancer and Reproductive Harm



Removable dB reducer



550-0620



550-0619



550-0624



550-0623



550-0622



550-0621



550-0626



550-0625

REPLACEMENT PARTS: SEE PAGE 142

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

- 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
- 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 2009-2016

CVO MY 2000-2003, and 2009-2016

49 State FL touring Models:

Carbureted MY 1995-2005

Fuel Injected MY 1995-2005, 2007-2016

CVO MY 2000-2005, and 2009-2016

⚠ WARNING: Cancer and Reproductive Harm

REPLACEMENT PARTS: SEE PAGE 143

POWER TUNE® DUAL HEADERS

FITMENT

- Non-catalyst equipped Harley-Davidson® touring models[†]
- Harley-Davidson® Tri Glide® & Freewheeler® 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 ceramic black heat shielding with 220° coverage
- Updated styling to give the bike a modern look
- Oxygen sensor bungs[†]
- Spherical inlet design for improved sealing and exhaust gasket durability
- Hardware included to mount crossover pipe
- 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.

Power Tune® Dual Headers can be used on 1993-'94 models if 1995-up mufflers are used.

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-'20 Tri Glide ^{††} & Freewheeler 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

WARNING: Cancer and Reproductive Harm



††TRIKE ADAPTOR KIT

Fitment	Finish	Part #
2009, 2014-'20 Tri Glide® & Freewheeler® models	Chrome	550-0799

WARNING: Cancer and Reproductive Harm

REPLACEMENT PARTS: SEE PAGE 146

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.

NEW FOR
FROM S&S CYCLE
2020

STEALTH TRIBUTE AIR CLEANER KITS

CLASSIC DESIGN — STEALTH FITMENT

Conceived by S&S founder and brought to market by his son George B. Smith, the Classic Two Throat carb and matched air cleaner served as a performance milestone in the v-twin space for over a decade. Inspired by the unique style of our Two Throat intake, S&S has created the new "Tribute" air cleaner cover and wrapped it around our proven Stealth filter system creating a classic look combined with modern performance.

COVERS ONLY

Chrome	170-0592
Gloss Black	170-0593



STEALTH TRIBUTE COVER AIR CLEANER KITS

Fitment	Finish	Part #
2008–'16 Touring & 2016–'17 Softail Models* (except Tri-Glide® & CVO® Models)	Chrome±	170-0594
	Gloss Black	170-0597
2001–'17 big twin** (except Throttle by Wire)	Chrome±	170-0596
	Gloss Black	170-0599

*Kit includes Stealth Air Cleaner 170-0301B which is exempt from emissions tampering regulations under CARB EO# D-355-27

**Kit includes Stealth Air Cleaner 170-0300B which is exempt from emissions tampering regulations under CARB EO# D-355-27

± WARNING: Cancer and Reproductive Harm



Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

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STEALTH AIR CLEANER KITS

NEW STEALTH TRIBUTE KITS
SEE PAGE 59



- 1999–'17 big twins (except 2017 touring models)
- Air directional stinger cone in the filter
- Pre-filters are available — See page 66
- Use with any of several S&S designed covers — See page 63
- High flow (1" taller) filter kit available — See page 66
- Backplate adaptor for Rushmore covers also available — See page 66



STEALTH TEARDROP AIR CLEANER KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

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® EFI	Chrome	170-0528±
		Gloss Black	170-0529
2008–'16 touring, '16–'17 Softail® (except Tri-Glide® & CVO® Models) Includes Stealth AC Kit 170-0301B	Throttle by Wire	Chrome	170-0522±
		Gloss Black	170-0523

± ⚠️ WARNING: Cancer and Reproductive Harm



CARBON FIBER TEARDROP KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

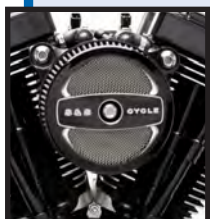
Application	Part #
2001–'17 big twin (except Throttle by Wire)	170-0499
2008–'16 touring models and 2016–'17 Softail® models	170-0500



MINI TEARDROP AIR CLEANER KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

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® 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

± ⚠️ WARNING: Cancer and Reproductive Harm



AIR 1 AIR CLEANER KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

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 AIR CLEANER KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

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 AIR CLEANER KIT EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

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

CON'T STEALTH AIR CLEANER KITS



AIRSTREAM AIR CLEANER KIT

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

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

± ⚠ WARNING: Cancer and Reproductive Harm



MUSCLE AIR CLEANER KIT

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

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

± ⚠ WARNING: Cancer and Reproductive Harm



STEALTH AIR CLEANER KITS — NO COVER

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

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

REPLACEMENT PARTS: SEE PAGE 133

NOTE Fuel injection tuning is not required for this product.



CHROME AIRSTREAM AIR CLEANER KITS

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

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⚠ WARNING: Cancer and Reproductive Harm



CHROME MUSCLE AIR CLEANER KITS

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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⚠ WARNING: Cancer and Reproductive Harm



STEALTH AIR CLEANER KITS* — NO COVER

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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Milwaukee-Eight®

2007–2017 Twin Cam
96™/103™/110™

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

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STEALTH AIR CLEANER KITS FOR S&S ENGINES

STEALTH AIR CLEANER KITS FOR S&S ENGINES

Fitment	Fuel System	Part #
2003–'17 HD® Models (except '17 touring models)	S&S 66mm Throttle Hog	170-0165
2003–'17 HD® Models (except '17 touring models)	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 twin models	S&S Single Bore VFI 58mm Throttle Bodies	170-0283
1999–2017 EFI big twin models	S&S Single Bore VFI 58mm Throttle Bodies	170-0284
T124 1999–'06 big twin models (except '06 Dyna® models) (Engines produced after 2013)	S&S E or G Carburetor	170-0058
T124 1999–'06 big twin models (except '06 Dyna® models) (Engines produced after 2013)	Stock CV/EFI Delphi®	170-0060
T111 1999–'06 big twin models (except '06 Dyna® models) (Engines produced after 2013)	S&S E or G Carburetor	170-0058
T111 1999–'06 big twin models (except '06 Dyna® models) (Engines produced after 2013)	Stock CV/EFI Delphi®	170-0060

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EC STEALTH AIR CLEANER KITS

- 110" Harley-Davidson® Dyna® & Softail® Models up to 2017 (e9 11002G)
- 103" Harley-Davidson Dyna & Softail Models up to 2017 (e9 11003G)



EC STEALTH AC KITS

Cable Throttle Body 103" HD® Dyna® & Softail® models up to 2017	170-0331
Throttle by Wire 103" HD Dyna® & Softail models up to 2017	170-0332
Cable Throttle Body 110" HD Dyna & Softail models up to 2017	170-0333
Throttle by Wire 110" HD Dyna & Softail models up to 2017	170-0334



STEALTH AIR CLEANER KIT COVERS

NEW STEALTH TRIBUTE COVERS SEE PAGE 59



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



111



124



143

STEALTH COVERS

Teardrop		Teardrop—Slasher		Carbon Fiber	Mini		Tri-Spoke	Torker	Air 1
Chrome	Gloss Black	Chrome	Gloss Black	Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights
170-0530	170-0531	170-0532	170-0533	170-0501	170-0367	170-0366	170-0210	170-0206	170-0214

Airstream		Muscle		Displacement		
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	111	124	143
170-0118	170-0396	170-0121	170-0463	170-0319	170-0321	170-0323

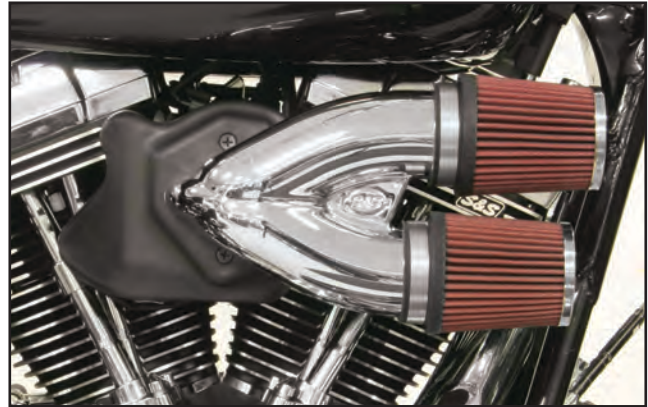
SINGLE BORE TUNED INDUCTION SYSTEM

FITMENT

- 2007–'17 big twin models including Harley-Davidson® Tri Glide® models (except 2007–'08 FXDWG & 2009 FXDC/FXDF and 2017 touring models)

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-355-27 FOR ALL FUEL INJECTED MODELS



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–'16 HD® touring and '16 & '17 Softail® (except Tri-Glide® & CVO® Models)	Throttle By Wire	Gloss Black/Red Filters	170-0309B
		Chrome/Red Filters	170-0310B

WARNING: Cancer and Reproductive Harm

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)	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
	Specify	Specify	106-5337*

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

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[‡] WARNING: Cancer and Reproductive Harm



Molded black adaptor bracket for 2008–'16 touring models



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

REPLACEMENT PARTS: SEE PAGE 134 & PAGE 135

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

- 2007–'17 big twin models including Harley-Davidson® Tri Glide® models (except 2017 touring 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



Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/119"

1999–2006
Twin Cam 88™

1986–2019
Sportster® & Buell®


2014–2019 Street® &
Street Rod™

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CLASSIC TEARDROP AIR CLEANER KITS FOR STOCK EFI			
EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS			
Fitment	Fuel System	Finish	Stock EFI, W/ 96 & 103 Engines
 2001–'17 HD® big twin models (except Throttle By Wire and CVO® Models)	Stock EFI Delphi®	Chrome	170-0303B±
		Gloss Black	170-0304B
2008–'16 HD® touring stock-bore and '16 & '17 Softail® models (except Tri-Glide® & CVO® Models)	Throttle By Wire	Chrome	170-0305B±
		Gloss Black	170-0312B

± ⚠️ WARNING: Cancer and Reproductive Harm

CLASSIC TEARDROP AIR CLEANER KITS FOR STOCK CARB/EFI

Fitment	Finish	Stock EFI, With 110 Engines
2008–2017 big twins (except 2017 touring)	Chrome	106-2091±
2007–'10 Softail® CVO® Models (& 1993–'06 HD® carbureted big twins)	Chrome	17-0450±
	Gloss Black	170-0181A

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± ⚠️ WARNING: Cancer and Reproductive Harm

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

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

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± ⚠️ WARNING: Cancer and Reproductive Harm

NOTE

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

REPLACEMENT PARTS: PAGE 136



CLASSIC TEARDROP AIR CLEANER COVERS

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

± ⚠️ WARNING: Cancer and Reproductive Harm



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

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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 68](#)



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 69](#)



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 1/8" 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 70](#).



107" & 106" BIG BORE KIT

A low cost bolt-on kit provides big displacement! The 107" and 106" Big Bore Kits offer the simplicity of a bolt-on cylinder kit. Satisfy your thirst for speed! 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 72](#)

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"	4 3/8"	10.5	11.1	10.2	9.9	10.7	10.5	10.3	10	585	110	119
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	●	●	●	●	●	●	●		①	●	③ ④	⑤ ⑥ ⑦	●
117" Big Bore Kit		●	●						①	●	③ ④	⑤ ⑥ ⑦	●
106" Big Bore Kit		●	●							●			●

① = Optional
 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.*

FUEL INJECTION TUNING REQUIRED. S&S OFFERS FUEL INJECTION TUNING SOLUTIONS: SEE PAGE 108



Milwaukee-Eight®

2007–2017 Twin Cam 96"/103"/110™

1999–2006 Twin Cam 88®

1986–2019 Sportster® & Buell®

2014–2019 Street® & Street Rod™

Indian® Models

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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". 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 models)

SPECS FOR S&S 4" BORE BOLT-IN CYLINDER & PISTON KITS

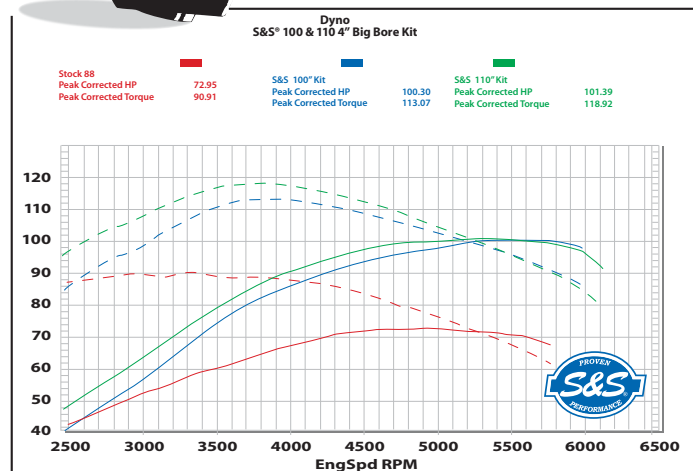
Year	Stroke	Bore	Cylinder Length	Piston Type	Dome Volume	Compression Ratio		
						83cc CNC Heads	85cc Stock Heads	89cc S&S Heads
2007–2017	4 3/8"	4.00"	4.937"	Forged	.75 pop up	10.7:1	10.5:1	10.2:1



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"	Wrinkle Black	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& stone gray powder coat finish matches 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 5/8"	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	Wrinkle Black	900-0568
2007–'17 big twins w/Balancer			900-0569
CTO Other Finishes and Combinations Available Here	Specify	Specify	106-5752

Does not fit Twin-Cooled™ models

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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 or 66mm Throttle Hog (See page 103). For 2008–up touring models with electronic throttle control S&S recommends a S&S Throttle Hog 58mm or 66mm Throttle body (See page 104).

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 108

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

Milwaukee-Eight®

2007–2017 Twin Cam 96"/103"/110"

1999–2006 Twin Cam 88"

1986–2019 Sportster® & Buell®

2014–2019 Street® & Street Rod™

Indian® Models

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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 powder coat matches 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



117" BIG BORE KITS

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

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NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER
THE CLEAN AIR ACT

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 104) 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



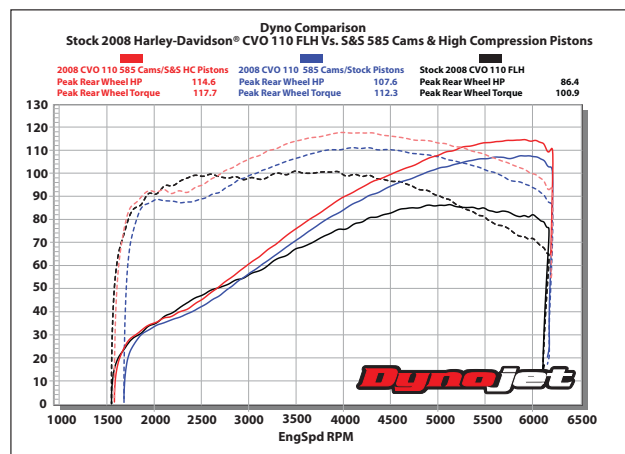
10.6:1 HIGH COMPRESSION PISTONS FOR HARLEY-DAVIDSON® CVO™ 110 ENGINES

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

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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.

Milwaukee-Eight™

2007–2017 Twin Cam 96"/103"/110"

1999–2006 Twin Cam 88"

1986–2019 Sportster® & Buell®

2014–2019 Street® & Street Rod™

Indian® Models

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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 a larger bore size easy—*no machining required*
- Stock engine height is maintained
- 11 fin cylinder design closely resembles OEM shape and come final honed—*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



910-0500

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	910-0480
	Wrinkle Black	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 84

KIT CONTENTS

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



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 $\frac{3}{8}$ "	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	Wrinkle Black	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	–	Wrinkle Black	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"	Wrinkle Black	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.

Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88™

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

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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
- TC3 Oil Pump and Cam Plate
- S&S 635 Easy Start Gear Drive Cams and S&S 1.725:1 rocker arms for .674" total lift.
- S&S Precision 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 63](#)



Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

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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"	4¾"	635	S&S Forged Flat Top	10.5:1	1 year	Wrinkle Black & Chrome	310-0548A
								Stone Gray	310-0549A
								Black Edition	310-0837A
2006–'17 Dyna® Models	143"	4.425"	4¾"	635	S&S Forged Flat Top	10.5:1	1 year	Black Edition	310-0901A
								Wrinkle Black & Chrome	310-0883A

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⚠ REQUIRES OIL LINE INSTALLATION KIT. See chart.

INSTALLATION PARTS

Description	Part #
Oil Line Install Kit for 2006–'17 Dyna® Models	Wrinkle Black 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 models (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 104 for more details.

± ⚠ WARNING: Cancer and Reproductive Harm



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
- TC3 Oil Pump and Cam Plate
- 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, hot-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 60

T124 ENGINES WITHOUT FUEL AND IGNITION SYSTEMS

Chassis Style	Displacement	Bore	Stroke	Cam	Piston Type	CR	Warranty	Finish	Part #
2007–'16 touring models	124"	4 1/8"	4 5/8"	640	S&S Forged Flat Top	10.8:1	2 Year	Black Edition	310-0835A
								Wrinkle Black & Chrome	310-0400A
								Stone Gray	310-0511A
2006–'17 Dyna® Models	124"	4 1/8"	4 5/8"	640	S&S Forged Dished, 11cc	10.2:1	2 Year	Black Edition	310-0836A
								Wrinkle Black & Chrome	310-0401A
								Stone Gray	310-0512A
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	CR	Warranty	Finish	Part #
2007–'16 touring models	111"	4 1/8"	4 1/8"	585	S&S Forged	9.8:1	2 Year	Wrinkle Black & Chrome	310-0402A
2007–'16 touring models				585				Black Edition	310-0834A
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*	Wrinkle Black 310-0870
	Silver 310-0871

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± **! WARNING:** Cancer and Reproductive Harm

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 104.

SUPER STOCK™ T2 CRANKCASE

FITMENT

- 2007–'16 Harley-Davidson® touring models
- 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 4³/₁₆" 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.



INSTALLATION PARTS

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	Wrinkle Black	310-0870
	Silver	310-0871

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± ⚠️ WARNING: Cancer and Reproductive Harm

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

Bore Size	Stone Gray	Wrinkle Black	Silver
Stock Bore (Stock Bolt Pattern) 2007–'16 touring models	–	310-0367A±	310-0366A±
Stock Bore (Dyna® models)	–	310-0878*	310-0881*
CV0 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

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± ⚠️ WARNING: Cancer and Reproductive Harm

REPLACEMENT PARTS: SEE PAGE 118

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

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
-------------------------------------	---------



310-0742

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.

Milwaukee-Eight®

2007–2017 Twin Cam 96™/103™/110™

1999–2006 Twin Cam 88®

1986–2019 Sportster® & Buell®

2014–2019 Street® & Street Rod™

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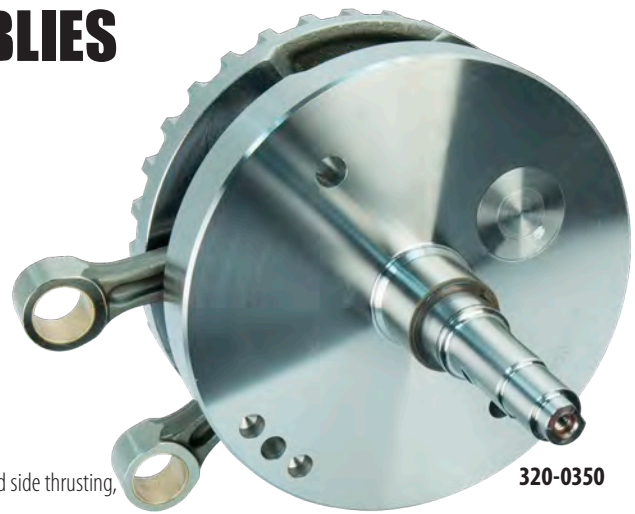
3 PIECE FLYWHEEL ASSEMBLIES

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
- 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 (uses 7.800" length rods)	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 (except the SE120R & S&S 143, see chart).

**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 346](#)

REPLACEMENT PARTS: [PAGE 121](#)

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 engine 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 engine 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



Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"1999–2006
Twin Cam 88"1986–2019
Sportster® & Buell®2014–2019 Street® &
Street Rod™

Indian® Models

Tools &
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Index

REPLACEMENT PARTS: SEE PAGE 122 & PAGE 123



DIE CAST GEARCOVER

FITMENT

- 1999–'17 Twin Cam 88[®], 96[™] and 103[™] (except 2017 touring models)
- S&S-Series engines



DIE CAST GEARCOVER

Finish		Part #
Gloss Black	143"	310-1084
	124"	310-1085
	111"	310-1086
Chrome [±]	143"	310-1087
	124"	310-1088
	111"	310-1089

± WARNING: Cancer and Reproductive Harm

BILLET GEARCOVER

FITMENT

- 1999–'17 Twin Cam 88[®]/96[™]/103[™] except 2017 touring models

BILLET GEARCOVER*

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

± WARNING: Cancer and Reproductive Harm



31-6516

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.

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	Compression Ratio		
						83cc CNC Heads	85cc Stock Heads	89cc S&S Heads
110"	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	Silver	MSRP	Wrinkle Black
110	910-0650	\$1,178.95	910-0651

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PISTON REPLACEMENT PARTS: [PAGE 84](#)



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	10.6:1	10.2:1	10.2:1	9.7:1
117"	4.375	4.878	Flat Top	10.9:1	10.5:1	10.4:1	10.0:1
117" Dish	4.375	4.878	10.9 cc dish	10.0:1	9.7:1	9.5:1	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	Wrinkle Black
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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CYLINDERS WITH PISTONS KIT CON'T

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 $\frac{3}{8}$ "	4.937"	3cc Dome	N/A	10.7:1	10.5:1	10.1:1
106"	3.927"	4 $\frac{3}{8}$ "	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	Wrinkle Black
107"	910-0480	910-0500
106"	910-0202	910-0206

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ALL OTHER BORES AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER

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	Wrinkle Black
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	Wrinkle Black
124"	Set	910-0494	910-0392	910-0401
117"	Set	910-0497	910-0231	910-0252

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. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT.



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 without 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	Wrinkle Black
107"	Front or Rear	910-0478	910-0477

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3.927" BORE CYLINDERS

Displacement		Silver	Wrinkle Black
106"	Front or Rear	910-0210	910-0212

NOTE

S&S 3.927" & 3.937" 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 without 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	Wrinkle Black
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.

 ALL OTHER BORES AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER

91-7506* Call for Pricing

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" 10cc Dished	1.050"	Up To 4 $\frac{5}{8}$ "	920-0046	920-0047	920-0050	920-0053
124", 117" & 111" Flat Top	1.050"	Up To 4 $\frac{5}{8}$ "	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", 3cc dome	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 $\frac{7}{8}$ " 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 $\frac{1}{8}$ ", 3.937", 3.927", and 3 $\frac{7}{8}$ " 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.

REPLACEMENT PARTS FOR PISTONS

REPLACEMENT CHROMOLY FACED PISTON RINGS

Bore	Standard	MSRP	+ .005"	+ .010"	+ .020"	+ .030"
4.425"	940-0043	\$171.95	–	–	940-0044	–
4 1/8"	940-0014	\$64.95	–	940-0012	940-0013	940-0017
3 7/8"	94-1290X	\$42.95	94-1294X	94-1291X	–	–
3.927"	106-3709A	\$54.95	–	106-4422A	–	–
3.937"	940-0032*	\$64.95	–	–	–	–
4"	940-0056	\$85.95	–	–	–	–
4.060" CVO 110"	940-0040	\$80.95	–	940-0041	–	–

*Only includes one set of rings.

REPLACEMENT PISTON WRISTPINS

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



POWER PACK

Bump 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 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 models</i>	Silver	585CE	Chain	330-0666
2007–'17 <i>except '17 touring models</i>	Silver	585GE	Gear	330-0667
2007–'17 <i>except '17 touring models</i>	Black	585CE	Chain	330-0668
2007–'17 <i>except '17 touring models</i>	Black	585GE	Gear	330-0669

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NOTES

- 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

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.

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.

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.

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.

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. High lift valve springs and adjustable pushrods required.

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 valve springs, adjustable pushrods, 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. High lift valve springs and adjustable pushrods required.

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. High lift valve springs and adjustable pushrods required.



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

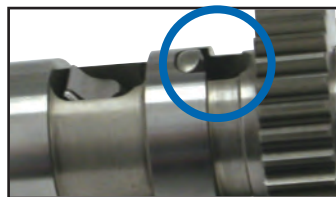
OPTIONS

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

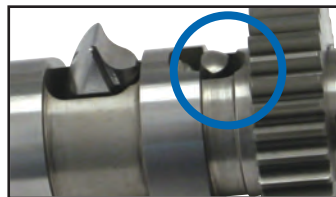
HERE'S HOW IT WORKS

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

CONT

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			
OES		-9°/25°	42°/-3°	196°	219°	.474"	107°	112.5°	.087"	.110"			
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®
MR103		13°/33°	50°/22°	226°	252°	.585"	100°	104°	.172"	.177"			
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®
HP103		20°/49°	45°/26°	249°	251°	.575"	104.5°	99.5°	.199"	.206"			
585	●	20°/45°	60°/20°	245°	260°	.585"	102.5°	110°	.186"	.179"	SE-21 1/251/257	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
635H.O.		19.5°/43.5°	58.5°/37.5°	243°	276°	.635"	102°	100.5°	.186"	.284"			
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.

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*

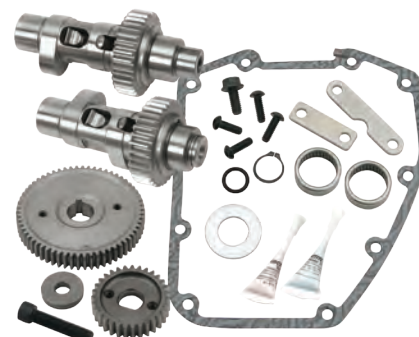
FEATURES AND BENEFITS

- 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 & outer cam gears. 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	–
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.

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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.

Milwaukee-Eight®

2007–2017 Twin Cam 96"/103"/110"

1999–2006 Twin Cam 88®

1986–2019 Sportster® & Buell®

2014–2019 Street® & Street Rod™

Indian® Models

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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



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

(EXCEPT 2017 TOURING MODELS)

Cam Name	Standard	MSRP	Easy Start
OES	330-0293	\$352.95	–
510	106-4380	\$352.95	–
551	106-4858	\$352.95	106-4947
557*	330-0105	\$352.95	330-0053
570	106-4381	\$352.95	106-5234
583	330-0106	\$352.95	106-5807
585	106-4382	\$352.95	106-5233
625	106-4383	\$352.95	106-5239
640	106-4399	\$352.95	106-5235
MR103	330-0470	\$352.95	330-0299
HP103	330-0343	\$352.95	330-0346
635 H.O.	330-0328	\$352.95	330-0331

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

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KIT CONTENTS

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



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, 557, & 583 cams are not recommended with compression ratio of 10:1 or higher.

OES & 510 cam recommended over 9.7:1

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

CAM RELATED REPAIR PARTS



33-4285

33-4160Z

31-4499

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 models	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

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

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NEW FOR FROM S&S CYCLE 2020 PRECISION TAPPETS

High performance tappets are a cornerstone of the S&S line up and we are always looking to improve our products. After months of research and countless hours of testing we are excited to reveal the latest in performance tappets. The S&S Cycle Precision Tappets replace both our standard as well as premium tappets. Each Precision Tappet is hand assembled to exacting tolerances and designed for quiet operation and rapid pump up and all are made in the USA.

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

PRECISION TAPPETS

Set of 4 tappets	330-0718
------------------	-----------------



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 #
 Gloss Black	330-0588
Polished	33-5601 
Chrome	106-3883 ±
 Gloss Black 4 3/8" style	330-0589
Chrome 4 3/8" style	330-0281 ±



33-5601

±  WARNING: Cancer and Reproductive Harm

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 ±

±  WARNING: Cancer and Reproductive Harm

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shown.

TIME-SAVER ADJUSTABLE PUSHRODS


FITMENT

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

FEATURES AND BENEFITS

- No need to remove rocker arms 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

GLOSS BLACK ALSO AVAILABLE

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 arms not needed
- No threads on wrench flats
- Also available in gloss black

KIT CONTENTS



- Pushrods, gloss black or 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 #
Gloss Black Pushrod Kit <i>(includes black pushrod covers, o-rings & cover keepers)</i>	930-0143
Chrome 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 94](#) 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 94](#) for pushrod covers.

±  WARNING: Cancer and Reproductive Harm

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

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

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

±  WARNING: Cancer and Reproductive Harm

NON-ADJUSTABLE PUSHRODS

FITMENT

- 2007–'17 Harley-Davidson® Twin Cam 96™ and 103™ big twin engines, except 2017 touring models
- S&S T111 Engines

NON-ADJUSTABLE PUSHRODS

Description	Part #
Pushrods Only (stock replacement)	930-0046
Replacement Pushrods for S&S T111	930-0144

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



PUSHROD COVERS & RELATED PARTS

PUSHROD REPLACEMENT PARTS

Description	Part #
Pushrod Cover Kit (includes top & bottom covers, cover cap, cover spring, spring washer, & o-rings for four pushrods)	Chrome 106-1340
	Gloss Black 930-0124
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, & 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

PUSHROD COVER KEEPER SETS FOR 2007–'17 BIG TWINS

Length / Finish	S&S Tubes	Part #
2.390" / Gloss Black		930-0127
2.400" / Chrome	All stock height TC 96/103	93-4070 [±] 17950-48
2.500"	Chrome	96", 100", 117", 93-4100 [±]
	Gloss Black	103", 106" HSU 930-0142
2.600"	Chrome	124" 93-4101 [±]
	Gloss Black	930-0128
2.800" / Chrome		93-4115 [±] 17950-86
2.900"	Chrome	143" 93-4102 [±]
	Gloss Black	930-0126
3.000" / Chrome		93-4103 [±]
3.100"	Chrome	93-4104 [±]
	Gloss Black	930-0125
3.200" / Chrome		93-4105 [±]
3.330" / Chrome		93-4106 [±] 17949-40, 17950-66
3.500" / Chrome		93-4107 [±]
3.625" / Chrome		93-4108 [±]
4.250"*		93-4109

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

[±] WARNING: Cancer and Reproductive Harm



93-4016



93-4015



93-4017



93-4018



50-7131



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.

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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 5/16" diameter stemmed valves and S&S collars only. Pro Stock spring kits include keepers for valves with 1/32" or 3/16" 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

- 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"

**VALVE SPRING REPLACEMENT PARTS:
SEE PAGE 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 5/16" 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.

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, Dual, .650", Chrome Silicone Steel, 1984-2004 bt, 1986-2003 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

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

S&S® STREET PERFORMANCE .585" VALVE SPRINGS SPECIFICATIONS

Lift	Installed Height	Seat Force	Force @ Max Lift
.585"	1.850"	135 lb.	325 lb.



VALVE SPRING REPLACEMENT PARTS:
SEE PAGE 130

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.*



900-4119A

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 1,2,3 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 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

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.



Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

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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)
- 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 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–'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 or rear heads available by special order



900-0458

B2 HEADS WITH STOCK BOLT PATTERN

Finish	Part #
Silver Powder Coat	900-0450
Wrinkle Black Powder Coat	900-0458
*Head Kits include valves and valve springs. Head sets w/o valves or springs individual front or rear heads are available by special order.	
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 126

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

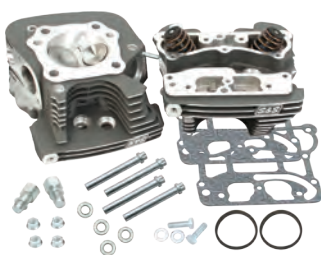
- Compression release machining or without compression release machining (*Compression release machining for S&S compression releases*)
- Silver, Wrinkle Black, or Stone Gray powder coat finish

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	Manifold** Surface	Compression Release Machining	Springs	Finish	Part #
2006–'17 big twins <i>except 2017 touring models</i>	79cc		●	.650"	Silver	106-3227
			●	.650"	Wrinkle Black	106-3233
2006–'17 big twins <i>except 2017 touring models</i>	89cc		●	.650"	Silver	106-3255
			●	.650"	Wrinkle Black	106-3240
2006–'17 big twins, 2008–'16 touring models	91cc	+.032"	●	.650"	Silver	106-4278
				.650"		900-0344
				.650"	900-4278	
S&S 124" Hot Set Up Kits	91cc	-.064		.650"	Wrinkle Black	900-0993
			●	.650"	Wrinkle Black	106-3249
				.650"		900-0349
	.650"	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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All other Specifications and finishes are available through Special Order

90-1060* Call for Pricing

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

37/8" & 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.

Milwaukee-Eight®

2007–2017 Twin Cam 96"/103"/110"

1999–2006 Twin Cam 88"

1986–2019 Sportster® & Buell®

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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® fuel injection.

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 104. 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 128

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 stock throttle body, 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 #	MSRP
1999–2017 big twins (except Twin-Cooled™ & 2017 touring models)	106-5880	Call for Pricing

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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" with stock throttle body

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 104.

Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88"

1986–2019
Sportster® & Buell®

2014–2019 Street® &
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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 $\frac{3}{8}$ "	4.937"	Stock HD®	93-3031 	93-3030 	93-3014 
117" Big Bore	4 $\frac{3}{8}$ "	4.878"	S&S®	—	93-3030 	93-3070
124" Big Bore Stroker	4 $\frac{5}{8}$ "	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 349**

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 

[‡]  WARNING: Cancer and Reproductive Harm

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 #
 Gloss Black	900-0937
Chrome [‡]	90-4110 

[‡]  WARNING: Cancer and Reproductive Harm



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 131

ANY JOB IS EASY WITH THE RIGHT TOOLS

S&S ROCKER COVER WRENCH SET, **PAGE 329**

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 #
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)** (Engines produced before 2013)</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 before 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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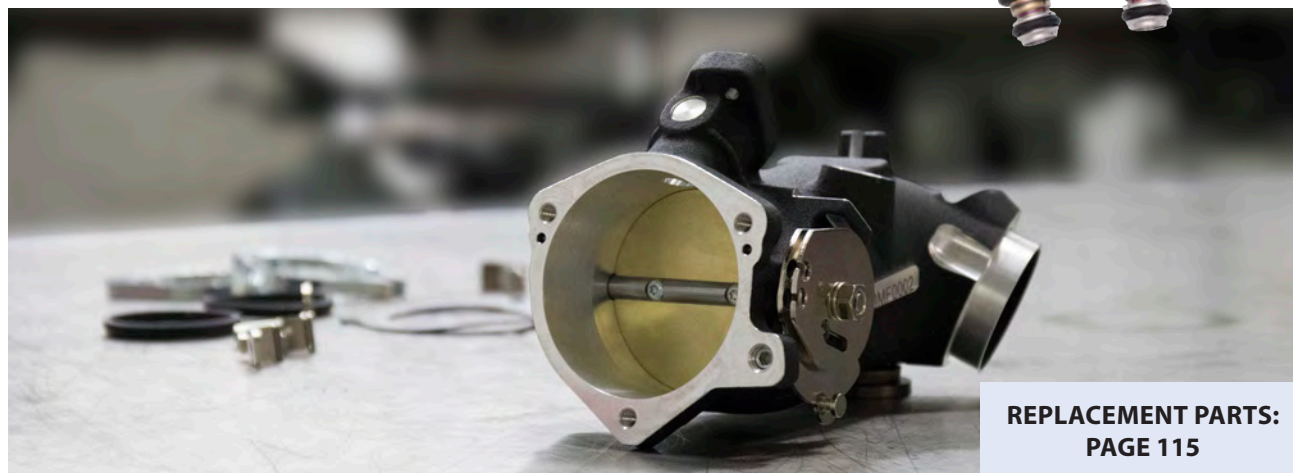
MAKE MORE POWER!

S&S Air Cleaner Kits
See page 60

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:
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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® &
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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
- All throttle-by-wire 58 & 66mm throttle bodies are machined to stock length intake manifolds (S&S manifold size 405) only

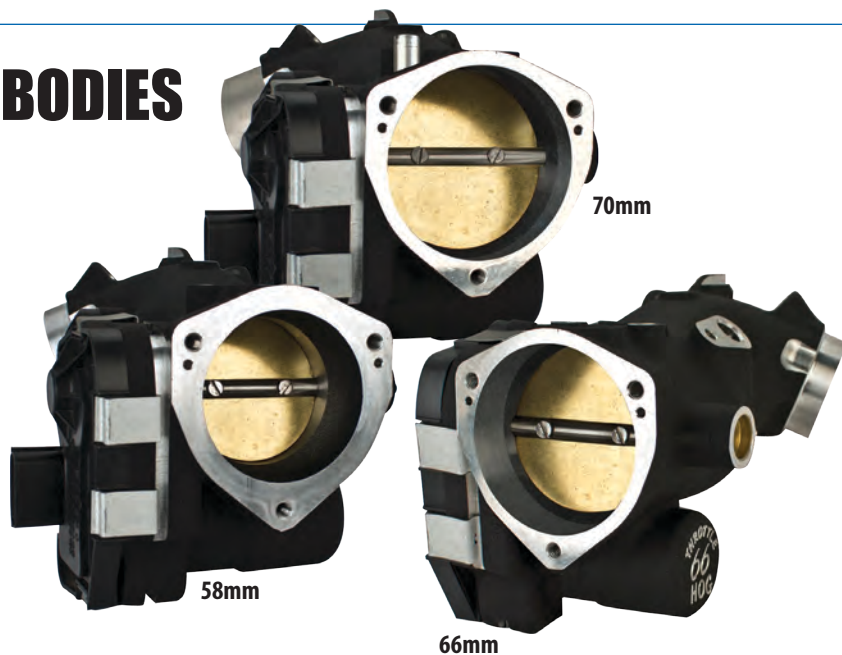
58MM Recommended for engines up to 110". Perfect with a S&S® 106" Big Bore kit

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
cylinders 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 60 for S&S Stealth covers.

± WARNING: Cancer and Reproductive Harm

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



**B3 APPLICATIONS FOUND ON
PAGE 75**

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–'17 EFI big twins
(except 2008–up touring & 2016–'17 Softail® models with electronic throttle control)

FEATURES AND BENEFITS

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

MAKE MORE POWER!

S&S® Stealth Air Cleaners on [page 60](#)
S&S Air Cleaner Kits for on [page 65](#)

NEW & IMPROVED!

CABLE-OPERATED THROTTLE HOGS
[PAGE 103](#)

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

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 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 116](#)

COMPRESSION RELEASES

FITMENT

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

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 102](#)



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



55-1009



90-4915



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.

Milwaukee-Eight™

2007–2017 Twin Cam
96°/103°/110°™

1999–2006
Twin Cam 88°

1986–2019
Sportster® & Buell®

2014–2019 Street® &
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VARIABLE FUEL INJECTION MODULES (VFI)

DELPHI® STYLE S&S® VFI MODULE

FITMENT

- 2001–'10 Harley-Davidson® EFI Softail® models
- 2002–'07 EFI touring models
- 2004–'11 EFI Dyna® models

IMPROVED FEATURES:

- New state of the art components replace outdated materials
- Improved waterproof housing
- More durable USB-C connector
- Faster processor for increased communication speed
- Protune II 4.0
- EC-approved

FEATURES AND BENEFITS

- Replaces stock Harley-Davidson® fuel injection modules—*plugs directly into stock wiring harness*
- Three stage engine overheat protection helps prevent possible engine damage
- 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
- 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
- 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

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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

All current production S&S modules are closed loop compatible, and all older S&S modules can be updated with current calibration

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.

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. Up to 40% more pressure for stronger clutch engagement.

FEATURES AND BENEFITS

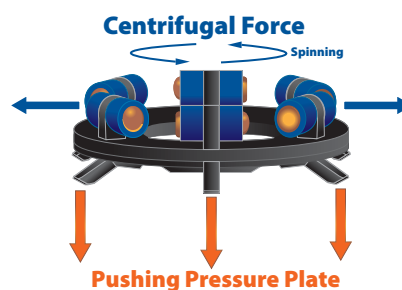
- Works like a lock up clutch
- Increased torque capacity: strength of engagement increases with RPM
- 10 minute installation
- Fits behind most stock derby covers and primary covers—*No modification required*
- Can be used with cable and hydraulic clutch controls

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

VARIABLE PRESSURE CLUTCH

Description	Part #
1998–2017 big twins except M8	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.

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® models, 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 7/8", 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", 3.927", & 3.937" 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.

CYLINDER HEAD GASKET KITS FOR T-SERIES 1999-UP

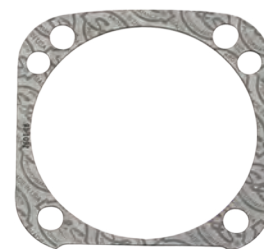
Bore	Part #
4 1/8" Stock Bolt Pattern	90-1914
4 3/8" bore	900-0800
4" Stock Bolt Pattern	90-1913
3 7/8", 3.927", & 3.937" Stock Bolt Pattern	910-0465*

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.

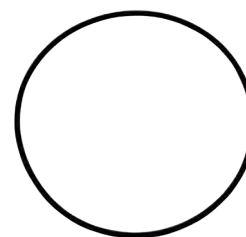
*DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

HEAD GASKETS FOR S&S® ENGINES

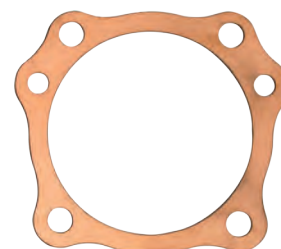
Description	Bore Size	Thickness	QTY	Part #
Copper	4 3/8"	.045"	2 pack	93-1081
Layered Steel	4 1/8" Stock Bolt Pattern with Twin Cooled™ Heads	.045"	each	900-0608
Layered Steel	4 1/8" Stock Bolt Pattern	.043"	each	93-1091-S
			2 pack	930-0102
			10 pack	93-1920
Layered Steel	4 1/8" Stock Bolt Pattern	.030"	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 7/8", 3.927", & 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", 3.927", & 3.937" including Twin-Cooled Heads	.045"	2 pack	900-0862
Layered Steel	4 7/16"	.045"	2 pack	900-0762



Micropore



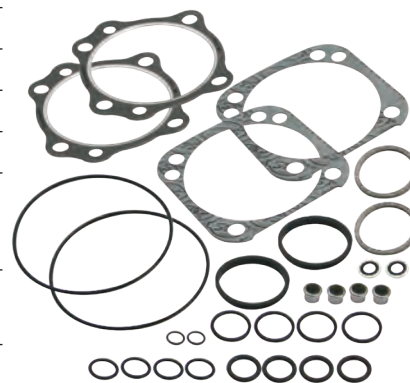
Viton® O-ring



Copper



Layered Steel



90-9505

Milwaukee-Eight®

2007–2017 Twin Cam
96°/103°/110°

1999–2006
Twin Cam 88°

1986–2019
Sportster® & Buell®

2014–2019 Street® &
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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
	4½" S&S Bolt Pattern	.018"	each	93-1048-S
			2 pack	930-0101
			10 pack	93-1074
Micropore	4¾"	.018"	2 pack	93-1082
	4½" 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
	3¾", 3⅞", 3.927", 3.937"	.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, S&S 79cc, & S&S 89cc heads

DIE CAST ROCKER BOXES

Gasket, bottom rocker cover, 4½", 1984–up	each	90-4071-S
	2 pack	90-4071
	10 pack	90-4099

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

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		<i>each</i>	90-4071-S 16719-99B
		<i>2 pack</i>	90-4071
		<i>10 pack</i>	90-4099
Gasket, Breather Cover, Stock Pattern	1999–'10	<i>each</i>	90-4077 17591-99, 17162-03, 17592-99
	2011–'17	<i>each</i>	900-0415
Gasket, Breather Baffle, Stock Pattern	1999–'10	<i>each</i>	90-4078 17162-03, 17592-99
	2011–'17	<i>each</i>	900-0416
Gasket, Rocker Cover, Steel, 1999–up bt		<i>each</i>	90-4096-S 17386-99A
Gasket, Bottom, Rocker Cover, S&S® Heads w/Stock Rocker Box, 1999–up bt		<i>each</i>	90-4124
		<i>2 pack</i>	90-4120

LOWER END GASKETS AND SEALS

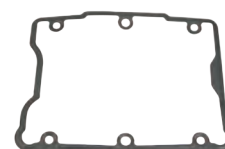
Gear Cover gasket	<i>each</i>	31-2032-S 25244-99A
Tappet Cover gasket	<i>each</i>	33-5303-S 18635-99B
	<i>2 pack</i>	33-5303-2 18635-99B

PUSHROD O-RINGS

O-ring, Kit, Pushrod Cover, 1984–'99 bt		93-4022
Top O-ring	<i>each</i>	50-8039 11293, 11157, 11101, 11190
Middle O-ring	<i>each</i>	50-8038 11132A
Bottom O-ring	<i>each</i>	50-8037 11145A

MISCELLANEOUS GASKETS

Sprocket Shaft seal		31-4035 12068
S&S Oil pump seal kit		31-2097
Oil Pump Scavenge o-ring	<i>each</i>	50-8039 11293, 11157, 11101, 11190
Case alignment dowel o-ring	<i>each</i>	50-8034-S 26432-76A
	<i>2 pack</i>	50-8034 26432-76A
Oil jet o-ring	<i>each</i>	50-8270
	<i>5 pack</i>	50-8275
Cam plate and oil line plate o-ring		<i>each</i> 50-8066-S 11301



90-4096-S



90-4124



90-4071-S


Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"1999–2006
Twin Cam 88®1986–2019
Sportster® & Buell®2014–2019 Street® &
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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

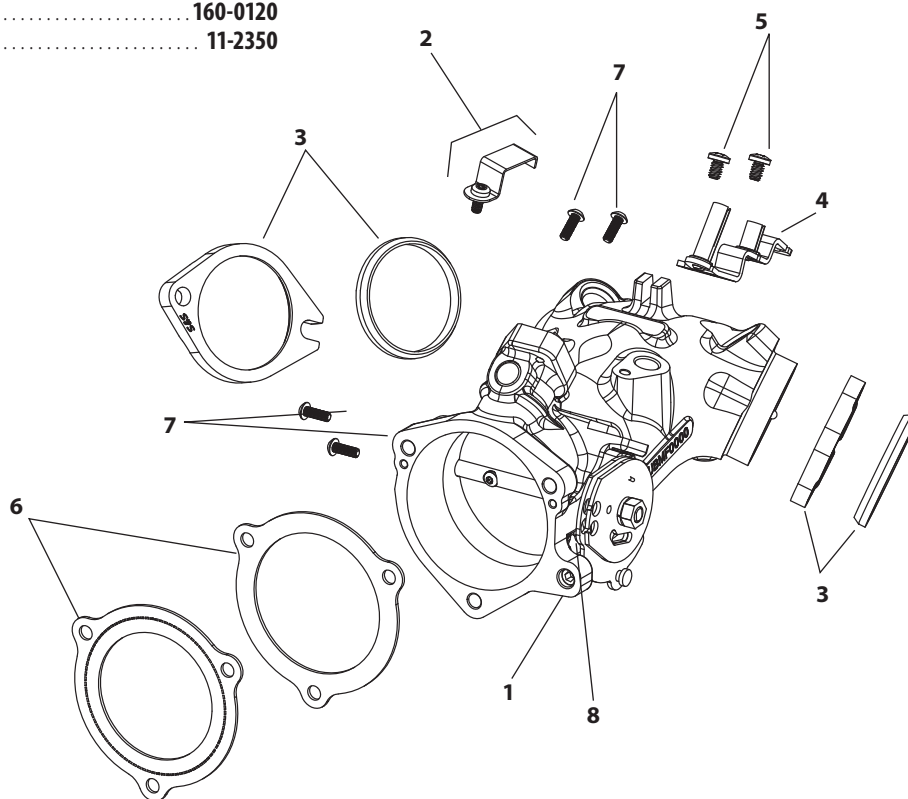
SINGLE BORE EFI THROTTLE BODY

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 \$182.95**



Milwaukee-Eight™

2007–2017 Twin Cam
96°/103°/110°

1999–2006
Twin Cam 88°

1986–2019
Sportster® & Buell®

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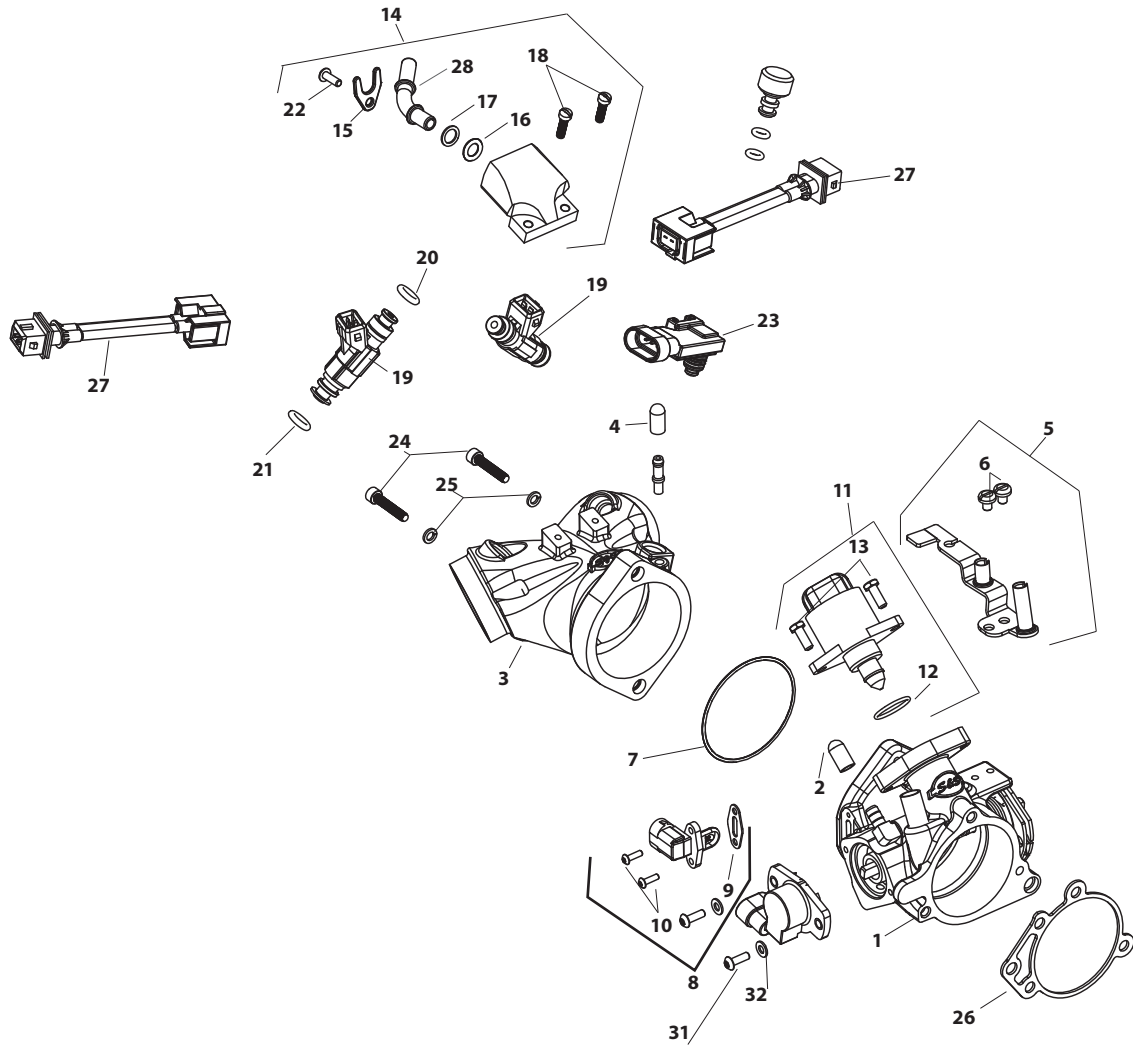
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SINGLE BORE EFI THROTTLE BODY AND RELATED REPLACEMENT PARTS

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 105)		
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	
31. Screw, Torx, M4 x 12mm, Zinc, Steel	50-0358-S	
32. Washer, Flat, 4mm x 9mm x .9mm, Stainless Steel	50-7145-S	

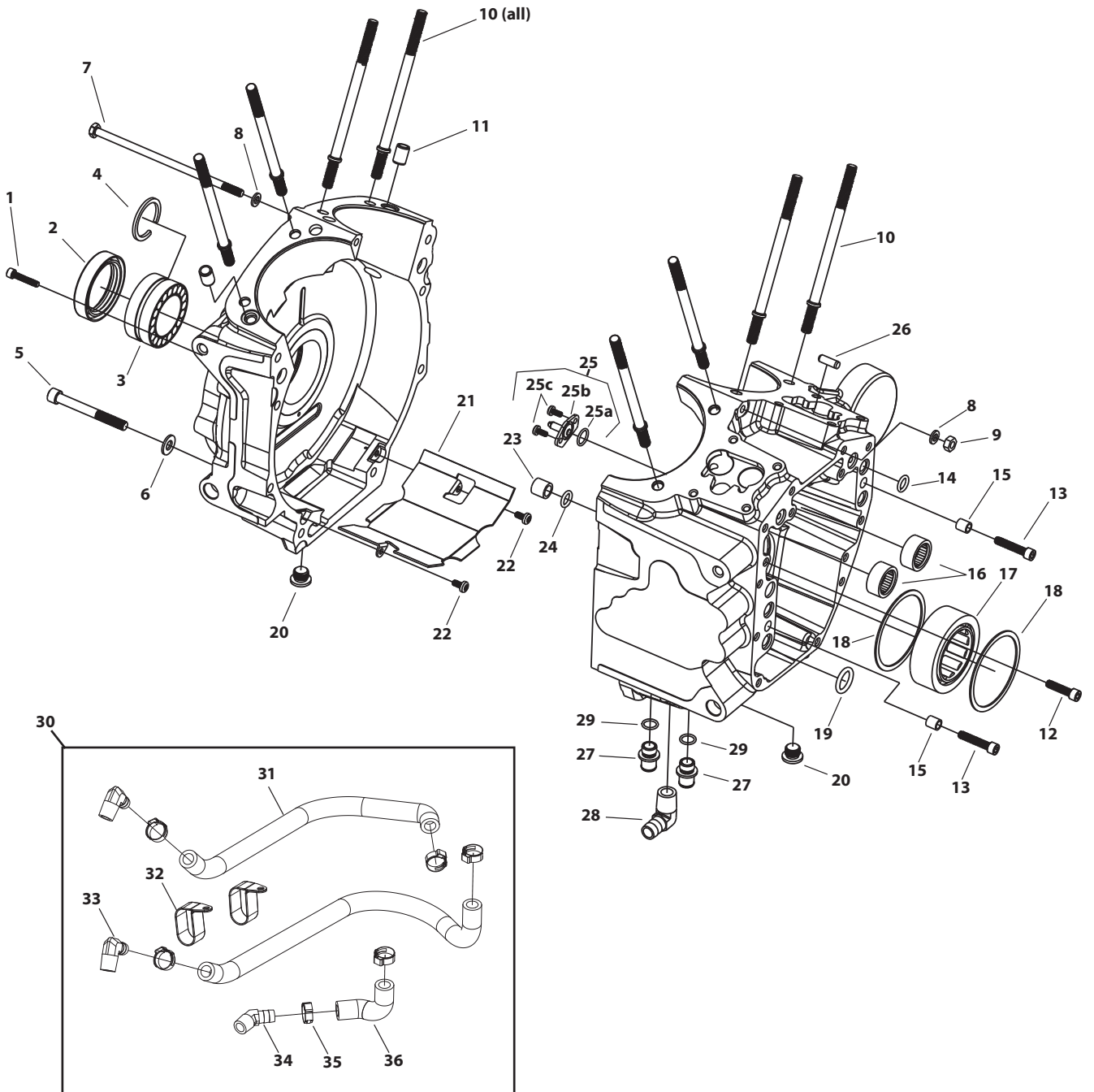
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N/A = Not Available



SUPER STOCK T2 CRANKCASE REPLACEMENT PARTS

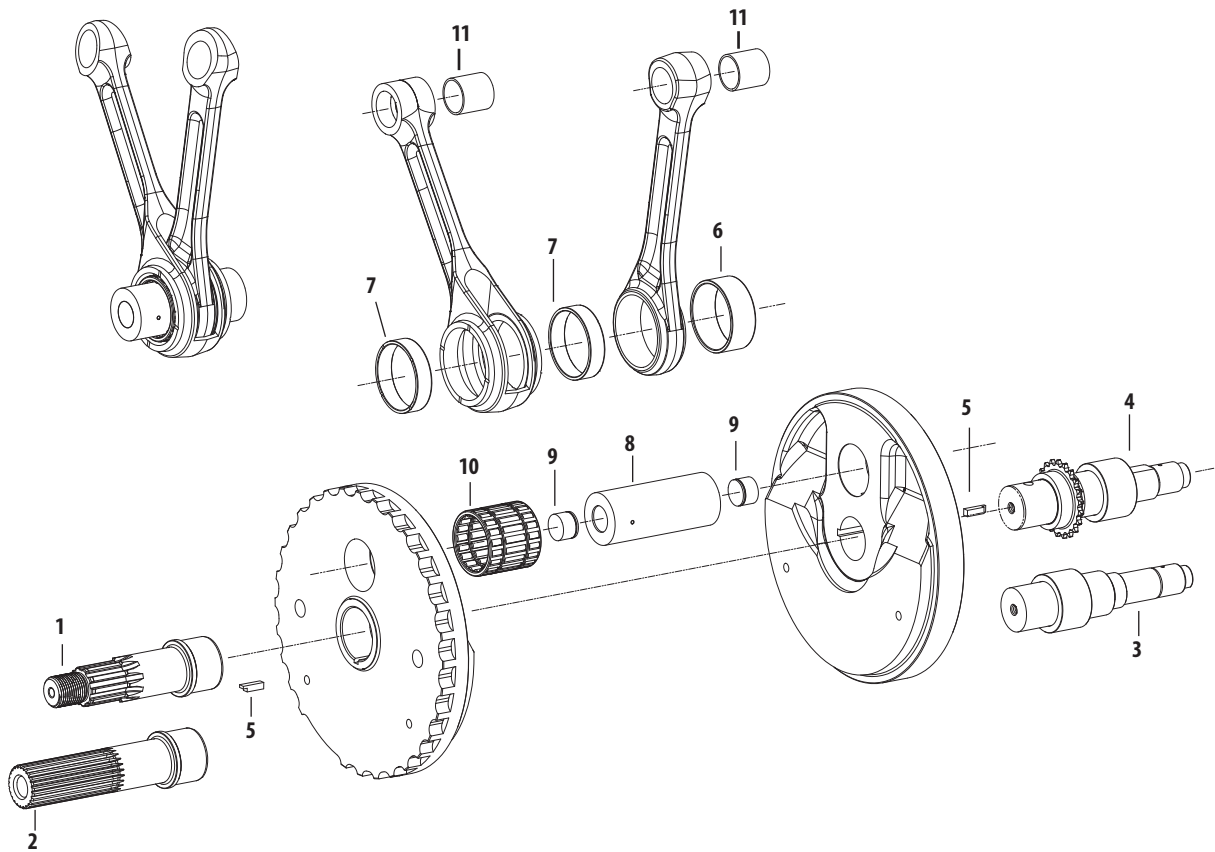
1. Bolt, stator 10-24 x 1" SHC - 4 required 2720 **50-0044**
2. Seal, sprocket shaft 12068 **31-4035**
3. Bearing, Timken® sprocket shaft 9028  **31-4013**
4. Timken Main Bearing Spacers
Fits 1 1/4" stock diameter shaft.
 - .0995" - .1005" 9124  **31-4071**
 - .1015" - .1025" 9125  **31-4072**
 - .1035" - .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 3/12" 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, 6.070" - 8 required
(each)  **31-2325-S**
8 pack  **31-2340**
Cylinder stud, Stock Bolt Pattern, 6.312" - 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 1 5/16" 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 | \$130.95 | 9. Crankpin Plug (each) | 106-5256 | \$5.95 |
| 2. Sprocket Shaft, 2006 Dyna®, 2007–2012 bt | 33-2011 | \$244.95 | 2 pack..... | 50-8329-2 | \$9.95 |
| 3. Pinion Shaft, 1999–2012 bt (includes key #5) | N/A | – | 10. Bearing Assembly..... | 340-0028 | \$161.95 |
| 4. Pinion Shaft, 2000–2012 w/balancer (includes key #5) | N/A | – | 11. Wristpin Bushing, | | |
| 5. Key (each) | 50-8227 | \$4.95 | 1999–2012 bt, straight bushing | USA 34-4012 | \$8.95 |
| 6. Front Rod Race, 1999–2012..... | USA 34-4008 | \$28.95 | | | |
| 7. Rear Rod Race | USA 34-4013 | \$26.95 | | | |
| 8. Crankpin | | | | | |
| Standard | 106-6239 | \$138.95 | | | |
| + .001..... | 340-0017 | \$138.95 | | | |
| + .002..... | 340-0018 | \$138.95 | | | |

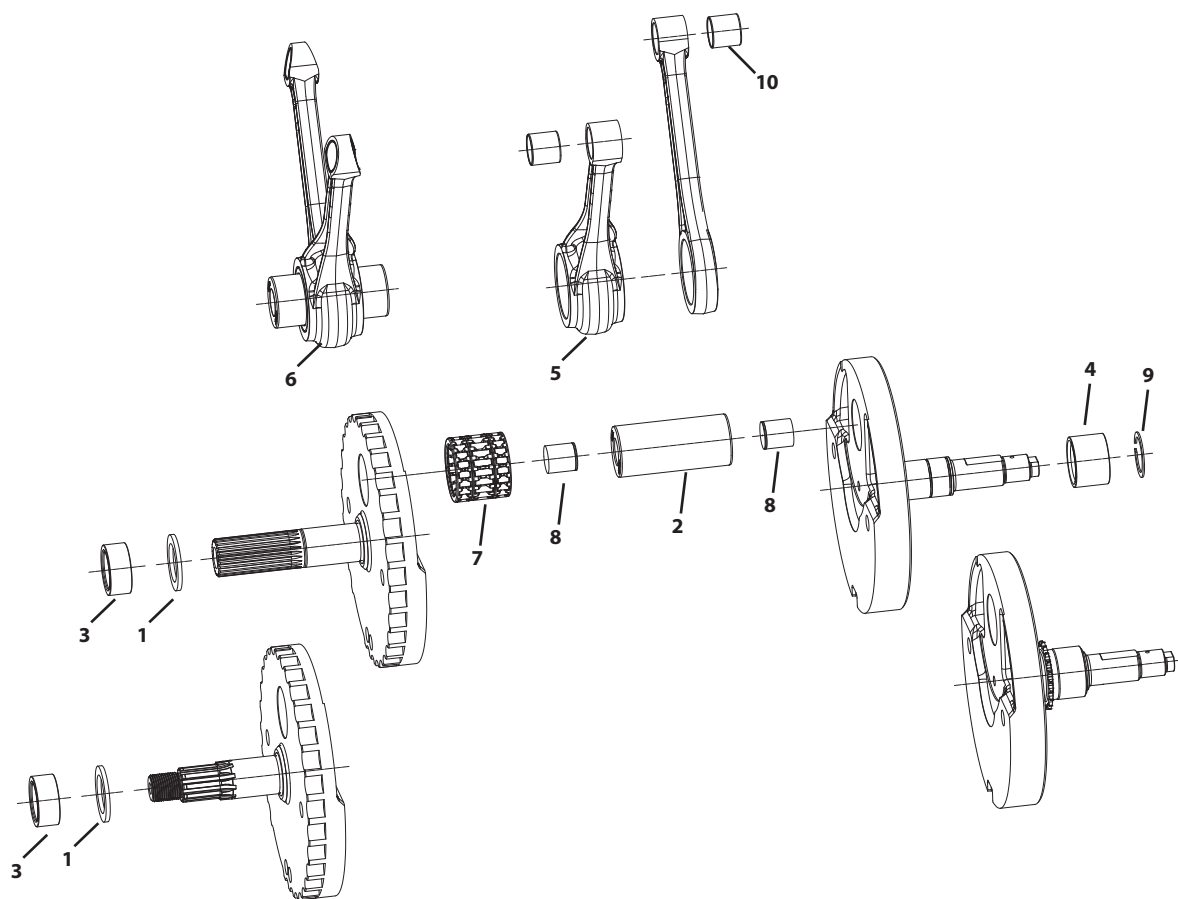


NOTES

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.

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..... | 310-0752 |
| + .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 <i>each</i> | 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 | | |



Milwaukee-Eight™

2007–2017 Twin Cam
96°/103°/110°

1999–2006
Twin Cam 88™

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

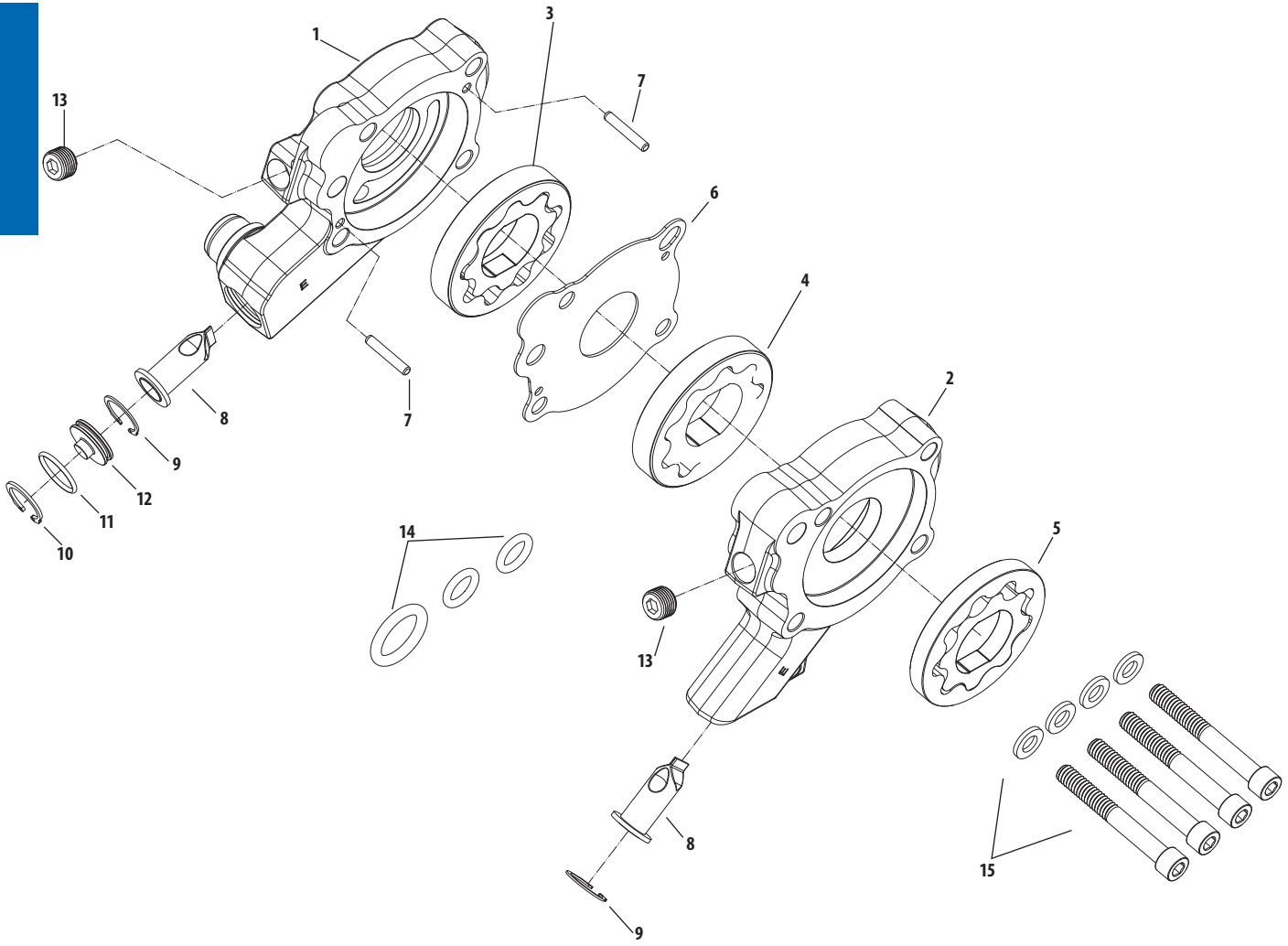
Indian® Models

Tools &
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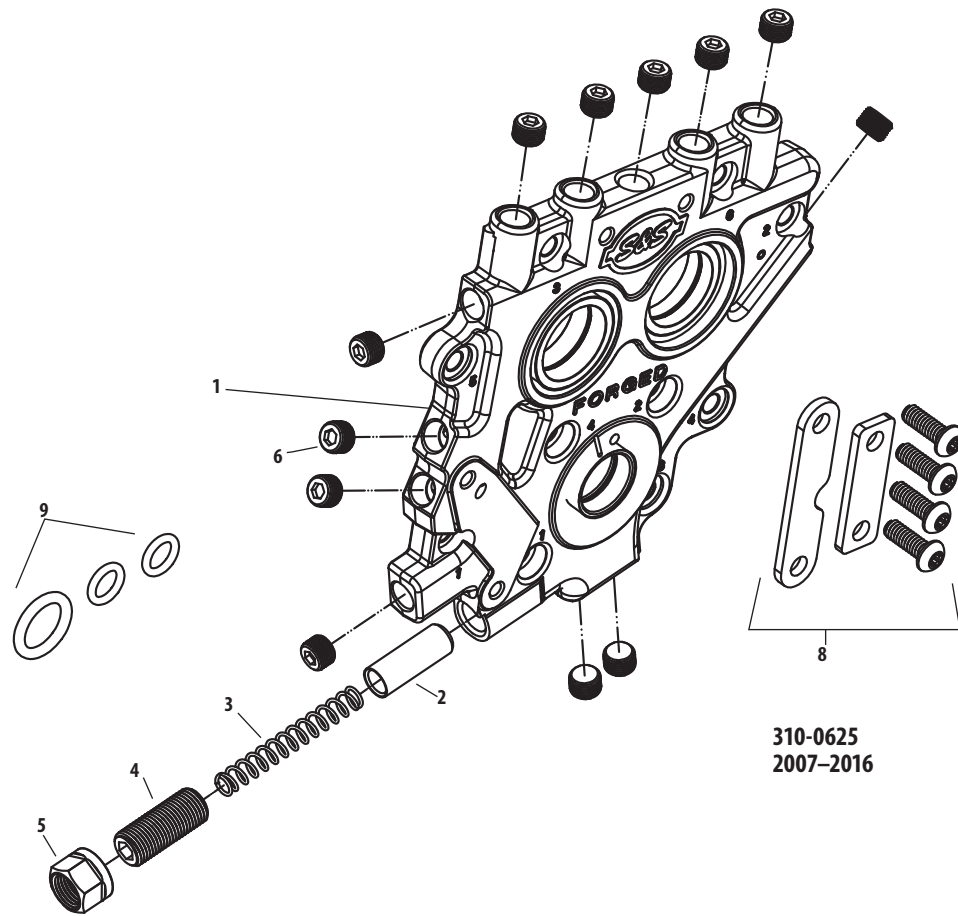
TC3 OIL PUMP REPLACEMENT PARTS



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	36-7021-5
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 **31-6082-5**
- 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**



310-0625
2007–2016

Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88™

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

Tools &
Shop Supplies

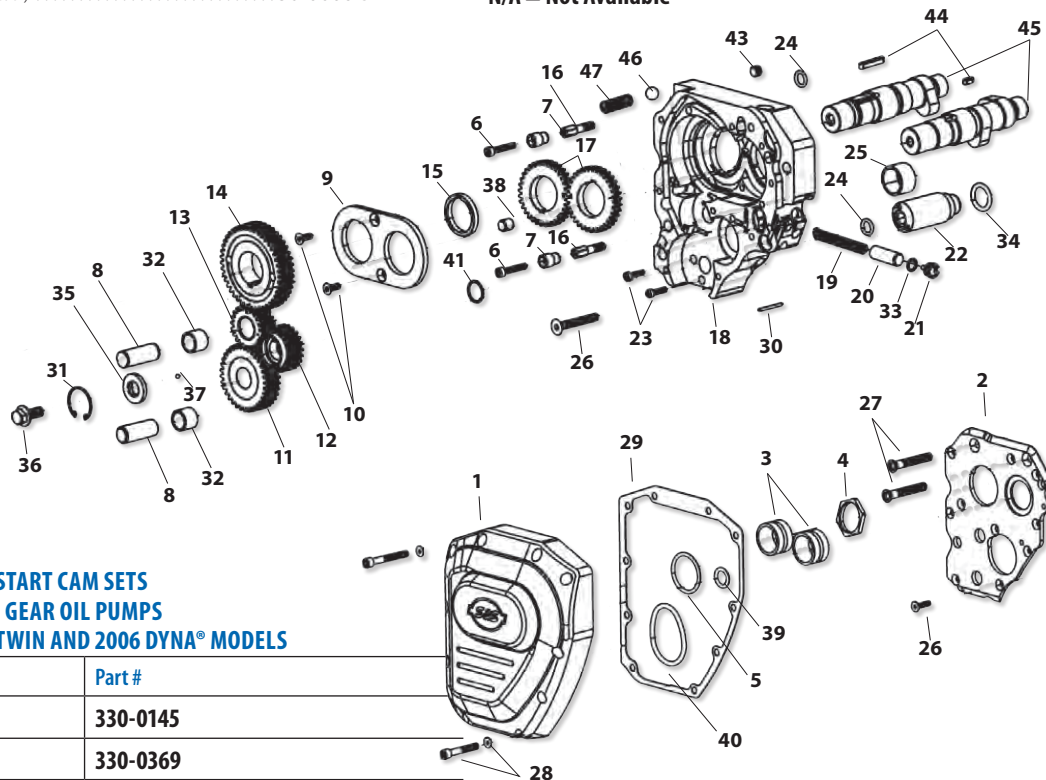
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Company Policy

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OIL PUMP REPLACEMENT PARTS FOR 2007-'16 HARLEY-DAVIDSON® BIG TWINS

- | | | | |
|--|-----------|--|-----------|
| 1. Cover, assembly, camchest
Chrome..... | N/A | 25. Bushing, pinion shaft..... | N/A |
| 2. Cover plate..... | N/A | 26. Screw FHSC 10-24 x 3/4" (5 pack)..... | 50-8328 |
| 3. Bushing, cam support (each)..... | 31-4087-S | 27. Screw FHSC 1/4"-20 x 2" (5 pack)..... | N/A |
| 4. Nut, gear retainer, rear cam..... | N/A | 28. Kit, cover screw..... | 50-1035 |
| 5. O-ring, Viton (-220) (each)..... | 50-8245-S | 29. Gasket (each)..... | 31-2032-S |
| 6. Screw, SHC - 10-24 x 1" (each)..... | 50-0044 | 30. Dowel pin, 3/32" diameter x 1" (each)..... | 50-8193-S |
| 7. Alignment dowel (each)..... | 50-8182-S | 31. Retaining ring (5 pack)..... | N/A |
| 8. Idler gear shaft (each)..... | 31-2079-S | 32. Bushing..... | 33-4214 |
| 9. Divider plate..... | 31-6508 | 33. O-ring 5/16" O.D. x 1/16" Viton (-011)..... | 50-8138-S |
| 10. Screw FHSC 10-24 x 1/2" (5 pack)..... | N/A | 34. O-ring (-209) Viton (each)..... | 50-8039 |
| 11. Gear, cam chest return..... | N/A | 35. Washer, pinion gear..... | 50-0331-S |
| 12. Gear assembly, pinion shaft..... | N/A | 36. Screw, FHHC - 5/16"-18 x 3/4" G8 25566-06..... | 50-0100 |
| 13. Gear, idler - Includes item PN 33-4214 bushing..... | N/A | 37. Steel ball, 1/8" (each)..... | 50-8092-S |
| 14. Gear, cam drive..... | 33-4292 | 38. Pin dowel - .275" I.D. x .3745" O.D. x .397"..... | 50-8148-S |
| 15. Gear, spacer..... | N/A | 39. Viton o-ring (-207) (5 pack)..... | N/A |
| 16. Thread adapter..... | 31-2089-S | 40. Viton o-ring (-225) (5 pack)..... | N/A |
| 17. Cam drive gear..... | N/A | 41. Viton o-ring (-16) (5 pack)..... | N/A |
| (For reference only, not included in pump kit.) | | 42. Screw, FLC 1/4"-20 x 13/4" 905 (each)..... | 50-0334-S |
| 18. Body assembly..... | 31-6505 | 43. Pipe plug 1/8"-27 (each)..... | 50-8331A |
| 19. Spring, pressure control (each)..... | 31-6018 | 10 pack..... | 50-1015 |
| 10 pack..... | 31-6084 | 44. Key kit - cams..... | N/A |
| 20. Plunger, pressure control valve 26400-82, 26400-82B..... | 31-6082 | 45. Camshafts - See Cam Selection Chart below. | |
| 21. Pressure control plug w/o-ring..... | N/A | 46. Ball, pressure relief valve 3/8" diameter
8866, 8873..... | 50-8091 |
| 22. Fitting, flywheel cavity return..... | N/A | 47. Spring, pressure relief valve..... | N/A |
| 23. Screw, SHC 8-32 x 5/8" (5 pack)..... | N/A | | |
| 24. O-ring, Viton 11301 (each)..... | 50-8066-S | | |

N/S = Not Shown
N/A = Not Available



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 88 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 NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

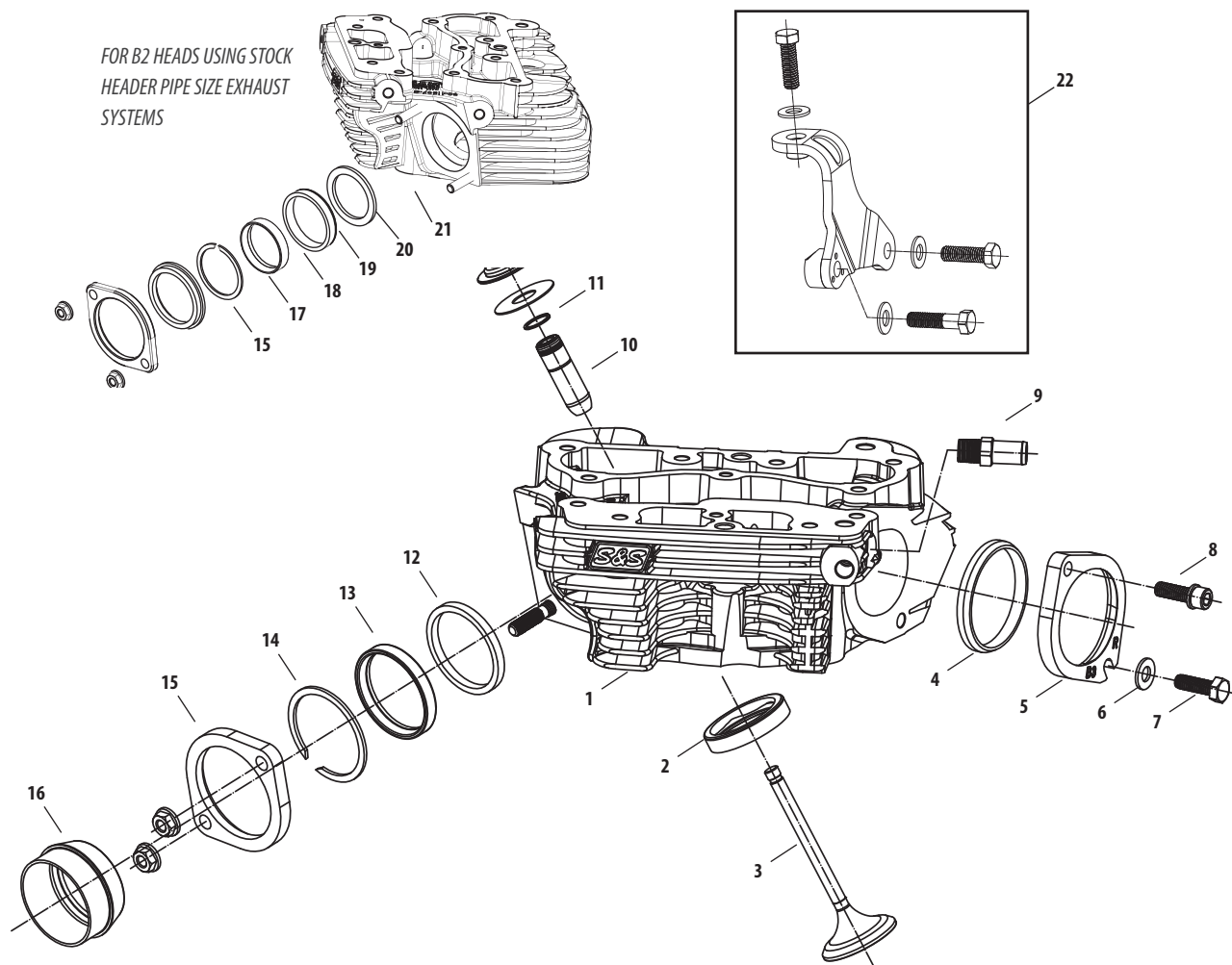
All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown

± WARNING: Cancer and Reproductive Harm

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 130**

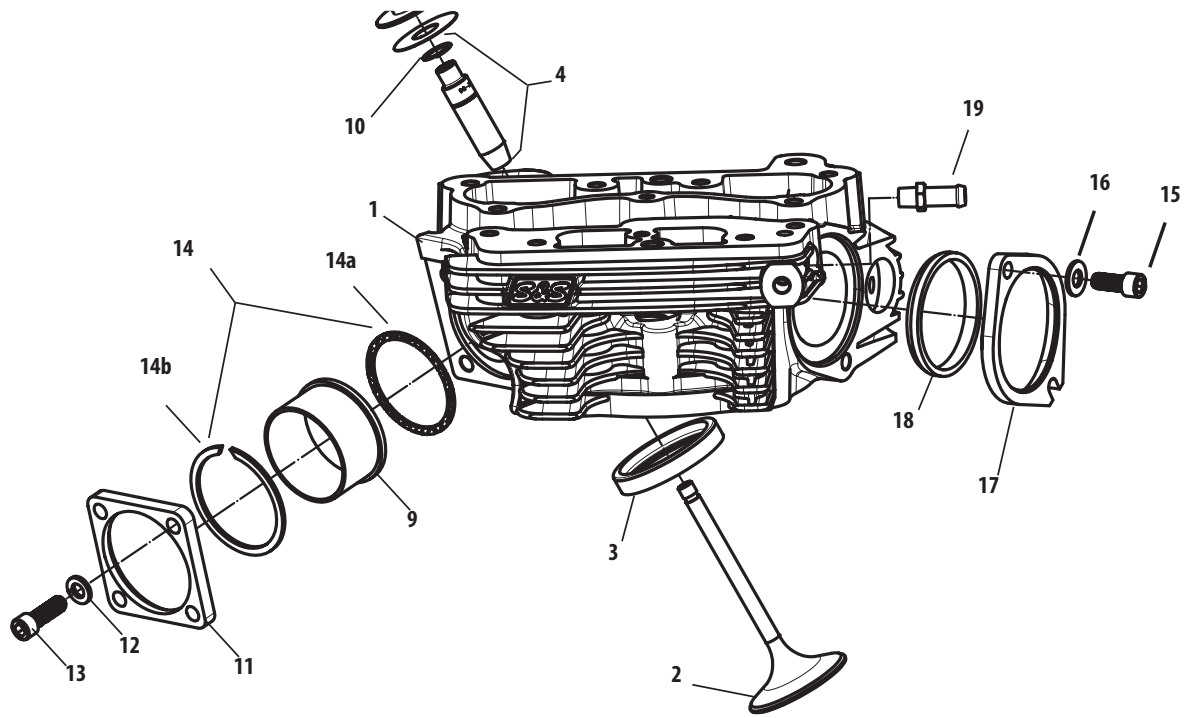


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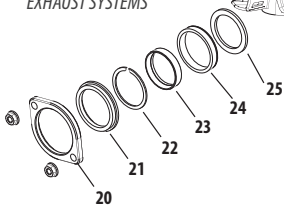
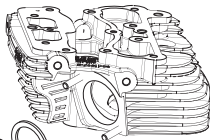
Milwaukee-Eight®
2007–2017 Twin Cam
96"/103"/110"
1999–2006
Twin Cam 88®
1986–2019
Sportster® & Buell®
2014–2019 Street® &
Street Rod®
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B2 CYLINDER HEADS REPLACEMENT PARTS

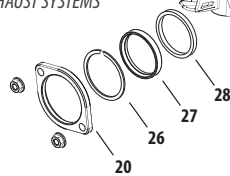
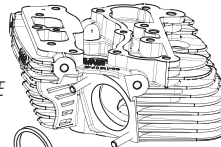
1. Cylinder head – (See page 98)	
2. Valve	
Intake, 2.200" Dia.	90-2127
Exhaust, 1.800" Dia.	90-2128
3. Valve Seat	
Exhaust, 1.800" Dia.	90-2126
Intake, 2.200" Dia.	90-2125
4. Valve guide, intake/exhaust, cast	
STD.	106-2166
+.030"	106-2170
9. Adaptor, Exhaust Flange.	55-6022
10. Snap ring (each)	106-2164
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



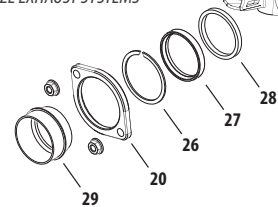
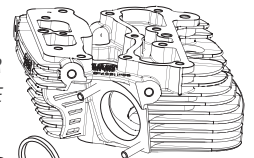
FOR B2 HEADS USING STOCK HEADER PIPE SIZE EXHAUST SYSTEMS



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 130



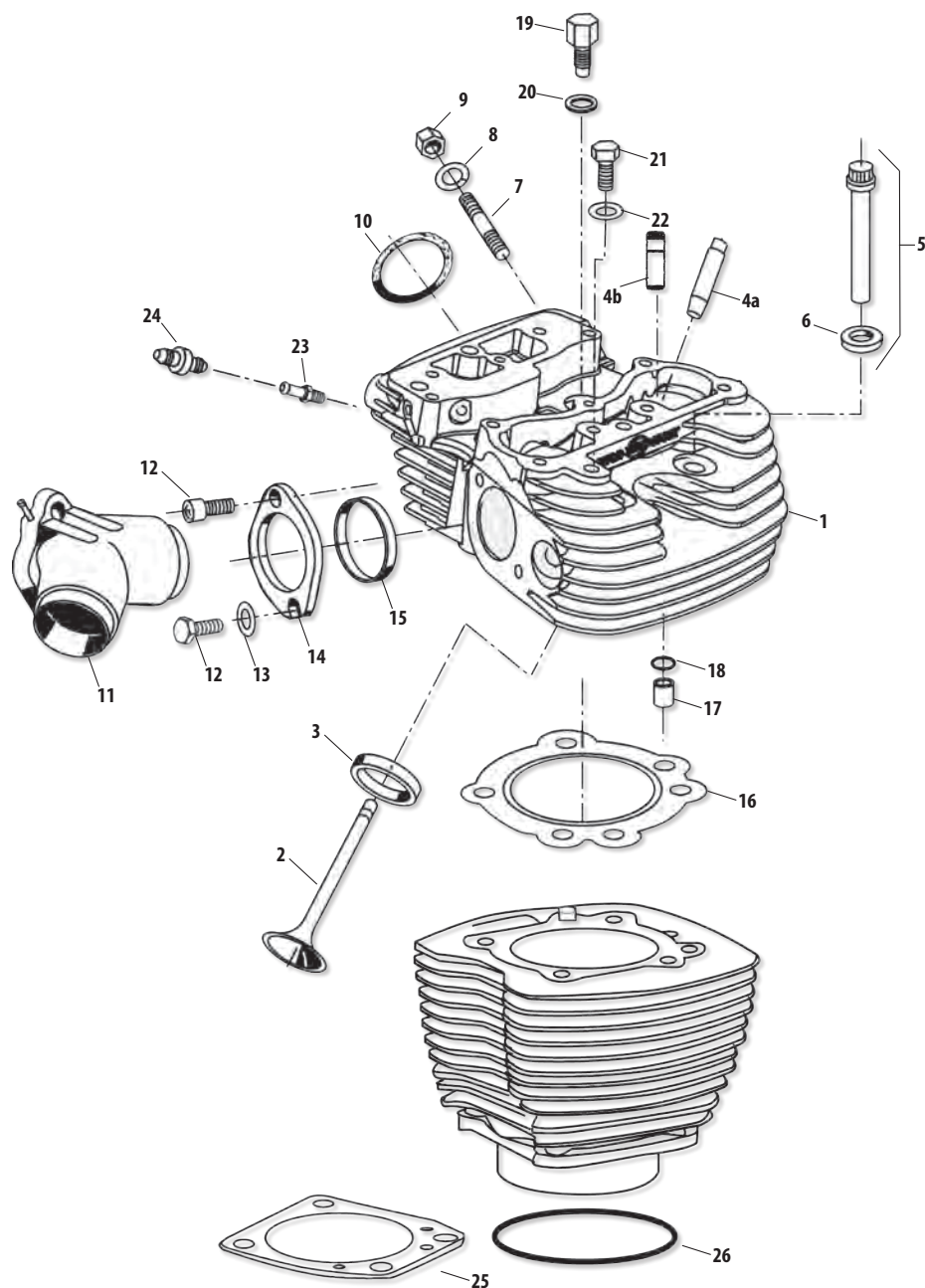
SUPER STOCK® CYLINDER HEADS REPLACEMENT PARTS FOR 2007–2016 BIG TWIN ENGINES

1. Cylinder head (Starting page 99)
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) **50-5025-5**
 - 2 pack **50-5025-2**
 - 5 pack **50-1001**
 - Chrome (each) **50-5030-5±**
10. Exhaust pipe gasket, tapered 65324-83B, 65324-83A
 - each **106-5029**
 - 10 pack **93-1072**
11. Intake manifold (see page 105)
12. Manifold mounting screw
 - SH – 5/16" – 18 x 3/4" 3275 (each) **50-0302-5**
 - 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  **16-0236**
 - each  **16-0236**
 - 10 pack **16-0244**
16. Head gasket
 - For Stock Bolt Pattern
 - 3 3/4" x .043" Graphite (each) **93-1045-5**
 - 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) **93-1043-5**
 - 10 pack **93-1058**
 - 4 1/8" x .043" Layered Steel (each) **93-1091-5**
 - 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) **93-1047-5**
 - 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) **93-1048-5**
 - 10 pack **93-1074**
 - 4" x .018" Graphite (each) **93-1050-5**
 - For Stock Bolt Pattern
 - 4 1/8" x .018" Graphite (each) **93-1092-5**
 - 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**

±  WARNING: Cancer and Reproductive Harm

**VALVE SPRING REPLACEMENT PARTS:
SEE PAGE 130**

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 112 to order separately.

VALVE GUIDE DIAMETERS FOR S&S® T-SERIES ENGINES

Oversize	Diameter	Part Number
Std.	.5625/.5620	90-2210 1,2,3
+0.01	.5635/.5630	90-2211
+0.02	.5645/.5640	90-2212
+0.03	.5655/.5650	90-2213
+0.030	.5925/.5920	90-2219

VALVE SPRING REPLACEMENT PARTS

.720" & .660" Lift Valve Springs (B3 Cylinder Heads)

- Seal, valve guide, intake/exhaust 18001-83B (each) . . .  **90-2008**
8 pack  **90-2158**
- Keeper, valve spring, SA **90-2153A**
- 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)

- Seal, Valve Guide, fits .315" x .554" OD, Viton® (4 pack) **900-0737**
- Keeper, valve spring, Standard, 9° **90-2094-S**

.650" Lift Sidewinder® Valve Springs

(Stock, Super Stock® & CNC Ported Cylinder Heads)

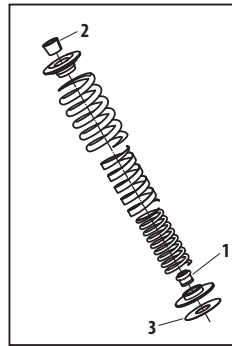
- Spring, Valve .650" **106-5689**
- Collar, Top, Steel **106-5690**
- Collar, Bottom, Steel **106-5691**
- Seal, Valve
S&S CNC Ported Heads & 2005-up bt w/7mm valve stem **106-5688**
S&S Super Stock Heads
.420" Cast (each) **900-0338**
.562" Powder Metal (4 pack) **900-0737**
- Keeper, valve spring **106-5692**
- Valve Spring Shim
.015" (each) **500-0013**
.030" (each) **500-0014**

.585" Lift Valve Springs

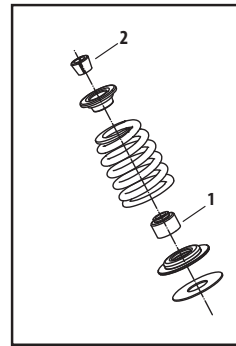
(Stock, Super Stock® & CNC Ported Cylinder Heads)

- Spring, Valve .585" **900-0444**
- Collar, Top **900-0550**
- 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**
- 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 (each) **900-0338**
.562" Powder Metal (4 pack) **900-0737**
- Keeper, valve spring
For Stock and CNC Ported Heads **106-5692**
For Super Stock Heads **90-2094-S**
- 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**

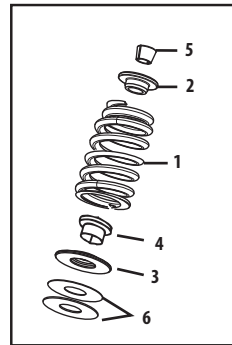
.720" & .660" Lift Valve Springs



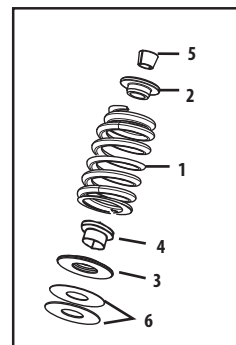
.650" Lift Valve Springs



.650" Lift Sidewinder® Valve Springs

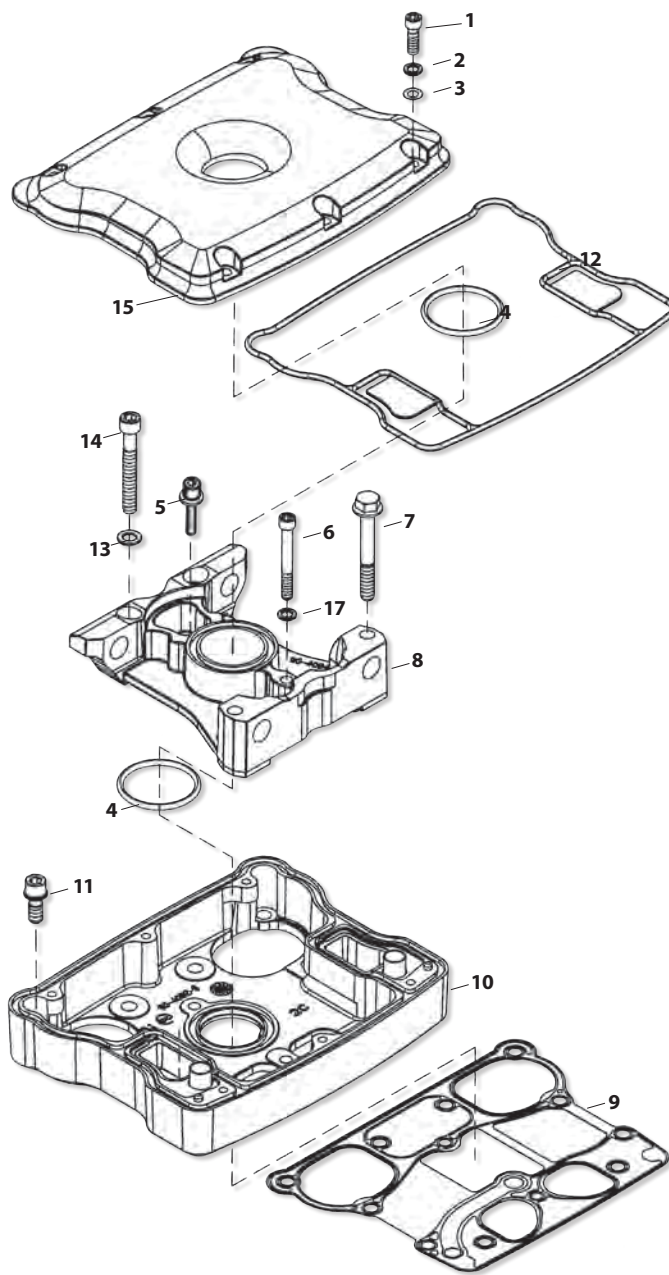


.585" Lift Valve Springs



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 1,2,3 900-0706±**
- 16. Gasket set – rocker cover, cast (Not Shown) **90-4111**
- 17. Washer, .261" x .474" x .050", Annealed, Stainless Steel
each **50-7020**



Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88™

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

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± WARNING: Cancer and Reproductive Harm

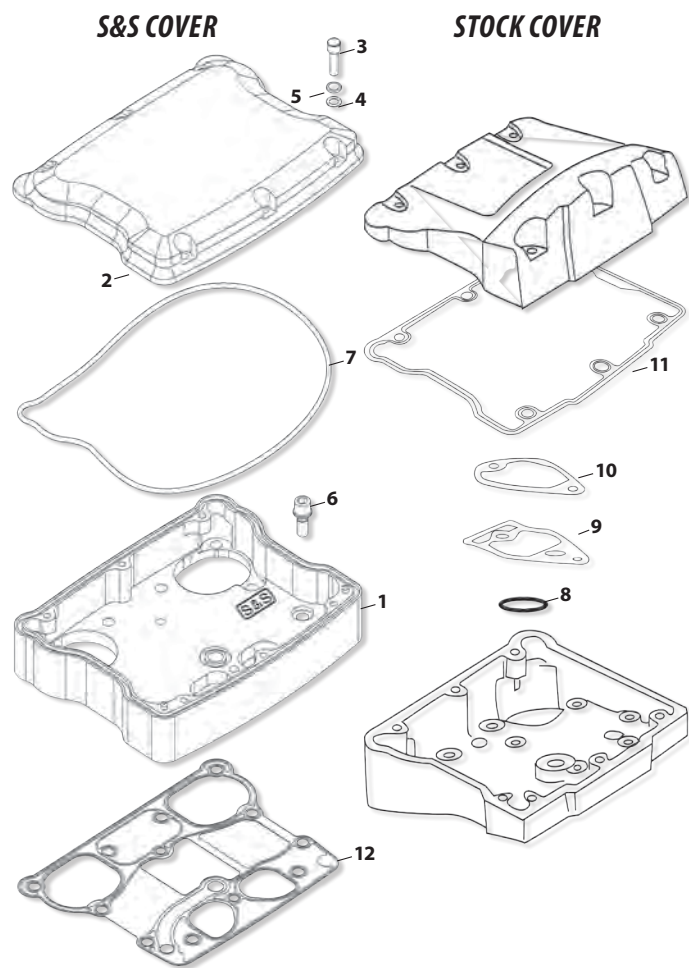


BILLET ROCKER COVER REPLACEMENT PARTS

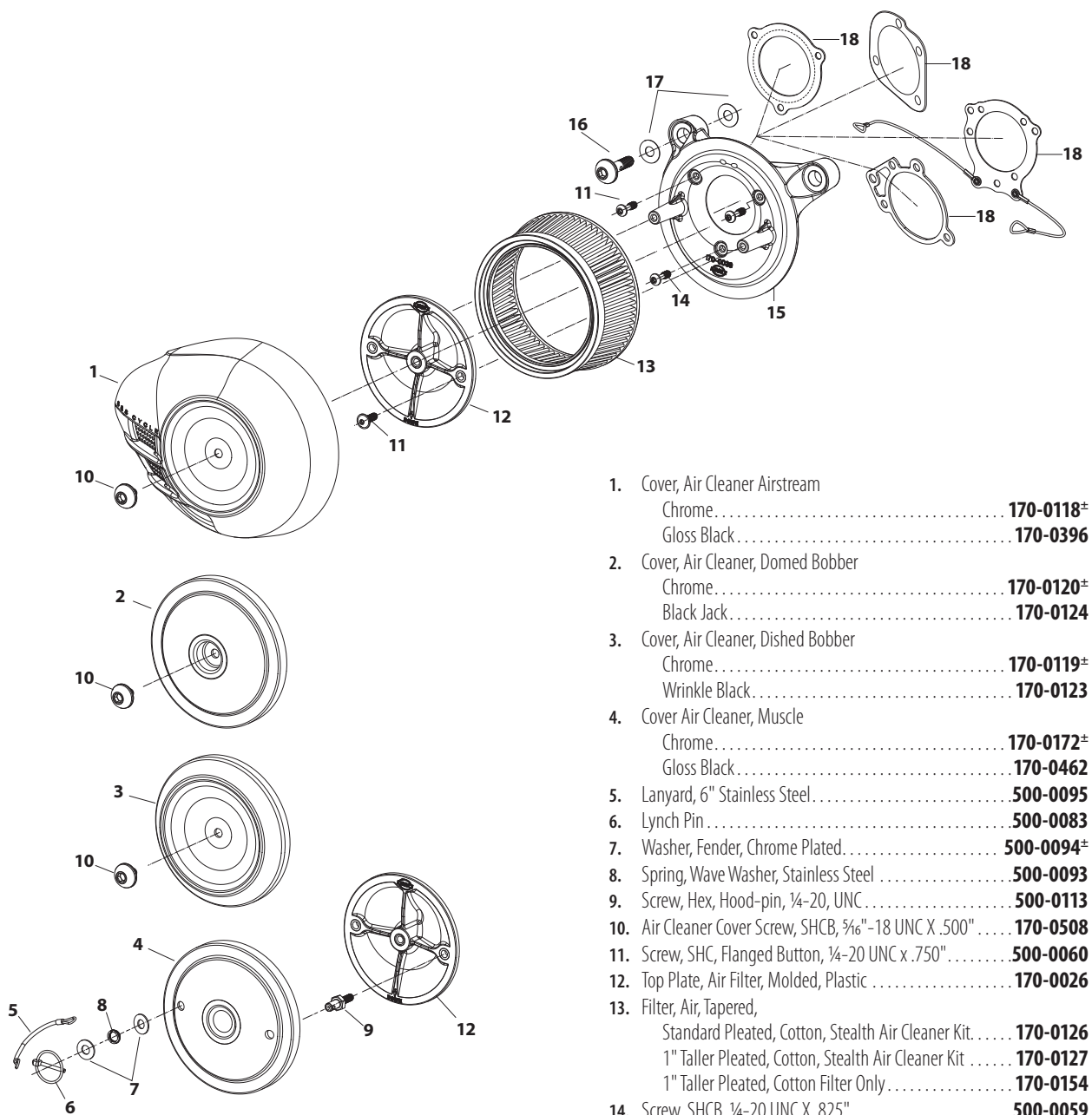
FOR 1999–2017 BIG TWIN ENGINES (DISCONTINUED) EXCEPT 2017 TOURING MODELS

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



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[±]**
 Wrinkle Black **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, 5/16"-18 UNC X .500" **170-0508**
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, 3/8-16 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**

[±] ⚠ WARNING: Cancer and Reproductive Harm

Milwaukee-Eight®

2007–2017 Twin Cam
 96"/103"/110"

1999–2006
 Twin Cam 88®

1986–2019
 Sportster® & Buell®

2014–2019 Street® &
 Street Rod™

Indian® Models

Tools &
 Shop Supplies

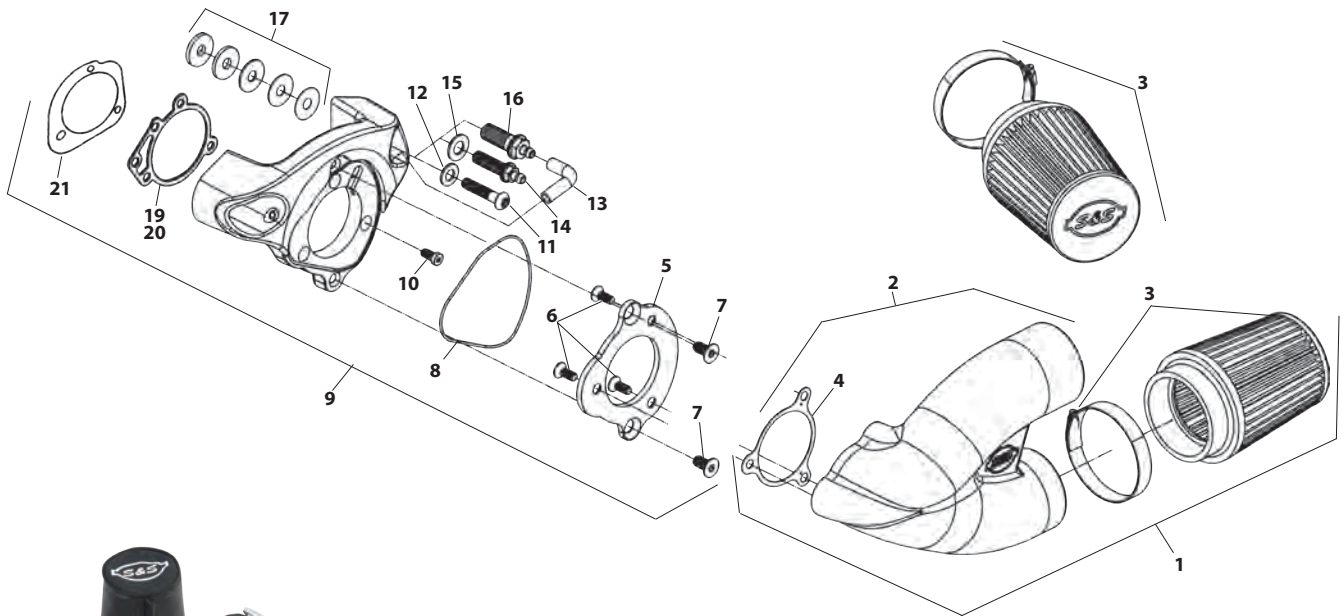
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SINGLE BORE TUNED INDUCTION SYSTEM REPLACEMENT PARTS

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 – 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 3/16–18 x 3/8" (each) **50-0432**
8. O-Ring, Adapter Plate Bracket 3³/₈" 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-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. 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

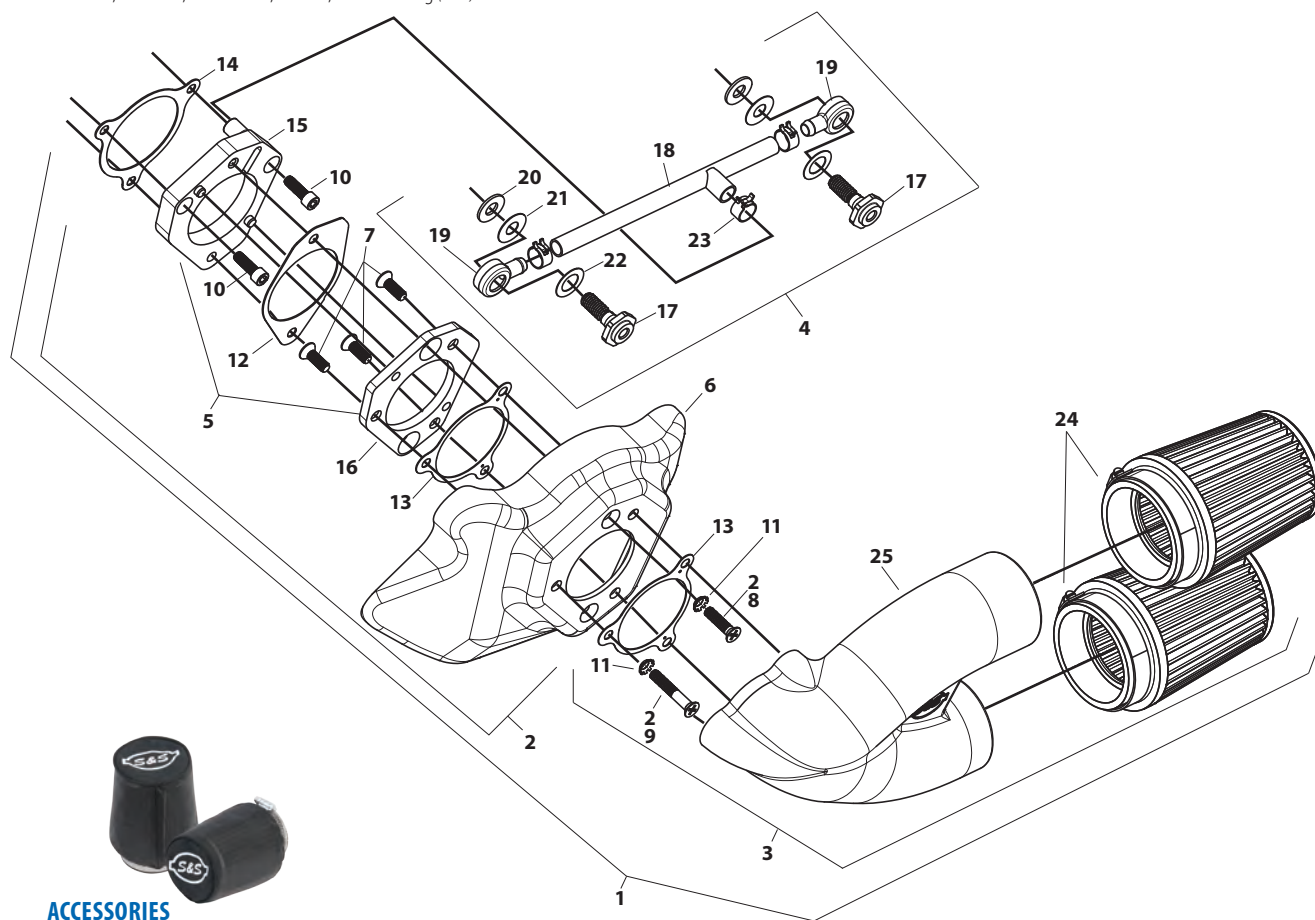
Description	Part #
Nylon Air Filter Cover	each 106-0247
	2 pack 106-0248

[±] ⚠️ WARNING: Cancer and Reproductive Harm

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 64)
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

± ⚠ WARNING: Cancer and Reproductive Harm

Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88™

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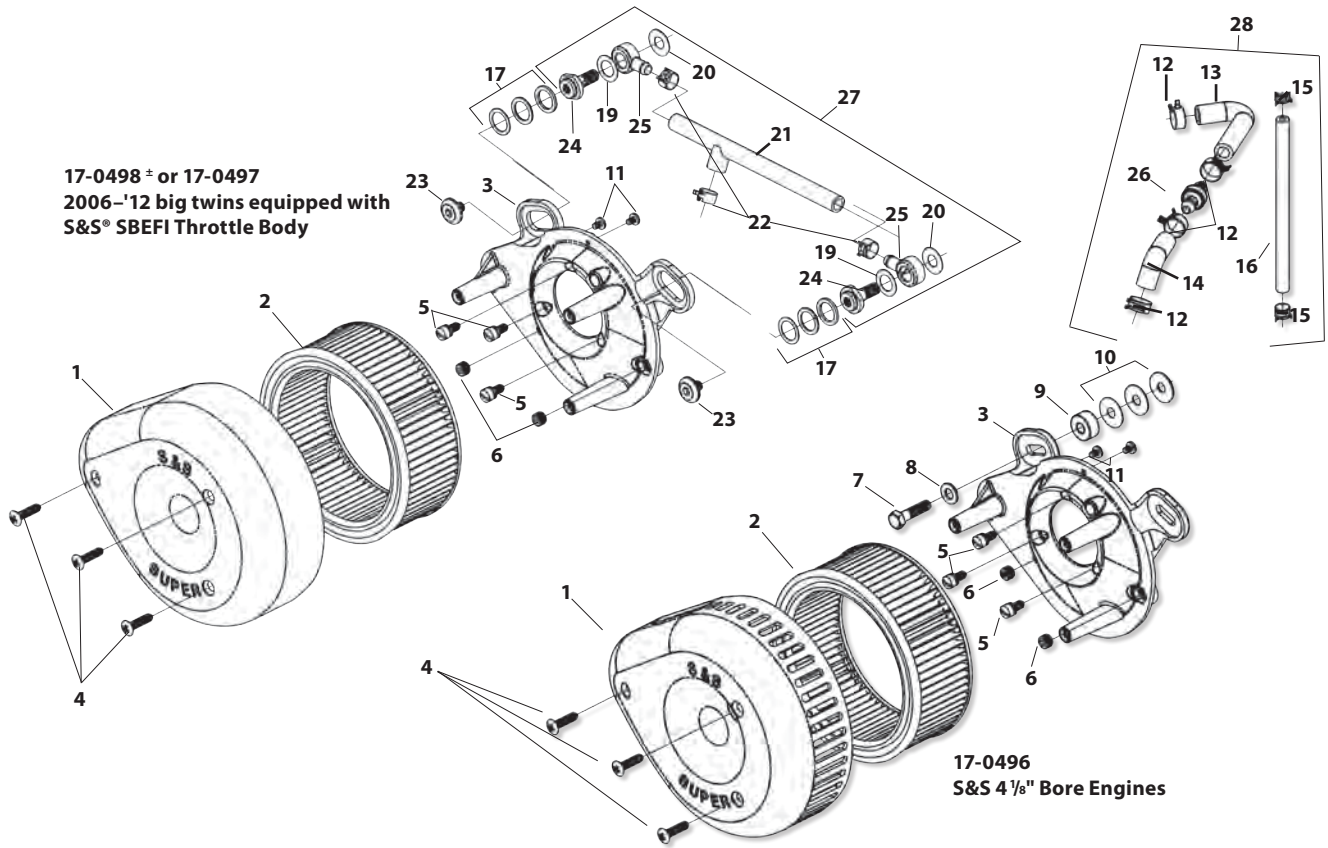
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CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS

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-'16 bt	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, ⅛, 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 ⅜" 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:		
⅝" x .018" (each)	50-7038	
⅝" x .030" (each)	50-7039	
⅝" x .048" (each)	50-7040	
⅝" x .105" (each)	50-7041	
11. Screw, PH, 10-24 x ¼", 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		
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	
18. Air cleaner hardware kit		
2006-'16 bt (includes #4, 5, 6, 11, 17, 23)	17-0482	
S&S 4½" bore (includes #4, 5, 6, 7, 8, 9, 10, 11)	17-0481	
19. Silicone washer, ½" ID (each)	50-7055	
10 pack	50-7057	
20. Silicone washer, ⅜" ID (each)	50-7054	
10 pack	50-7059	
21. Hose, Vent, Breather, Epichlorohydrin Polymer	USA 17-0339	
22. Clamp, Spring, ⅜"	50-8001	
23. Screw, wide head, ⅝-24 x 36	17-0346	
24. Breather vent fitting		
2006-'16 bt	17-0345	
25. Breather fitting (each)	17-0350	
2 pack	17-0355	
26. Check Valve	50-8122	
27. Breather hardware for 2006-'16 bt*	17-0455	
28. Breather hardware for 4½" bore*	31-2104	

(*Not included in air cleaner kit)



17-0498 ± or 17-0497
2006-'12 big twins equipped with
S&S® SBEFI Throttle Body

17-0496
S&S 4 1/8" Bore Engines

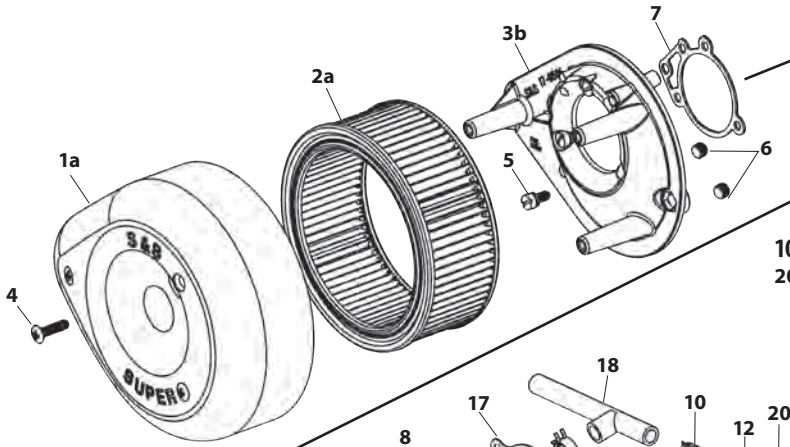
NOTE

Breather hardware not included in these air cleaner kits.

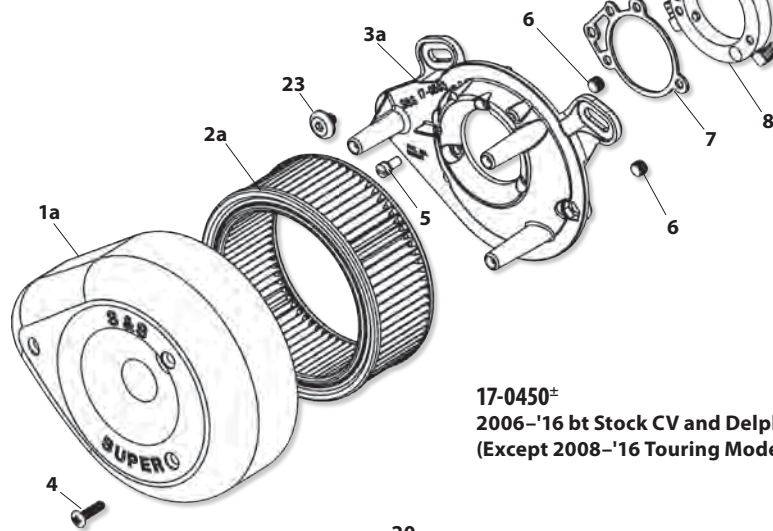
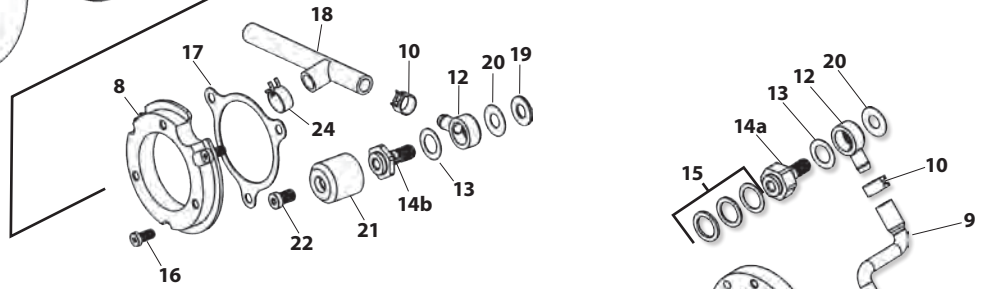
CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS FOR STOCK FUEL SYSTEMS

- | | | |
|---|-------|-----------------------------|
| 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 29062-95B | ..... | 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, 9/16" | ..... | 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 |

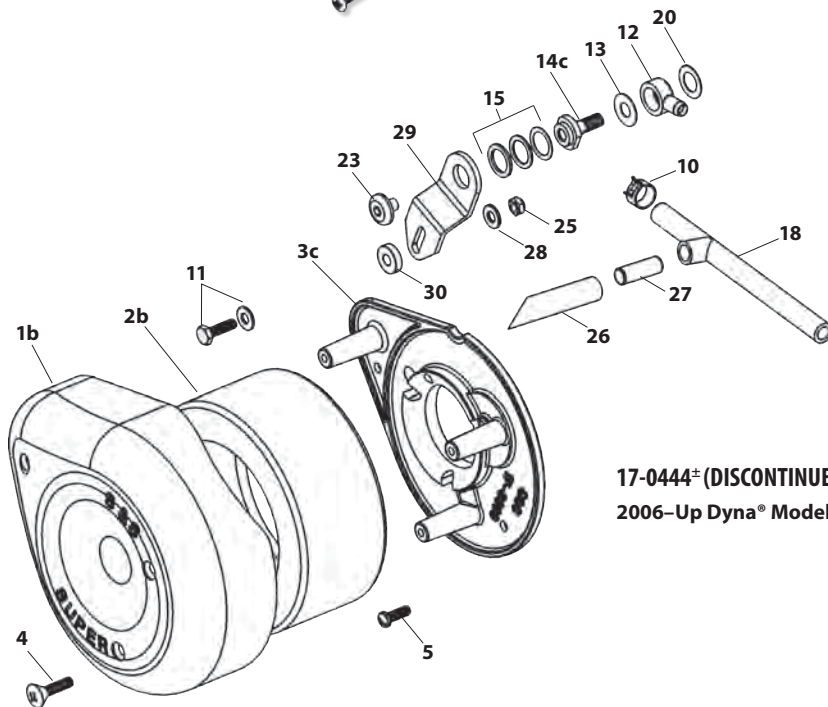
(N/S) = Not Shown



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)

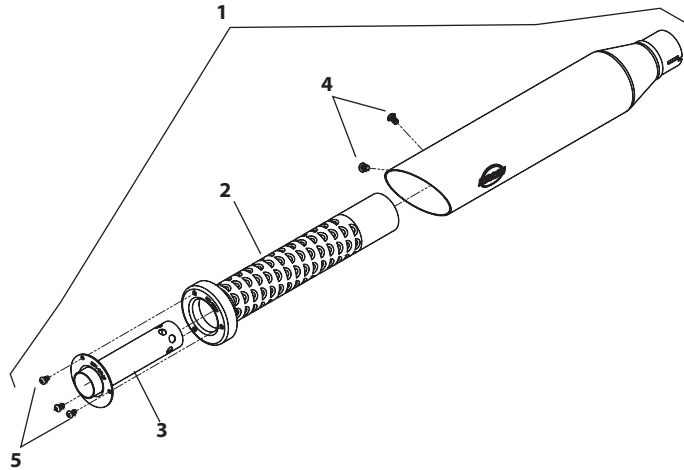


17-0444± (DISCONTINUED)
2006–Up Dyna® Models & All 2007 big twin Models with Stock EFI

SLASH CUT SLIP-ONS FOR DYNA® MODELS REPLACEMENT PARTS

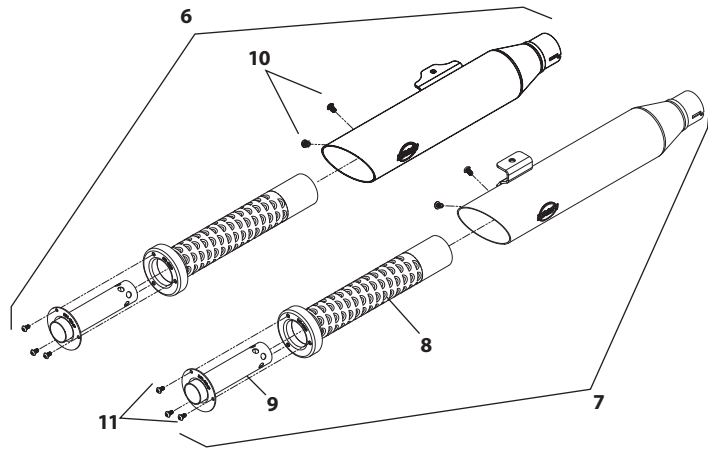
Kit Part #: 550-0718± and 550-0720

- 1. Slash Cut Muffler Assembly, Front or Rear
 - Chrome **551-0308±**
 - Black **551-0311**
- 2. Main Baffle Assembly **551-0301**
- 3. dB Reducer Baffle **551-0350**
- 4. Button head cap screw, Stainless, ¼"-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 #: 550-0722± and 550-0724

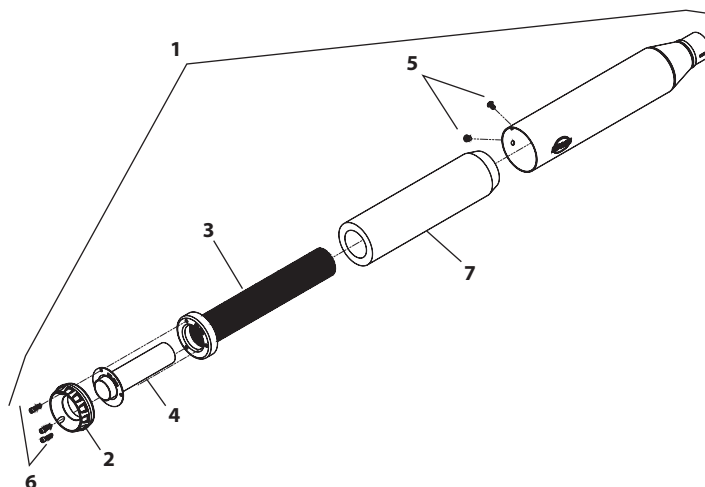
- 6. Top Muffler Assembly Slash Cut
 - Chrome **551-0320±**
 - Black **551-0323**
- 7. Bottom Muffler Assembly, Slash Cut
 - Chrome **551-0326±**
 - Black **551-0329**
- 8. Main Baffle Assembly **551-0301**
- 9. dB Reducer Baffle **551-0350**
- 10. Button head cap screw, Stainless, ¼"-20x3/8"
(Hold Main 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

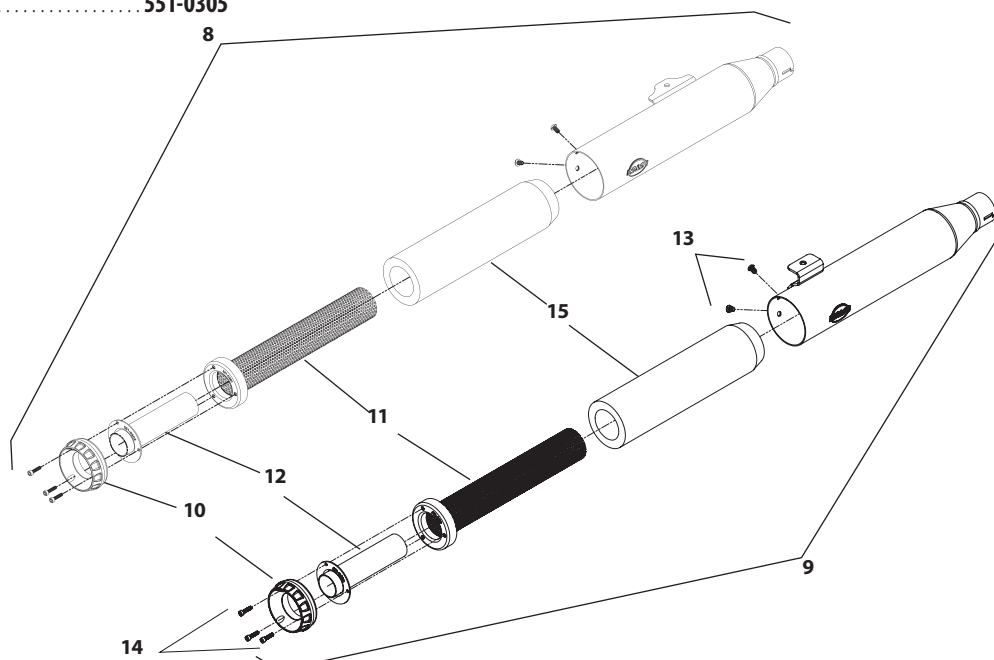
Kit Part #: 550-0719 and 550-0721

- 1. Grand National Muffler Assembly Front or Rear
 Chrome **551-0314**±
 Black..... **551-0317**
- 2. Endcap **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 Endcap to main baffle assy) **500-0569**
- 7. Insulation, Muffler, Pillow Pack **551-0305**



Kit Part #: 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. Endcap **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 Endcap to main baffle assy) **500-0569**
- 15. Insulation, Muffler, Pillow Pack **551-0305**



± WARNING: Cancer and Reproductive Harm

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

Tools &
Shop Supplies

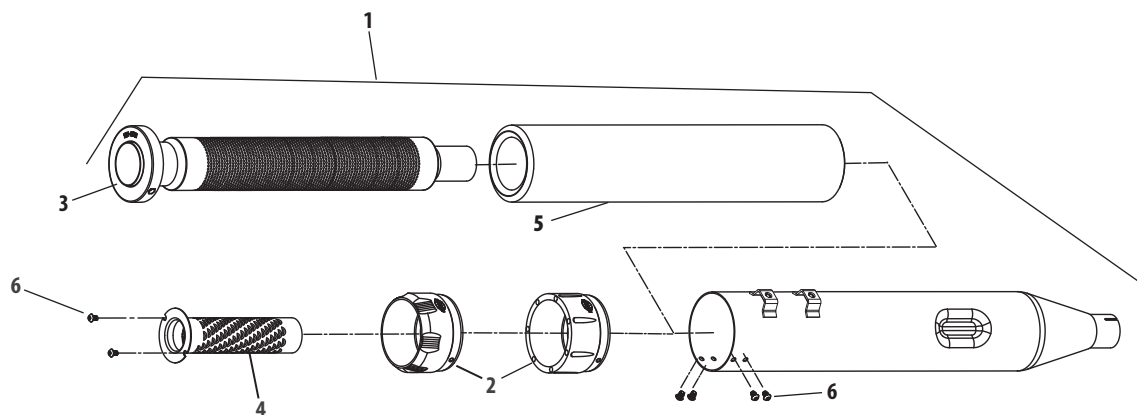
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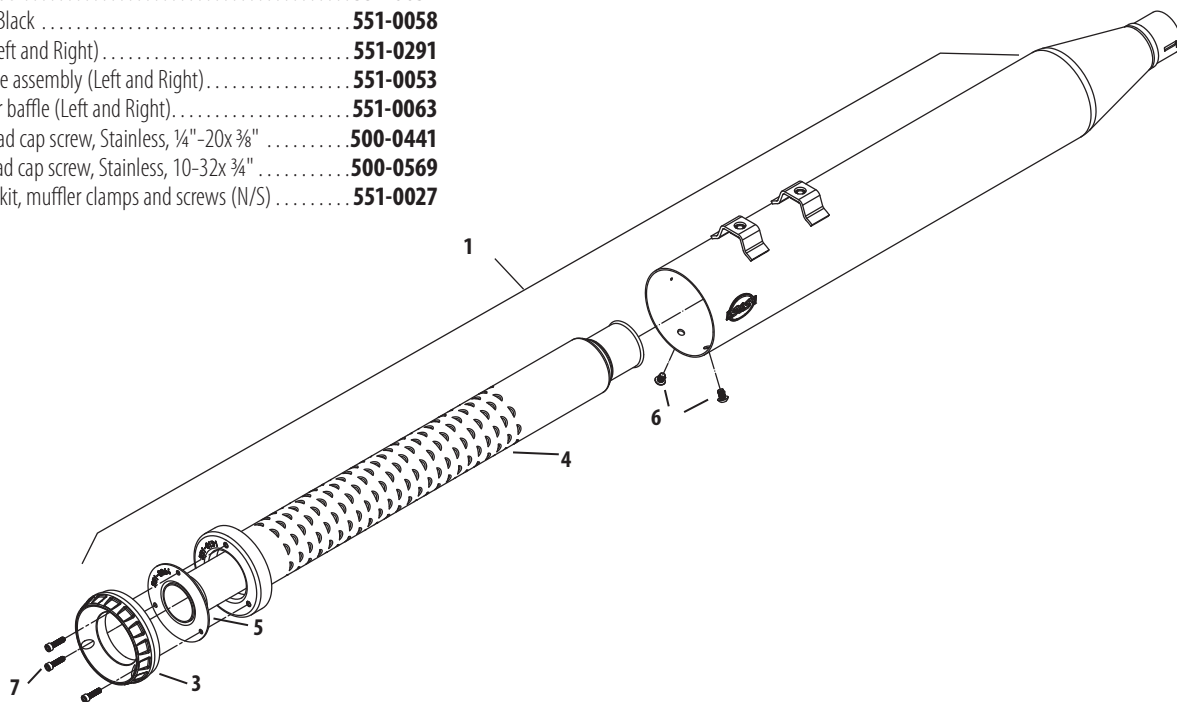
Mk45 4.5" MUFFLER REPLACEMENT PARTS

1. 4.5" Muffler Assembly
 - Left, Chrome **551-0020**± \$289.95
 - Right, Chrome **551-0021**± \$289.95
 - Left, Black **551-0022** \$354.95
 - Right, Black **551-0023** \$359.95
2. Endcap
 - Thruster, Chrome **550-0634A**± \$174.95
 - Thruster, Highlighted Machined **550-0629A** \$159.95
 - Tracer, Chrome **550-0636A**± \$174.95
 - Tracer, Highlighted Machined **550-0632A** \$159.95
3. Main Baffle Assembly, 4.5" Muffler **551-0007** \$71.95
4. dB reducer **551-0026** \$23.95
5. Insulation, 4.5" Muffler **551-0003** \$25.95
6. Button Head Cap Screw, Stainless, ¼"-20 X ¾" **500-0441** \$0.95
7. Hardware Kit, Muffler Clamps And Screws (N/S) **551-0027** \$27.95



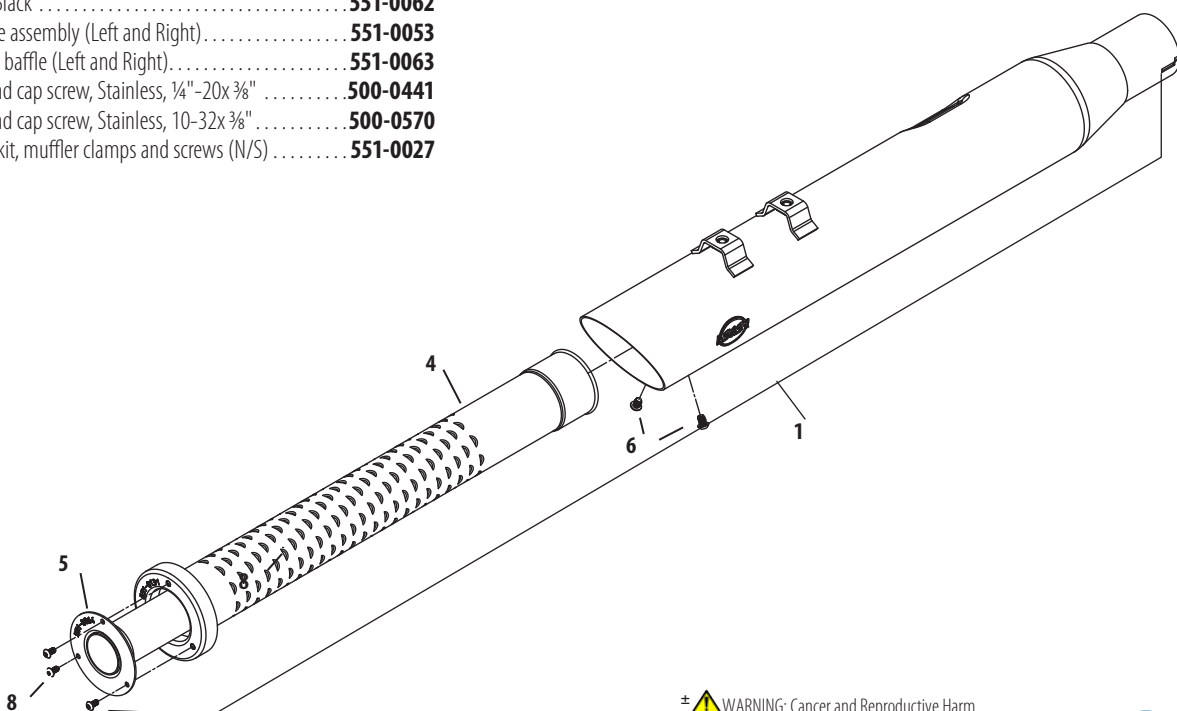
GRAND NATIONAL® 4" REPLACEMENT PARTS

- 1. 4" Muffler assembly with Grand National Endcap
 - Left, Chrome..... **551-0055±**
 - Right, Chrome..... **551-0056±**
 - Left, Black..... **551-0057**
 - Right, Black..... **551-0058**
- 3. Endcap (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 ¼"..... **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**



± WARNING: Cancer and Reproductive Harm

Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88™

1986–2019
Sportster® & Buell®

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Tools &
Shop Supplies

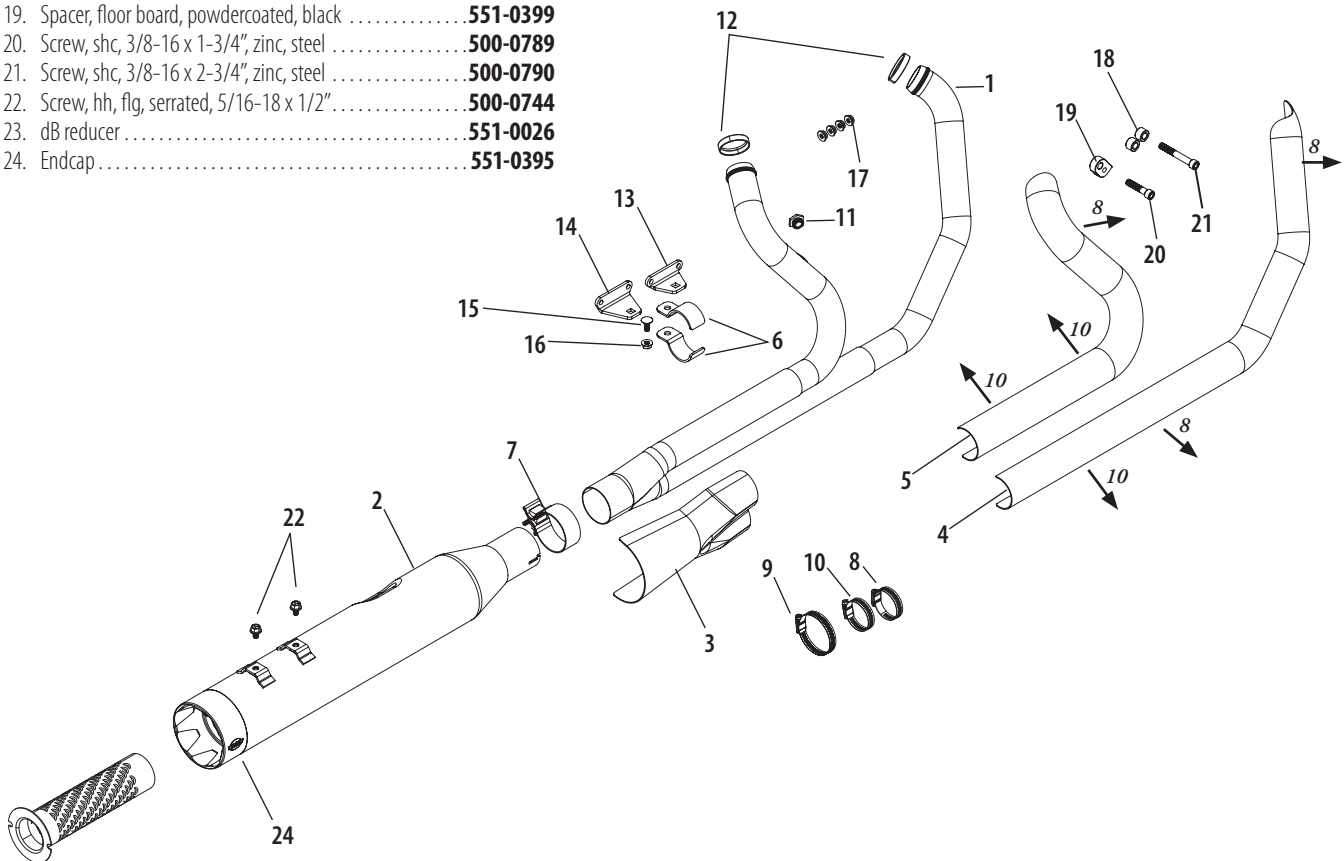
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SIDEWINDER® 2:1 EXHAUST REPLACEMENT PARTS

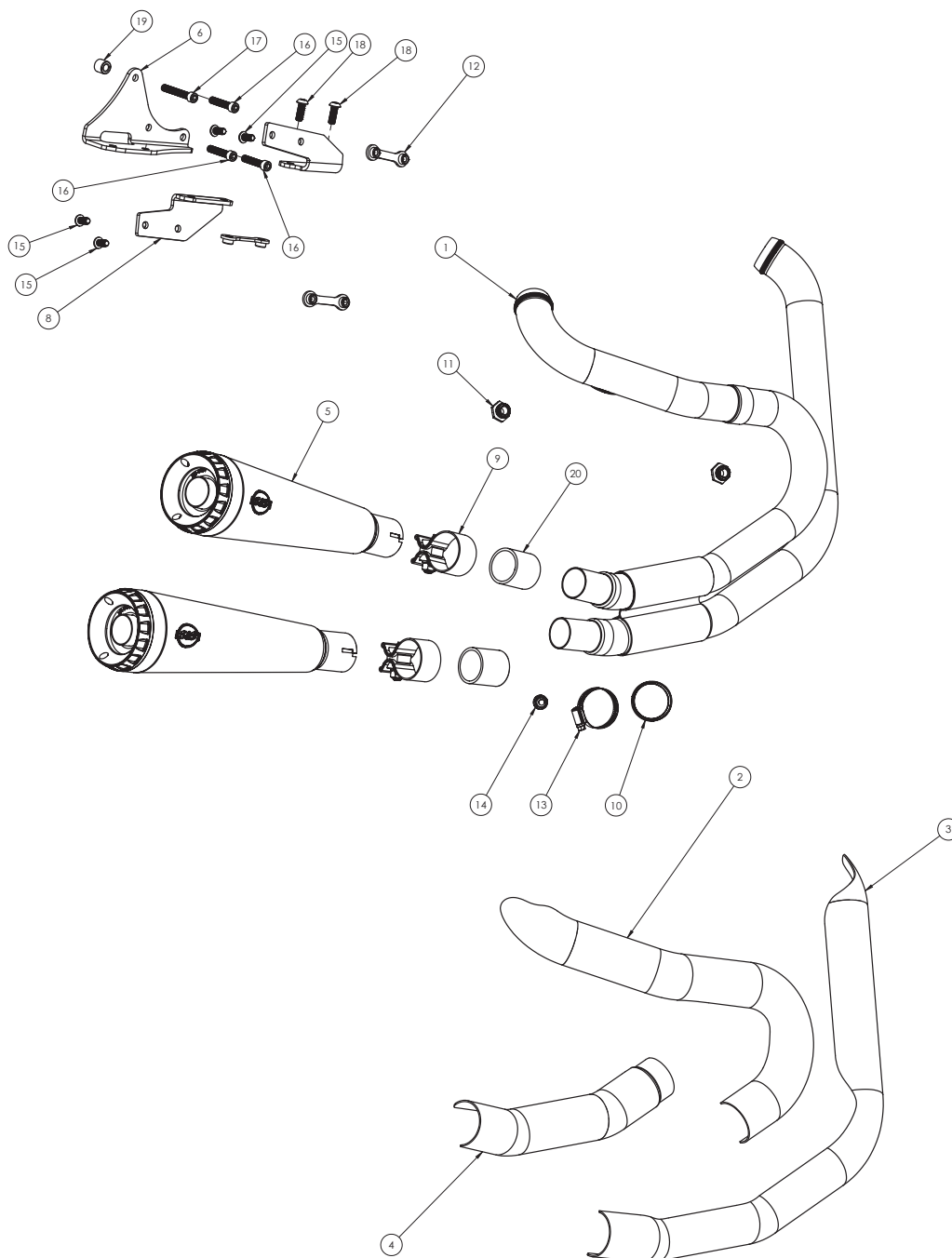
1. Header, Assembly, 2 into 1, Sidewinder™, Weldment, 1995-'16 Touring Models **551-0705**
2. Muffler, Street Legal
 Chrome **551-0529B±**
 Black **551-0530B±**
3. Collector, heat shield
 Chrome **551-0379±**
 Black **551-0381**
4. Heat shield, front, 2:1, Sidewinder®, chrome, 1995-'16 touring models
 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, 3/8-16 x 1-1/4" **500-0553**
16. Nut, Flanged, Serrated, 3/8-16 **500-0554**
17. Nut, HSFH, 5/16-24 unf-2b x .283", Zinc, steel 7593 **50-5025-S**
18. Washer, spacer, floor board **551-0401**
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**
24. Endcap **551-0395**



± WARNING: Cancer and Reproductive Harm –

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 xl65324-838, 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 7593 | 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 |



Milwaukee-Eight®

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Twin Cam 88®

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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 58

**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

± WARNING: Cancer and Reproductive Harm

POWER TUNE® DUAL HEADER REPLACEMENT PARTS

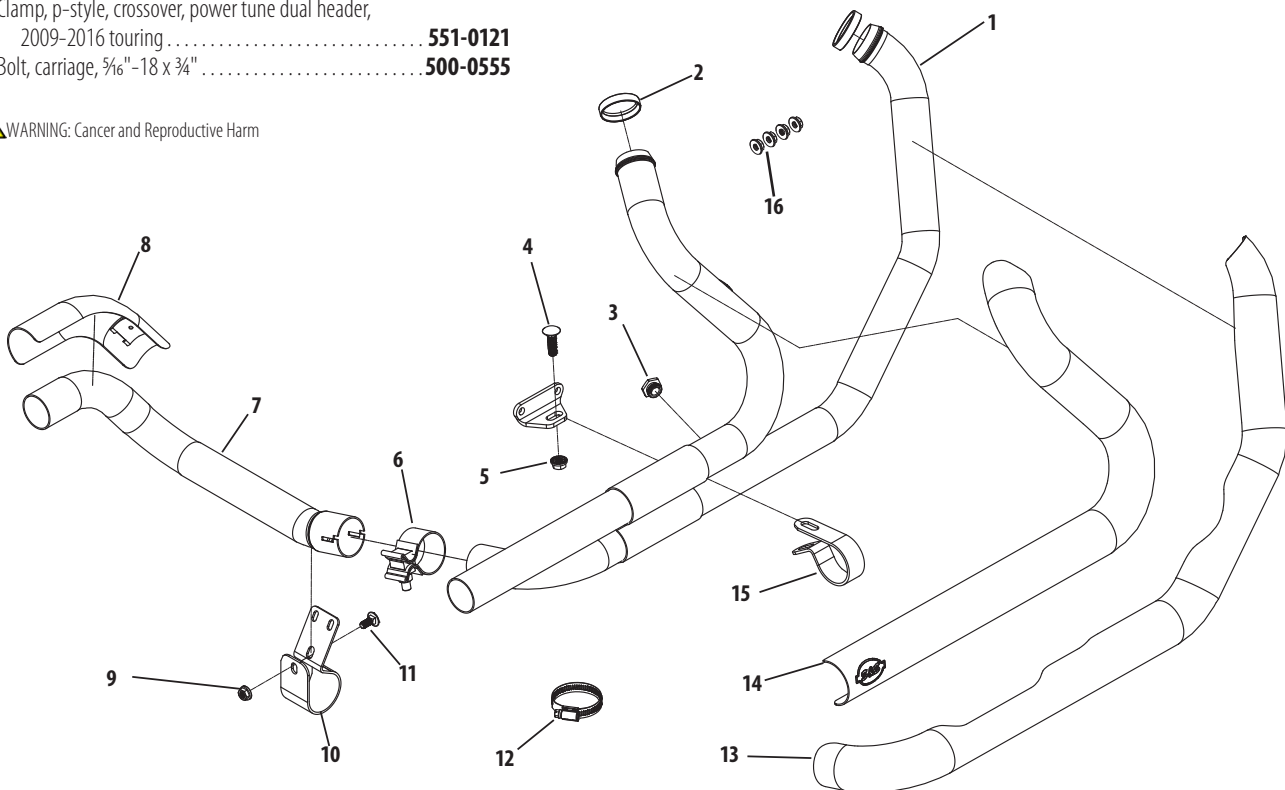
- | | | | |
|---|------------------|---|------------------|
| 1. Pipe, header, power tune dual, weldment, 2009-2016 touring | 551-0084 | 12. Clamp, hose (8 Req) | 551-0527 |
| 2. Gasket, exhaust, tapered, stainless steel, 1984-up bt, 1986-up xl (2 Req) 65324-83B, 65324-83A | 106-5029 | 13. Shield, front, 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 1-3/4" | 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, 5/16"-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**

± WARNING: Cancer and Reproductive Harm



1999–2006 BIG TWINS

Performance Kits

4" Bore Sidewinder Big Bore Kit..	163
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SIDEWINDER® 2:1 EXHAUST FOR 1995-'16 TOURING MODELS

- 2:1 styling for high-performance baggers
- 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 Endcap	550-0776
Black with Black Highlighted Machined Endcap	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

 WARNING: Cancer and Reproductive Harm



REPLACEMENT PARTS: [SEE 245](#)

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 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	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

⚠ WARNING: Cancer and Reproductive Harm

REPLACEMENT PARTS: SEE PAGE 244



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 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	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

⚠ WARNING: Cancer and Reproductive Harm

REPLACEMENT PARTS: [SEE PAGE 244](#)

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 ceramic black finish
- 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
- 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, 2007-2016

CVO MY 2000-2005, and 2009-2016

WARNING: Cancer and Reproductive Harm

REPLACEMENT PARTS: **SEE PAGE 243**



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 ceramic black finish
- 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
- 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, 2007-2016
CVO MY 2000-2005, and 2009-2016

⚠ WARNING: Cancer and Reproductive Harm —

Grand National

REPLACEMENT PARTS: **SEE PAGE 243**

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 endcaps.

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 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!

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



Removable dB reducer

MK45 4.5" TOURING MUFFLERS W/ENDCAPS

Muffler Body Finish	Endcap Finish & Style	Part #
Chrome	Chrome Thruster	550-0620
	Black Highlight Machined Thruster	550-0619
	Chrome Tracer	550-0624
	Black Highlight Machined Tracer	550-0623
Ceramic black	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, 2007-2016

CVO MY 2000-2005, AND 2009-2016

WARNING: Cancer and Reproductive Harm



550-0620[±]



550-0619[±]



550-0624[±]



550-0623[±]



550-0622[±]



550-0621



550-0626[±]



550-0625

REPLACEMENT PARTS: SEE PAGE 242

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

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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 ceramic black heat shielding with 220° coverage
- Updated styling to give the bike a modern look
- Oxygen sensor bungs*
- Spherical inlet design for improved sealing and exhaust gasket durability
- Hardware included to mount crossover pipe
- Exhaust port gaskets included
- Made in the U.S.A.



550-0003A



550-0142A

REPLACEMENT PARTS: SEE PAGE 246

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

⚠ WARNING: Cancer and Reproductive Harm

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.

NEW FOR
FROM S&S CYCLE
2020

STEALTH TRIBUTE AIR CLEANER KITS

CLASSIC DESIGN — STEALTH FITMENT

Conceived by S&S founder and brought to market by his son George B. Smith, the Classic Two Throat carb and matched air cleaner served as a performance milestone in the v-twin space for over a decade. Inspired by the unique style of our Two Throat intake, S&S has created the new "Tribute" air cleaner cover and wrapped it around our proven Stealth filter system creating a classic look combined with modern performance.

COVERS ONLY

Chrome	170-0592
Gloss Black	170-0593



STEALTH TRIBUTE COVER AIR CLEANER KITS

KIT INCLUDES STEALTH AIR CLEANER 170-0300B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Fitment	Finish	Part #
2001–'17 big twin (except Throttle by Wire)	Chrome [±]	170-0596
	Gloss Black	170-0599

[±] WARNING: Cancer and Reproductive Harm



Milwaukee-Eight*

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88*

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

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STEALTH AIR CLEANER KITS

STEALTH TRIBUTE KITS
SEE PAGE 155



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 158
- High flow (1" taller) filter kit available



STEALTH TEARDROP AIR CLEANER KITS

KIT INCLUDES STEALTH AIR CLEANER 170-0300B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Fitment	Fuel System	Finish	Part #
2001-'17 big twin <i>(except 2017 touring models & Throttle by Wire)</i> Includes Stealth AC Kit 170-0300B	Stock EFI, Delphi® EFI	Chrome	170-0528±
		Gloss Black	170-0529

± ⚠️ WARNING: Cancer and Reproductive Harm



CARBON FIBER TEARDROP KIT

Fitment	Part #
2001-'17 bt <i>(except Throttle by Wire)</i>	170-0499

Kit includes Stealth Air Cleaner 170-0300B which is exempt from emissions tampering regulations under CARB EO# D-355-27



MINI TEARDROP AIR CLEANER KITS

KIT INCLUDES STEALTH AIR CLEANER 170-0300B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Fitment	Fuel System	Finish	Part #
2001-'17 big twin <i>(except 2017 touring models & Throttle By Wire)</i> Includes Stealth AC KIT 170-0300B	Stock EFI, Delphi® EFI	Chrome	170-0441±
		Gloss Black	170-0442

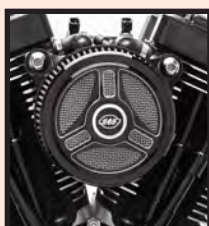
± ⚠️ WARNING: Cancer and Reproductive Harm



AIR 1 COVER AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0300B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

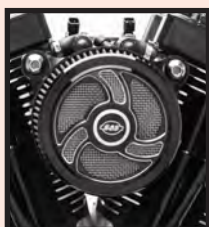
Application	Fuel System	Part #
2001-'17 big twin <i>(except 2017 touring models & Throttle By Wire)</i> Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	170-0478



TRI-SPOKE COVER AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0300B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Application	Fuel System	Part #
2001-'17 big twin <i>(except 2017 touring models & Throttle By Wire)</i> Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	170-0476



TORKER COVER AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0300B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Application	Fuel System	Part #
2001-'17 big twin <i>(except 2017 touring models & Throttle By Wire)</i> Includes Stealth AC Kit 170-0300B	Stock EFI Delphi®	170-0477

CON'T STEALTH AIR CLEANER KITS

Milwaukee-Eight™

2007–2017 Twin Cam
96°/103°/110°™

1999–2006
Twin Cam 88°

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

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AIRSTREAM COVER CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0300B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

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

± ⚠️ WARNING: Cancer and Reproductive Harm



MUSCLE COVER AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0300B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

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

± ⚠️ WARNING: Cancer and Reproductive Harm



STEALTH AIR CLEANER KITS*—NO COVER

KIT INCLUDES STEALTH AIR CLEANER 170-0300B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

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 158)

NOTES

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

REPLACEMENT PARTS: SEE PAGE 227



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

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CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

⚠️ WARNING: Cancer and Reproductive Harm



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

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CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

⚠️ WARNING: Cancer and Reproductive Harm

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 158)

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT



STEALTH AIR CLEANER KITS FOR S&S ENGINES

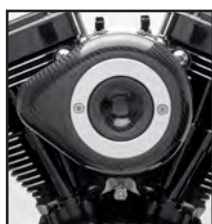
STEALTH AIR CLEANER KITS FOR S&S ENGINES

Fitment	Fuel System	Part #
2003–'17 HD® Models (except '17 touring models)	S&S 66mm Throttle Hog	170-0165
2003–'17 HD® Models (except '17 touring models)	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 (ONLY)

NEW STEALTH TRIBUTE COVERS SEE PAGE 155



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



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STEALTH COVERS

Teardrop		Teardrop—Slasher		Carbon Fiber	Mini		Tri-Spoke	Torker	Air 1
Chrome	Gloss Black	Chrome	Gloss Black	Black	Chrome	Gloss Black	Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights
170-0530	170-0531	170-0532	170-0533	170-0501	170-0367	170-0366	170-0210	170-0206	170-0214

Airstream		Muscle		Displacement		
Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo	111	124	143
170-0118	170-0396	170-0121	170-0463	170-0319	170-0321	170-0323

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



Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88™

1986–2019
Sportster® & Buell®


2014–2019 Street® &
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SINGLE BORE TUNED INDUCTION SYSTEM KITS

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

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

⚠ WARNING: Cancer and Reproductive Harm

SINGLE BORE TUNED INDUCTION SYSTEM KITS±

Fitment	Fuel Delivery	Finish	Part #
1999–'06 big twin models <i>(except 1999–'06 FXDWG/FXD35)</i> and S&S engines w/stock head breathing	S&S Single Bore EFI	Chrome Runner and Red Filters	170-0085
	S&S Super E/G		170-0086
1984–'06 Carbureted big twin 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 NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

± ⚠ WARNING: Cancer and Reproductive Harm

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.

REPLACEMENT PARTS: SEE PAGE 228



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-355-27 FOR ALL FUEL INJECTED MODELS



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

± ⚠️ WARNING: Cancer and Reproductive Harm

CLASSIC TEARDROP AIR CLEANER KITS

Fitment	Finish	Stock Carb	S&S® Super E/G
S&S 4 1/8" Bore engines with vacuum breathing	Slasher/Chrome	–	17-0416 ±
1993–'06 carbureted big twins (& 2007–'10 Softail® CVO® Models)	Chrome	17-0450 ±	17-0403 ±
	Gloss Black	170-0181A	–

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± ⚠️ WARNING: Cancer and Reproductive Harm

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 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 NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

± ⚠️ WARNING: Cancer and Reproductive Harm

CLASSIC TEARDROP AIR CLEANER COVERS

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

± ⚠️ WARNING: Cancer and Reproductive Harm



REPLACEMENT PARTS STARTING ON PAGE 230

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	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

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

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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 163](#)



124" HOT SET UP KIT

Move to the ultimate in performance packages! Increase your bore to 4 1/8" and stroke to 4 5/8" 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 164](#)



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 165](#)



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 166](#)



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 167](#)

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 1/8"	4 5/8"	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	Cams	Valve Springs	Heads w/springs	Gaskets			
124" Hot Set Up Kit	●	●	●	●	●	●	●		●	●	③ ④	⑤ ⑥ ⑦	●
106" Stroker Kit	●		①								②		●
98" Big Bore Kit		●	●							●			●
97" Big Bore Kit		●	●							●			●
95" Hot Set Up Kit		①	① ②		●	●	●		●	●	②	⑤ ⑥ ⑦	●

① = Optional
 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

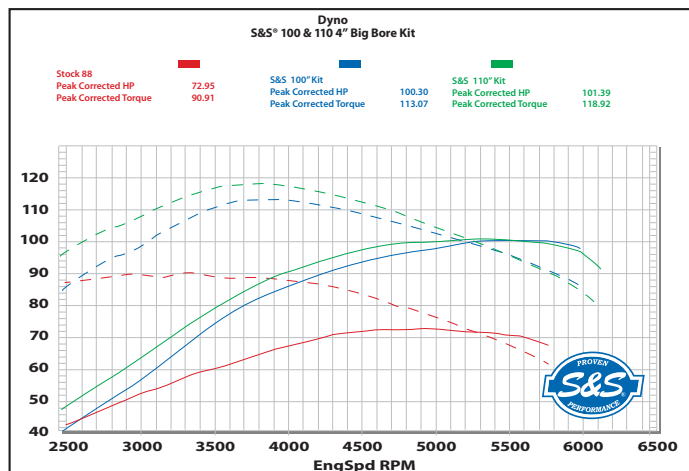
SPECS FOR S&S 4" BORE BOLT-IN CYLINDER & PISTON KITS								
Year	Stroke	Bore	Cylinder Length	Piston Type	Dome Volume	Compression Ratio		
						83cc CNC Heads	85cc Stock Heads	89cc S&S Heads
1999–2006	4"	4.00"	4.937"	Forged	8.75 pop up	10.8:1	10.5:1	10.1:1



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"	Wrinkle Black	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 585 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

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88"

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

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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 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 5/8"	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.



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)*	Wrinkle Black	900-0564
2000–2006 Twin Cam 88B Softail® w/Balancer	Wrinkle Black	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 NATION-WIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

*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
106"	4½"	3⅞"	10.1:1	Flat Top	1.020"	4.937"

*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				CYLINDER & PISTON KIT*	
Standard	+ .005"	+ .010"	+ .020"	Silver	Black
92-1210	92-1214	92-1211	92-1212	910-0199	910-0203

Piston Deck Height 1.020" *Cylinder w/ piston kits include fitted pistons and cylinders that require no boring or honing.



Milwaukee-Eight®
2007–2017 Twin Cam
96"/103"/110"
1999–2006 Twin Cam 88®
1986–2019 Sportster® & Buell®
2014–2019 Street® & Street Rod®
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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 178

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.



910-0205

97" BIG BORE KITS

Cylinder Finish	Part #
Silver powder coat	910-0201
Wrinkle Black 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	Wrinkle Black
1999–'06 (except 2006 Dyna® Models*)	106-0214[±]

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± **WARNING: Cancer and Reproductive Harm**

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.

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
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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
- TC3 Oil Pump and Cam Plate
- S&S 635 Easy Start Gear Drive Cams and S&S 1.725:1 rocker arms for .674" total lift.
- S&S Precision Tappets

SUGGESTED ACCESSORIES

- Stealth Air Cleaner Kit 143 Cover

See page 158



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 1999–'05 Dyna® models	143"	4.425"	4.625"	635	S&S Forged Flat Top	10.47:1	1 year	Wrinkle Black	310-0737A
Silver								310-0738A	
Black Edition								310-0833A	
1999–2006 bt (except '06 Dyna®)									

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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	

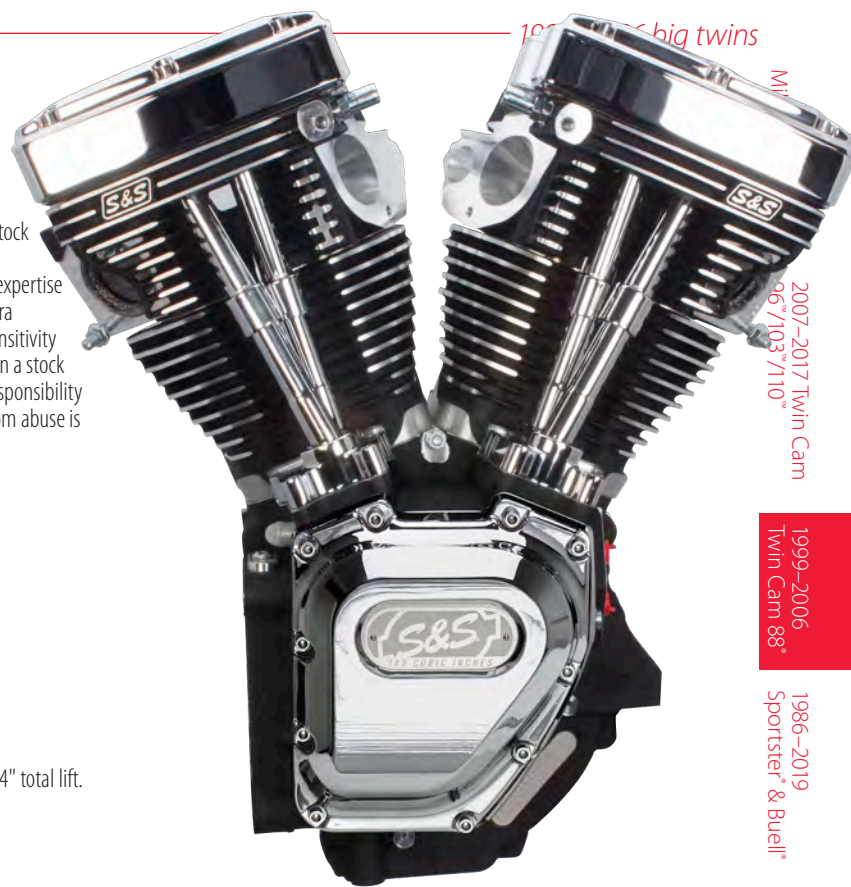
*Air cleaner assemblies included with these carburetor kits do not include air cleaner covers. Stock 1999-later air cleaner or any S&S Stealth air cleaner covers may be used.

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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1000cc big twins

M1

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88"

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

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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
 - TC3 Oil Pump and Cam Plate
 - 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 156

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 (except '06 Dyna®)	124"	4 1/8"	4 5/8"	640	S&S Forged Flat Top	10.8:1	2 Years	Silver	310-0281A
								Wrinkle Black	310-0282A
								Black Edition	310-0831A
	124"	4 1/8"	4 5/8"	585	S&S Forged Dished	10.2:1	2 Years	Silver	310-0327A
								Wrinkle Black	310-0326A
								Black Edition	310-0832A
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, (except '06 Dyna®)	111"	4 1/8"	4 1/8"	585	S&S Forged	9.8:1	2 Years	Silver	310-0279A
								Wrinkle Black	310-0770A
								Black Edition	310-0830A
CTO				Specify		Specify	Varies	Specify	319-0010

! **OIL LINE INSTALLATION KIT.** See chart.



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.

The Oil Line Installation Kits are not required for the updated S&S T-series engines. If the part number of the engine ends in "A," it DOES NOT need an installation kit.

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. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT.

CRANKCASES

FITMENT

- 1999–'06 Harley-Davidson® Twin Cam 88® A Engines (except 2006 Dyna®)

FEATURES AND BENEFITS

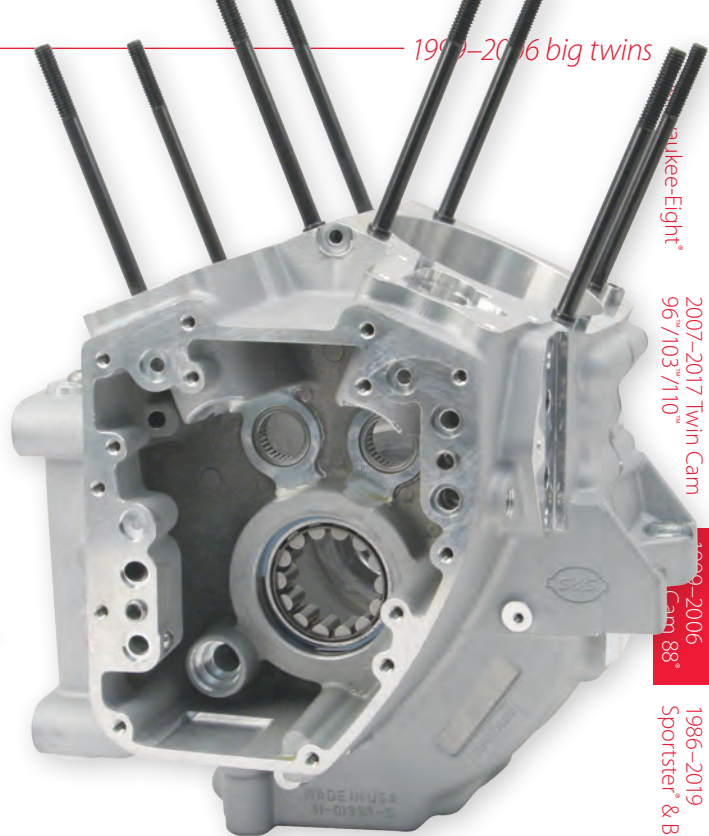
- Much stronger than stock crankcases in every aspect, extra large front motor mount for increased strength
- Large cam chest allows cam lift up to .675" without clearancing
- Timken® style sprocket shaft bearings withstand the most demanding applications
- Includes S&S crankcase breather reed valve 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



Harley-Davidson®
2007–2017 Twin Cam
96"/103"/110"
1999–2006
Cam 88®
1986–2019
Sportster® & Buell®

CRANKCASE FOR 1999–'06 BIG TWIN ENGINES (EXCEPT 2006 DYNA® MODELS)

Crankcase Bore Size	Silver		Wrinkle Black	MSRP	Polished
Stock Bore (Stock Stud Pattern)	106-4039A		31-0172A	\$2,095.95	–
4 1/8" Bore (Stock Stud Pattern)	106-4057A		31-0181A	\$1,874.95	–
4 1/8" Bore (S&S Stud Pattern)	106-4043A		31-0178A	\$1,874.95	31-0179A
4.425" Bore (S&S® T143)	—		310-0721A	\$1,816.95	

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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 212

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.

The Oil line installation kits are not required for the updated S&S T-series engines. If the part number of the engine ends in "A," it does not need an installation kit.

2014–2019 Street® & Street Rod®

Indian® Models

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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 240

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 214

TRYING TO IDENTIFY AN S&S® FLYWHEEL?

SEE FLYWHEEL I.D. CHART ON PAGE 346



Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod®

Indian® Models

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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.



TC3 CAM PLATE

Fitment	Part #
1999–2006 bt (<i>except 2006 Dyna® models</i>)	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 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!

*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 (<i>except 2006 Dyna® models</i>)	310-0640

TC3 OIL PUMP & CAM PLATE KITS



TC3 OIL PUMP AND CAM PLATE KITS

Fitment	Part #
1999–2006 bt (<i>except 2006 Dyna® models</i>)	310-0731

REPLACEMENT PARTS: **SEE PAGE 122 & 123**

NEW FOR
FROM S&S CYCLE
2020

DIE CAST GEARCOVER

FITMENT

- 1999–'17 Twin Cam 88[®], 96[™] and 103[™] (except '17 touring)



DIE CAST GEARCOVER

Finish		Part #
Gloss Black	143"	310-1084
	124"	310-1085
	111"	310-1086
Chrome [±]	143"	310-1087
	124"	310-1088
	111"	310-1089

[±] ⚠️ WARNING: Cancer and Reproductive Harm

BILLET GEARCOVER

FITMENT

- 1999–'17 Twin Cam 88[®], 96[™] and 103[™] (except '17 touring)

BILLET GEARCOVER

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

[±] ⚠️ WARNING: Cancer and Reproductive Harm



31-6516

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)

BILLET OIL FILTER BRACKET

Finish	Part #
Polished 26261-99	31-6510
Chrome	106-3884

[±] ⚠️ WARNING: Cancer and Reproductive Harm



31-6510

Milwaukee-Eight[™]

2007–2017 Twin Cam
96[™]/103[™]/110[™]

1999–2006
Twin Cam 88[®]

1986–2019
Sportster[®] & Buell[®]

2014–2019 Street[®] &
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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	Wrinkle Black
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	Wrinkle Black
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	Wrinkle Black
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	10.8:1	9.8:1
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	Wrinkle Black
106" Stroker	Stock	910-0199	910-0203
95"	Stock	910-0200 	910-0204 



ALL OTHER BORES AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER

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	Wrinkle Black	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	Wrinkle Black
106" Stroker	Set	910-0207 	910-0208 

3.937" BORE CYLINDERS

Displacement	Front or Rear	Silver	Wrinkle Black
98"	Front or Rear	910-0478	910-0477

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3.927" BORE CYLINDERS

Displacement	Front or Rear	Silver	Wrinkle Black
97"	Front or Rear	910-0210	910-0212



ALL OTHER BORES AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER

91-7506* Call for Pricing

CYLINDER REPLACEMENT
PARTS: SEE PAGE 222



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 7/8"	920-0106	920-0111

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4 7/8" 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 7/8"	920-0046	920-0047	920-0050	920-0053
124", 117" & 111" -Stock or S&S Heads Flat Top	1.050"	Up To 4 7/8"	106-3491A	106-3872A	106-3964A	920-0094

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 7/8" 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 7/8"	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 7/8" 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

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.



Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88"

1986–2019
Sportster™ & Buell™

2014–2019 Street™ &
Street Rod™

Indian™ Models

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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	Intake	Exhaust		Intake	Exhaust	Intake	Exhaust			
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

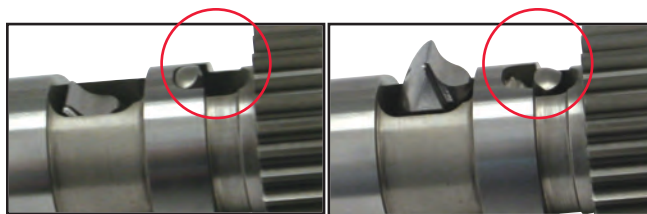
- Start any engine with a stock starter
- Save your starter and battery!
- Reliable — tested for 100,000 accumulative starts and over 150,000 road miles without breakage or compression release failure!
- Automatic — no buttons to push

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.

Milwaukee-Eight®

2007–2017 Twin Cam
96™/103™/110™1999–2006
Twin Cam 88®1986–2019
Sportster® & Buell®2014–2019 Street® &
Street Rod™

Indian® Models

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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.

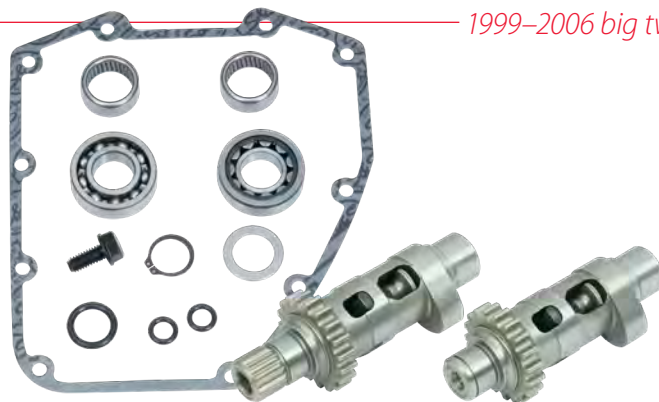
CHAIN DRIVE CAM KITS

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	MSRP	Easy Start
OES	330-0400	\$352.95	–
505	330-0374	\$352.95	–
509	330-0016	\$352.95	–
510	33-5182A	\$352.95	–
551	330-0002	\$352.95	106-5293
570	330-0003	\$352.95	106-5296
583	330-0004	\$352.95	106-5289
585	330-0005	\$352.95	106-5299
625	330-0006	\$352.95	106-5302
MR103	330-0456	\$352.95	330-0459
HP103	330-0442	\$352.95	330-0445
635 H.O.	330-0426	\$352.95	330-0429
640	330-0007	\$352.95	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	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.

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[™]

Indian[™] Models

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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 DYNA® MODELS)

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 DYNA® MODELS)

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® 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 #
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



NEW FOR 2020 PRECISION TAPPETS

High performance tappets are a cornerstone of the S&S line up and we are always looking to improve our products. After months of research and countless hours of testing we are excited to reveal the latest in performance lifters. The S&S Cycle Precision Tappets replace both our standard as well as premium lifters. Each Precision Lifter is hand assembled to exacting tolerances and designed for quiet operation and rapid pump up and all are made in the USA.

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

PRECISION TAPPETS

Set of 4 tappets	330-0718
------------------	-----------------



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 #
Gloss Black	330-0588
Polished	33-5601
Chrome	106-3883 [‡]

[‡] WARNING: Cancer and Reproductive Harm

REPLACEMENT PARTS FOR TAPPET COVERS

Descriptions	Part #
Gasket	<i>each</i> 33-5303-S 18635-99B
	<i>2 pack</i> 33-5303-2 18635-99B
Screw w/flat washer, Zinc	<i>each</i> 50-0092-S 4741A
	<i>4 pack</i> 50-0092P 4741A
Screw, Chrome	<i>each</i> 50-0482 [‡]
Washer, Flat, Chrome	<i>each</i> 50-7017 [‡]

[‡] WARNING: Cancer and Reproductive Harm

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.

QUICKEE ADJUSTABLE PUSHRODS

GLOSS BLACK ALSO AVAILABLE

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
- No threads on wrench flats
- Also available in gloss black

KIT CONTENTS

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



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



QUICKEE ADJUSTABLE PUSHRODS

Description	Part #
Gloss Black Pushrod Kit (includes black pushrod covers, o-rings & cover keepers)	930-0143
Chrome 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 187 for pushrod cover keepers.

*1984–99 style pushrod covers are required for access to the Quicke Adjustable Pushrod adjusters in 2007–'12 big twins. See page 187 for pushrod covers.

‡ WARNING: Cancer and Reproductive Harm

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

KIT CONTENTS

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



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

‡ WARNING: Cancer and Reproductive Harm

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–'17 big twins

PUSHROD REPLACEMENT PARTS

Description		Part #
Pushrod Cover Kit (includes top & bottom covers, cover cap, cover spring, spring washer, & o-rings for four pushrods)	Chrome	106-1340
	Gloss Black	930-0124
Top Cover	each	93-4016 17935-66T, 17935-79B
Bottom Cover	each	93-4015 17938-83
Cover Cap	each	93-4017 17945-36B
Cover Spring	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–'17 BIG TWINS

Length / Finish	S&S Tubes	Part #
2.390" / Gloss Black		930-0127
2.400" / Chrome	All stock height TC 96/103	93-4070 [±] 17950-48
2.500"	Chrome	96", 100", 117", 103", 106" HSU
	Gloss Black	
2.600"	Chrome	124"
	Gloss Black	
2.800" / Chrome		93-4115 [±] 17950-86
2.900"	Chrome	143"
	Gloss Black	
3.000" / Chrome		93-4103 [±]
3.100"	Chrome	
	Gloss Black	
3.200" / Chrome		93-4105 [±]
3.330" / Chrome		93-4106 [±] 17949-40, 17950-66
3.500" / Chrome		93-4107 [±]
3.625" / Chrome		93-4108 [±]
4.250"*		93-4109

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

[±] WARNING: Cancer and Reproductive Harm

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.



93-4016

93-4015



93-4017



93-4018



50-7131



50-8037



50-8039



50-8038



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.

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod®

Indian® Models

Tools &
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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 224

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.



900-4119A

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



900-4098A

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.



90-4036



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 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

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® &
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CNC PORTED CYLINDER HEAD SERVICES

FITMENT

- Available for 1999–2017 big twin engines (except Twin-Cooled™ models & '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 #	MSRP
1999–2017 big twins (except for twin cooled models & '17 touring)	106-5880	Call for Pricing

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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.

FITMENT

- 1999–'16 big twin engines 4 $\frac{1}{8}$ " bore, stock bolt pattern (in stock, off-the-shelf*)
*S&S only stocks the late model 4 $\frac{1}{8}$ " 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 $\frac{1}{8}$ " bore and larger with S&S or other bolt pattern (special order only)
- 1984–'99 big twin engines 4 $\frac{1}{8}$ " bore and larger (special order only)
- S&S SB-Series 4 $\frac{1}{8}$ " 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 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 $\frac{1}{8}$ " to 4 $\frac{3}{8}$ " 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, Gloss Black, Silver, or Natural



900-0458

B2 HEADS WITH STOCK BOLT PATTERN

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

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! ADDITIONAL PARTS REQUIRED

Product Description		Part #
Special 4 $\frac{1}{8}$ " 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
Exhaust Adaptor Kit	B2 to existing 2" header	550-0217
	Stock & 2" header	550-0218

REPLACEMENT PARTS: SEE PAGE 220

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.

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

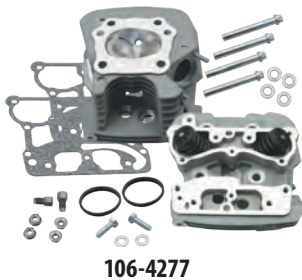
OPTIONS

- With or with out compression release machining
(Compression release machining is for S&S compression releases)
- Silver powder coat or wrinkle black powder coat finish

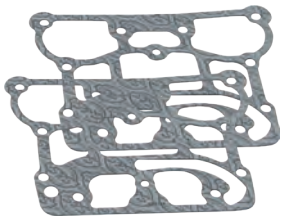
COMPRESSION RATIOS FOR S&S® SUPER STOCK® CYLINDER HEADS FOR 1999–'06 BIG TWINS

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"	Silver	106-4277
				.585"		900-0254
				89cc		●	.650"	Wrinkle Black	90-1293
	.585"	900-0251				
	91cc		●			
				.650"	Wrinkle Black	90-1106
.585"				Wrinkle Black	900-0410	
1999–'05 bt** 4½" Bore	91cc		●	.650"	Silver	–
				.650"		900-4272
				.650"	Wrinkle Black	90-1163
				.650"		900-1163
S&S T124 Engines	91cc	+.032		.650"	Silver	900-0465
				.650"	Wrinkle Black	900-0470
S&S T111 Engines	91cc	-.064		.585"	Silver	900-0475
				.585"	Wrinkle Black	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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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 4½" Bore	91cc	●	.650" lift	Silver	106-4275
			.650" lift	Wrinkle Black	90-1371



ALL OTHER SPECIFICATIONS AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER

90-1060* Call for Pricing

TOP END GASKET KITS FOR 1999–'06 BIG TWINS

3⅞" & 3.927" Bore	4" Bore	S&S 4½" Bore (Graphite)	Stock 4½" 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 222

NOTES

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 4 $\frac{1}{8}$ " 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 4 $\frac{1}{8}$ " 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 192](#))
- Select an S&S manifold for your engine size or cylinder length and fuel system. (*Optional*)
- Select head bolt kit. ([See page 194](#))

REPLACEMENT PARTS: SEE PAGE 222

Milwaukee-Eight®



2007–2017 Twin Cam
96"/103"/110"1999–2006
Twin Cam 88®1986–2019
Sportster® & Buell®2014–2019 Street® &
Street Rod®

Indian® Models

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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





















93-3027

HEAD BOLT WASHERS

Thickness	Part #
.150"	50-0418-S
.250"	50-7091

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

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  \$16.95	93-3014 	
			S&S®	—	93-3030  \$16.95	93-3070	
100"	4"	4.850"	Stock HD®	93-3036	93-3030  \$16.95	93-3014 	
			S&S®	—	93-3029	\$16.95	—
106" Stroker	4½"	4.935"	Stock HD®	93-3031 	93-3030  \$16.95	93-3014 	
			S&S®	—	93-3030  \$16.95	93-3070	
107"	4¼"	4.975"	Stock HD®	93-3031 	93-3037	\$16.95	93-3012
			S&S®	—	93-3030  \$16.95	93-3070	
111"	4⅞"	4.763"	Stock HD®	93-3027	93-3030  \$16.95	93-3010 	
			S&S®	—	93-3029	\$16.95	—
116"	4⅝"	5.160"	Stock HD®	93-3038	93-3037	\$16.95	93-3016
			S&S®	—	93-3037	\$16.95	93-3071
117"	4⅜"	4.888"	Stock HD®	93-3031 	93-3030  \$16.95	93-3014 	
			S&S®	—	93-3030  \$16.95	93-3070	
124"	4⅝"	5.013"	Stock HD®	93-3038	93-3037	\$16.95	93-3016
			S&S®	—	93-3037	\$16.95	93-3071

CALCULATING CUSTOM HEAD BOLT LENGTHS

SEE INSTRUCTIONS ON PAGE 349



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

 WARNING: Cancer and Reproductive Harm

DIE-CAST ROCKER COVERS

FITMENT

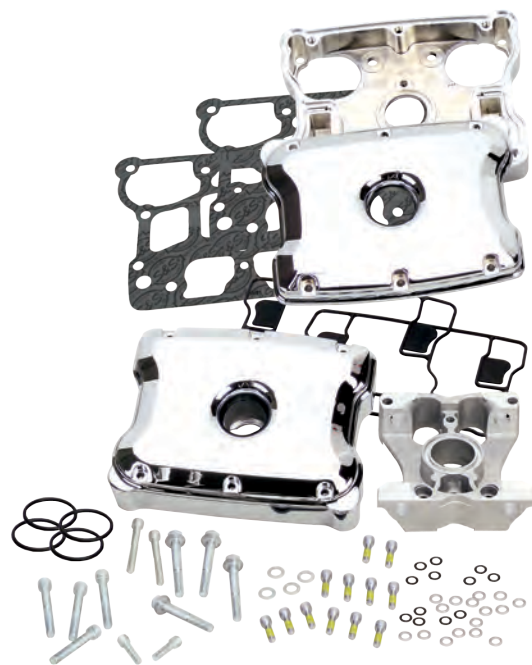
- All Twin Cam 88° big twins
- Sold as stock in 4 $\frac{1}{8}$ " bore S&S engines

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
- 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 \pm

Description	Part #
<small>NEW FOR 2020</small> Gloss Black	900-0937
Chrome 	90-4110

\pm  WARNING: Cancer and Reproductive Harm

ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S ROCKER COVER WRENCH SET, **SEE PAGE 329**

REPLACEMENT PARTS: SEE PAGE 225

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.

Milwaukee-Eight™

2007–2017 Twin Cam
96™/103™/110™1999–2006
Twin Cam 88°1986–2019
Sportster® & Buell®2014–2019 Street® &
Street Rod™

Indian® Models

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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

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 211.



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&S117" Hot Set Up Kits	4.888"	408	–	16-2603
**124" & S&S T-Series 124" Engines	5.013"	417	–	16-2598

*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.

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 105 for 2006 models)
- S&S 52mm or 58mm throttle bodies
- Stock or S&S heads
- S&S T-Series Long Block engines

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.

MANIFOLDS FOR SINGLE BORE EFI 1999-'05 BIG TWIN

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.



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** <i>(Engines produced after 2013)</i>	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** <i>(Engines produced after 2013)</i>	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.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

MAKE MORE POWER!

S&S AIR CLEANER KITS

See Page 156

REPLACEMENT FLANGE KITS

2002–2005 bt.....**160-0175**



Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod®

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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?

NEW & IMPROVED!

CABLE-OPERATED THROTTLE HOGS [PAGE 197](#)

MAKE MORE POWER!

S&S® STEALTH AIR CLEANERS [ON PAGE 156](#)

S&S AIR CLEANER KITS FOR [ON PAGE 159](#)

REPLACEMENT PARTS: [SEE PAGE 236](#)



106-4408

SINGLE BORE EFI THROTTLE BODY/FUEL RAIL KITS

Fitment	52mm	58mm
2002–'05 EFI big twin & 2001 Softtail 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 156](#). Manifolds are required. [See page 196](#).

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



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 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 232

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.

DISCLAIMER: NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON ANY POLLUTION CONTROLLED MOTOR VEHICLE. NOT LEGAL FOR SALE OR USE NATIONWIDE ON ANY FEDERAL POLLUTION CONTROLLED MOTOR VEHICLE UNDER THE CLEAN AIR ACT

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

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
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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 Softail® I (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 7/8" 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 <i>(Contains needed parts to maintain S&S Super E and G carburetors)</i>	11-3103
S&S Jet Kit <i>(Includes 3 each of all intermediate jets and 5 each of all main jets, plus a main jet tool)</i>	11-3102

[±] WARNING: Cancer and Reproductive Harm

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

[±] WARNING: Cancer and Reproductive Harm

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION[±]

Size	QTY	Part #	MSRP	Size	QTY	Part #
.025	each	11-0250	\$11.95	.032	each	11-0320
	3 pack	11-7107	\$28.95		3 pack	11-7112
.0265	each	11-0265	\$11.95	.033	each	11-0330
	3 pack	11-7108	\$28.95		3 pack	11-7113
.028	each	11-0280	\$11.95	.036	each	11-0360
	3 pack	11-7109	\$28.95		3 pack	11-7114
.0295	each	11-0295	\$11.95	.040	each	11-0400
	3 pack	11-7110	\$28.95		3 pack	11-7115
.031	each	11-0310	\$11.95	Blank	each	11-0000
	3 pack	11-7111	\$28.95			

[±] WARNING: Cancer and Reproductive Harm

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.

Milwaukee-Eight[™]

2007–2017 Twin Cam
96[™]/103[™]/110[™]

1999–2006
Twin Cam 88[™]

1986–2019
Sportster[™] & Buell[™]

2014–2019 Street[™] &
Street Rod[™]

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MAIN JETS - SERIES #72 INDIVIDUAL SIZE SELECTION[±]

Size	QTY	Part #	MSRP	Size	QTY	Part #
.040	each	11-4040	\$10.95	.080	each	11-4080
	5 pack	11-7220	\$39.95		5 pack	11-7240
.042	each	11-4042	\$10.95	.082	each	11-4082
	5 pack	11-7221	\$39.95		5 pack	11-7241
.044	each	11-4044	\$10.95	.084	each	11-4084
	5 pack	11-7222	\$39.95		5 pack	11-7242
.046	each	11-4046	\$10.95	.086	each	11-4086
	5 pack	11-7223	\$39.95		5 pack	11-7243
.048	each	11-4048	\$10.95	.088	each	11-4088
	5 pack	11-7224	\$39.95		5 pack	11-7244
.050	each	11-4050	\$10.95	.090	each	11-4090
	5 pack	11-7225	\$39.95		5 pack	11-7245
.052	each	11-4052	\$10.95	.092	each	11-4092
	5 pack	11-7226	\$39.95		5 pack	11-7246
.054	each	11-4054	\$10.95	.094	each	11-4094
	5 pack	11-7227	\$39.95		5 pack	11-7247
.056	each	11-4056	\$10.95	.096	each	11-4096
	5 pack	11-7228	\$39.95		5 pack	11-7248
.058	each	11-4058	\$10.95	.098	each	11-4098
	5 pack	11-7229	\$39.95		5 pack	11-7249
.060	each	11-4060	\$10.95	.100	each	11-4100
	5 pack	11-7230	\$39.95		5 pack	11-7250
.062	each	11-4062	\$10.95	.102	each	11-4102
	5 pack	11-7231	\$39.95		5 pack	11-7251
.064	each	11-4064	\$10.95	.104	each	11-4104
	5 pack	11-7232	\$39.95		5 pack	11-7252
.066	each	11-4066	\$10.95	.106	each	11-4106
	5 pack	11-7233	\$39.95		5 pack	11-7253
.070	each	11-4070	\$10.95	.110	each	11-4110
	5 pack	11-7235	\$39.95		5 pack	11-7255
.072	each	11-4072	\$10.95	.115	each	11-4115
	5 pack	11-7236	\$39.95		5 pack	11-7256
.074	each	11-4074	\$10.95	.120	each	11-4120
	5 pack	11-7237	\$39.95		5 pack	11-7257
.076	each	11-4076	\$10.95			
	5 pack	11-7238	\$39.95			
.078	each	11-4078	\$10.95			
	5 pack	11-7239	\$39.95			

[±]  WARNING: Cancer and Reproductive Harm

MAIN JET AIR BLEED KIT[±] (One Jet Each Size)

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518

[±]  WARNING: Cancer and Reproductive Harm

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.

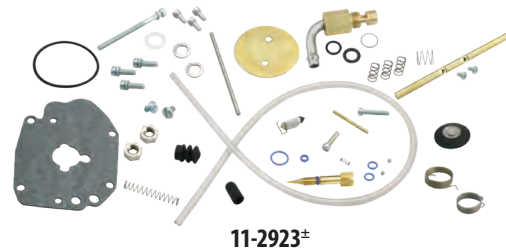
MASTER REBUILD KITS

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

[±]  WARNING: Cancer and Reproductive Harm



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

[±]  WARNING: Cancer and Reproductive Harm



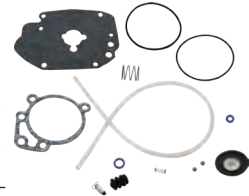
BASIC REBUILD KIT

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

[±]  WARNING: Cancer and Reproductive Harm

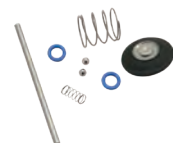


ACCELERATOR PUMP REBUILD KITS

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 ^{USA} _{2,3}	55-1010
Electric Compression Release Assembly ^{USA} _{2,3}	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.

Milwaukee-Eight®

2007–2017 Twin Cam
96°/103°/110°

1999–2006
Twin Cam 88°

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

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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/protune-ii
- 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 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


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.

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 (<i>except 2008-up touring and 2011 Softail®</i>)	55-5090*
S&S Delphi Style VFI Closed Loop Sensor Kit 	106-2066





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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
Service Kit, O ₂ Sensor 		106-2061
Service Kit, DTM Pin		55-1521
Service Kit, Oxygen Sensor Boss  		55-6071-S
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	55-1571	
<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>		
S&S High Output 0.5Ω Single Fire Coil 	55-1576	
<i>High output 0.5Ω single fire coil for S&S IST ignition.</i>		



55-1571




55-1576

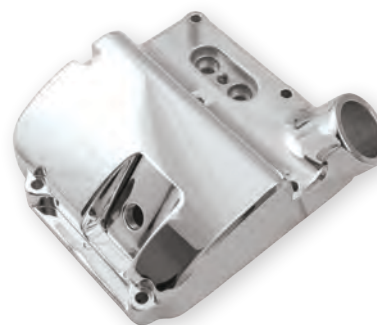
TRANSMISSION TOP COVER

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.

†  WARNING: Cancer and Reproductive Harm



INNER PRIMARY BEARING RACE

FITMENT


- All 1991–'06 big twins (except '06 Dyna®)



FEATURES AND BENEFITS

- Will not "walk" on transmission mainshaft
- Simple to install
- Prevents costly damage to mainshaft seal, output gear & output gear bearing

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 PULLER, SEE PAGE 328

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

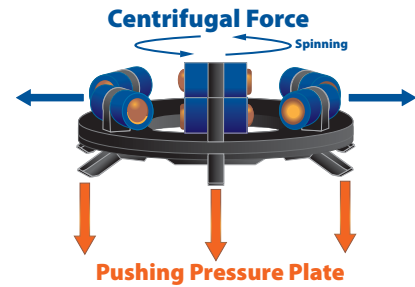
- Works like a lock up clutch
- Increased torque capacity: strength of engagement increases with RPM
- 10 minute installation
- Fits behind a stock derby cover and primary cover—No modification required
- Can be used with cable and hydraulic clutch controls

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.

Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"1999–2006
Twin Cam 88°1986–2019
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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

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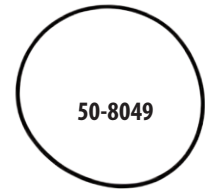
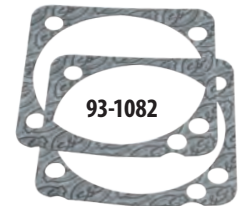
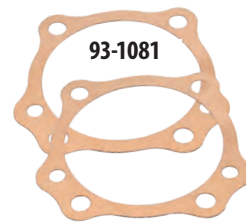
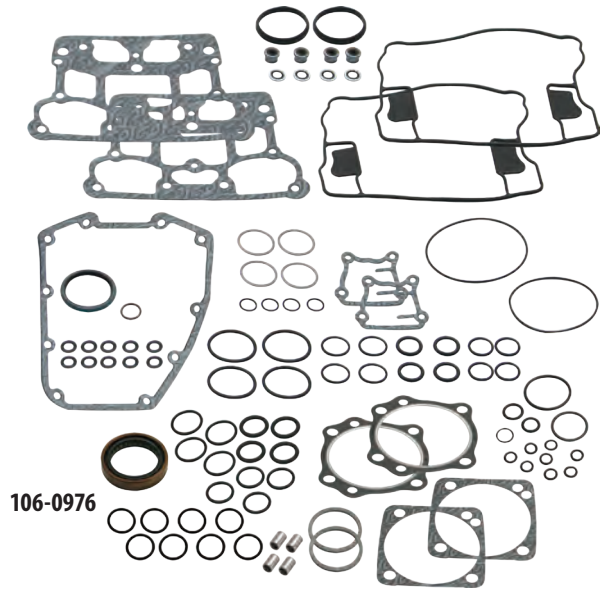
HEAD GASKETS T-SERIES 1999-UP

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" 16775-998	.043"	Graphite	each	93-1045-S

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BASE GASKETS AND O-RINGS T-SERIES 1999-UP

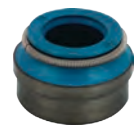
4"	.018"	Graphite	each	93-1050-S
			each	93-1048-S
4 1/8"	.018"	Graphite	2 pack	930-0101
			10 pack	93-1074
4 3/8"	.018"	Micropore	2 pack	93-1082



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



CONTINUED - GASKETS

VALVE GUIDE SEALS

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)

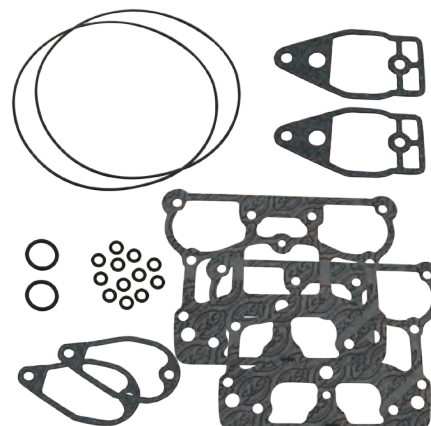
Gasket Kit		90-4073
O-ring, (-114), .625" ID x .812" OD, Black, Viton® 11270		50-8033
O-ring, (-268), 9.483" ID x		50-8050
Gasket, Breather Cover, Stock Pattern, 1999–'10 17591-99, 17162-03, 17592-99		90-4077
Gasket, Breather Baffle, Stock Pattern, 1999–'10 17162-03, 17592-99		90-4078
Gasket, bottom rocker cover, 4 1/8" 1984–up	each	90-4071-5
	2 pack	90-4071
	10 pack	90-4099

DIE CAST ROCKER BOXES

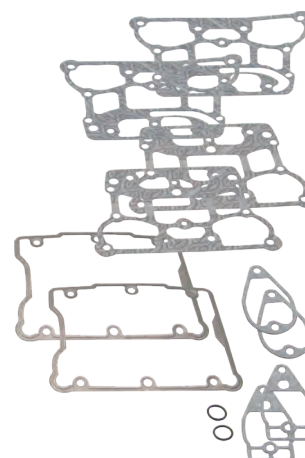
Gasket set - rocker cover, cast		90-4111
O-ring, (-223), 1.625" ID x 1.875" OD, Vito		50-8044
Gasket, bottom rocker cover, 4 1/8", 1984–up	each	90-4071-5
	2 pack	90-4071
	10 pack	90-4099
Gasket, Rckr Cvr, S&S® DieC, O-ring, 1984–up		90-4079

STOCK ROCKER BOXES

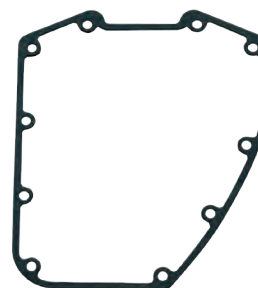
Gasket kit for 1999–'06 bt (use w/S&S heads)		90-4097
Gasket kit for 1999–'06 bt (use w/Stock heads)		900-0534
O-ring, (-114), .625" ID x .812" OD, Black, Viton® 11270		50-8033
Gasket, bottom rocker cover, 4 1/8", 1984–up	each	90-4071-5
	2 pack	90-4071
	10 pack	90-4099
Gasket, Breather Cover, Stock Pattern, 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	90-4096-5
Gasket, Rocker Cover, w/Stock Rocker Box, 1999–up bt	each	90-4124
	2 pack	90-4120
Filter, Breather  63815-99	each	900-0496



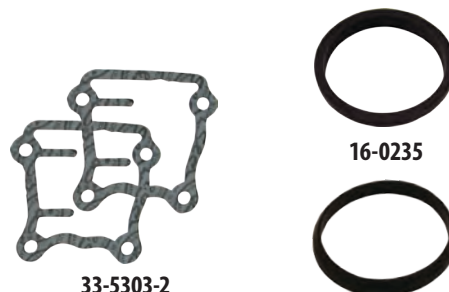
90-4073



90-4097



31-2032-5



16-0235

16-0236

33-5303-2

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

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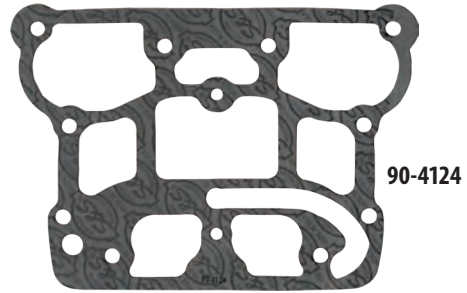
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CONTINUED- GASKETS

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



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



CONTINUED - GASKETS

FUEL SYSTEM GASKETS

Manifold Seals

S&S Manifold O-Ring	each	16-0235
	10 pack	16-0243
Stock Manifold O-ring  26995-86A, 26992-99, 26995-86B	each	16-0236
	10 pack	16-0244
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

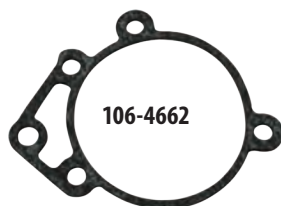
Backplate gasket

Stock CV Carb & EFI Throttle Body, 1991–up xl/bt <i>(except Throttle by Wire) 29062-95B</i>		106-6022
Super E/G	each	106-1724
	10 pack	106-2328
For Muscle air cleaner <i>(includes lanyards)</i> .		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



11-2266



11-2282

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 202)

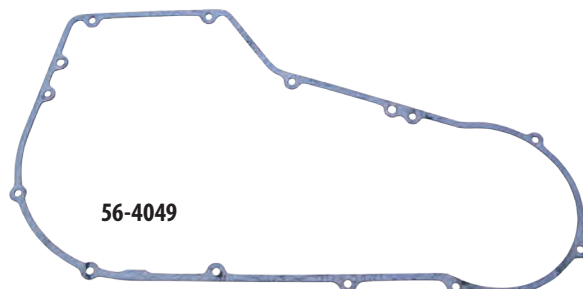
Bowl Gasket, Super E & G		11-2386	
Pump cap o-ring - (two required)	each	50-8012	
	10 pack	50-8100	
Idle Mixture Needle o-ring	each	500-0036	
	10 pack	500-0148	
Bellows Seal, Accelerator Pump		11-2266	
Accelerator pump diaphragm		11-2282	
Manifold to carb/ throttle body o-rings	Super E	each	50-8016
		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® models	each	56-4049
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Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

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CRANKCASE REPLACEMENT PARTS FOR HARLEY-DAVIDSON® TWIN CAM 88® ENGINES

- | | |
|---|--|
| 1. Bolt, stator 10-24 x 1" SHC - 4 required 2720
each
4 pack | 50-0044
31-0113 |
| 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
.1015" - .1025" 9125
.1035" - .1045" 9126
.1055" - .1065" 9127
.1075" - .1085" 9128
.1195" - .1205" 9134 |  31-4071
 31-4072
 31-4073
 31-4074
 31-4075
 31-4076 |
| 5. Bolt, case 5/16" - 18 x 3 1/2" HHC - 8 required
Chrome (each)
Zinc 3427 (each) | 50-0254-S±
50-0117 |
| 6. Washer, flat 5/16" x 1 1/16" x 1/16" - 8 required
Chrome (each)
Zinc 6320, 70907-07, 6016, 6702 (each) | 50-7104-S±
50-7034 |
| 7. Bolt center case 1/4" - 28 x 5 1/2" HHC Grade 8
Chrome (each)
Zinc (each) | 50-0252-S±
50-0090 |
| 8. Washer, flat, 1/4" x .474" x .050"
Chrome (each)
Zinc (each) | 50-7105-S±
50-7020 |
| 9. Nut 1/4" - 28 Grade 8 - 1 required
Chrome (each)
Zinc 7683 (each) | 50-5017-S±
50-5011 |
| 10. Cylinder stud, S&S® Bolt Pattern - 8 required (each) 
8 pack 
Cylinder stud, Stock Bolt Pattern - 8 required (each) | 31-2325-S
31-2340
310-0437 |
| 11. Dowel, cylinder deck - 2 required (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. Washer, flat 1/4" 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 1 1/16" I.D. x 1 5/16" 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 1 1/16" O.D. x 1/16" 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 24604-000 | 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. BSHS 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:

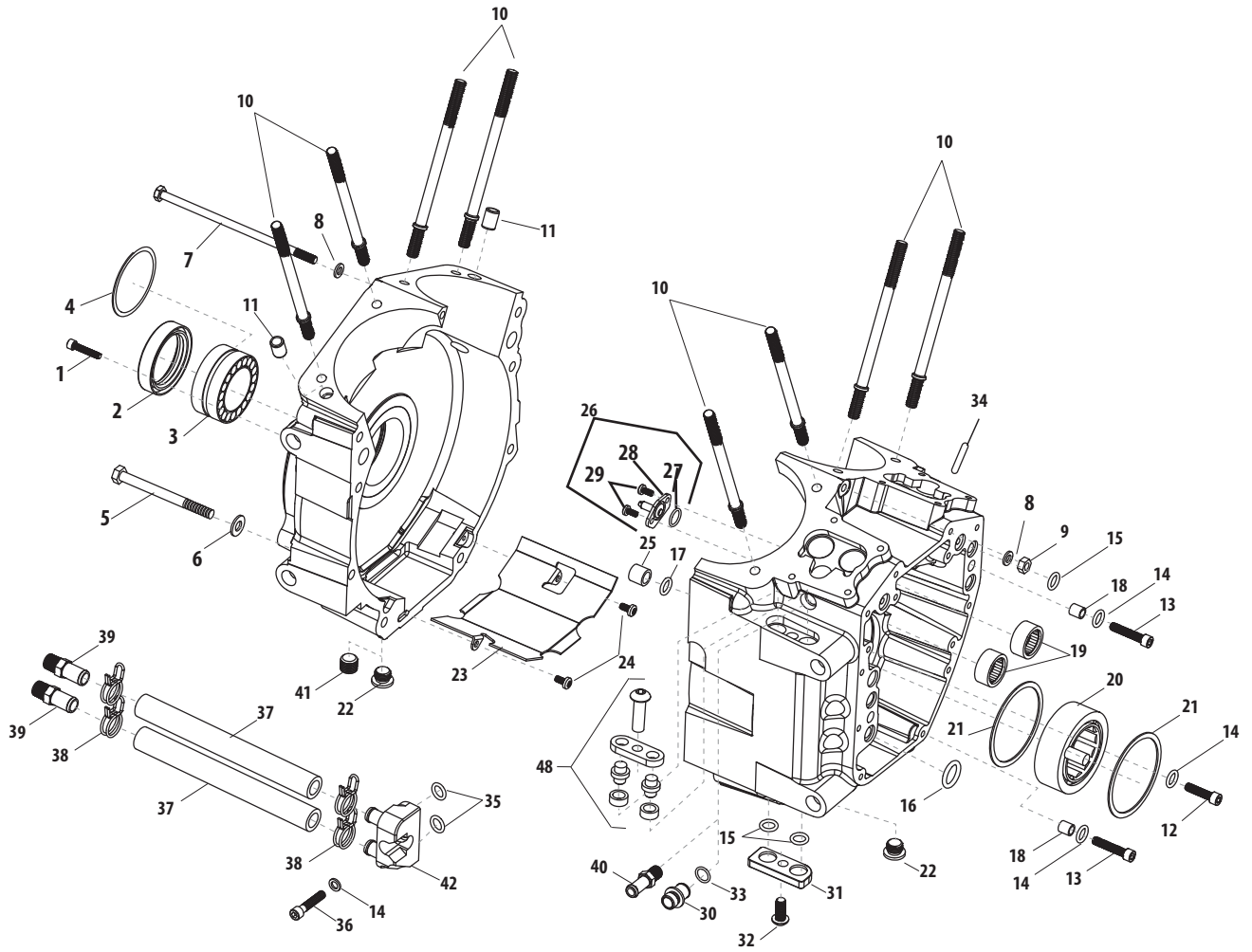
- | | |
|---|-----------|
| 35. O-ring, 5/16" I.D. x 1 1/16" O.D. x 1/16" CS 26432-76A (each) | 50-8034-S |
| 2 pack | 50-8034 |
| 36. Bolt, 1/4" - 20 x 3/4" SHCS 4069A (each) | 50-0067 |
| 37. Hose, oil, inlet/outlet | 50-8157 |
| 38. Spring clips | 50-8156-S |
| 39. Oil line fittings, inlet/outlet - 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

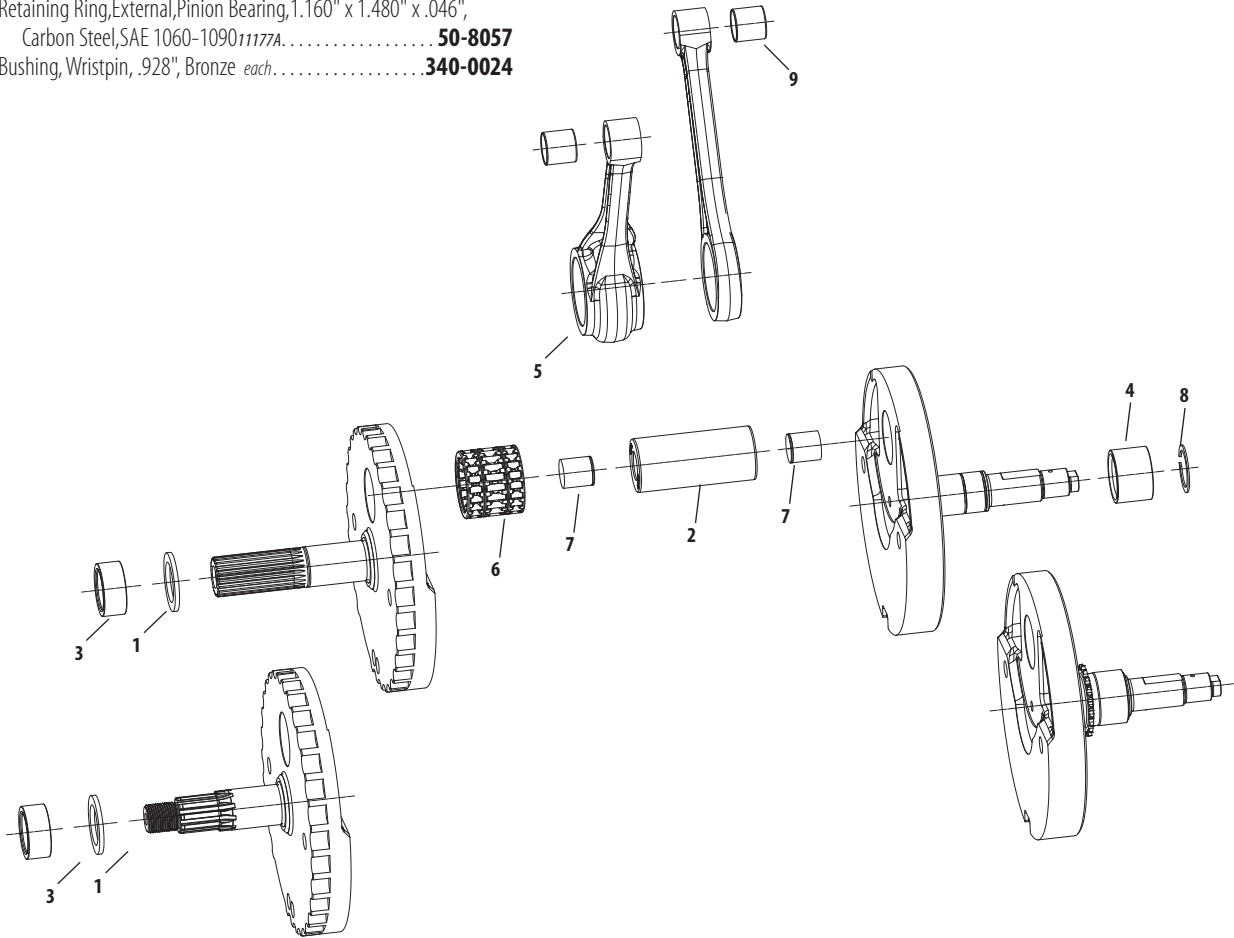
±  WARNING: Cancer and Reproductive Harm



**CRANKCASE BREATHER REED VALVE
REPLACEMENT PARTS ON PAGE 240**

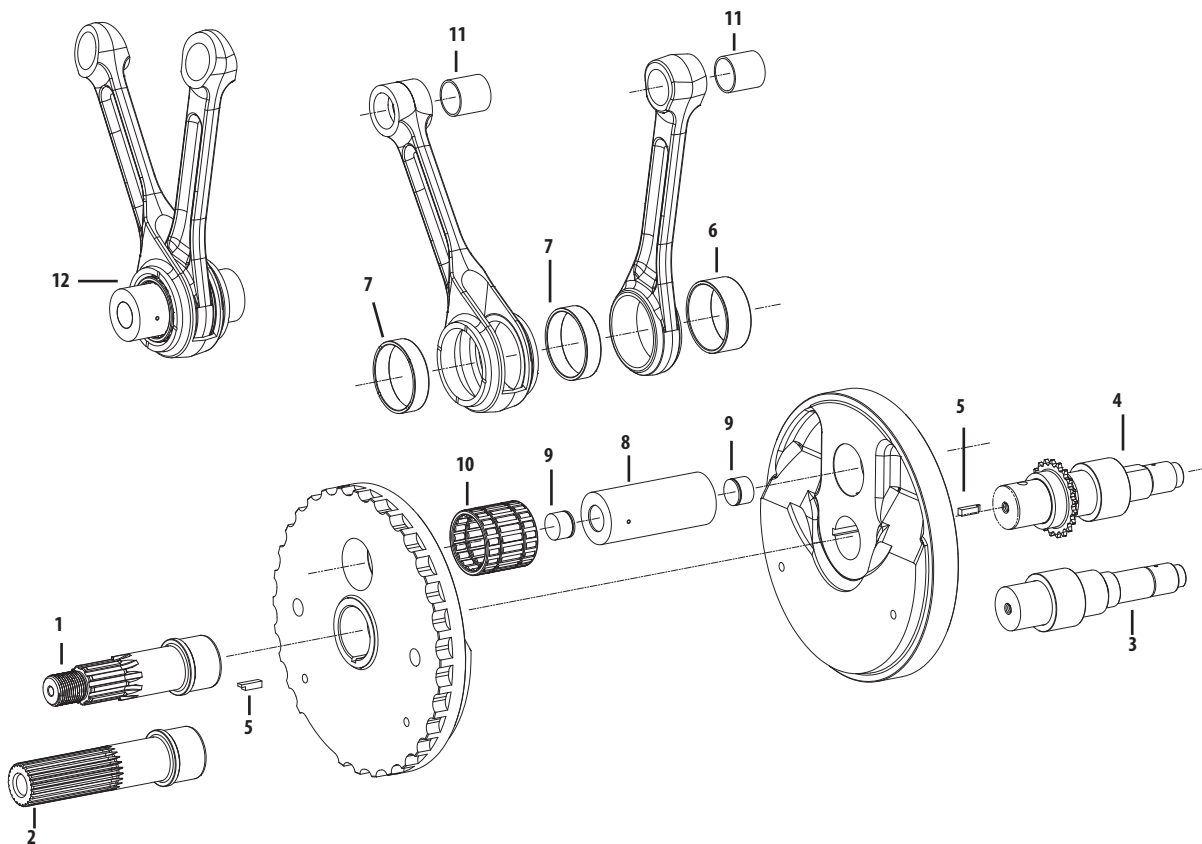
3-PIECE FLYWHEEL REPLACEMENT PARTS

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 **USA 310-0752**
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 bushing 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.

Milwaukee-Eight™

2007–2017 Twin Cam
96™/103™/110™

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

Tools &
Shop Supplies

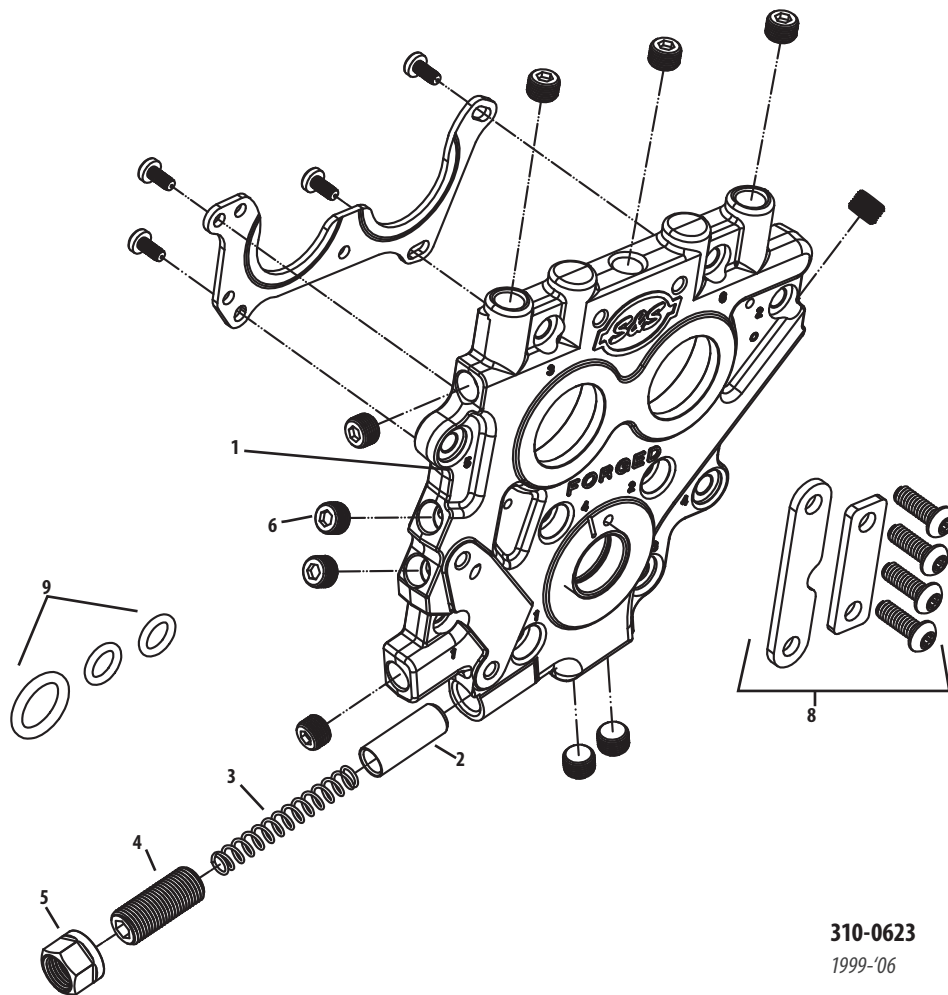
Warranty &
Company Policy

Appendix &
Index



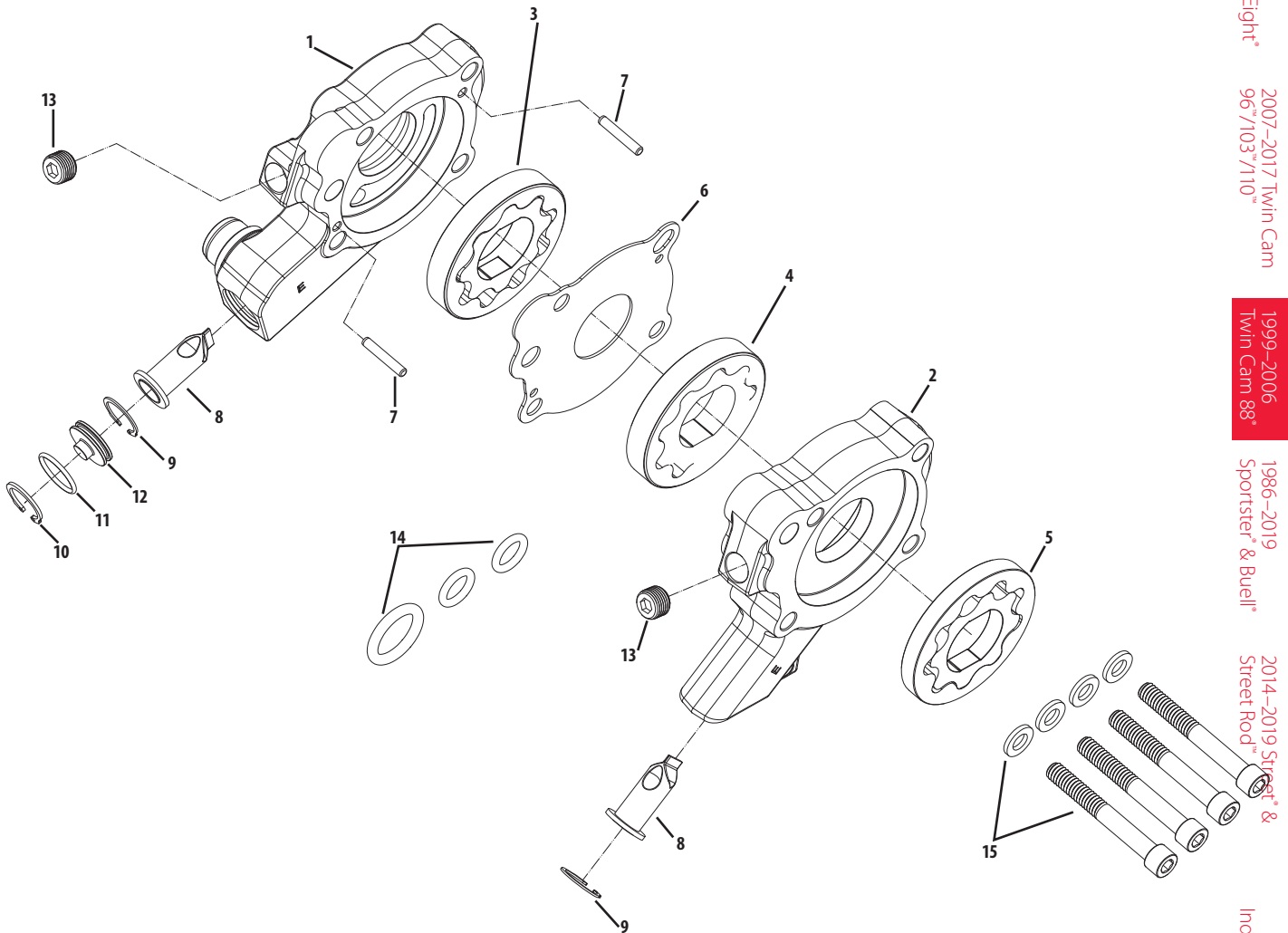
TC3 CAM PLATE REPLACEMENT PARTS

- 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

Milwaukee-Eight™

2007–2017 Twin Cam
96™/103™/110™

1999–2006
Twin Cam 88™

1986–2019
Sportster® & Buell®

2014–2019 Street
Street Rod™ &



Indian® Models



Tools &
Shop Supplies

Warranty &
Company Policy

Appendix &
Index

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-S**
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. Idle gear shaft (each)..... **31-2079-S**
9. Divider plate..... **31-6508**
10. Screw FHSC 10-24 x ½"..... **50-0312-S**
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 ⅝"..... **50-0293-S**
24. O-ring, Viton 11301 (each)..... **50-8066-S**
25. Bushing, pinion shaft..... **31-4088-S**
26. Screw FHSC 10-24 x ¾" (5 pack)..... **50-8328**
27. Screw FHSC ¼"-20 x 2"..... **50-8163-S**
28. Screw, SHCS, ¼"-20 x 1-½", Chrome, ASTM A574-92A... **50-0255-S±**
29. Screw, SHCS, ¼"-20 x 1-¼", 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, ⅜" diameter x 1" (each)..... **50-8193-S**
33. Retaining ring..... **N/A**
34. Bushing..... **33-4214**
35. O-ring ⅝" O.D. x ⅛" 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 - ⅝"-18 x ¾" G8 25566-06..... **50-0100**
39. Steel ball, ⅛" (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)..... **50-8244-S**
42. Viton o-ring (-225)..... **50-8243-S**
43. Viton o-ring (-16)..... **50-8242-S**
44. Screw, FLC ¼"-20 x 1¾" (N/S) 905 (each)..... **50-0334-S**

45. Pipe plug ⅛"-27each)..... **50-8331A**
10 pack..... **50-1015**
46. Key kit - cams..... **50-1038**
47. Camshafts
See Cam Selection Chart below.
48. Ball, pressure relief valve ⅜" diameter 8866, 8873
.....   **50-8091**
49. Spring, pressure relief valve..... **50-8408-S**
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 172)
53. Screw, SFH, 1/4-20 x 1-3/4", Black, Alloy Steel..... **50-0334-S**

(N/S) = Not Shown

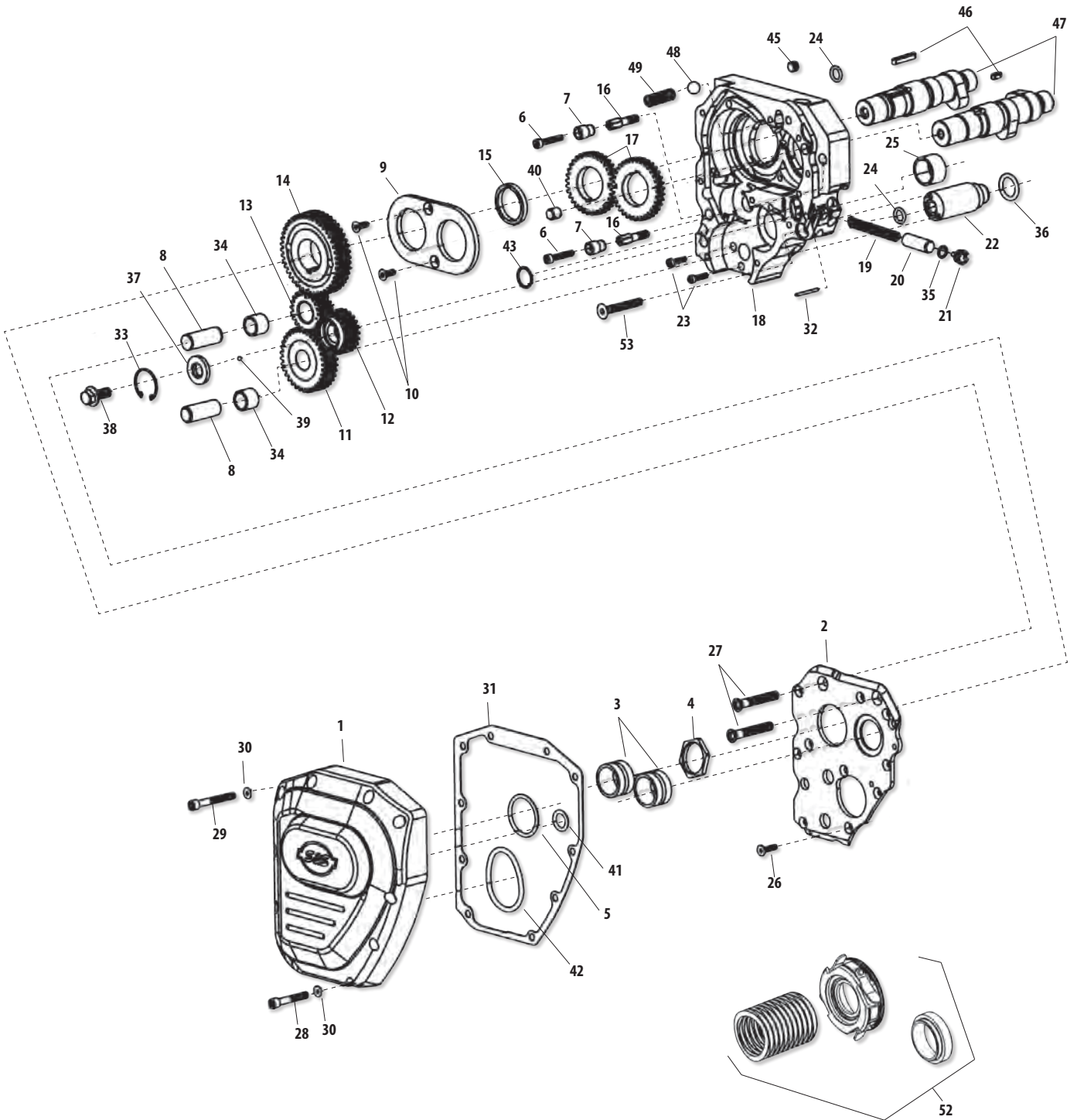
GEAR DRIVE CAMS FOR USE WITH S&S GEAR OIL PUMPS FOR 1999-'06 BIG TWIN (EXCEPT 2006 DYNA® MODELS)

Cam*	Easy Start Cams with Drive Gears
585GP	106-4771
635GPE	330-0405
640GP	106-4781
675GP	106-5215

*See Cam listings on page 180 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.

±  WARNING: Cancer and Reproductive Harm

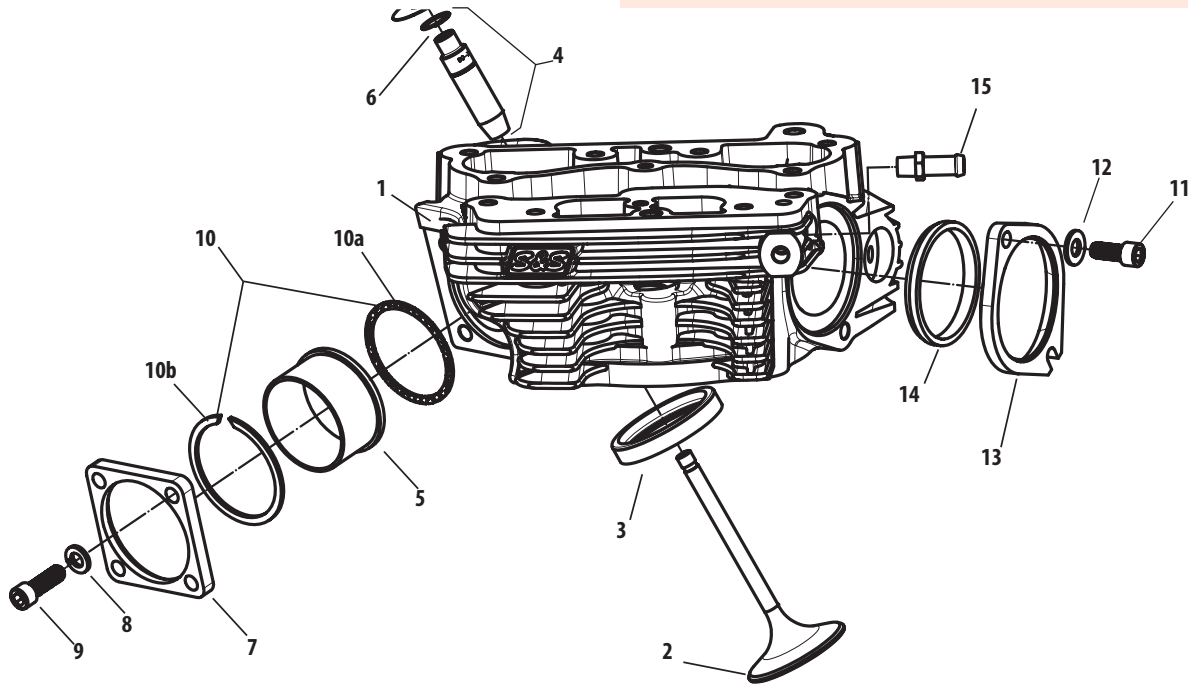


All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

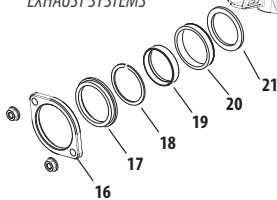
B2 CYLINDER HEADS REPLACEMENT PARTS FOR 1984-'17 BIG TWIN ENGINES (EXCEPT 2017 TOURING MODELS)

- | | |
|--|------------------|
| 1. Cylinder Head — (See page 191) | |
| 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-S |
| 6 pack..... | 93-1083 |
| B: Retaining Ring..... | 50-8159-S |
| 11. Screw, SH, 5/16" - 18 X 3/4" 3275..... | 50-0302-S |
| 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-S |
| 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-S |
| 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 |

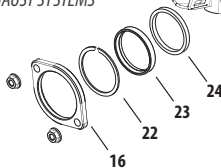
VALVE SPRING REPLACEMENT PARTS ON PAGE 224



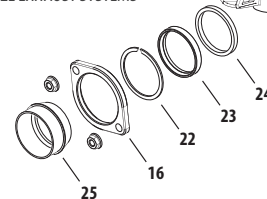
FOR B2 HEADS USING STOCK HEADER PIPE SIZE EXHAUST SYSTEMS



FOR B2 HEADS USING A PRE-MADE 2" OD HEADER PIPE SIZE EXHAUST SYSTEMS



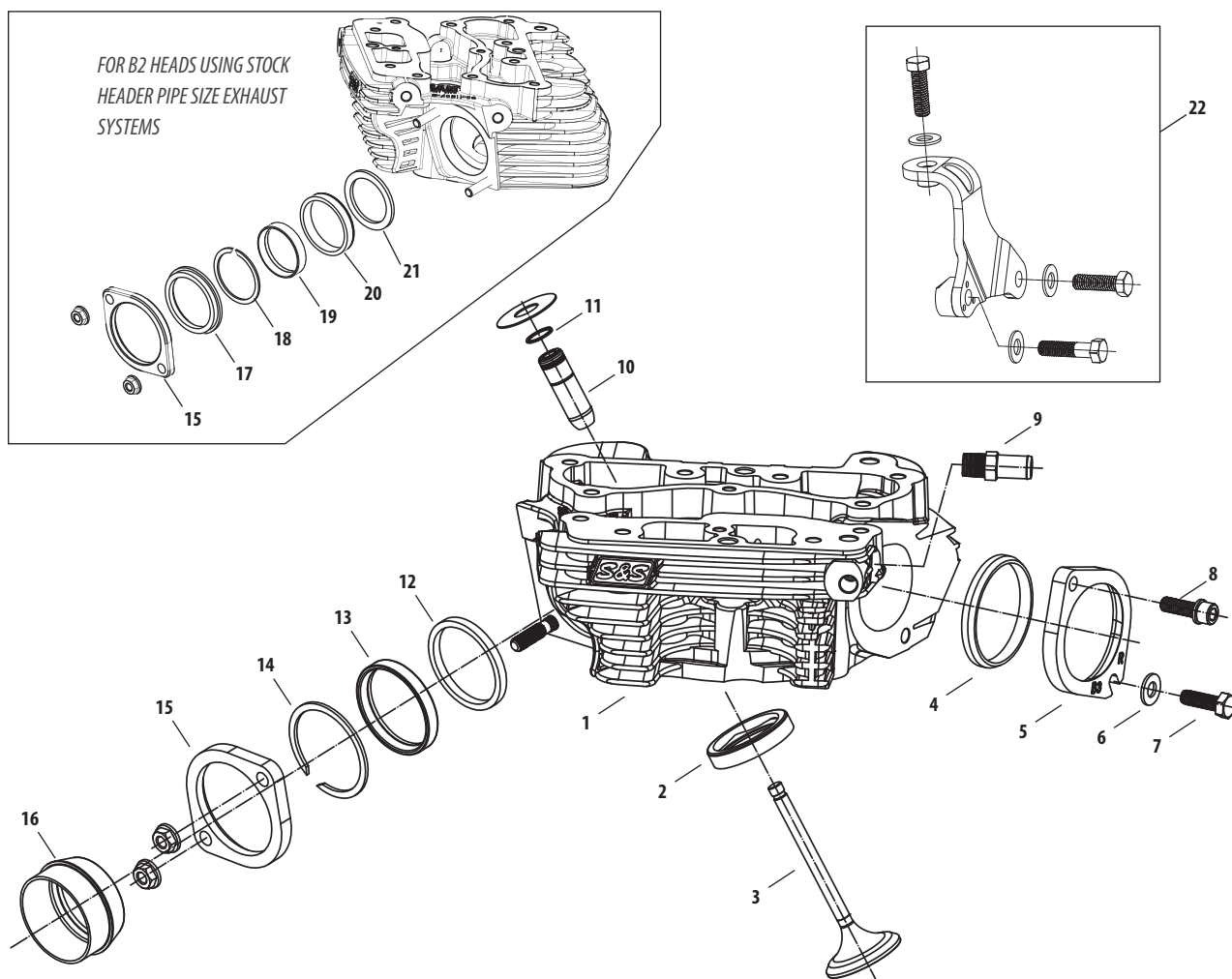
FOR B2 HEADS MODIFYING OR MAKING A 2" OD HEADER PIPE SIZE EXHAUST SYSTEMS



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 224



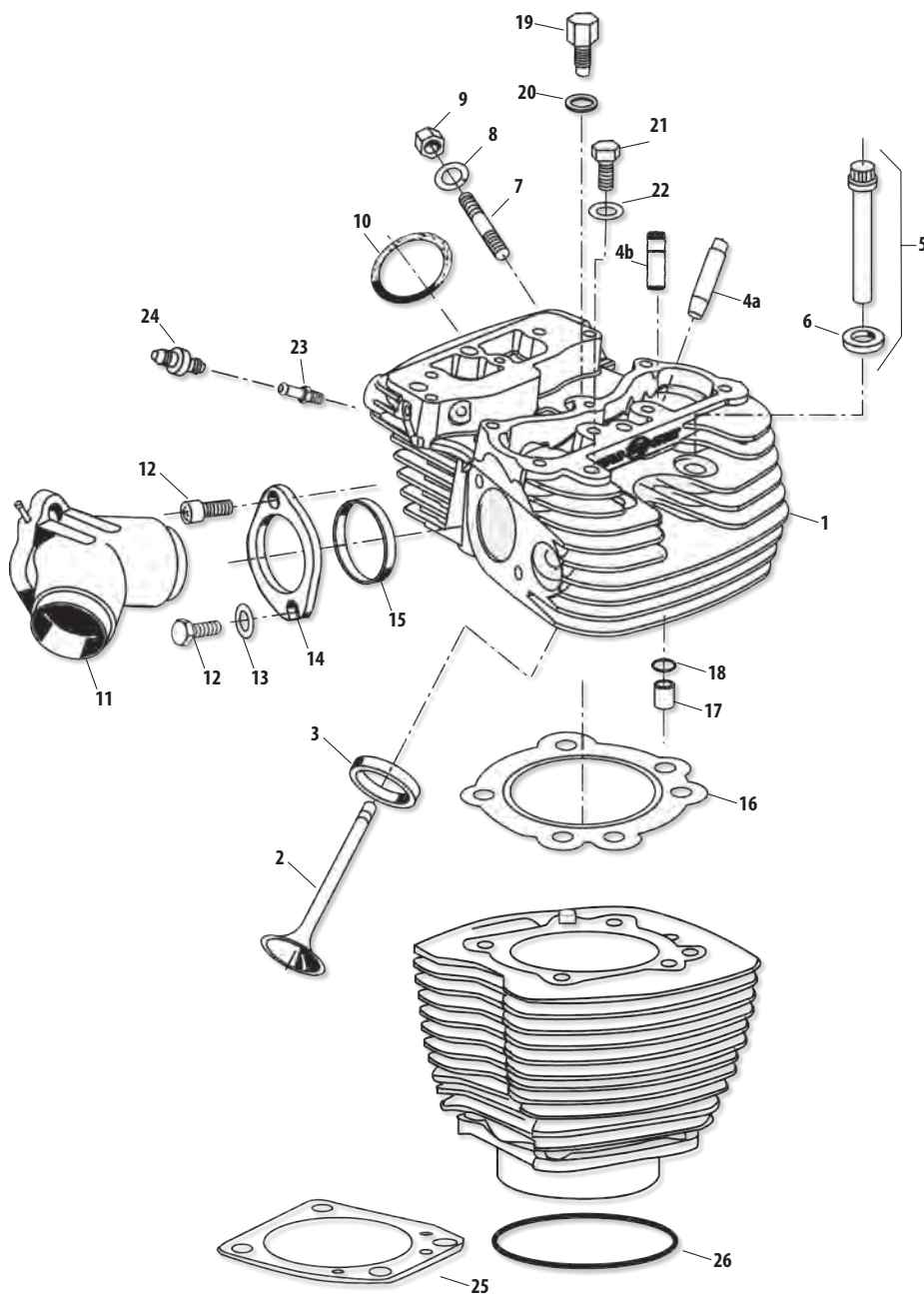
All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.



SUPER STOCK® CYLINDER HEADS REPLACEMENT PARTS FOR 1999-UP BIG TWIN ENGINES

1. Cylinder head (See page 192)
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) **50-0418-5**
 - .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) **50-5025-5**
 - 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 196)
12. Manifold mounting screw
 - SH - 5/16" - 18 x 3/4" 3275 (each) **50-0302-5**
 - 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**

± WARNING: Cancer and Reproductive Harm





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® (4 pack) **900-0737**
- 2. Keeper, valve spring, Standard, 9° (each) **90-2094-S**

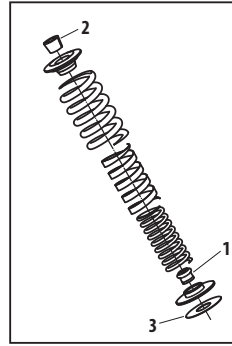
.650" Lift Sidewinder® Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

- 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 (each) **900-0338**
.562" Powder Metal (4 pack) **900-0737**
- 5. Keeper, valve spring **106-5692**
- 6. Valve Spring Shim
.015" (each) **500-0013**
.030" (each) **500-0014**

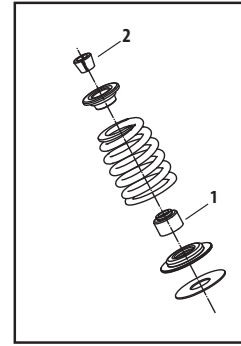
.585" Lift Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

- 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 (each) **900-0338**
.562" Powdermetal (4 pack) **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



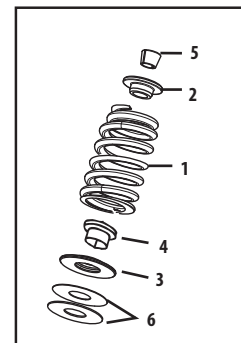
.650" Lift Valve Springs



.650" Lift Sidewinder® Valve Springs

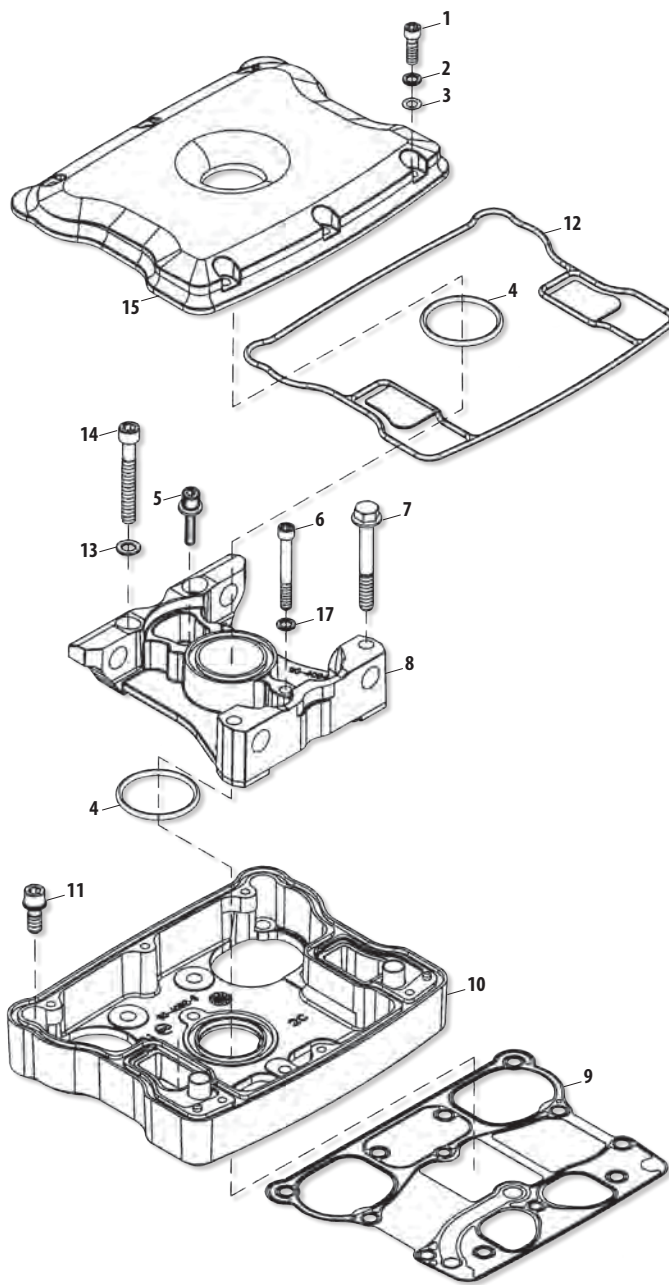


.585" Lift Valve Springs



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**



Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod®

Indian® Models

Tools &
Shop Supplies

Warranty &
Company Policy

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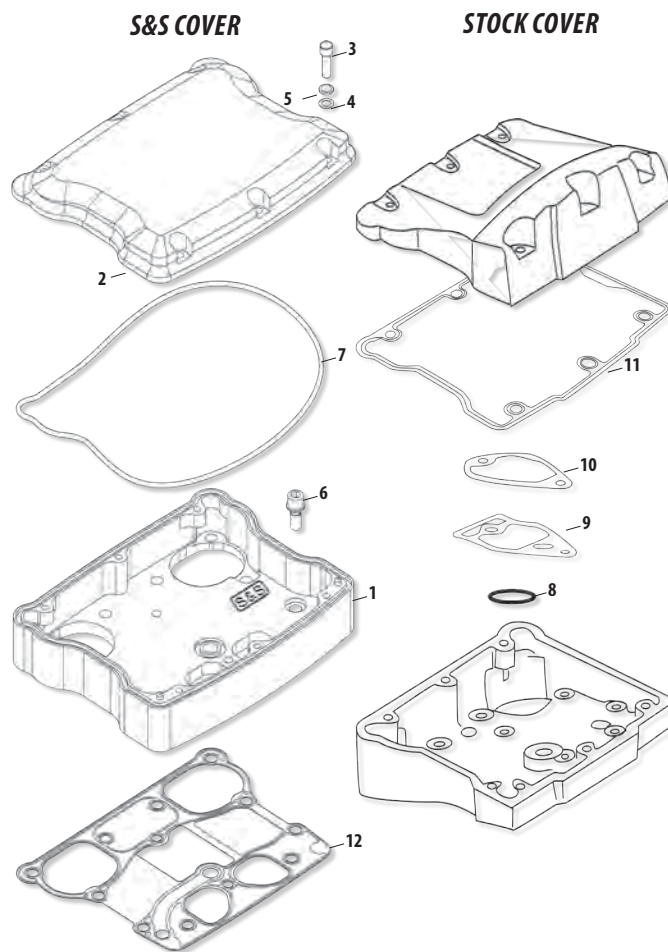
All reference to HD® part numbers is for identification purposes only. We in no way are implying that any of S&S Cycle's products are original equipment parts or that they are equivalent to the corresponding HD® part number shown.

± WARNING: Cancer and Reproductive Harm

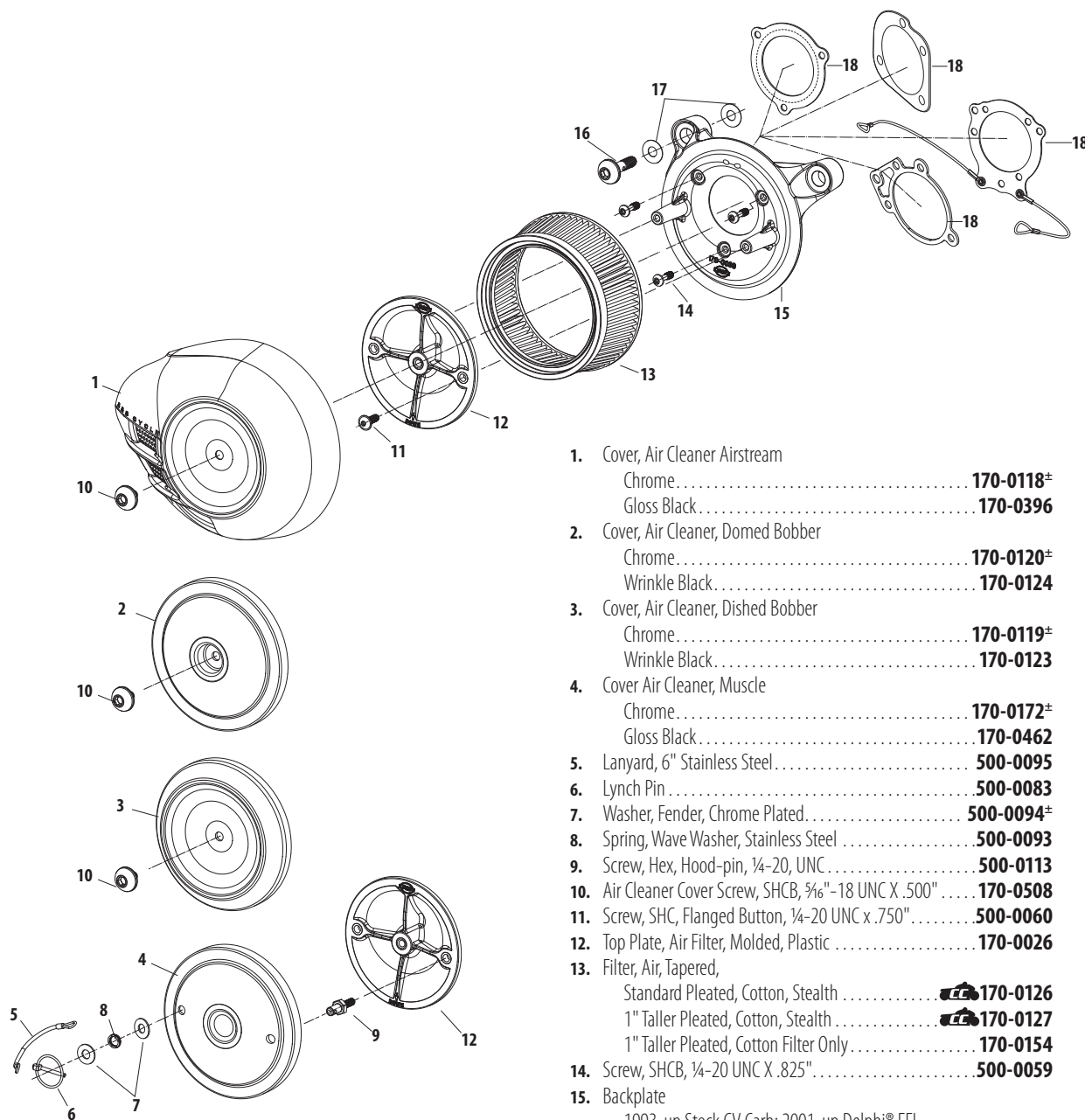
BILLET ROCKER COVER REPLACEMENT PARTS FOR 1999-UP BIG TWIN ENGINES (DISCONTINUED)

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



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**±
 Wrinkle Black **170-0124**
3. Cover, Air Cleaner, Dished Bobber
 Chrome **170-0119**±
 Wrinkle Black **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" **170-0508**
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 29062-95B
 (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**

± WARNING: Cancer and Reproductive Harm

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2007–2017 Twin Cam
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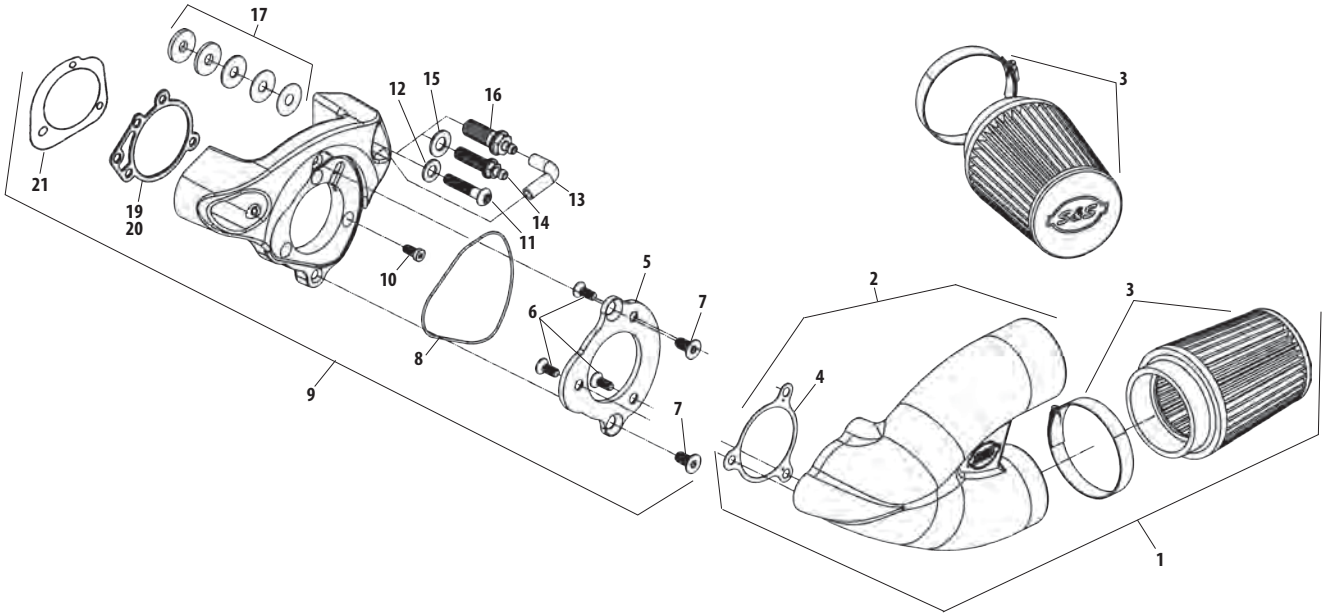
SINGLE BORE TUNED INDUCTION SYSTEM REPLACEMENT PARTS FOR S&S T-SERIES ENGINES AND 1999-'06 BIG TWINS

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 – 2 $\frac{1}{16}$ " 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 $\frac{3}{8}$ " O.D. x 3 $\frac{1}{2}$ " 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 $\frac{1}{4}$, BHC, Chrome (each) **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 $\frac{1}{4}$ " **50-0436**
15. Washer, Flat, 3/8" x 1 $\frac{3}{16}$ " 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. S&S 4 $\frac{1}{8}$ " 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**
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 29062-95B **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 4 $\frac{1}{8}$ " 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

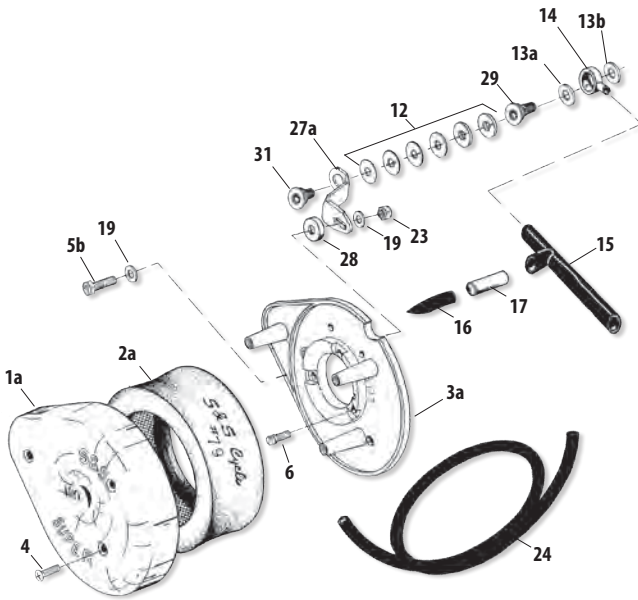




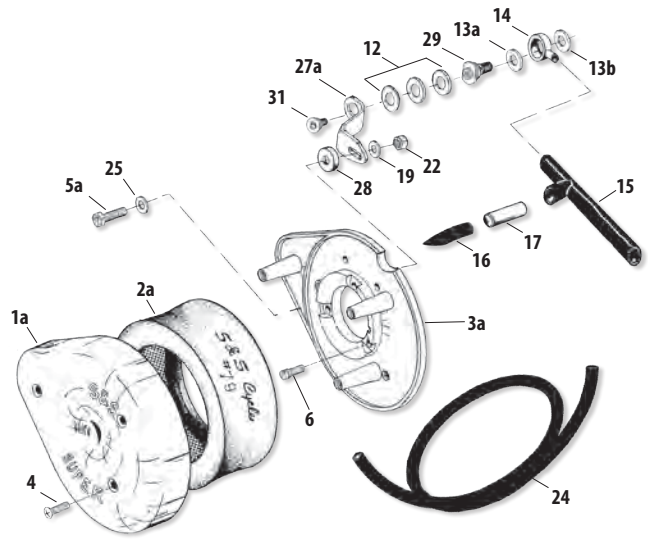
AIR CLEANER REPLACEMENT PARTS FOR STOCK FUEL SYSTEMS

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 ¾ SEMS	50-0066	
11. Screw, SHCS, 1995-'98, ¼-20 x ¾, SEMS	50-0066	
1999-'01, 5/16-18 x ¾ 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	 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 1¼ (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 5/8" x 3'	 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 ¾" 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	

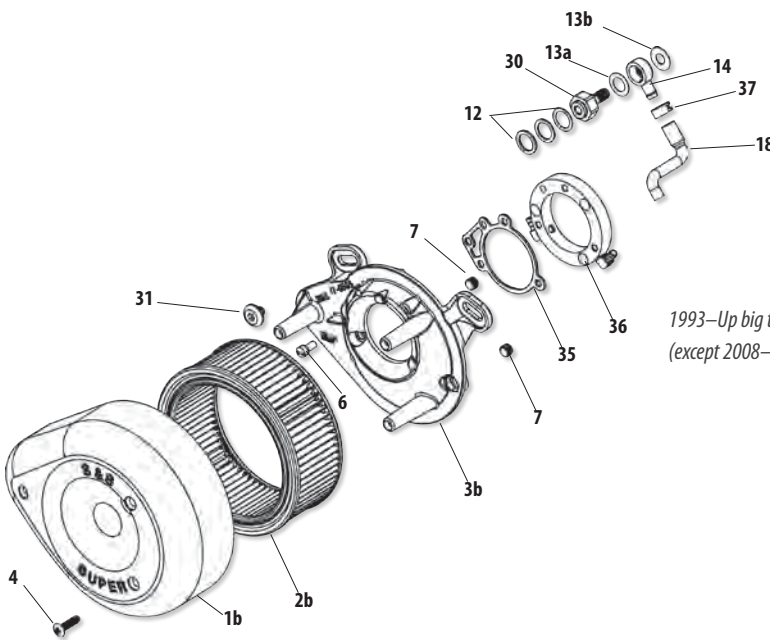
(N/S) = Not Shown



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**

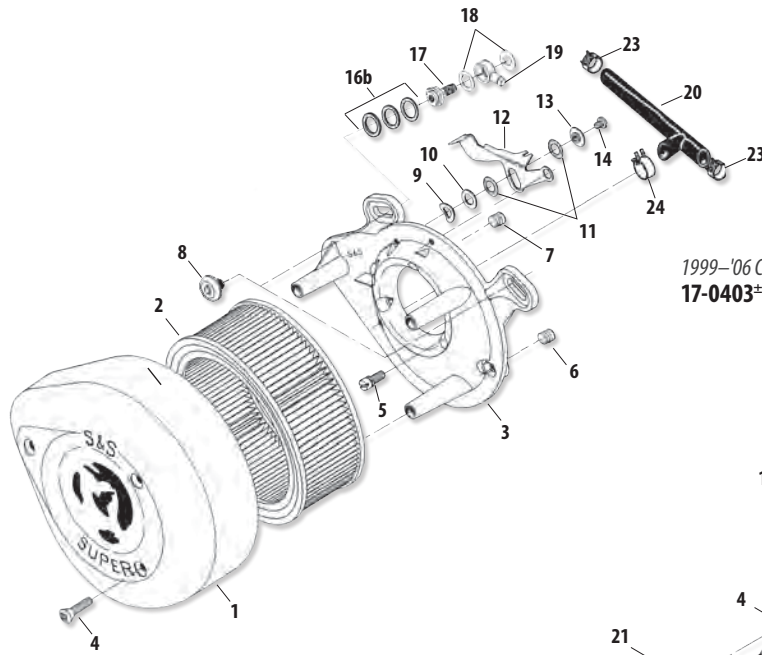


1993–Up big twin stock cv and Delphi® Single Bore EFI (except 2008–up touring models) **17-0450±**

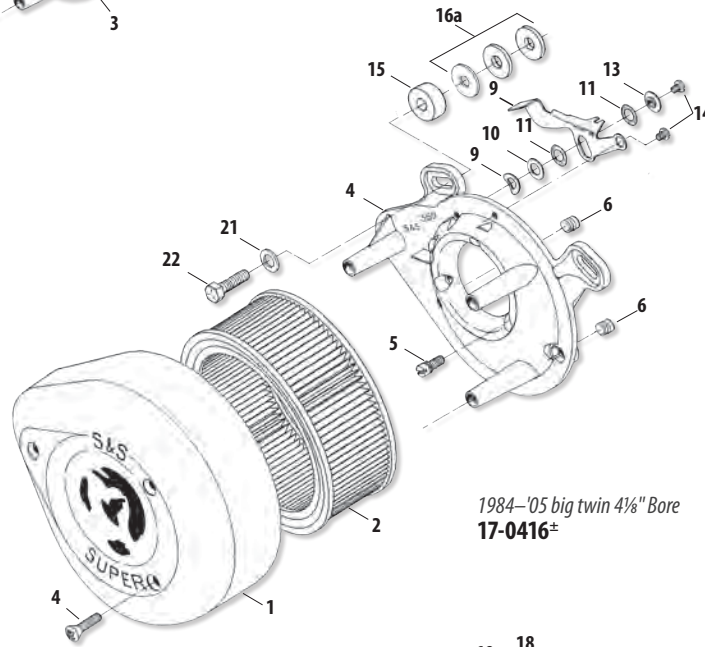
SUPER E & G AIR CLEANER REPLACEMENT PARTS FOR 1999-'06 BIG TWINS

1. Air cleaner cover –		
Chrome	17-0378 [±]	10 pack 50-7111
Gloss Black	170-0384A	.075" (each) 50-7115
Slasher	17-0004 [±]	10 pack 50-7112
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	
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 [±]	

 WARNING: Cancer and Reproductive Harm –



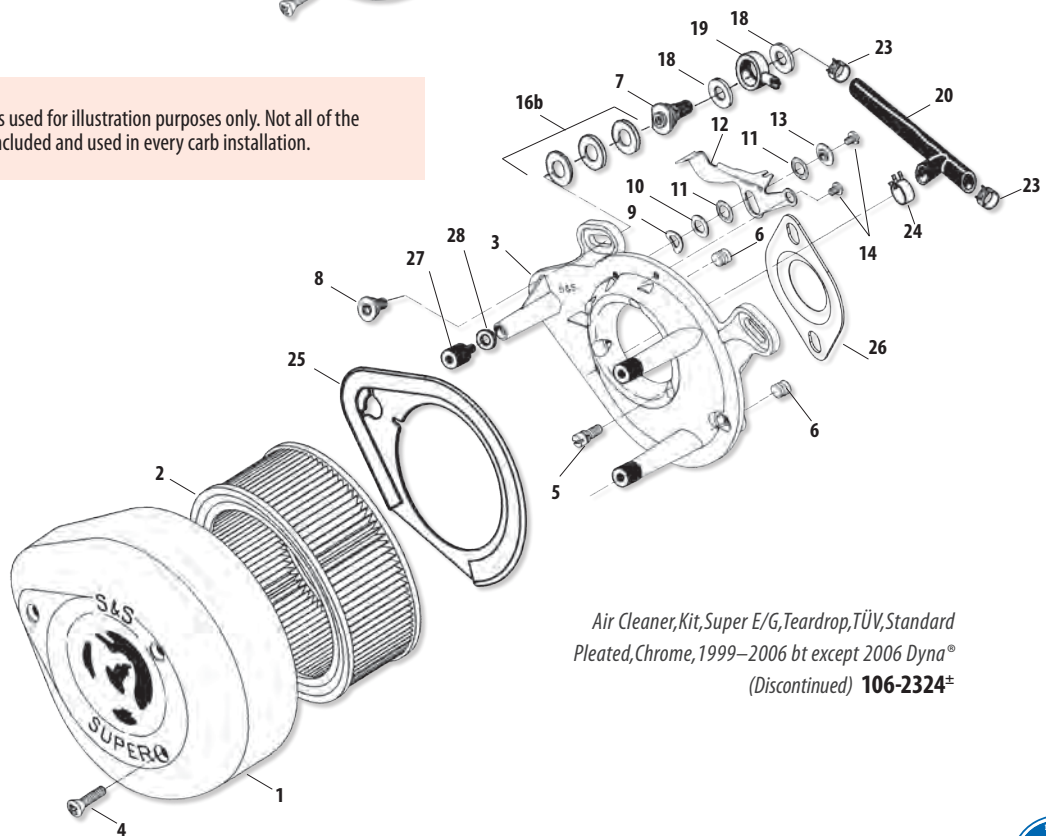
1999–'06 Carbureted Harley-Davidson® Twin Cam 88°
17-0403±



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±

Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88°

1986–2019
Sportster® & Buell®

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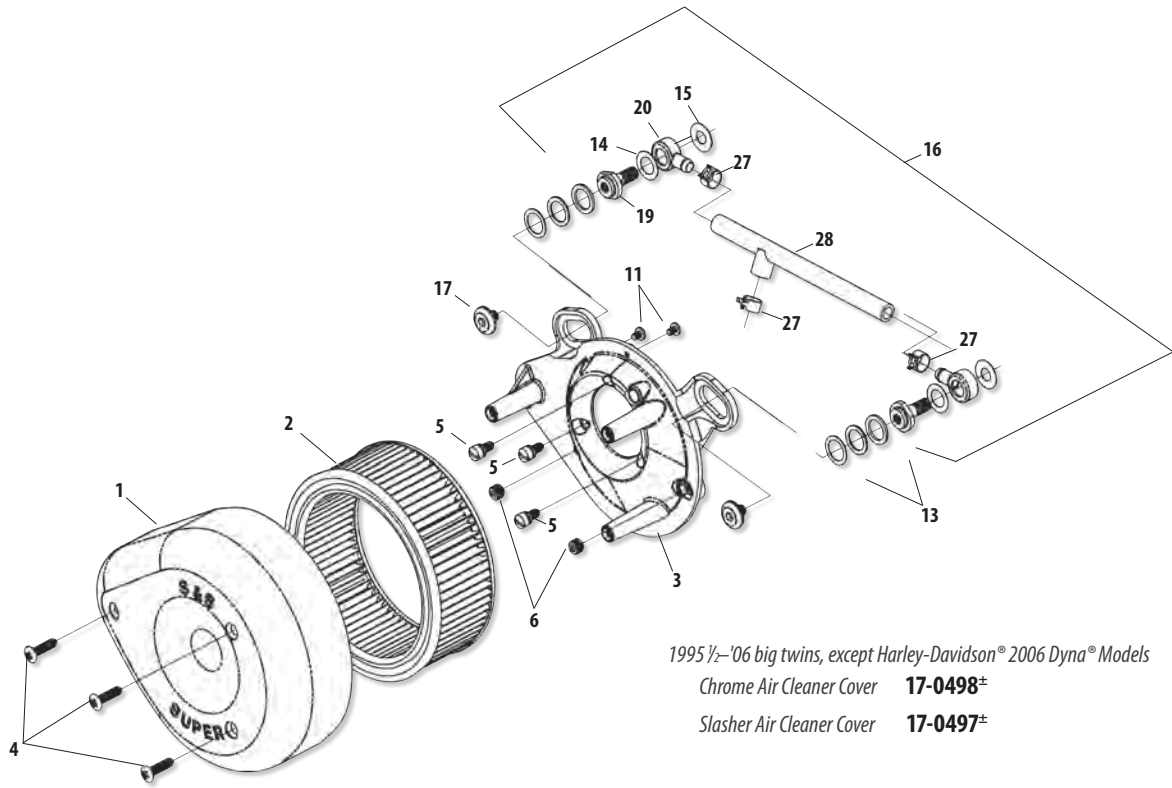
CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS FOR S&S® SINGLE BORE EFI

1. Air Cleaner Cover		
Slasher (<i>slotted chrome</i>)	17-0004±	
Chrome	17-0378±	
Gloss Black	170-0384A	
2. Element, pleated	106-4722	
3. Backplate SBFFI		
BT 1999-up	17-0120	
S&S 4 $\frac{1}{8}$ " bore engines	17-0380	
4. Screw, Cover, oval ¼-20 x 1		
Chrome 1305 (<i>each</i>)	50-0072±	
3 pack	50-1052±	
10 pack	50-0094±	
Black 902 (<i>each</i>)	50-0310-S	
3 pack	50-0310	
5. Backplate screw		
Zinc Plated (<i>each</i>)	106-2084	
10 pack	106-2105	
6. Pipe plug, ¼, air cleaner backplate (<i>each</i>)	50-8331A	
10 pack	50-1015	
7. Mounting bracket bolt, hex ¼-18 x 1¼	50-0110	
8. Flat washer, ¼" x ¼" 6320, 70907-07, 6016, 6702	50-7034	
9. Shim, .850" x .325" x .400"	50-7027	
10. Shim kit for 4 $\frac{1}{8}$ " bore	17-0314	
Individual shims, .325" x 1" x		
.018" (<i>each</i>)	50-7038	
.030" (<i>each</i>)	50-7039	
.048" (<i>each</i>)	50-7040	
.105" (<i>each</i>)	50-7041	
.125" (<i>each</i>)	50-7042	
2 pack	50-7042P	
11. Screw, cable guide & air cleaner backplate, 10-24 x ¼ (<i>each</i>)	50-0041	
10 pack	50-0062	
12. Breather hardware for 4 $\frac{1}{8}$ " bore (<i>Not included in air cleaner kit</i>)	31-2104	
13. Shims, individual		
5/8 x 7/8 x .025 (<i>each</i>)	50-7113	
10 pack	50-7110	
5/8 x 7/8 x .050 (<i>each</i>)	50-7114	
10 pack	50-7111	
5/8 x 7/8 x .075 (<i>each</i>)	50-7115	
10 pack	50-7112	
14. Silicone washer, ½" ID (<i>each</i>)	50-7055	
10 pack	50-7057	
15. Silicone washer, ¾" ID (<i>each</i>)	50-7054	
10 pack	50-7059	
16. Breather hardware for 1999-up bt (<i>Not included in air cleaner kit</i>)	17-0455	
17. Screw, wide head, ¼-24 x .36	17-0346	
18. Air cleaner hardware kit (N/S)		
BT 1999-up	17-0482	
S&S 4 $\frac{1}{8}$ " bore	17-0481	
19. Breather vent fitting, BT 1999-up	17-0345	
20. Breather fitting (<i>each</i>)	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, ¼"	50-8001	
28. Hose, Vent, Breather, Epichlorohydrin Polymer	USA 17-0339	

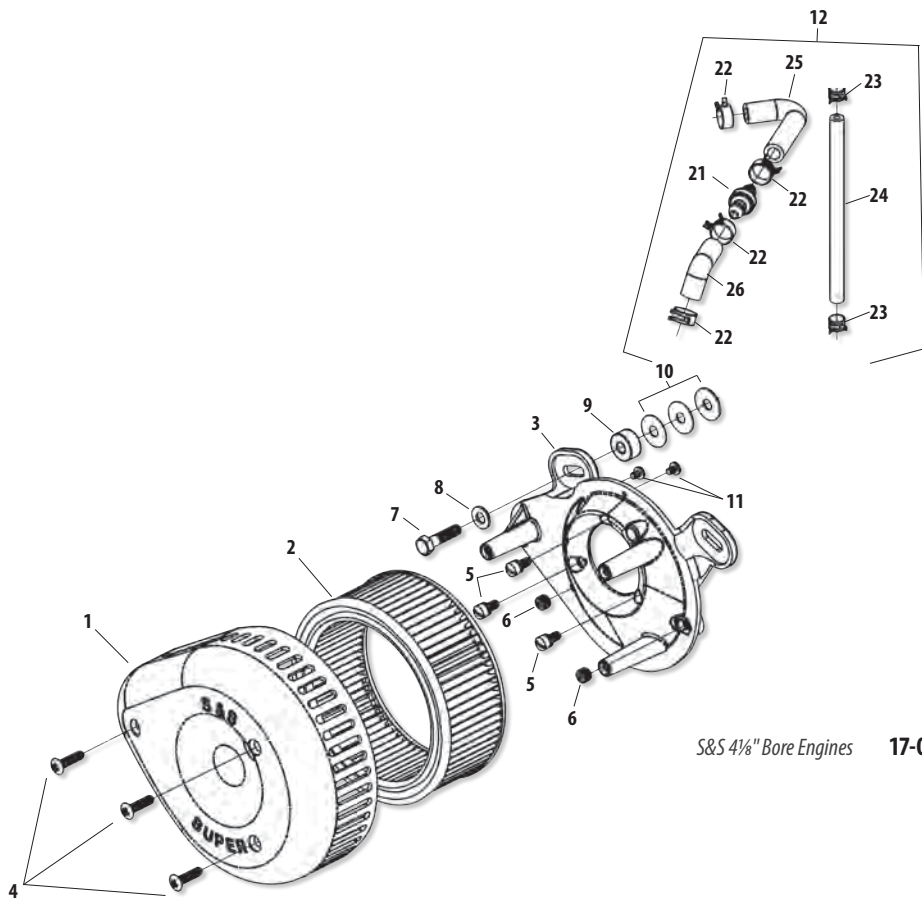
(N/S) = Not shown

NOTE

Breather hardware not included in these air cleaner kits.



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**

Milwaukee-Eight®

2007–2017 Twin Cam
 96"/103"/110"

1999–2006
 Twin Cam 88®

1986–2019
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2014–2019 Street® &
 Street Rod™








Indian® Models

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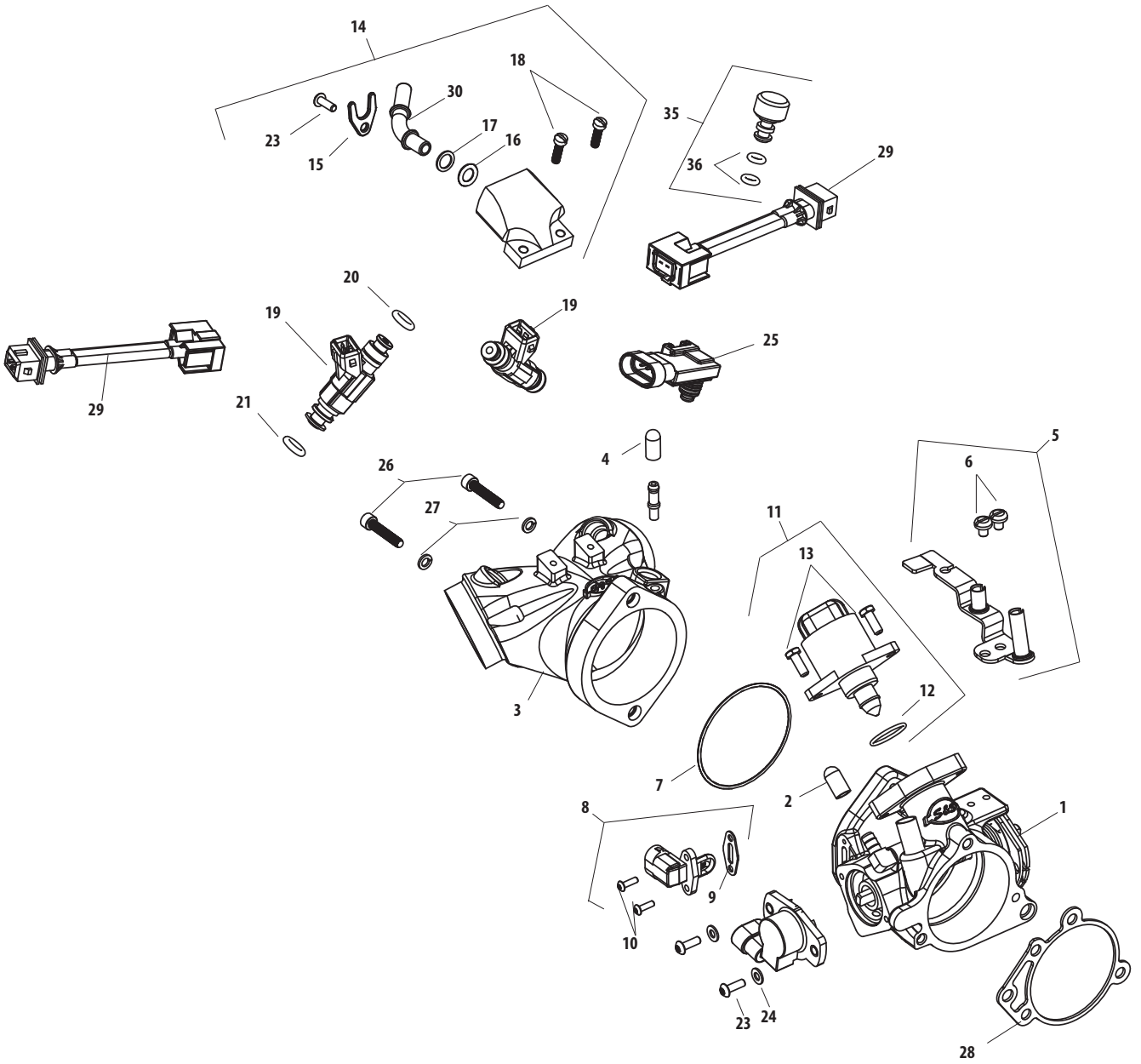
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SINGLE BORE EFI THROTTLE BODY AND RELATED REPLACEMENT PARTS

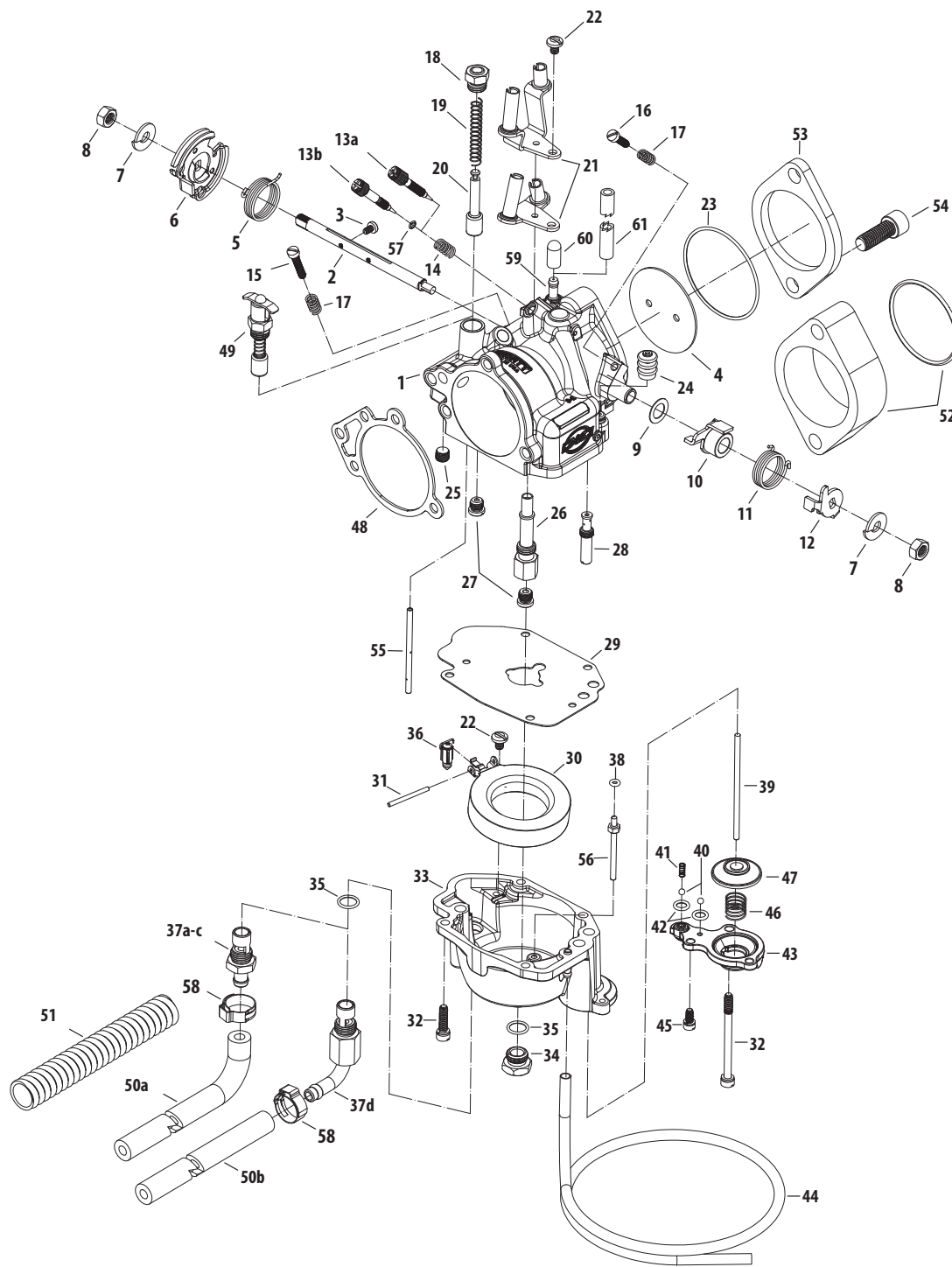
1. Throttle body	
52mm 1995-'05	16-5101
52mm 2006-Up	 16-5153
58mm 1995-'05	 106-3954
58mm 2006-Up	 106-3957
2. Cap, canister purge (each)	50-8266-S
3. Manifold (See page 196)	
4. Cap, rubber, manifold, fitting	50-8372
5. Throttle cable guide packet with hardware	55-5084
6. Screw, cable guide & air cleaner 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	N/A
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 7/8" Super E	USA 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	USA 1,2,3 11-3502
6. Throttle spool	USA 1,2,3 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 1,2,3 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 1,2,3 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 1,2,3 11-2053
18. Plunger nut (each)	11-2344±
5 Pack	11-2372±
19. Plunger spring (each)	11-2340
10 Pack	USA 1,2,3 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 202	
28. Intermediate Jets — See Chart on 201	
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	USA 1,2,3 11-2388±
Carb bowl assembly	USA 1,2,3 11-2388P
34. Bowl plug (each)	11-2090
5 pack	11-2092±
35. Seat o-ring* (required with part #11-2465 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	USA 1,2,3 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)	N/A
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 1,2,3 106-2011
38. Ejector nozzle o-ring (each)	50-8011
10 Pack	50-8096
39. Pump pushrod (each)	11-2373
5 Pack	USA 1,2,3 11-2393
40. Check ball — (two required) (each)	50-8090
10 pack	50-8125
41. Check ball spring (each)	11-2374
5 Pack	USA 1,2,3 11-2392
42. Pump cap o-ring — (two required) (each)	50-8012
10 Pack	50-8100
43. Pump cap assembly	USA 1,2,3 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 1,2,3 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. With 90° bend*19"	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"	USA 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**
- 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.

± WARNING: Cancer and Reproductive Harm

CARBURETOR REBUILD KITS
SEE PAGE 202

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
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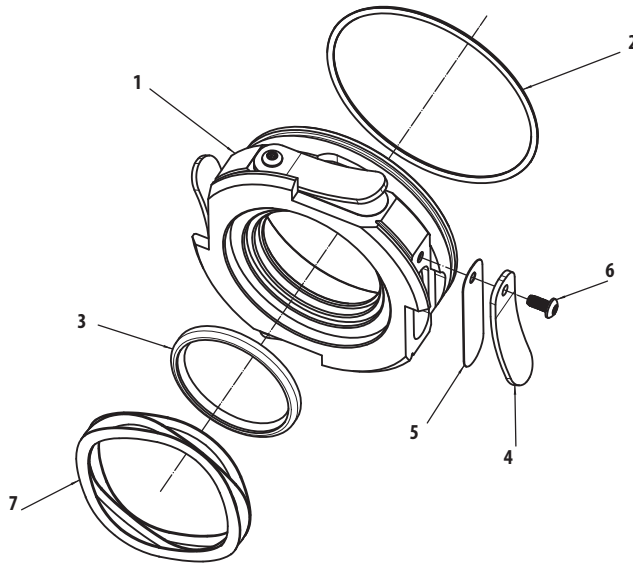


CRANKCASE BREATHER REED VALVE REPLACEMENT PARTS

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***

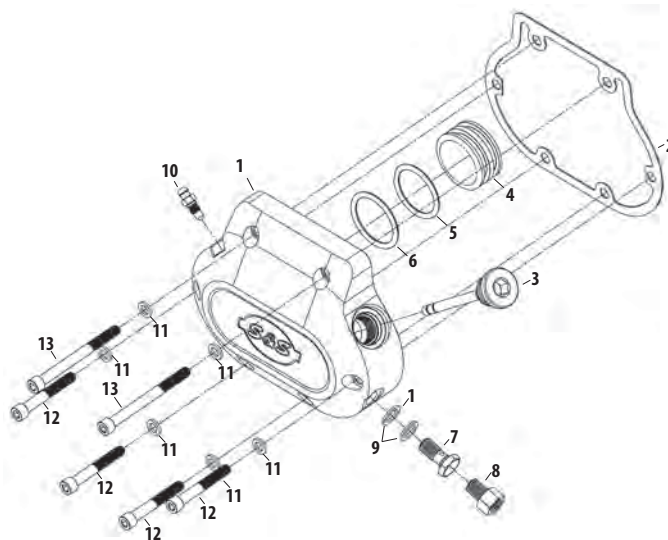
**Required to accommodate the extra .375" case width of S&S Special Application big bore crankcases.*

(N/S) = Not Shown



CHROME PLATED BILLET TRANSMISSION SIDE COVER REPLACEMENT PARTS

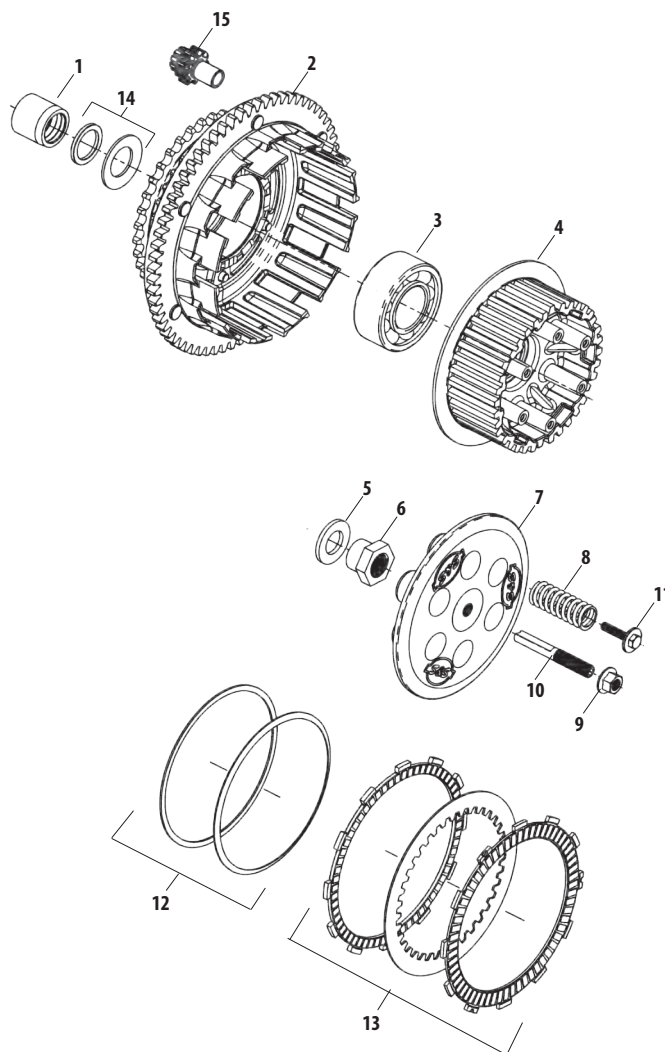
- 1. Hydraulic Clutch Side Cover (Chrome Billet)..... N/A
Cable Actuated (Chrome Billet)..... N/A
- 2. Gasket Side Cover (each)..... N/A
- 3. Dipstick Assembly..... N/A
- 4. Piston, Hydraulic Clutch (Billet)..... N/A
- 5. O-ring, 1 ¼ ID x ½ CS, Buna-N 70 (each)..... N/A
- 6. O-ring, 1 ¼ ID x ½ CS, Viton..... 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



± WARNING: Cancer and Reproductive Harm

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, 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)..... 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, 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

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
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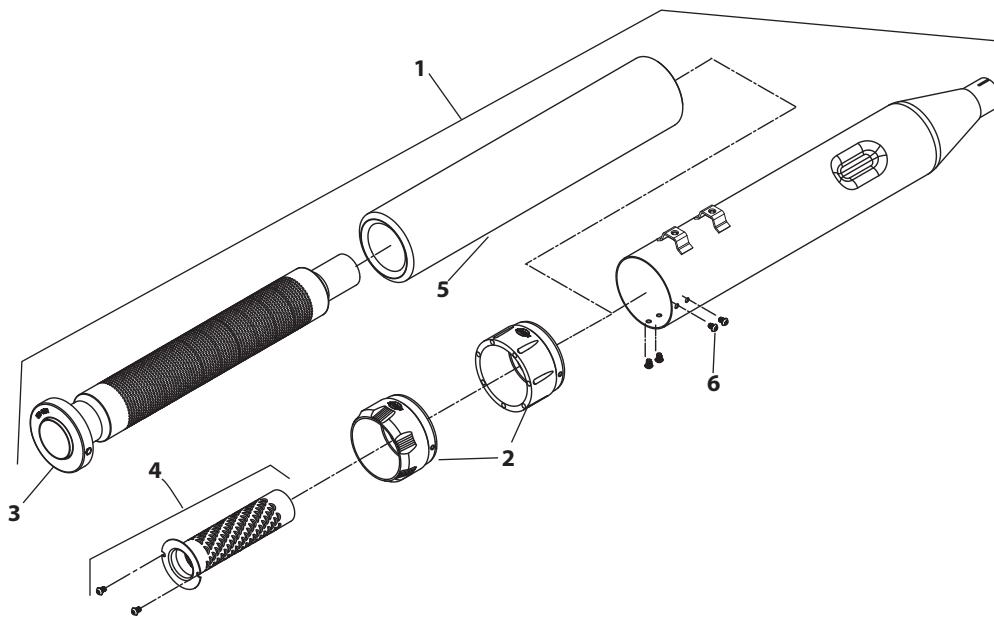
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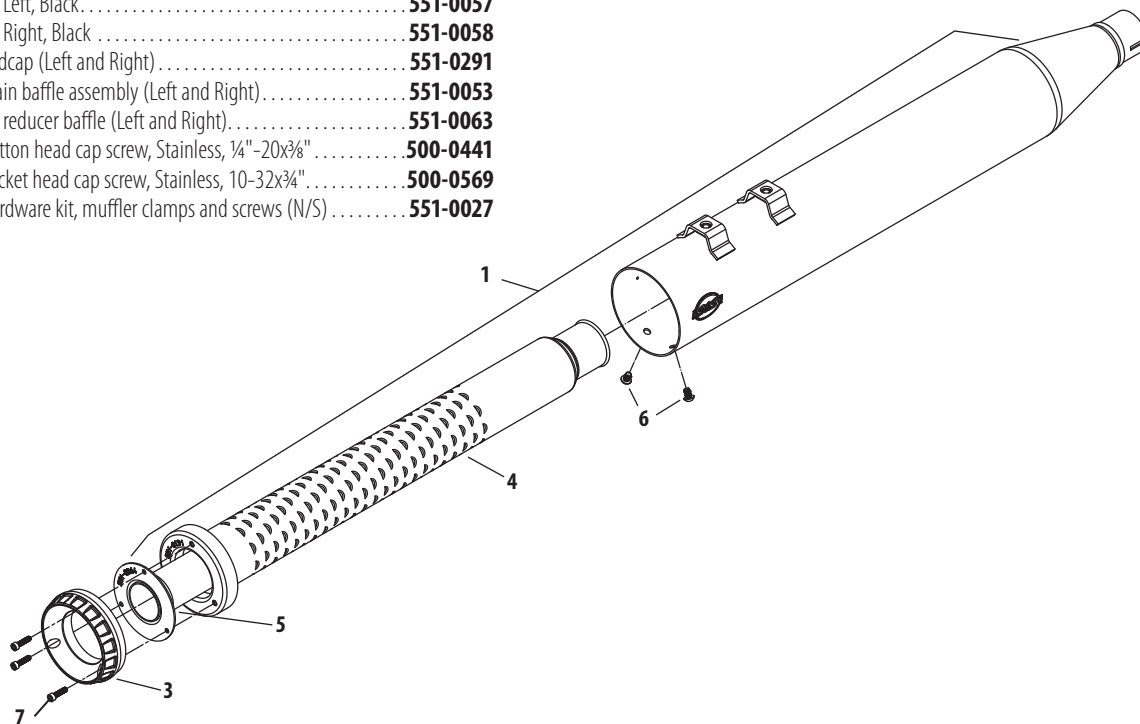
Mk45 4.5" MUFFLER REPLACEMENT PARTS

1. 4.5" Muffler Assembly
 - Left, Chrome 551-0020[‡]
 - Right, Chrome 551-0021[‡]
 - Left, Black 551-0022
 - Right, Black 551-0023
2. Endcap
 - 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



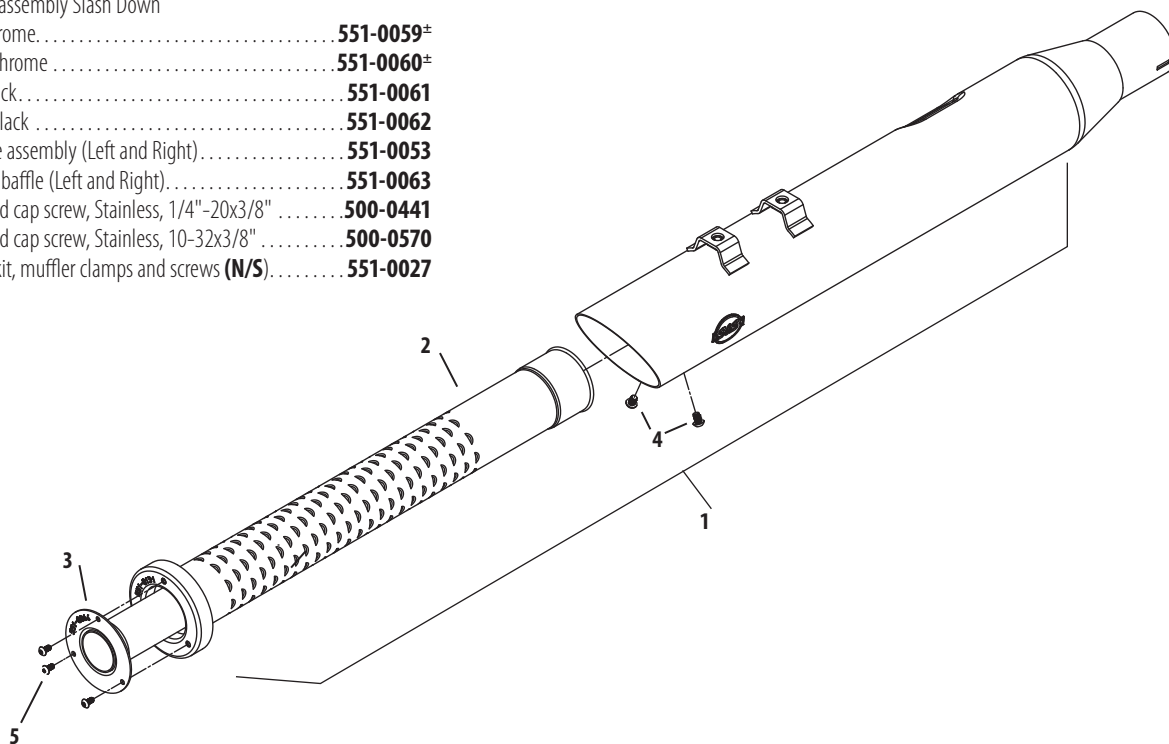
GRAND NATIONAL® 4" REPLACEMENT PARTS

- 1. 4" Muffler assembly with Grand National Endcap
 - Left, Chrome..... **551-0055±**
 - Right, Chrome..... **551-0056±**
 - Left, Black..... **551-0057**
 - Right, Black..... **551-0058**
- 3. Endcap (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**



± WARNING: Cancer and Reproductive Harm

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod®

Indian® Models

Tools &
Shop Supplies

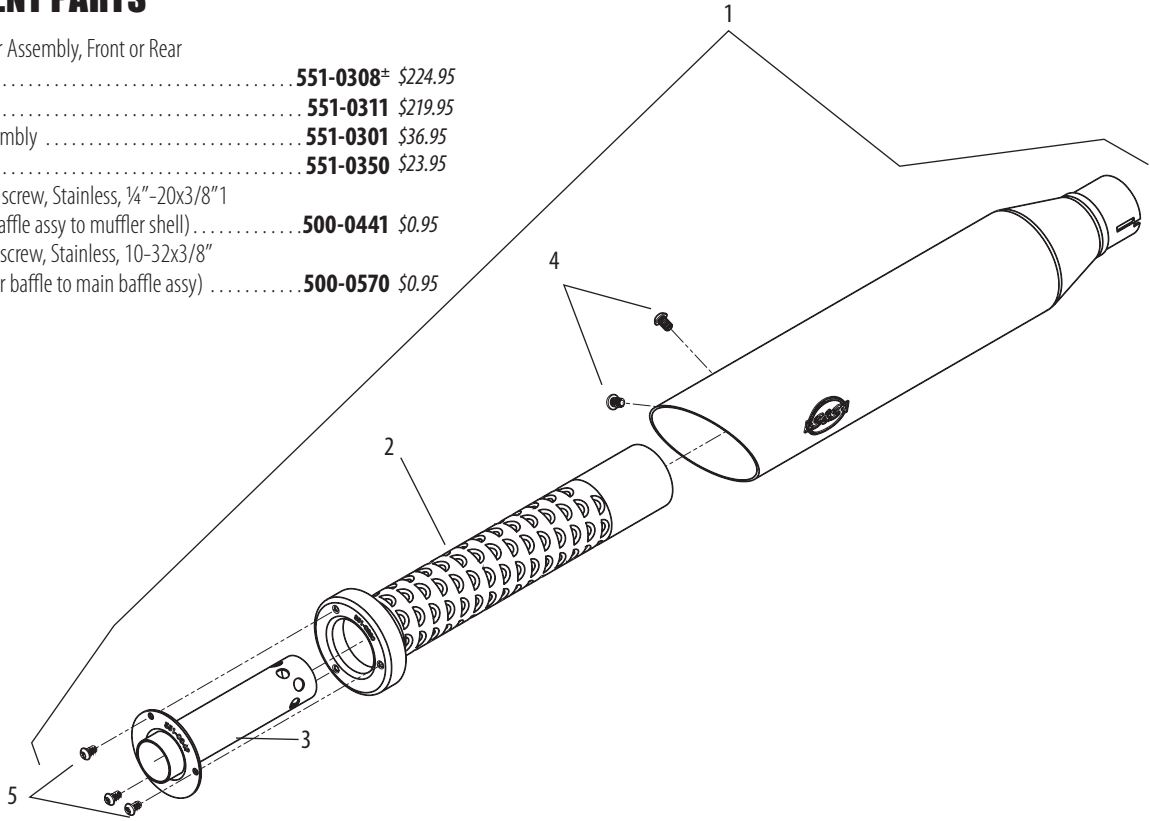
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SLASH CUT SLIP-ON MUFFLERS FOR DYNA® MODELS

REPLACEMENT PARTS

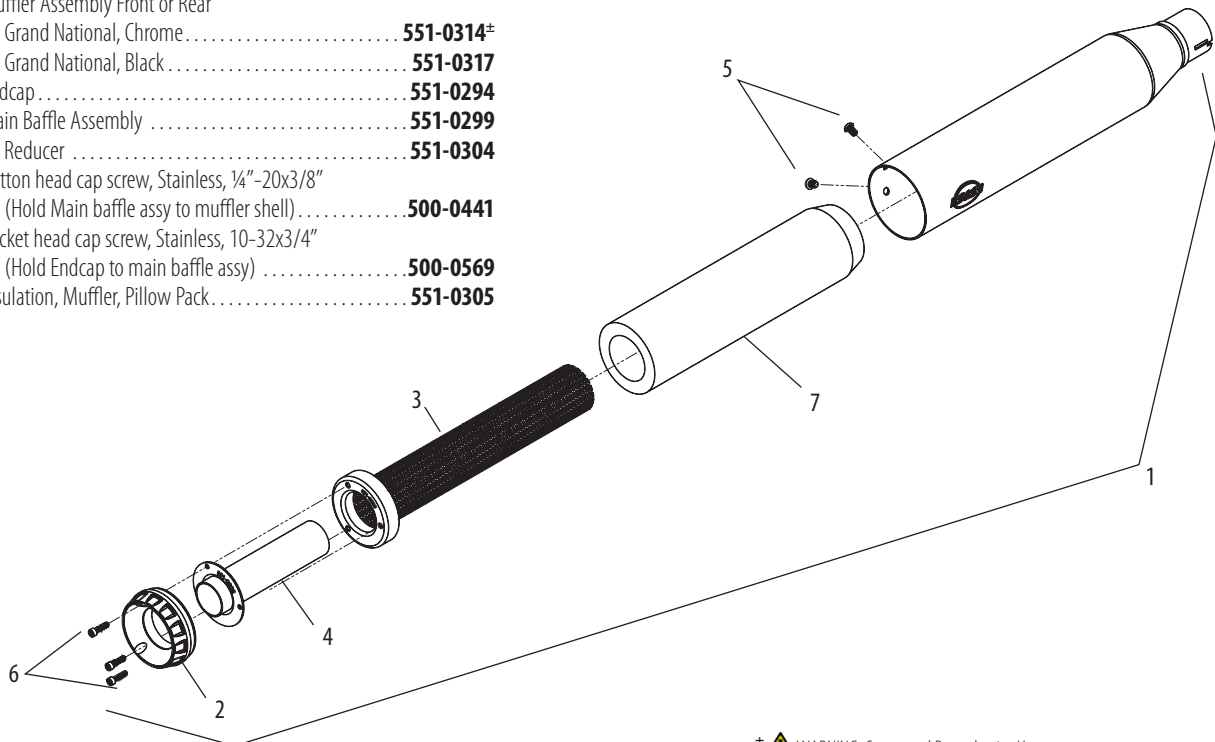
1. Slash Cut Muffler Assembly, Front or Rear
 - Chrome **551-0308**± \$224.95
 - Black **551-0311** \$219.95
2. Main Baffle Assembly **551-0301** \$36.95
3. dB Reducer **551-0350** \$23.95
4. Button head cap screw, Stainless, 1/4"-20x3/8"1
(Hold Main baffle assy to muffler shell) **500-0441** \$0.95
5. Socket head cap screw, Stainless, 10-32x3/8"
(Hold db killer baffle to main baffle assy) **500-0570** \$0.95



GRAND NATIONAL® SLIP-ON MUFFLERS FOR DYNA® MODELS

REPLACEMENT PARTS

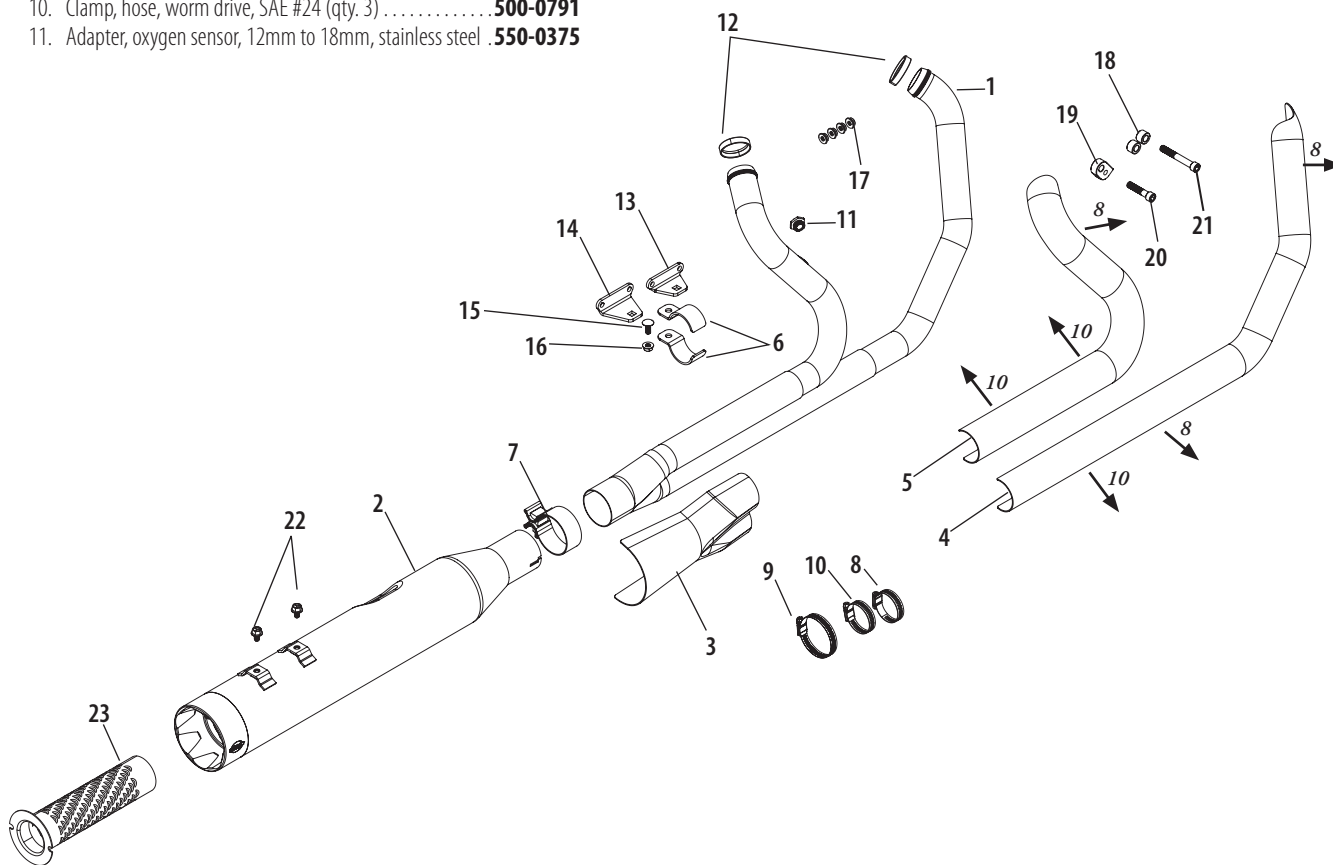
1. Muffler Assembly Front or Rear
 - Grand National, Chrome **551-0314**±
 - Grand National, Black **551-0317**
2. Endcap **551-0294**
3. Main Baffle Assembly **551-0299**
4. dB Reducer **551-0304**
5. Button head cap screw, Stainless, 1/4"-20x3/8"
(Hold Main baffle assy to muffler shell) **500-0441**
6. Socket head cap screw, Stainless, 10-32x3/4"
(Hold Endcap to main baffle assy) **500-0569**
7. Insulation, Muffler, Pillow Pack **551-0305**



± WARNING: Cancer and Reproductive Harm

SIDEWINDER® 2:1 EXHAUST REPLACEMENT PARTS

- | | | |
|--|-------|-------------------|
| 1. Header, Assembly, 2 into 1, Sidewinder™, Weldment, 1995-'16 Touring Models | ..... | 551-0705 |
| 2. Muffler, Street Legal | | |
| Chrome | ..... | 551-0529A± |
| Black | ..... | 551-0530A± |
| 3. Collector, heat shield, | | |
| 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 |



Milwaukee-Eight™

2007-2017 Twin Cam
96"/103"/110"

1999-2006
Twin Cam 88™

1986-2019
Sportster™ & Buell™

2014-2019 Street™ &
Street Rod™

Indian™ Models

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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

POWER TUNE® DUAL HEADER REPLACEMENT PARTS

1. 49 State Models:

FL Touring Fuel Injected MY 1995-2005 and 2007-2008

FL Touring Carbureted MY 1995-2005

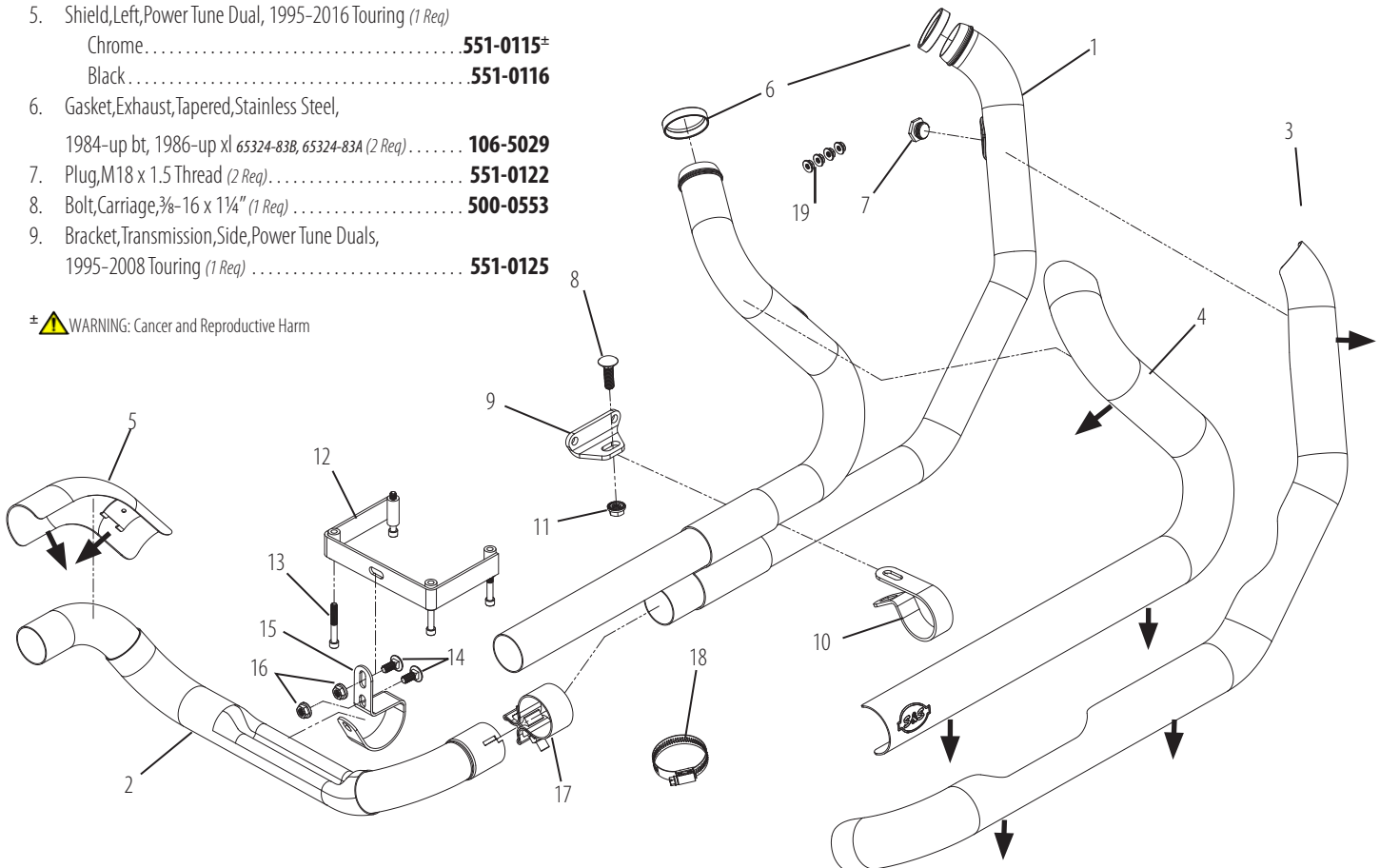
Pipe, Header, Power Tune Dual,
CVO FL Touring MY 2000-2005

⚠ WARNING: Cancer and Reproductive Harm (1 Req)

- Weldment, 1999-2008 Touring **551-0083**
- 2. Tube, Crossover, Power Tune Dual, Weldment,
1995-2008 Touring (1 Req) **551-0077**
- 3. Shield, Front, Power Tune Dual, 1995-2008 Touring (1 Req)
Chrome **551-0091[±]**
Black **551-0092**
- 4. Shield, Rear, Power Tune Dual, 1995-2016 Touring (1 Req)
Chrome **551-0103[±]**
Black **551-0104**
- 5. Shield, Left, Power Tune Dual, 1995-2016 Touring (1 Req)
Chrome **551-0115[±]**
Black **551-0116**
- 6. Gasket, Exhaust, Tapered, Stainless Steel,
1984-up bt, 1986-up xl 65324-838, 65324-83A (2 Req) **106-5029**
- 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**
- 11. Nut, Flanged, Serrated, 3/8-16 (1 Req) **500-0554**
- 12. Bracket, Assembly, Transmission, Pan,
Power Tune Dual, 1995-2008 Touring (1 Req) **551-0126**
- 13. Screw, SHC, 1/4-20 x 1 7/8", Zinc Plated (4 Req) **500-0641**
- 14. Bolt, Carriage, 5/16-18 x 3/4" (2 Req) **500-0555**
- 15. Clamp, P-Style, Crossover,
Power Tune Dual Header, 1995-2008 Touring (1 Req) **551-0120**
- 16. Nut, Flanged, Serrated, 5/16"-18 (2 Req) **50-5053-S**
- 17. Clamp, Muffler, Band Style (1 Req) **551-0569**
- 18. Clamp, Hose, Worm Drive, SAE #28 (8 Req) **551-0527**
- 19. Nut, HSFH, 5/16-24 7593 **50-5025-S**

± **⚠ WARNING: Cancer and Reproductive Harm**



NOTE: Install #18 heat shield clamps with screw heads pointing in direction shown by arrows. →

SPORTSTER® & BUELL®

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FITMENT

- 2007–'13 Sportster® models with forward or mid controls (*does not fit XR models*)
- 2014–'20 Sportster models with forward or mid controls

FEATURES AND BENEFITS

- Classic 2:1 styling with world famous S&S performance!
- Fits forward and mid controls
- 50 State legal! CARB EO# K-010-12 for 2014–2020 Sportster models
- Durable high temperature black finish
- Full heat shields on both front and rear headers
- Stainless steel stepped header construction
- Multi-faceted endcap design
- Oxygen sensor ports allow use of wide band or stock O2 sensors
- SAE J2825 Sound Level Compliant
- Made in USA!

SUPERSTREET 2:1 EXHAUST SYSTEM

Year/Fitment	Part #
2014–'20 Sportster models with forward or mid controls	550-0952A
2007–'13 Sportster® models with forward or mid controls (<i>does not fit XR models</i>)	550-0951^{††}

[†]Exempt from emissions tampering regulations under CARB EO# K-010-12 for all 2014-2020 Sportster Models

^{††}*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2007-2013 Sportster models



REPLACEMENT PARTS: SEE PAGE 290

STEALTH AIR CLEANER KITS

FITMENT

- 1991–2019 Harley-Davidson® Sportster® models



FEATURES AND BENEFITS

- Pre-filter available — See page 254
- 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 254



STEALTH TEARDROP AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0302D WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Application	Fuel System	Finish	Part #
2007–'19 xl	Stock EFI	Chrome	170-0526A
		Gloss Black	170-0527A

± WARNING: Cancer and Reproductive Harm –

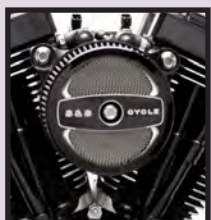


MINI TEARDROP AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0302D WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Application	Fuel System	Finish	Part #
2007–'19 xl	Stock Bore Throttle Body	Chrome	170-0439B ±
		Gloss Black	170-0440B

± WARNING: Cancer and Reproductive Harm



AIR 1 AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0302D WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Application	Fuel System	Part #
2007–'19 xl	Stock EFI	170-0492B



TRI-SPOKE AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0302D WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Application	Fuel System	Part #
2007–'19 xl	Stock EFI	170-0490B



TORKER AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0302D WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Application	Fuel System	Part #
2007–'19 xl	Stock EFI	170-0491B



AIRSTREAM AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0302D WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Application	Fuel System	Finish	Part #
2007–'19 xl	Stock EFI	Chrome	170-0493B ±
		Gloss Black	170-0494B

± WARNING: Cancer and Reproductive Harm

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"1999–2006
Twin Cam 88®1986–2020
Sportster® & Buell®2014–2019 Street® &
Street Rod™

Indian® Models

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CON'T STEALTH AIR CLEANER KITS



MUSCLE AIR CLEANER KIT

KIT INCLUDES STEALTH AIR CLEANER 170-0302D WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27

Application	Fuel System	Finish	Part #
2007-'19 xl	Stock EFI	Chrome	170-0495B[±]
		Gloss Black	170-0496B

[±] ⚠ WARNING: Cancer and Reproductive Harm



STEALTH AIR CLEANER KIT*

EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

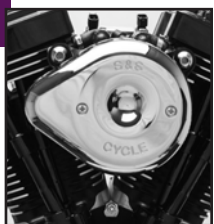
Application	Fuel System	Part #
2007-'19 xl	Stock EFI	170-0302D

*These kits do not contain covers — Use an S&S cover, see page 251.

NOTES

Fuel injection tuning is not required with this product.

REPLACEMENT PARTS: SEE PAGE 297



MINI TEARDROP 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.

[±] ⚠ WARNING: Cancer and Reproductive Harm



AIRSTREAM IN CHROME 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.

[±] ⚠ WARNING: Cancer and Reproductive Harm

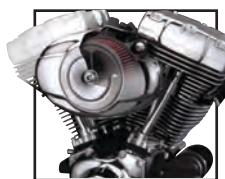


MUSCLE IN CHROME AIR CLEANER KIT[±]

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.

[±] ⚠ WARNING: Cancer and Reproductive Harm



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 251.

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.

EC STEALTH AIR CLEANER KITS



- 2007–2019 883 Harley-Davidson Sportster® Models with EFI (e9 11003G)
- 2007–2019 1200 Harley-Davidson Sportster Models with EFI (e9 11002G)



EC STEALTH AC KITS

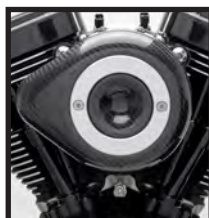
Year/Fitment	Part #
2007–2019 / EFI xl 883	170-0329
2007–2019 / EFI xl 1200	170-0330

STEALTH AIR CLEANER KIT COVERS INCLUDING NEW STEALTH TRIBUTE

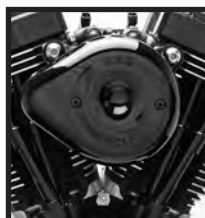


Stealth Tribute

NEW FOR 2020



Carbon Fiber



Mini in Gloss Black



Tri-Spoke



Torker



Air 1



Airstream in Chrome



Muscle in Gloss Black

STEALTH COVERS

NEW FOR 2020 Tribute		Teardrop		Teardrop—Slasher		Carbon Fiber	Mini	
Chrome	Gloss Black	Chrome	Gloss Black	Chrome	Gloss Black	Black	Chrome	Gloss Black
170-0592	170-0593	170-0530	170-0531	170-0532	170-0533	170-0501	170-0367	170-0366

Tri-Spoke	Torker	Air 1	Airstream		Muscle	
Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights	Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo
170-0210	170-0206	170-0214	170-0118	170-0396	170-0121	170-0463

Displacement		
111	124	143
170-0319	170-0321	170-0323

⚠️ WARNING: Cancer and Reproductive Harm



SINGLE BORE TUNED INDUCTION SYSTEM

FITMENT

- 1991–'19 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-355-27 FOR ALL FUEL INJECTED MODELS

Fitment	Fuel System	Finish	Part #
2007–'19 xl	Stock EFI	Chrome Runner and Red Filters	170-0311D

[±] ⚠️ WARNING: Cancer and Reproductive Harm

SINGLE BORE TUNED INDUCTION SYSTEM KITS

Fitment	Fuel Delivery	Finish	Part #	MSRP
1991–'06 xl	Stock CV	Chrome Runner and Red Filters	170-0089[±]	\$642.95
CTO	Specify	Specify	106-5337*	Call for Pricing

*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.

[±] ⚠️ WARNING: Cancer and Reproductive Harm

REPLACEMENT PARTS: SEE PAGE 300

CLASSIC TEARDROP AIR CLEANER KIT

FITMENT

- 1986–'17 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 298

CLASSIC TEARDROP AIR CLEANER KITS FOR SPORTSTER® MODELS
EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-27 FOR ALL FUEL INJECTED MODELS

Model	Finish	FUEL SYSTEM	
		Stock EFI	
2007–'19 xl	Chrome	170-0306D±	
	Gloss Black	170-0307D	

± ⚠️ WARNING: Cancer and Reproductive Harm



CLASSIC TEARDROP AIR CLEANER KITS FOR SPORTSTER® AND BUELL® MODELS

Model	Finish	FUEL DELIVERY TYPE	
		Stock CV	Super E & G
2004–2017 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±

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.

± ⚠️ WARNING: Cancer and Reproductive Harm

NOTE

Fuel delivery (carbureted or EFI) may need to be modified to maintain the correct air and fuel mixture



CLASSIC TEARDROP AIR CLEANER COVERS

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

± ⚠️ WARNING: Cancer and Reproductive Harm

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2020
Sportster® & Buell®

2014–2019 Street® &
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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 (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.



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® SPORTSTER® & BUELL® MODELS



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 257)



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 258)



HOOLIGAN KIT

Whether you're racing Hooligan flat-track or just want more power, the S&S Hooligan kits for 2000-'20 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 256)

Milwaukee-Eight™

2007–2017 Twin Cam
96™/103™/110™1999–2006
Twin Cam 88*1986–2020
Sportster® & Buell®2014–2019 Street® &
Street Rod™

Indian® Models

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HOOLIGAN KITS

FOR 2000–2020 HARLEY-DAVIDSON® SPORTSTER® MODELS

FITMENT

- 2000–20 Harley-Davidson® Sportster® models

FEATURES & BENEFITS

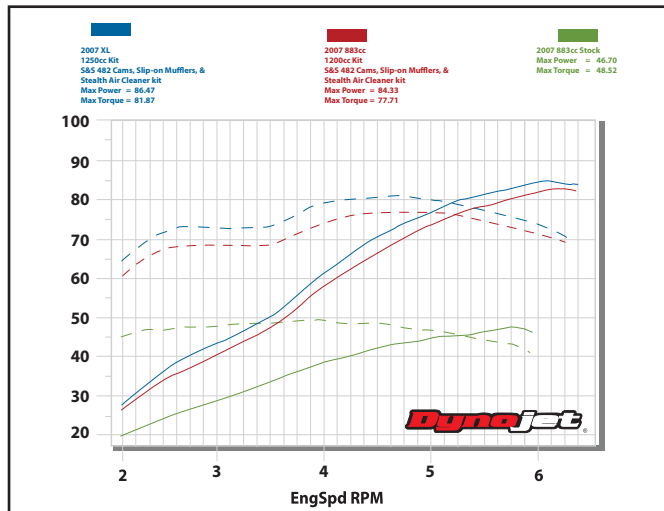
- Easy installation—Bolt-on parts—no machining, no rebalancing
- S&S 482 Cams
- Increase 883cc engines to 1200cc
- Increase 1200cc engines to 1250cc
- Use stock heads, pushrods, and fuel system*
- Available in wrinkle black or silver powder coat that matches stock finish

*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	Wrinkle Black	910-0699
883cc to 1200cc	Silver	910-0700
1200cc to 1250cc	Wrinkle Black	910-0701
1200cc to 1250cc	Silver	910-0702

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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 1986–2020 1200cc HARLEY-DAVIDSON® SPORTSTER® MODELS

FITMENT

- 1986–2020 1200cc Harley-Davidson® Sportster® models
- 1986–2020 883cc Harley-Davidson Sportster models

FEATURES & BENEFITS

- Forged pistons — coated piston skirts with measurement window
- Stock 1986–2020 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 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 #
1986–2020 Sportster®	S&S Forged Flat top	10.3:1	Silver	910-0689
			Wrinkle Black	910-0691
	S&S Forged 5.5cc dome	11.2:1	Silver	910-0690
			Wrinkle Black	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.

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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–'20 cylinder heads (shown above), the look is generally not considered to be objectionable. You decide!

883 TO 1200cc CONVERSION KIT

FOR 1986–2020 883CC HARLEY-DAVIDSON® SPORTSTER® MODELS

FITMENT

- 1986–2020* 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 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

883cc TO 1200cc CYLINDER AND PISTON CONVERSION KITS

Fitment	Finish	Part #
1986–2020 883cc Sportster®	Silver Powder Coat	910-0688
	Wrinkle Black Powder Coat	910-0687

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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–'20 cylinder heads (shown above), the look is generally not considered to be objectionable. You decide!

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 ³ / 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 ³ / 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	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.

1986–'03 Harley-Davidson® Sportster® Models

Milwaukee®

1991–'03 Harley-Davidson® Buell®

1999–2006 Harley-Davidson® Buell®

1986–2020 Harley-Davidson® Sportster® & Buell®

2014–2019 Street® & Street Rod™

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SB100 ENGINES FOR HARLEY-DAVIDSON® SPORTSTER®

FITMENT

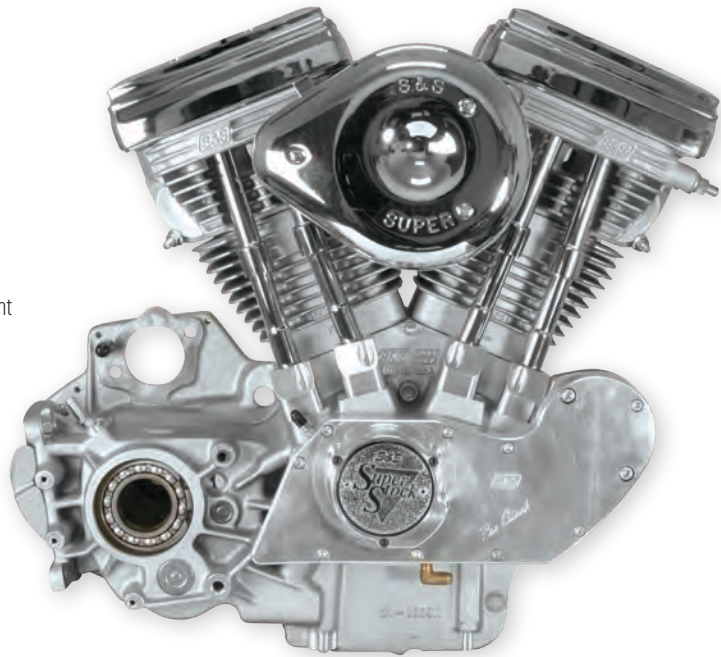
- 1986–'03 Harley-Davidson® Sportster®

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® MODELS

FITMENT

- 1986–'03 Harley-Davidson® Sportster® and Buell®
- S&S SB-Series engines

FEATURES AND BENEFITS

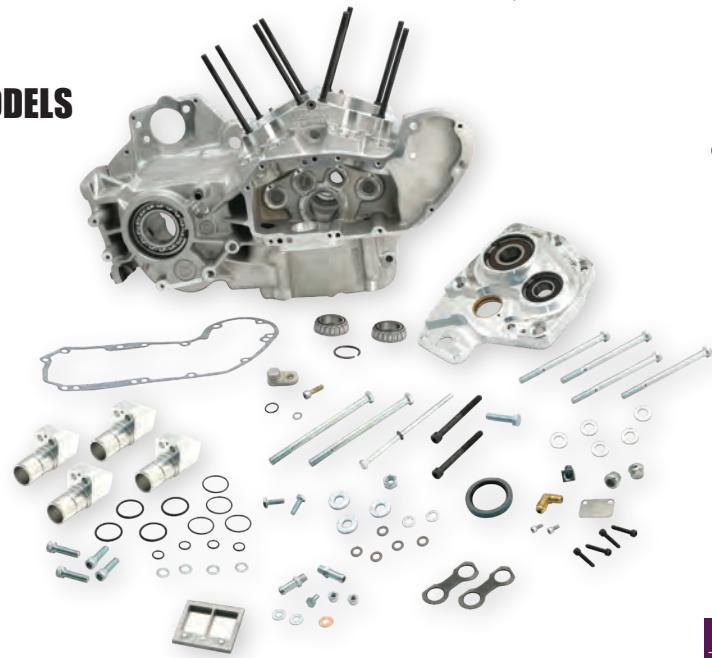
- Super strong for high performance engines
- Crankcases come complete with all required bearings and hardware
- Replaceable tappet guides for all year groups

OPTIONS

- Special Application (SA) Cases
 - Choice of cam geometry—1986-'90 (4-speed) or 1991-'99 (5-speed)
 - 3 $\frac{5}{8}$ " 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 331**

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.

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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 292

Milwaukee-Eight®
2007–2017 Twin Cam
96"/103"/110"
1999–2006
Twin Cam 88®
1986–2020
Sportster® & Buell®
2014–2019 Street® &
Street Rod™
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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 346**

REPLACEMENT PARTS: SEE PAGE 291

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 268

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 ⁵ / 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 ⁵ / ₁₆ "	7 ⁷ / ₈ " (Stock)	32-3062
Special Order*	Specify	Specify	Specify	32-3014*

Application	Stroke	Flywheel Diameter	Part #	MSRP
Special Order For Buell*	Specify	Specify	32-3014*	Call for Pricing

BILLET GEARCOVERS FOR SPORTSTER® AND BUELL® MODELS

BILLET GEARCOVER KITS — STANDARD±

Bushing Style	Part #
1986–'90 style bushing	31-0303

±  WARNING: Cancer and Reproductive Harm

REPLACEMENT GASKETS

Product	Part #	MSRP
Gearcover Gasket	31-2052	\$8.95
Cam Seal 11124	31-4051	\$18.95



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® models
- S&S SB-Series engines
- S&S crankcases for Sportster and Buell® models

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

±  WARNING: Cancer and Reproductive Harm

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

Milwaukee-Eight®

2007–2017 Twin Cam
96°/103°/110°1999–2006
Twin Cam 88°1986–2020
Sportster® & Buell®2014–2019 Street® &
Street Rod™

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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 7/16" BORE CYLINDERS WITH PISTONS KIT SPECIFICATION CHART					
Displacement	Stroke	Cylinder Length	Dome Volume	Piston Deck Height	Compression Ratio S&S Heads
1250cc	3 13/16"	4.650"	Flat Top	1.208"	10.3:1
			5.5cc		11.2:1

3 7/16" BORE CYLINDERS WITH PISTONS FOR 1250CC KIT

Displacement	Piston Type	Silver		Wrinkle Black	
		1250cc	S&S Forged Flat Top	910-0689	
	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 13/16"	4.650"	1.208"	10.5:1	9.6:1

3 1/2" BORE CYLINDERS WITH PISTONS FOR 1200CC & 883CC KITS

Displacement	Silver		Wrinkle Black	
	1200cc, 1986-2003 Sportster®, 1994-'02 Buell® Models with S&S® Heads	910-0694		910-0696
883cc (conversion to 1200cc), 1986-2020* 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 258*

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ALL OTHER SPECIFICATIONS AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER

91-3604* Call for Pricing

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.

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	Wrinkle Black
1200cc	Set	910-0693	910-0697

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3½" BORE CYLINDERS

Displacement		Silver	Wrinkle Black
1200cc	Set	910-0698	910-0695



ALL OTHER SPECIFICATIONS AND FINISHES ARE AVAILABLE THROUGH SPECIAL ORDER 91-3604* *Call for Pricing*

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"



3¾" BORE FORGED PISTON KITS FOR STOCK HEADS

Displacement	Deck Height	Stroke	Standard	+ .010"	+ .020"	+ .030"	+ .040"
1458cc (89")	1.200"	4½"	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	+ .010"	+ .030"	+ .040"
1458cc (89")	1.200"	4½"	92-1081	92-1083	92-1084
1688cc (103")	1.200"	5"			

3¾" SUPER STOCK® FORGED MEDIUM COMPRESSION PISTON KITS

Displacement	Deck Height	Stroke	+ .020"
1458cc (89")	1.200"	4½"	92-1122
1688cc (103")	1.200"	5"	

Recommended piston fitment: Close: 0.0023"-0.0025" Loose: 0.0035"-0.0045"

Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"1999–2006
Twin Cam 88"1986–2020
Sportster® & Buell®2014–2019 Street® &
Street Rod™

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PISTON KITS con't

3 7/16" BORE FORGED PISTON KITS

Displacement	Dome Volume	Deck Height	Stroke	Standard
1250cc	Flat Top	1.207"	3 13/16"	920-0070
	5.5cc	1.207"	3 13/16"	920-0071

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







3 1/2" BORE FORGED PISTON KITS

Cylinder Heads	Deck Height	Stroke	Standard		+ .010"	+ .020"
S&S® Super Stock®	1.1875"	3 13/16"	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"	3 5/8"	3 3/4"	3 1/2"	
				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  21921-83	94-2206X  22334-78A, 22334-78B, 21920-83
+ .005"	-	-	-	94-22165X  21921-83	-
+ .010"	94-1301X 	94-1211X 	-	94-2217X 	94-2207X  22334-78A, 22334-78B, 21920-83
+ .020"	94-1302X 	94-1212X 	-	94-2218X 	94-2208X  22336-78B, 21923-83
+ .030"	-	94-1213X	-	94-2219X 	94-2209X  22336-78B, 21923-83
+ .040"	-	94-1214X	-	-	-
+ .060"	-	94-1216X	-	-	-

*Clips and pins not available.

WRISTPINS

Bore	Description	Part #
4"	Wristpin .792" x 2.825"	94-9256 
3 5/8"		
3 1/2"		

KEEPERS

Bore	Description	Part #
4"	Keeper 22589-83A	<i>each</i> 94-9254-S
3 5/8"		<i>2 pack</i> 94-9254-2
3 1/2"		<i>4 pack</i> 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–'20 Harley-Davidson® Sportster® models
- 1994–'02 Buell® models

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.

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.



33-5082

S&S® CAMS SPECIFICATIONS FOR 1986–'19 SPORTSTER® AND 1994–'02 BUELL® MODELS									
Cam	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–'20 SPORTSTER® AND 1994–'02 BUELL® MODELS

Cam Name	Application	Part #
S&S 482	2000–'20	330-0189
S&S 500	1991–'20*	33-5082
	1986–'90	33-5081
S&S 555	1991–'20*	33-5084
S&S 600	1991–'20*	33-5126
	1986–'90	33-5125

*See Notes regarding pinion gears

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

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 268.

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® models
- 1994–'02 Buell® models



33-4153



33-4163



33-4228

PINION GEARS FOR 1986–'87 SPORTSTER® MODELS

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.

NEW FOR
FROM S&S CYCLE
2020

PRECISION TAPPETS

High performance tappets are a cornerstone of the S&S line up and we are always looking to improve our products. After months of research and countless hours of testing we are excited to reveal the latest in performance tappets. The S&S Cycle Precision Tappets replace both our standard as well as premium tappets. Each Precision Tappet is hand assembled to exacting tolerances and designed for quiet operation and rapid pump up and all are made in the USA.

FITMENT

- 2000–'20 Sportster® models
- 2000–'02 Buell® 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

PRECISION TAPPETS

Set of 4 tappets	330-0718
------------------	-----------------

STANDARD TAPPETS

FITMENT

- 1986–'90 Harley-Davidson® Sportster® models

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



33-5352

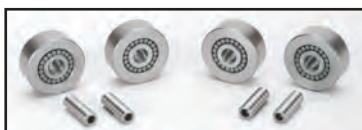
HIGH PERFORMANCE HYDRAULIC TAPPETS

Fitment	Description	Part #
1991–'99 Sportster®	S&S Standard Tappet (HL ₂ T kit not installed)	330-0288
1986–'90 Sportster®	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 271 for S&S adjustable pushrod options

HIGH QUALITY TAPPET ROLLER & 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

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®
1986–2020 Sportster® & Buell®
2014–2019 Street® & Street Rod™
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HYDRAULIC LIFTER LIMITED TRAVEL SPACER (HL₂T)

FITMENT

- 1986–'03 Harley-Davidson® Sportster® models
- 1994–'02 Buell® models

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 ½" camchest offset


KIT CONTENTS

- Guides
- O-rings
- Installation hardware



33-5375

TAPPET GUIDE SETS FOR SPORTSTER®, SUPER STOCK®, AND SPECIAL APPLICATION CRANKCASES

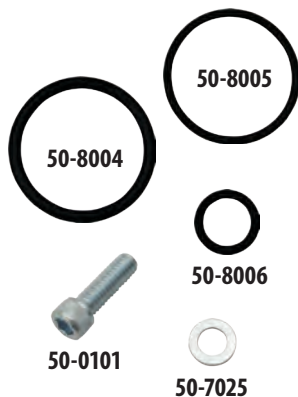
Application	Set
1986–'90 Stock/S&S® Super Stock	33-5375 
1986–'90 S&S Special Application	33-5365
1991–'99 S&S Super Stock	33-5389

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 1/16" O.D. x 3/32" CS Viton® 11167	each 50-8004
Lower O-ring, 1" I.D. x 1 1/8" O.D. x 1/16" CS Viton 11168A	each 50-8005
Oil Passage O-ring, 3/8" I.D. x 1/2" O.D. x 1/16" CS 70 Buna 11110	each 50-8006
	10 pack 50-8077
Screw, SHC, 3/16-18 x 1", Zinc 3201WA, 2708	each 50-0101
Washer, Flat, .325" x .548" x .062", Zinc, Low Carbon Steel 6771	each 50-7025



QUICKEE ADJUSTABLE PUSHRODS

FITMENT

- 1991–'20 Harley-Davidson® Sportster® models
- 1994–'02 Buell® models

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



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 272

QUICKEE ADJUSTABLE PUSHRODS FOR 1991–'20 HARLEY-DAVIDSON® SPORTSTER® MODELS

Description	Part #
Complete Kit, for 2004–'19 xl	930-0023 
Pushrod Set only, for 1991–'19 xl	93-5122 

STANDARD ADJUSTABLE PUSHRODS

FITMENT

- 1986–'20 Harley-Davidson® Sportster® models
- 1994–'02 Buell® models

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



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 272


REPLACEMENT PARTS: SEE PAGE 272

STANDARD ADJUSTABLE PUSHRODS FOR 2004–'20 HARLEY-DAVIDSON® SPORTSTER® MODELS



Description	Part #
Complete Kit	930-0024 
Pushrod Set only	93-5022 

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 

Milwaukee-Eight™

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88"

1986–2020
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

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



PUSHROD COVERS AND RELATED PARTS

FITMENT

- 1986–'20 Harley-Davidson® Sportster®
- 1994–'02 Buell®

PUSHROD REPLACEMENT PARTS

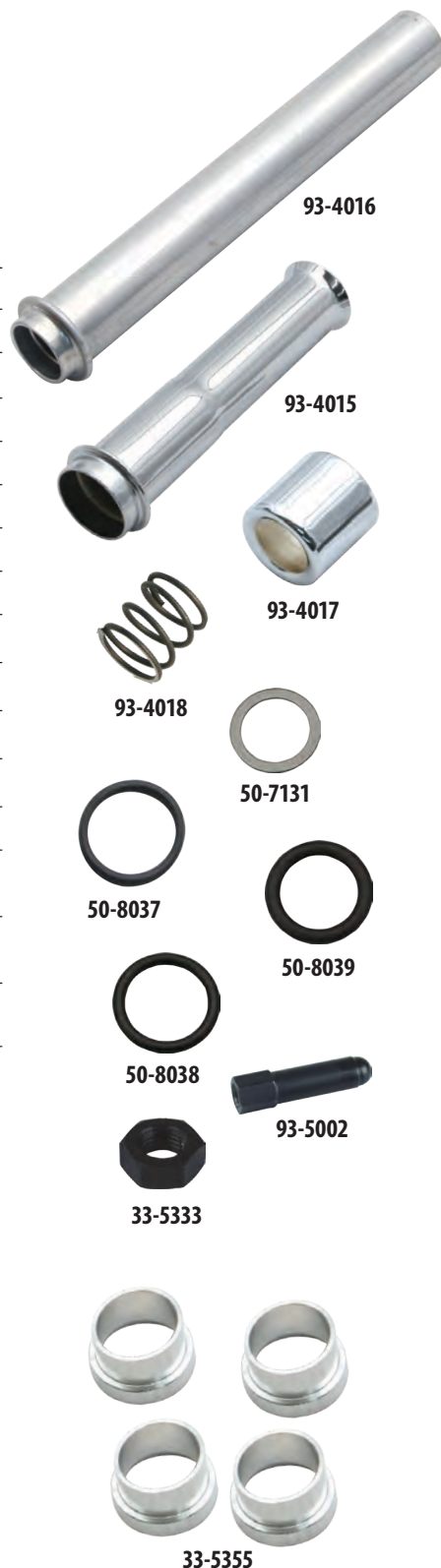
Item Description		Part #
S&S Pushrod Cover Kit* (includes Top and bottom covers, Cover cap, Cover spring, Spring washers, and o-rings)	Stock Height 	93-4039*
	1" or more taller than stock	93-4038*
Cover Cap Washer 67628		50-7131
Bottom Cover Washer		50-7150
Top O-ring 11132A		50-8039
Middle O-ring		50-8038
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 $\frac{5}{16}$ "-32 threads. (Manufactured after 2-1-1996)	93-5002
Adjusting Unit Locknut	Fits S&S adjustable pushrods with early stock $\frac{9}{32}$ "-32 threads	33-5333
	Fits S&S adjustable pushrods with $\frac{5}{16}$ "-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
-------------	---------



PUSHROD COVER KEEPER SETS[±]

Application		Length	Part #
2004–'20 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
1986–'90 Sportster with Stock or S&S Cases	89"	(3.000")	93-4103
	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




±  WARNING: Cancer and Reproductive Harm



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.

PUSHROD COVER KEEPER SET

Length / Finish	Part #	
2.390" / Gloss Black	930-0127	
2.400" / Chrome 	93-4070 [±] 17950-48	
2.500"	Chrome	93-4100 [±]
	Gloss Black	930-0142
2.600"	Chrome	93-4101 [±]
	Gloss Black	930-0128
2.800" / Chrome 	93-4115 [±] 17950-86	
2.900"	Chrome	93-4102 [±]
	Gloss Black	930-0126
3.000" / Chrome	93-4103 [±]	
3.100"	Chrome	93-4104 [±]
	Gloss Black	930-0125
3.200" / Chrome	93-4105 [±]	
3.330" / Chrome 	93-4106 [±] 17949-40, 17950-66	
3.500" / Chrome	93-4107 [±]	
3.625" / Chrome	93-4108 [±]	
4.250"*	93-4109	

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

±  WARNING: Cancer and Reproductive Harm

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Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2020
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

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SIDEWINDER® .650" LIFT VALVE SPRINGS

FITMENT

- 1986–'20 Harley-Davidson® Sportster® models 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
2004–2020 (7mm stems)	106-5909

NOTE

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

STREET PERFORMANCE .585" VALVE SPRINGS

FITMENT

- 1986–'20 Harley-Davidson® Sportster® models / 1995–'02 Buell models

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 PERFORMANCE .585" VALVE SPRING KIT

Description	Part #
1986–'03 Sportster® & 1995–'02 Buell® (5/16" valve stems)	900-0593
2004–'20 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 308

FORGED ROCKER ARMS

FITMENT

- 1986–'20 Harley-Davidson® Sportster® models
- 1994–'02 Buell® 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
- 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



FORGED ROLLER ROCKER ARM KIT

Description	Part #
2 front and 2 rear rocker arms	900-4065A

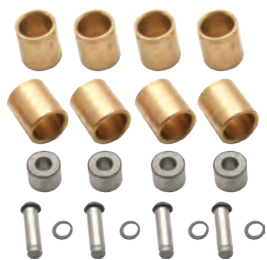
Adjustable pushrods must be used with S&S roller rocker arms to obtain proper valve clearance. New rocker arm shafts are recommended for maximum performance and rocker life.



900-4119A



90-4036



90-4104

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.

ROCKER ARM SHAFTS

Description	Part #
Set of 4 17611-838	90-4036
Individual 17611-838	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.

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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–'20 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.



909-0011

CNC PORTING SERVICE FOR SPORTSTER® MODELS

Description	Part #	MSRP
CNC Porting Service—S&S Ports Your Heads	909-0011	Call for Pricing
CNC Ported Heads—Complete Set Sold Outright	909-0011	Call for Pricing

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

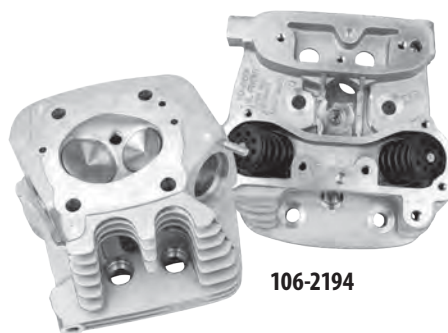
- SB-Series for Harley-Davidson® Sportster® 1986–'03
- SB-Series for Buell® 1994–'02

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 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 294

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 with valves and S&S .650" lift springs

REPLACEMENT PARTS: SEE PAGE 294

ASSEMBLED S&S® SUPER STOCK® HEAD KITS

Application	Natural	Wrinkle Black
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	
+0.010"	92-1081	–	–
+0.020"	–	92-1122	
+0.030"	92-1083	–	–
+0.040"	92-1084	–	–

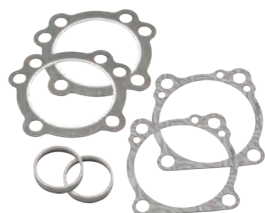
Piston kits include set of pistons, rings, wristpins, and clips. Recommended piston fit: Close: 0.0023"-0.0025" Loose: 0.0035"-0.0045"

FOR COMPRESSION RATIOS AND CYLINDER KITS SEE PAGE 263

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.

1986–'03 Sportster® Chassis



93-4055

CENTER MOUNT

Fits All Engines	93-4055	
------------------	----------------	--

FRONT MOUNT

Stock to 5.087" Long Cylinders 16214-86, 16222-86	93-4056	
--	----------------	--

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 3/8"	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 349

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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± WARNING: Cancer and Reproductive Harm

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
1999–2006 Twin Cam 88®
1986–2020 Sportster® & Buell®
2014–2019 Street® & Street Rod™
Indian® Models
Tools & Shop Supplies
Warranty & Company Policy
Appendix & Index

BILLET ROCKER COVERS

FITMENT

- 1986–'03 Harley-Davidson® Sportster® models
- 1994–'02 Buell® models

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

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 296

**ANY JOB IS EASY WITH THE RIGHT TOOLS
S&S ROCKER COVER WRENCH SET, PAGE 329**

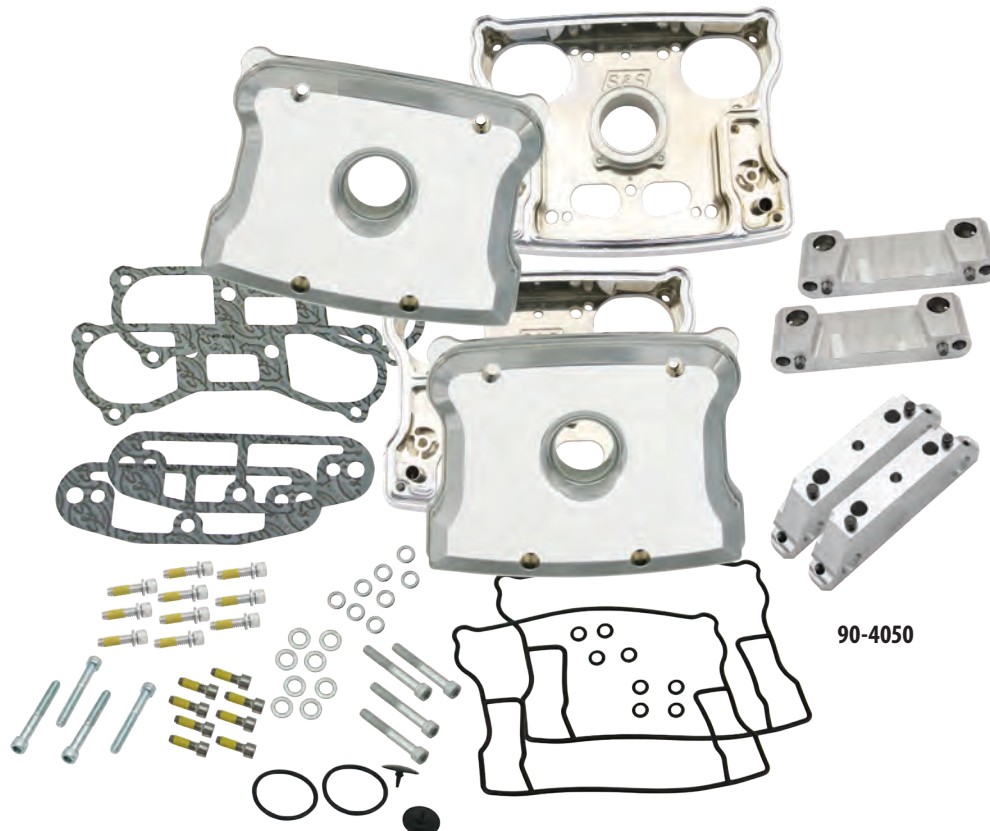
BILLET ROCKER COVER KITS

Finish	Part #
Chrome	90-4050 [±] 
Unfinished	90-4055 

[±]  WARNING: Cancer and Reproductive Harm

REPLACEMENT GASKET KIT

Description	Part #
Includes gaskets for two rocker covers	90-4049



SUPER E & G COMPLETE CARBURETOR KITS

FITMENT

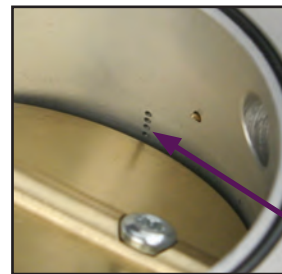
- 1986–'06 Harley-Davidson® Sportster® models
- 1994–'02 Buell® models

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 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 306

SUPER E COMPLETE CARBURETOR KITS

Models	Super E
2004–'06 Sportster® models	11-0470
1991–'03 Sportster models	11-0409
1986–90 Sportster models	11-0408

SUPER E PARTIAL KIT (NO MANIFOLD)

Models	Part #
1991–'03 Sportster® models	11-0443
1986–'90 Sportster models	11-0440

SUPER E & G CARBURETOR ONLY

Fitment	Super E	MSRP	Super G
All Years & Models	11-0420	\$392.95	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.

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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 MOTORVEHICLE. 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 300



RIGID CARB SUPPORT BRACKETS

FITMENT

- 1986-'03 Harley-Davidson® Sportster® models, 1994-'02 Buell® models

SUPPORT BRACKET, AIR CLEANER TO HEAD

Application	Stock Carb and S&S Air Cleaner
	Part #
1986-'03 Sportster® & 1994-'02 Buell® models	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



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.

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® models
- 1996–'02 Buell® models



S&S® THROTTLE CABLE APPLICATION CHART

Application	Fastening Method	Length Total Housing	Length Vinyl Housing	Open Side	MSRP	Close Side
1996–'03	Snap-in	36"	32"	19-0436	\$64.95	19-0437
1986–'95	Threaded	36"	32"	19-0432	\$64.95	19-0433
1996–up Custom	Snap-in	42"	38"	19-0440	\$64.95	19-0441
1986–'95	Threaded	42"	38"	19-0446	\$64.95	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.

Milwaukee-Eight®
2007–2017 Twin Cam
96"/103"/110"
1999–2006
Twin Cam 88®
1986–2020
Sportster® & Buell®
2014–2019 Street® &
Street Rod™
Indian® Models
Tools &
Shop Supplies
Warranty &
Company Policy
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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

[±] ⚠️ WARNING: Cancer and Reproductive Harm

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

[±] ⚠️ WARNING: Cancer and Reproductive Harm

INTERMEDIATE JETS - SERIES #94 INDIVIDUAL SELECTION[±]

Size	QTY	Part #	MSRP	Size	QTY	Part #	
.025	each	11-0250	\$11.95	.032	each	11-0320	
	3 pack	11-7107	\$28.95		3 pack	11-7112	
.0265	each	11-0265	\$11.95	.033	each	11-0330	
	3 pack	11-7108	\$28.95		3 pack	11-7113	
.028	each	11-0280	\$11.95	.036	each	11-0360	
	3 pack	11-7109	\$28.95		3 pack	11-7114	
.0295	each	11-0295	\$11.95	.040	each	11-0400	
	3 pack	11-7110	\$28.95		3 pack	11-7115	
.031	each	11-0310	\$11.95	Blank	each	11-0000	
	3 pack	11-7111	\$28.95				

[±] ⚠️ WARNING: Cancer and Reproductive Harm –



11-3103[±]



11-3102[±]



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.

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	±	⚠ WARNING: Cancer and Reproductive Harm	
	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

± ⚠ WARNING: Cancer and Reproductive Harm

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.

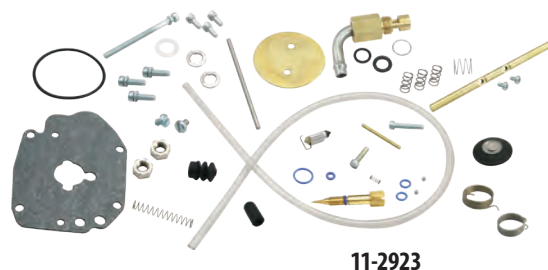
MASTER REBUILD KITS

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

± ⚠ WARNING: Cancer and Reproductive Harm



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

± ⚠ WARNING: Cancer and Reproductive Harm



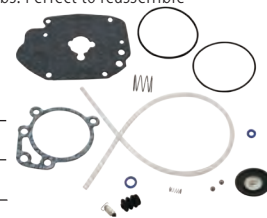
BASIC REBUILD KIT

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

± ⚠ WARNING: Cancer and Reproductive Harm



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



Milwaukee-Eight®

2007–2017 Twin Cam
96™/103™/110™

1999–2006
Twin Cam 88®

1986–2020
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

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MANIFOLD CONVERSION KITS

FITMENT

- 1986–'03 Harley-Davidson® Sportster® models
- 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 #	MSRP
1986–'03	4.650"	341	16-1650*	\$214.95

*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 #	MSRP
Manifold	16-1620	\$107.95
Flanges	Front 27009-86A	each 16-0232 \$42.95
		5 pack 16-0600 \$203.95
	Rear 27010-86A	each 16-0233 \$42.95
		5 pack 16-0601 \$203.95
Set (Front & Rear)	106-3516	\$64.95
O-rings	each	16-0235 \$7.95
	5 pack	16-0243 \$49.95
0.350" Spacers	50-7044	\$3.95

INTAKE MANIFOLDS

FITMENT

- 1986–'06 Harley-Davidson® Sportster® models
- 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	MSRP
1200cc	Stock (4.650")	335	16-1519*	\$108.95

*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 #	MSRP
Manifold Fitting VOES Rubber Cap, 3/16" I.D. x 3/16" O.D. x 1/2"	50-8372	\$3.95
Manifold Vacuum Fitting	16-0136-S	\$4.95



16-0136-S

50-8372

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	\$107.95	16-2520	\$128.95	–	–
100"	4.420"	357	–	–	16-2559	\$128.95	–	–
103"	5.750"	426	–	–	16-2532	\$128.95	–	–
Special Order*	Specify	–	–	–	–	–	169-0005	Call for Pricing

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	Sysize Number	Super E		Super G	
			Part #	MSRP	Part #	MSRP
1200cc, 79"	Stock - 4.650"	341	16-1520	\$108.95	–	–
S&S SB100	4.420"	357	–	–	16-2569	\$108.95



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 #	MSRP
<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	\$165.95
S&S High Output 0.5Ω Single Fire Coil 	55-1576	\$142.95
<i>High output 0.5Ω single fire coil for S&S IST ignition. 55-1571</i>		

GASKETS

TOP END GASKET KITS FOR S&S SB-SERIES ENGINES 1986-'03

4"	90-9503	\$72.95
3 5/8"	90-9509	\$75.95

CYLINDER HEAD, BASE & EXHAUST GASKET KITS FOR S&S SB-SERIES ENGINES 1986-'03

4"	.043" Micropore	90-1909	\$39.95
3 5/8"	.045" Micropore	90-1908	\$36.95
3 1/2"	.045" Micropore	90-1907	\$36.95
	.030" Layered Steel	900-0532	\$61.95

HEAD GASKETS

4"	.043" Micropore	each	93-1040-S	\$13.95
		2 pack	930-0087	\$21.95
		10 pack	93-1071	\$128.95
3 5/8"	.045" Micropore	each	93-1037-S	\$11.95
		2 pack	930-0091	\$21.95
		10 pack	93-1052	\$128.95
	.0625" Micropore	each	93-1016-S	\$16.95
		2 pack	930-0097	\$32.95
		10 pack	93-1053	\$161.95
3 1/2"	.045" Micropore 16770-84D, 16770-84F	each	93-1011-S	\$14.95
		2 pack	930-0098	\$30.95
		10 pack	93-1024	\$139.95
	.0625" Micropore 16770-84D, 16770-84F, 10773-85	each	93-1313-S	\$16.95
		10 pack	93-1051	\$161.95
	.030" Layered Steel	each	900-0530	\$25.95

BASE GASKETS AND O-RINGS

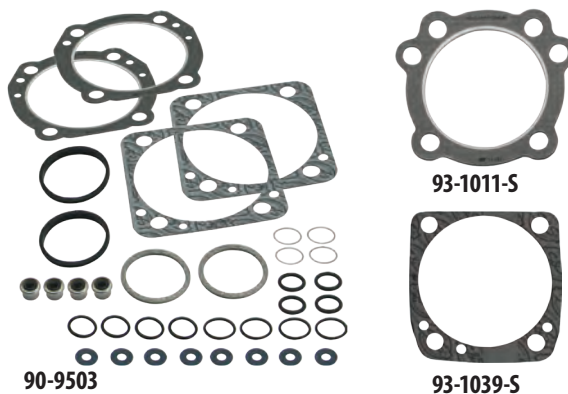
4"	.018" Micropore	each	93-1031-S	\$6.95
		2 pack	930-0094	\$10.95
		10 pack	93-1067	\$43.95
3 5/8"	.018" Micropore	each	93-1039-S	\$5.95
3 1/2"	.018" Micropore 16777-83A, 16774-86D	each	93-1038-S	\$5.95

EXHAUST GASKETS

1986-2003 Sportster Models 65324-83B, 65324-83A	each	106-5029	\$4.95
	10 pack	93-1072	\$48.95

VALVE GUIDE SEALS

1986-2003 Sportster Models	each	900-0338	\$3.95
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ROCKER BOX GASKET KITS AND INDIVIDUAL GASKETS

S&S Billet

Gasket Kit	90-4049	\$75.95
O-ring, (-223), 1.625" ID x 1.875" OD, Viton®	each 50-8044	\$3.95
Seal, Umbrella Valve Cover 26856-89, 26856-89A	90-4030	\$3.95
Gasket, Rocker Cover, S&S® Billet, O-ring, 1986-2003 xl	90-4048	\$16.95
Gasket, Bottom, Rocker Cover, 1986-2003 xl	each 900-0538	\$13.95
	2 pack 900-0592	\$27.95
Gasket, Kit, Rocker Box, 1986-'90 xl 17026-91A	900-0773	\$75.95
Gasket, Kit, Rocker Box, 1991-2003 xl 17026-91A	900-0774	\$75.95
Gasket, Kit, Rocker Box, 2004-'06 xl	900-0775	\$75.95
Gasket, Kit, Rocker Box, 2007-up xl	900-0776	\$75.95

LOWER END GASKETS AND SEALS

Gearcover gasket	each 31-2052	\$8.95
Camshaft Oil Seals, 1971 - up 11124	31-4051	\$18.95

TAPPET GUIDE O-RINGS

1" I.D. x 1 ³ / ₁₆ " O.D. x 3 ³ / ₃₂ " CS (upper) 11167	each	50-8004	\$3.95
1" I.D. x 1 ¹ / ₈ " O.D. x 1 ¹ / ₁₆ " CS (lower) 11168A	each	50-8005	\$3.95
3 ³ / ₈ " I.D. x 1 ¹ / ₂ " O.D. x 1 ¹ / ₁₆ " CS (oil hole) 11110	each	50-8006	\$3.95
	10 pack	50-8077	\$8.95

PUSHROD O-RINGS


O-ring, Kit, Pushrod Cover, 1986–2003 xl		93-4022	\$8.95
Top O-ring 11293, 11157, 11101, 11190	each	50-8039	\$3.95
Middle O-ring 11132A	each	50-8038	\$3.95
Bottom O-ring 11145A	each	50-8037	\$3.95

SPROCKET SHAFT SEAL

1991–'03 35151-74A		31-4060	\$18.95
1991–'03 S&S SA cases, BT style 12026B		31-4010	\$9.95

FUEL SYSTEM GASKETS

Manifold Seals

S&S Manifold O-ring	each	16-0235	\$7.95
	10 pack	16-0243	\$49.95
Stock Manifold O-ring  26995-86B, 26995-86A, 26992-99	each	16-0236	\$6.95
	10 pack	16-0244	\$43.95
Cap, rubber, manifold, fitting		50-8372	\$3.95

CLASSIC TEARDROP AIR CLEANER

Back Plate gasket	each	106-1724	\$4.95
	10 pack	106-2328	\$27.95
Vent seal washers silicone coated steel 1/2"	(each)	50-7054	\$3.95
	10 pack	50-7059	\$13.95

STEALTH AIR CLEANER

Back Plate gasket			
Stock CV Carb & EFI Throttle Body, 1991–up xl 29062-95B		106-6022	\$4.95
Super E/G.	each	106-1724	\$4.95
	10 pack	106-2328	\$27.95
For Muscle air cleaner (includes lanyards)		170-0137	\$25.95
Vent seal washers Nitrile Rubber Coated, 520" x .880" x .024" xl 1991–'06	each	50-7055	\$3.95
	10 pack	50-7057	\$13.95



SINGLE BORE TUNED INDUCTION SYSTEM

Back Plate gasket			
Gasket, Backplate - E/G/SBEFI	each	106-1724	\$4.95
	10 pack	106-2328	\$27.95
Gasket, S&S SBEFI 58mm		106-4662	\$6.95
Gasket, Stock carb/Throttle Body 29062-95B		106-6022	\$4.95
Adaptor plate gasket		17-1022	\$6.95
Adaptor plate bracket o-ring	each	50-0446	\$4.95

CARBURETOR GASKETS

Bowl Gasket, Super E & G		11-2386	\$4.95	
Pump cap o-ring - (two required)	each	50-8012	\$3.95	
	10 Pack	50-8100	\$12.95	
Idle Mixture Needle o-ring	each	500-0036	\$3.95	
	10 pack	500-0148	\$8.95	
Bellows Seal, Accelerator Pump		11-2266	\$5.95	
Accelerator pump diaphragm		11-2282	\$16.95	
Manifold to carb orings various sizes	Super E	each	50-8016	\$3.95
		10 pack	50-8094	\$11.95
	Super G	each	50-8015	\$3.95
		10 pack	50-8093	\$11.95
Seat and bowl plug o-ring	each	50-8009	\$3.95	
	10 pack	50-8095	\$14.95	

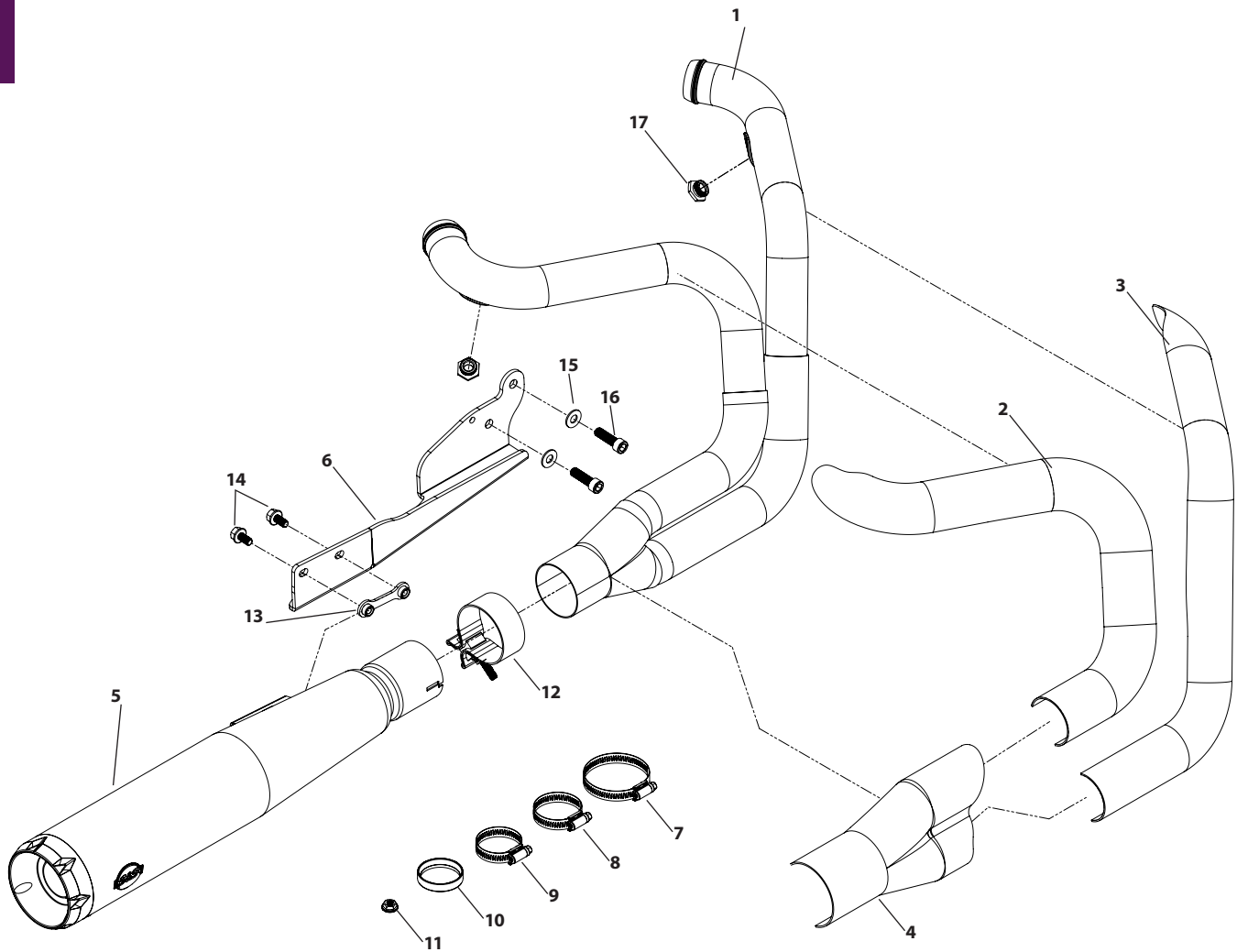


Milwaukee-Eight®
2007–2017 Twin Cam
96°/103°/110°
1999–2006
Twin Cam 88°
1986–2020
Sportster® & Buell®
2014–2019 Street® &
Street Rod™
Indian® Models
Tools &
Shop Supplies
Warranty &
Company Policy
Appendix &
Index

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.

SUPERSTREET 2:1 REPLACEMENT PARTS

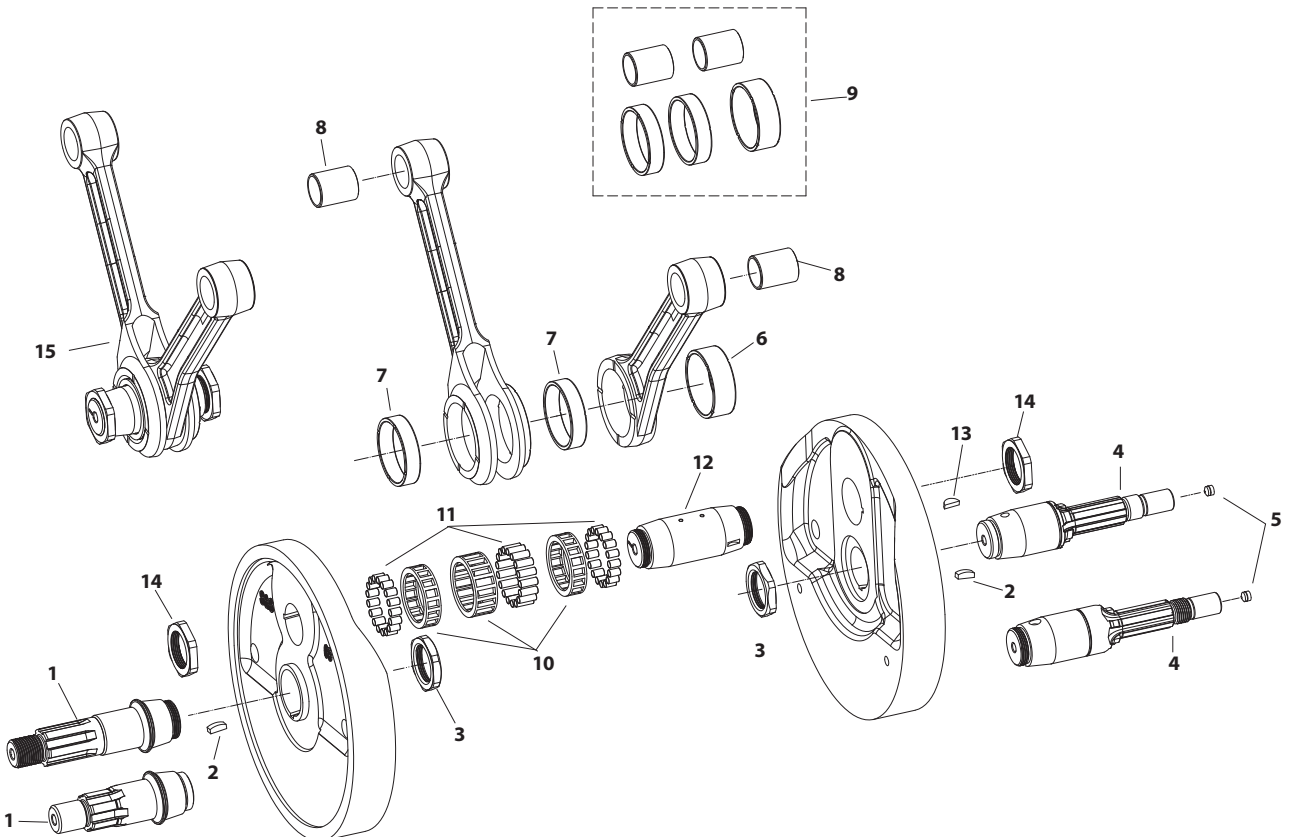
1. Header	551-1138	\$269.95
2. Heat Shield, Rear	551-1144	\$109.95
3. Heat Shield, Front	551-1141	\$109.95
4. Heat Shield, Collector	551-1139	\$59.95
5. Muffler, 2007-'13	551-1148	\$289.95
Muffler, 2014-'20	551-1149A	\$474.95
6. Bracket	551-1153	\$29.95
7. Clamp, Hose, Worm Drive, SAE #40	551-0402	\$2.95
8. Clamp, Hose, Worm Drive, SAE #24	500-0791	\$1.95
9. Clamp, Hose, Worm Drive, SAE #20	551-0527	\$1.95
10. Gasket, Exhaust, Tapered, Stainless Steel	106-5029	\$48.95
11. Nut, HSFH, 5/16-24 UNF-2B x .283", Zinc, Steel, 2 Pack	50-5025-2	\$3.95
12. Clamp, Muffler, Band Style, 2.5"	551-0135	\$11.95
13. Plate, Nut, 5/16-18 x 2", Clear, Zinc	551-0469	\$2.95
14. Screw, Flanged, 5/16-18 x 5/8", Zinc Plated	500-0984	\$0.95
15. Washer, Flat, .375" x .813" x .063", Zinc, Steel	50-7051	\$3.95
16. Screw, SHCS, 3/8-16 x 1-1/4", Zinc, Steel	50-0162	\$3.95
17. Adapter, Oxygen Sensor, 12mm to 18mm, Stainless Steel	550-0375	\$10.95



FLYWHEEL REPLACEMENT PARTS

- | | |
|---|--|
| <p>1. Sprocket Shaft (includes #2 & 3)
1986–1990 xl w/ S&S D/SB/SBD/SC/SCD/SCDR/SCR flywheels
..... 33-2302 \$187.95</p> <p>1991–2003 xl w/ S&S D flywheels & 1994–1999 Buell
..... 33-2303 \$196.95</p> <p>2. Key (each) 50-8224 \$8.95</p> <p>3. Nut 33-2331 \$8.95</p> <p>4. Pinion Shaft 1986–2003 xl (includes #2, 3, 5)
w/S&S D/DR flywheels / 1994–1999 Buell 33-2325 \$268.95
w/S&S D/DR/DF flywheels – Special Application, +.500" 33-2329 \$268.95</p> <p>5. Meter Plug–
.0625" hole 50-8316± \$6.95
no hole – Special application 50-8314± \$3.95</p> <p>6. Front Rod Race 24352-52A 34-4505 \$85.95</p> <p>7. Rear Rod Race 24341-52A 34-4506 \$71.95</p> <p>8. Wrist Pin Bushing
.767" x .895" x .950" 24331-36
(for use with Heavy Duty Rods) 34-4507 \$12.95
.767" x .895" x 1.077" 24334-36
(for use with Supreme Rods) 34-4007 \$7.95</p> <p>9. Race and Bushing Set (includes #6, 7, 8)
(for use with Heavy Duty Rods) 34-4540 \$161.95</p> <p>10. Alloy Bearing Cage Set 34-4520 \$59.95</p> | <p>11. Bearing Set
Standard 24354-87A 34-4521 \$85.95</p> <p>12. Crankpin (includes #13 & 14) Late 1981–1999 Sportster
Standard 23960-80A 34-2602 \$138.95
.001" OS 23948-87 34-2603 \$138.95
.002" OS 23949-87 34-2605 \$138.95</p> <p>13. Crankpin Key late 1981–1999 Sportster / 1994–1999 Buell 11218
each 50-8222-5 \$3.95
5 pack 50-1009 \$9.95</p> <p>14. Crankpin Nut 34-2504 \$14.95</p> <p>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 \$856.95</p> |
|---|--|

ANY JOB IS EASY WITH THE RIGHT TOOLS
COMPLETE S&S FLYWHEEL REBALANCING KIT PAGE 326



± WARNING: Cancer and Reproductive Harm

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.

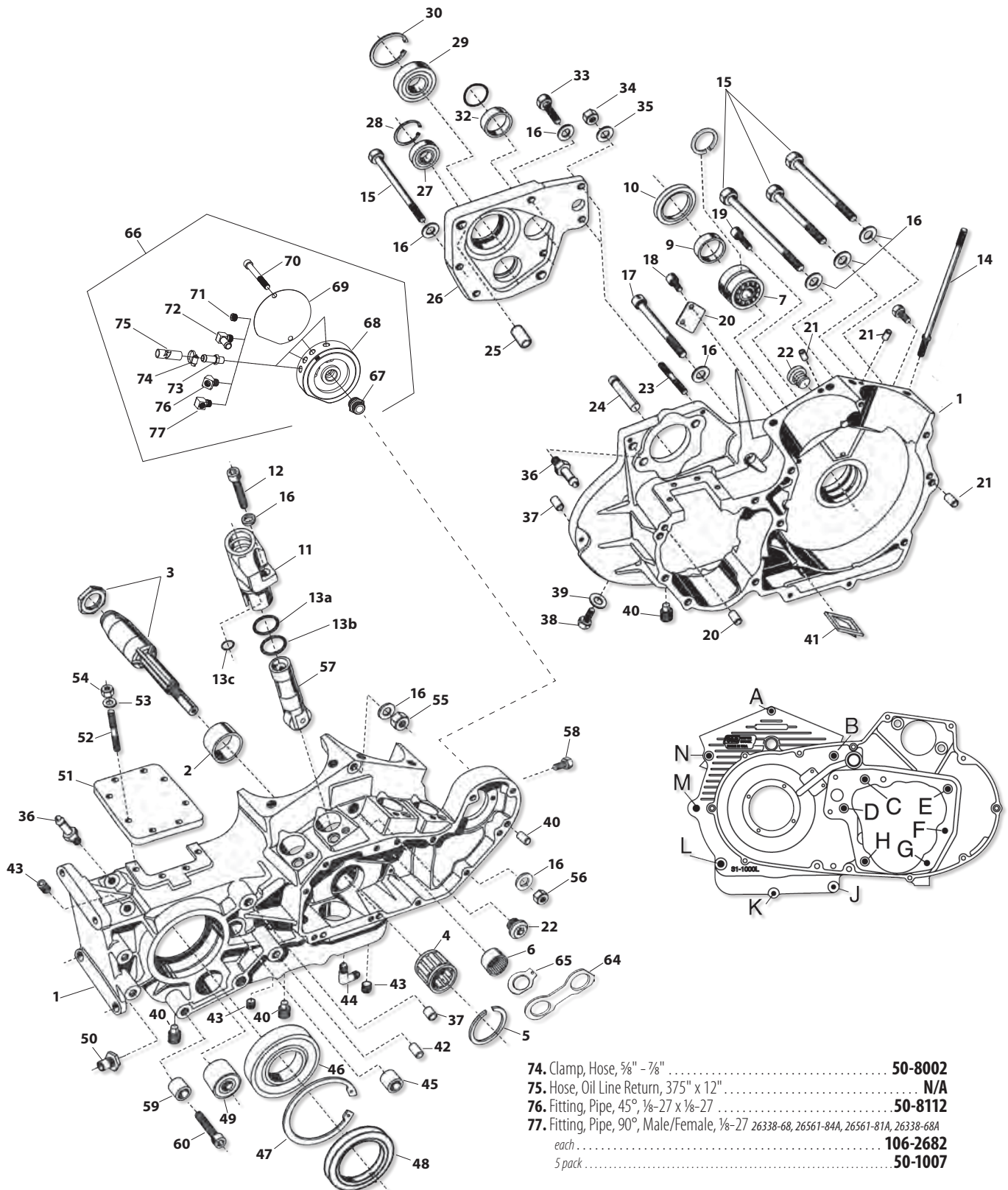
S&S pinion shafts for 1986–'03 Sportster models are the splined 1986–'87 style. Pinion and oil pump drive gears in 1988–'03 models must be replaced with early style gears.

Milwaukee-Eight™
 2007–2017 Twin Cam
 1999–2006 Twin Cam 88™
 1986–2020 Sportster® & Buell®
 2014–2019 Street® & Street Rod™
 Indian® Models
 Tools & Shop Supplies
 Warranty & Company Policy
 Appendix & Index

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 \$101.95 |
| 3. Pinion shaft assembly - Standard | |
| 1986-'03 xl/1994-'02 Buell | 33-2325 \$268.95 |
| 1986-up S&S SA only | 33-2329 \$268.95 |
| 4. Right main bearing assembly 1986-'03 | |
| Blue 24647-87 | 31-4055 \$28.95 |
| Red 24650-87 | 31-4056 \$28.95 |
| White 24659-87 | 31-4057 \$28.95 |
| Green 24660-87 | 31-4058 \$28.95 |
| 5. Ring, main bearing retainer 1986-'03 11177A | 50-8057 \$1.95 |
| 5 pack | 50-1004 \$10.95 |
| 6. Cam needle bearing assembly - 1986-'03 9057 | 31-4061 \$25.95 |
| 7. Left Timken® main bearing assembly, 1991-'03 24729-74, 48302-85) | 31-4059 \$119.95 |
| 8. Spacer, Left Main Bearing - 1974-'03 xl Fits stock diameter shaft. | |
| .098" | 31-4062 \$8.95 |
| .1015" - .1025" 9143 | 31-4064 \$8.95 |
| .1035" - .1045" | 31-4065 \$11.95 |
| .1055" - .1065" 9145 | 31-4066 \$8.95 |
| .1075" - .1085" 9146 | 31-4067 \$8.95 |
| .110" 9147 | 31-4068 \$12.95 |
| .114" | 31-4070 \$12.95 |
| 9. Seal spacer, 1991-'03 xl | 31-4034 \$64.95 |
| 10. Seal, sprocket shaft oil, 1991-'03 xl 35151-74A | 31-4060 \$18.95 |
| 11. Tappet guide assembly (See page 270) | |
| 12. Screw, SHC - 3/16" - 18 x 1" 3201WA, 2708 | 50-0101 \$0.95 |
| 13. O-ring | |
| 13a. 1" I.D. x 1 3/16" O.D. x 3/32" CS (upper) 11167 | 50-8004 \$3.95 |
| 13b. 1" I.D. x 1 1/8" O.D. x 1/16" CS (lower) 11168A | 50-8005 \$3.95 |
| 13c. 3/8" I.D. x 1/2" O.D. x 1/16" CS (oil hole) 11110 | 50-8006 \$3.95 |
| 10 pack | 50-8077 \$8.95 |
| 14. Cylinder stud 1991-'03 style 16832-86C | 31-2331-5 \$7.95 |
| 8 pack | 31-2331 \$46.95 |
| 15. Bolt, case HH - See "Bolt Position Diagram" | |
| (Position A) | |
| S&S xl 1/4"-28 x 5 1/2" (each) | 50-0090 \$3.95 |
| S&S SA xl 1/4"-28 x 6" (each) | 50-0020 \$9.95 |
| (Position E, F, G, H) | |
| S&S xl HHC 3/16"-18 x 4" | 50-0102 \$3.95 |
| (Position J, K) | |
| S&S xl 1/4"-20 x 3/4" | 50-0022 \$0.95 |
| (Position L, M) | |
| S&S xl 3/8"-24 x 5 1/2" (5 pack) | 50-0170 \$6.95 |
| (Position N) | |
| 5/16"-18 x 3 1/2" 3427 | 50-0117 \$3.95 |
| 16. Washer, flat - See "Bolt Position Diagram" | |
| (Position A, J, K) | |
| 1/4" x .474" x .050" (each) | 50-7020 \$3.95 |
| (Position B, C, D, N) & Tappet guide | |
| 5/16" x .548" x 1/16" (each) | 50-7025 \$3.95 |
| (Position E, F, G, H) | |
| 5/16" x 1/16" x 1/8" | 50-7033 \$0.95 |
| (Position L, M) | |
| 3/8" x 7/8" x .146" (each) | 50-7053 \$4.95 |
| 17. Screw, SHC - 5/16" - 18 x 3" | |
| See "Bolt Location Diagram" | |
| (Positions B, C, D, H) | 50-0021 \$3.95 |
| 18. Screw, SHC - 10-24 x 3/8" (Stator wires cover) 4091 | 50-0023 \$3.95 |
| 19. 10-24 x 1" (Stator) 2720 (each) | 50-0044 \$3.95 |
| 20. Cover, stator wires 29950-91 | 31-2050 \$7.95 |
| 21. Dowel pin - .250" diameter x 1/2" 358, 366 | 50-8022 \$4.95 |
| 2 pack | 50-8022-2 \$9.95 |
| 5 pack | 50-8105 \$9.95 |
| 22. Plug, timing hole - 1991-'03 720 | 31-2005 \$6.95 |
| 23. Stud - 1/4"-20, 1/4"-28 x 1 1/4" 1991-up (shifter shaft) | 50-8080 \$9.95 |
| 24. Spring pin - 1991-'03 (Shifter spring) | N/A |
| 25. Dowel pin - 1991-'03 (transmission door) | |
| 1/8" diameter x 1/2" | 50-8020 \$5.95 |
| .390" I.D. x .558" O.D. x 1/2" 16574-99A, 16573-83, 16573-83A | 50-8023 \$4.95 |
| 10 pack | 50-8109 \$21.95 |
| 26. Transmission access door assembly | 56-3025 \$268.95 |
| (Includes 1 ea. transmission access door, 50-8007, 56-3030.) | |
| 27. Bearing, transmission countershaft (LH) 1991-'03 8992A, 8998 | 56-3026 \$43.95 |
| 28. Ring, transmission countershaft bearing retainer, 1991-'03 | |
| 35021-89 | 50-8053 \$5.95 |
| 29. Bearing, transmission mainshaft (LH) 1991-'03 | |
| 35030-89, 35030-89A | 56-3027 \$81.95 |
| 30. Ring, transmission mainshaft bearing retainer, 1991-'03 | |
| 35038-84, 35038-89 | 50-8052 \$10.95 |
| 31. O-ring - 32mm x 1.5mm CS, Shifter drum bushing | 50-8007 \$1.35 |
| 32. Bushing, shifter drum - unfinished - 1991-'03 9187 | 56-3030 \$14.95 |
| 33. Screw, HHC 3/16"-18 x 1 1/4" (10 pack) | 50-0110 \$0.95 |
| 34. Lock nut, hex 1/4"-28 (each) | 50-5010 \$3.95 |
| 35. Washer, flat 1/4" x 5/8" x 1/16" 6194, 6245, 6703, 6736, 6228W, 6192 | |
| each | 50-7021 \$3.95 |
| 36. Fitting, hose - 1/8" -27 pipe male transmission vent | 50-8115 \$5.95 |
| 37. Dowel pin - .309" I.D. x .430" O.D. x 1/2" | |
| 24754-75, 24754-75A | 50-8018 \$6.95 |
| 38. Screw, HHC - 1/4"-20 x 1/2", primary oil level 3728 | 50-0014 \$0.95 |
| 39. Washer, flat 1/4" x 3/8" x 1/32" copper, primary oil level 6114 | 50-7018 \$0.95 |
| 40. Plug, drain | |
| 3/8"-18 NPT Manufactured before 5-1-2000 | 31-2006 \$17.95 |
| 1/2"-20 thread - (Includes o-ring.) Manufactured after 5-1-2000 | 50-8335 \$13.95 |
| 41. Reed valve assembly, 1991-'03 (Optional) | 31-2051 \$148.95 |
| 42. Dowel pin - 3/16" dia. x 1/2" | N/A |
| 43. Plug, SH pipe, 1/4"-27 (each) | 50-8331A \$3.95 |
| 10 pack | 50-1015 \$11.95 |
| 44. Fitting, 90° - 1/8"-27 pipe male x 3/16" flared tube | 50-8119 \$14.95 |
| 45. Bearing, transmission shifter drum (RH) 1991-'03 | 56-3032 \$18.95 |
| 46. Bearing, transmission output shaft 1991-up 8996A | 56-1280 \$68.95 |
| 47. Ring, transmission output shaft bearing retainer, | |
| 109" x 3.734" tru-arc 11161, 11599 | 50-8051 \$21.95 |
| 48. Seal, Transmission Output Shaft | |
| 2.255" x 3.388" x .250, 1995-'03 xl 12067B | 56-3033 \$12.95 |
| 49. Bearing, transmission countershaft (RH) 1991-'03 | 56-3031 \$33.95 |
| 50. Nut, press-in, 3/16"-24 - All 1991-'03 | 31-2048 \$15.95 |
| 51. Cover, transmission inspection window 1991-up S&S SA cases only | 31-2055 \$151.95 |
| 52. Stud - 5/16"-18, 5/16"-24 x 1.370" 1991-up S&S SA cases only | 50-8081 \$7.95 |
| 53. Washer, flat - 5/16" x 1/16" x 1/16" 6320, 70907-07, 6016, 6702 | 50-7034 \$0.95 |
| 54. Nut, hex - 5/16"-24 7833, 7883 | 50-5023 \$0.95 |
| 55. Nut, hex - 1/4"-28 7683 | 50-5011 \$0.95 |
| 56. Nut, hex - 3/8"-24 7861 | 50-5037 \$0.95 |
| 57. Hydraulic tappet assembly (See page 269) | |
| 58. 3/8"-16 x 1/2" BHCS | N/A |
| 59. 5/16" x 3/4" .35 Shim | 50-7044 \$3.95 |
| 60. 1/4"-20 x 2" SHCS 25794-36 | 50-0013 \$3.95 |
| 61. Gasket, gearcover, S&S (N/S) | 31-2052 \$8.95 |
| 62. 45° hose fitting - 1/8" pipe male/female (Oil pump) (N/S) | 50-8112 \$5.21 |
| 63. Oil Pump, Assembly, Stock, 1991-up xl (N/S) | |
| 26488-98, 26204-91A | 106-5368 \$482.95 |
| 64. Washer, Cam, Thrust, Double, .043", 1958-'90 xl, .043" | N/A |
| 1985-'90 xl, .062" 25551-58 | 33-5210 \$75.95 |
| 65. Washer, Cam, Thrust, For S&S Cam Covers only, .062" | 33-5211 \$39.95 |
| 66. Bracket Kit, Oil Filter 1986-'90 xl | 106-3134 \$182.95 |
| 67. Fitting, Straight, 3/4-16 UNF 2A x 1" 26352-95A | 50-8197-S \$13.95 |
| 68. Bracket, Oil Filter | N/A |
| 69. Gasket, Oil Filter Mount | 106-4423 \$7.95 |
| 70. Screw, SHC, 5/16"-24 x 2-3/4" | 50-0017 \$4.95 |
| 71. Plug, Pipe, 3/4" x 1/8"-27 x .188" | 50-8331A \$3.95 |
| 10 pack | 50-1015 \$11.95 |
| 72. Fitting, Pipe, 90°, 1/8"-27 x .375" | 50-8110 \$21.95 |
| 73. Fitting, Hose, Straight, 1/8"-27 x .500" | 50-8115 \$5.95 |



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 26338-68, 26561-84A, 26561-81A, 26338-68A	
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.

± WARNING: Cancer and Reproductive Harm

SUPER STOCK® CYLINDER HEAD REPLACEMENT PARTS

SPORTSTER® MODELS 3-5/8" TO 4" BORE

1. Cylinder head (See cylinders on page 294)
2. Valves
 - Intake
 - 2.000" diameter.....  **90-2000** \$29.95
 - 2.000" diameter + .085" stem length **90-2004** \$31.95
 - Exhaust
 - 1.605" diameter.....  **90-2001** \$65.95
3. Valve seats
 - Intake - 2.000" diameter.....  **90-2002** \$24.95
 - Exhaust - 1.605" diameter.....  **90-2003** \$56.95
- 4a. Valve guide - Cast- Intake or Exhaust
 - Standard Diameter .5625/.5620 18112-92.....  **90-2210** \$30.95
 - + .001" Diameter .5635/.5630 18130-83C.....  **90-2211** \$64.95
 - + .002" Diameter .5645/.5640 18133-83A, 18133-83D.....  **90-2212** \$85.95
 - + .003" Diameter .5655/.5650 18131-83C.....  **90-2213** \$96.95
 - + .030" Diameter .5925/.5920.....  **90-2219** \$54.95
- 4b. Valve guide - Powder Metal - Intake or Exhaust
 - Standard **900-0553** \$34.95
 - + .001"..... **900-0554** \$34.95
 - + .002"..... **900-0555** \$34.95
 - + .003"..... **900-0556** \$34.95
5. Head mount bolt - 3/8"-16 x 1 1/4" 4716W
 - each **50-0168** \$3.95
6. Flat washer - 3/8" **50-7051** \$3.95
7. Head bolt assembly - Includes head bolt washer
(See headbolts on page 279)
8. Head bolt washer
 - .150" (each)..... **50-0418-S** \$5.95
 - .250" (each)..... **50-7091** \$3.95
9. Exhaust port stud 16715-83 (each)  **50-0493** \$3.95
 - 5 pack.....  **50-1028** \$14.95
10. Lock washer - 5/16" **50-7032** \$0.95
11. Nut, HH - 5/16" -24 7833, 7883 **50-5023** \$0.95
12. Exhaust pipe gasket 65324-83B, 65324-83A
 - each **106-5029** \$4.95
 - 10 pack..... **93-1072** \$48.95
13. Thread conversion insert 1/2"-13 to 5/16"-18..... **50-8151** \$7.95
14. Intake manifold (See manifolds on page 286)
15. Screw, manifold mounting
 - SH - 5/16"-18 x 1" 3201WA, 2708..... **50-0101** \$0.95
 - HH - 5/16"-18 x 1" 3987 (each).....  **50-0108** \$3.95
16. Washer, flat - 5/16" 6320, 70907-07, 6016, 6702 **50-7034** \$0.95
17. Flange, manifold mounting
 - Front 27009-86A (each)  **16-0232** \$42.95
 - 5 pack.....  **16-0600** \$203.95
 - Rear 27010-86A (each).....  **516-0233** \$42.95
 - 5 pack.....  **16-0601** \$203.95
 - Set (Front & Rear)..... **106-3516** \$64.95
18. O-ring, manifold (each) **16-0235** \$7.95
 - 10 pack..... **16-0243** \$49.95
19. Head gasket
 - 3 1/2" Bore
 - .045" thick - (no o-rings required) 16770-84D, 16770-84F
 - each **93-1011-S** \$14.95
 - 10 pack..... **93-1024** \$139.95
 - .0625" thick - (No o-rings required) 16770-84D, 16770-84F, 10773-85
 - each **93-1313-S** \$16.95
 - 10 pack..... **93-1051** \$161.95
 - 3 5/8" Bore
 - .045" thick - (no o-rings required) (each) **93-1037-S** \$11.95
 - 10 pack..... **93-1052** \$128.95
 - .062" thick - (no o-rings required) (each) **93-1016-S** \$16.95
 - 10 pack..... **93-1053** \$161.95
 - 4" Bore
 - .045" thick (each) **93-1040-S** \$13.95
 - 10 pack..... **93-1071** \$128.95
20. Alignment dowel 16574-99A, 16573-83, 16573-83A
 - each **50-8023** \$4.95
 - 10 pack..... **50-8109** \$21.95
- Dowel pin - 1/4" diameter x 1/2" - 4" bore 358, 366
 - each **50-8022** \$4.95
 - 2 pack..... **50-8022-2** \$9.95
 - 5 pack..... **50-8105** \$9.95
21. Plug, HH - 14mm (each) **90-4916** \$17.95
 - 2 pack..... **90-4916-2** \$27.95
22. Washer, compression release- 14mm .507" x .705" x .047"
 - each **50-7094** \$11.95

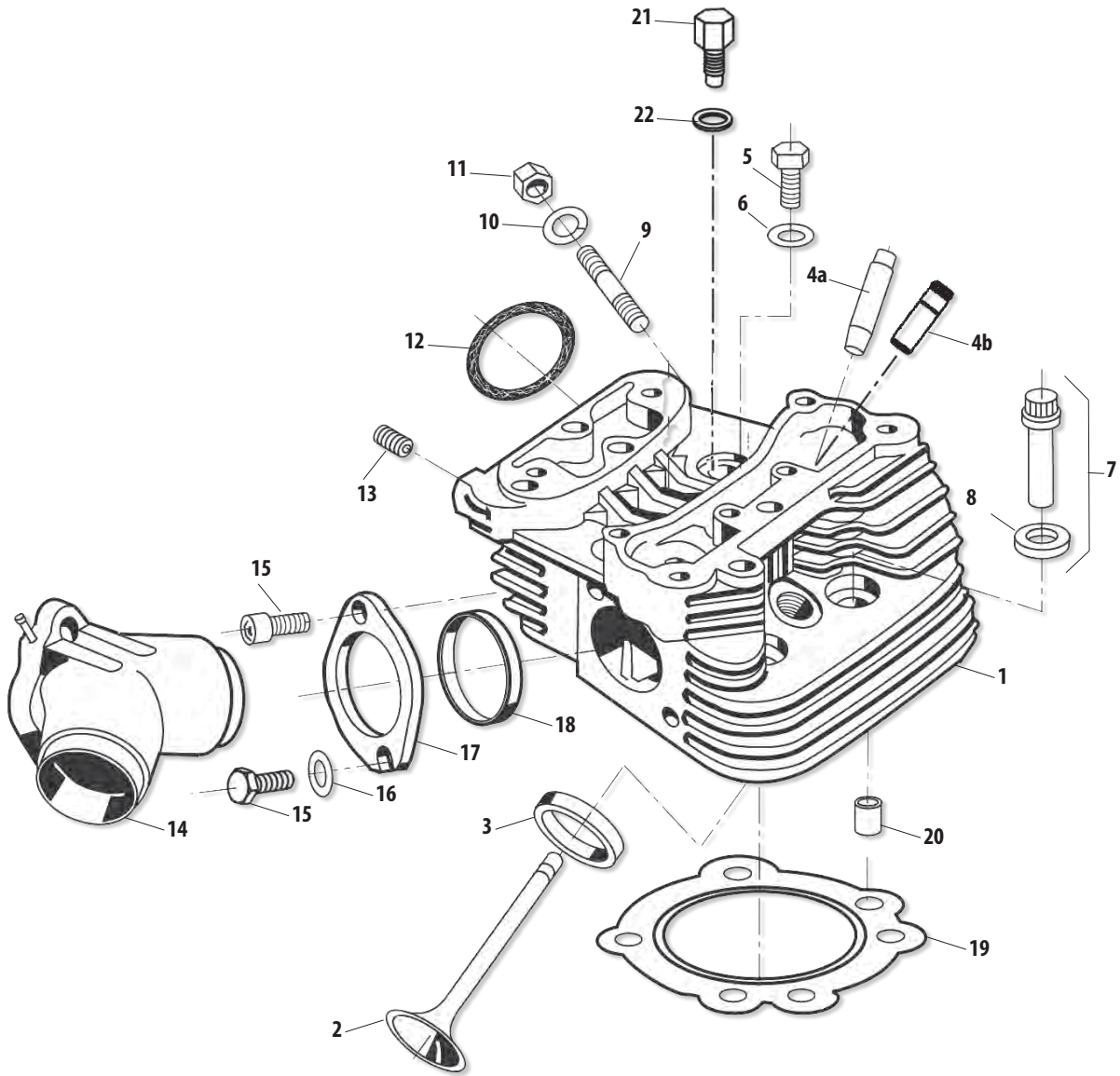
GASKET KITS

23. Rocker cover gasket kits, 1986-'03 xl
 - S&S Billet rocker cover, Rubber (N/S) **90-4049** \$75.95
 - S&S Cast rocker cover, Rubber (N/S) **90-4091** \$69.95
24. Pushrod cover o-ring kit (N/S)
 - 1986-'90 xl **93-4022** \$8.95
 - Includes 4 each:
 - Bottom 11145A (each) **50-8037** \$3.95
 - Middle 11132A (each) **50-8038** \$3.95
 - Top 11293, 11157, 11101, 11190 (each) **50-8039** \$3.95
25. Flat washer, bottom pushrod tube (N/S) **50-7150** \$0.95
26. Top End Rebuild Kits for SB-Series Engines (N/S)
 - 4" Bore **90-9503** \$72.95
 - 3 5/8" Bore **90-9509** \$75.95

(N/S) = Not Shown


NOTE

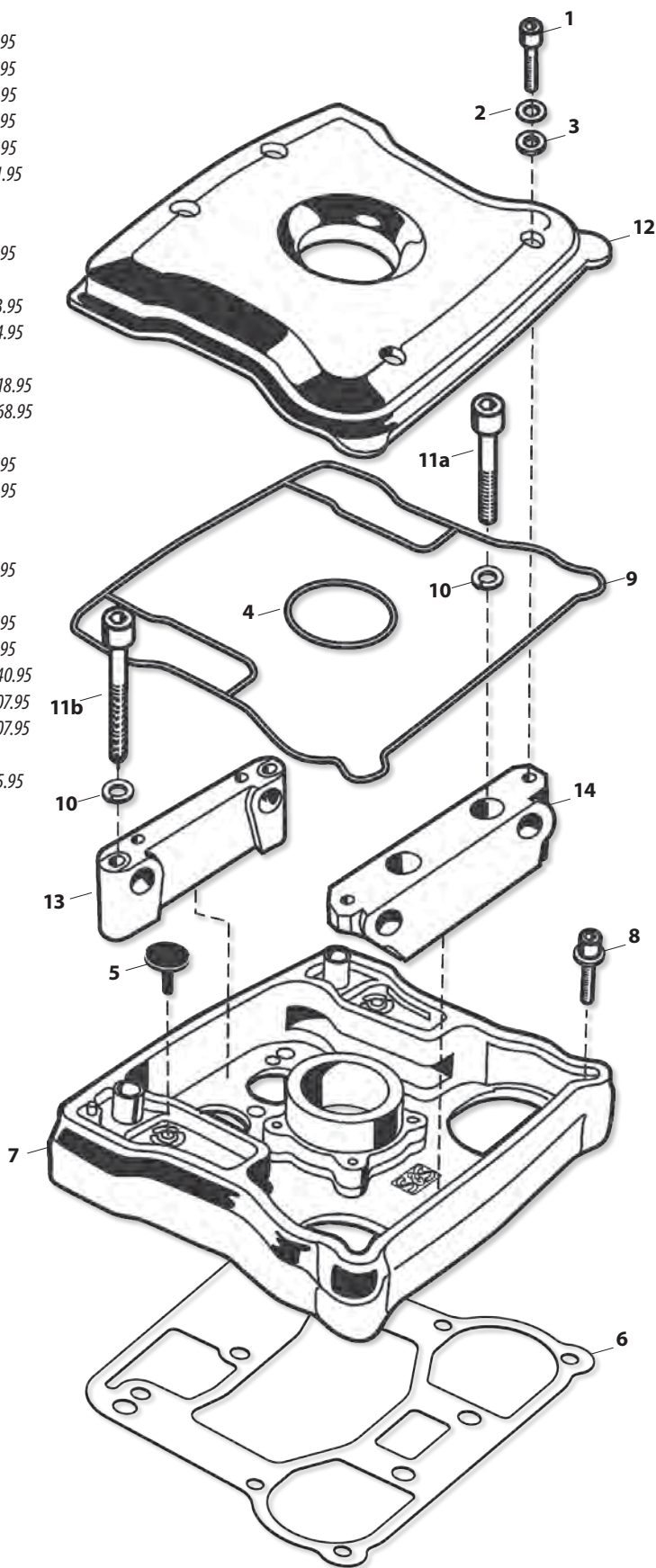
S&S heads for Harley-Davidson® Sportster® and Buell® models are similar but have different diameter front motor mount holes.



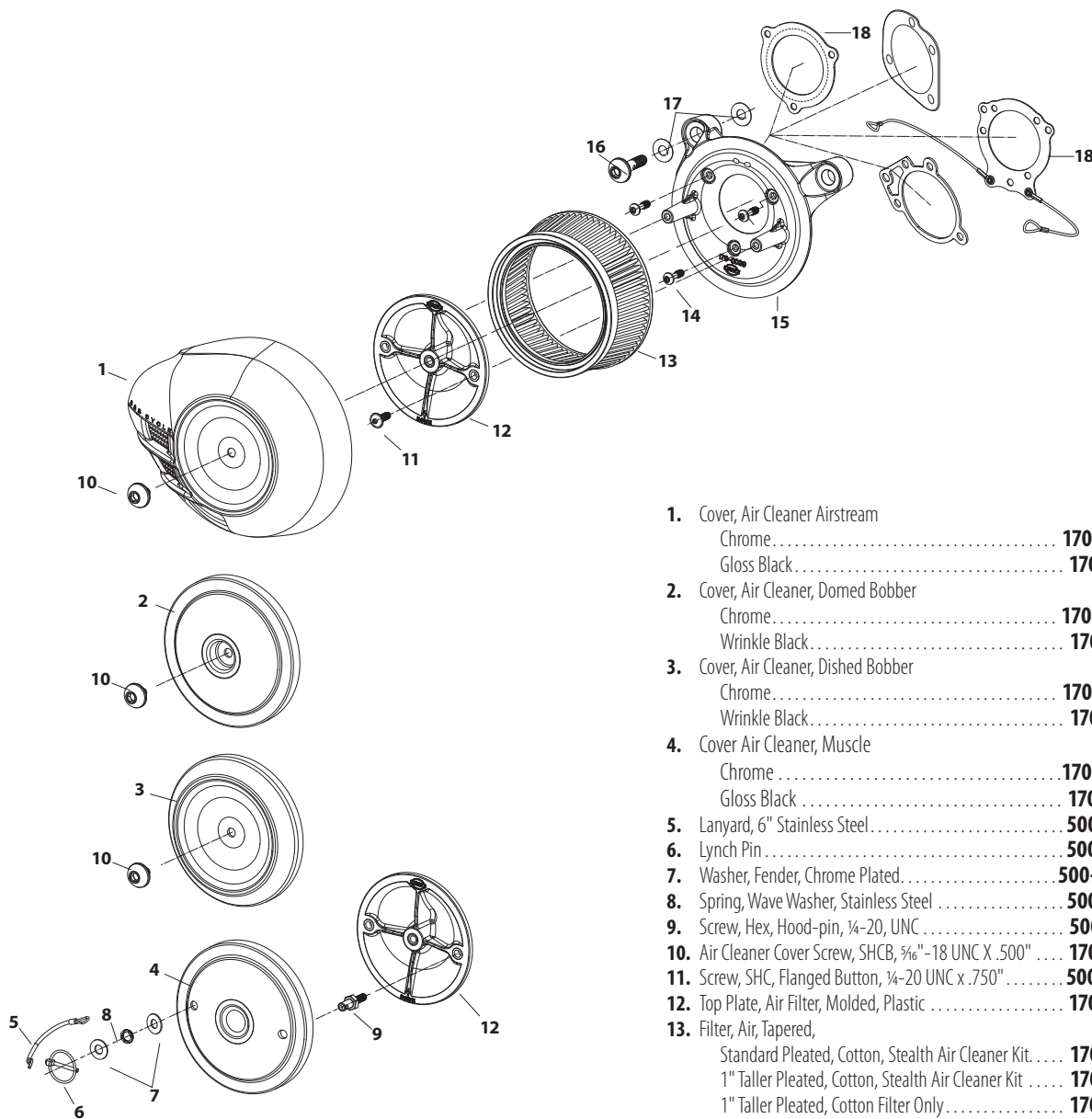
BILLET ROCKER COVER REPLACEMENT PARTS

FOR 1986-'03 HARLEY-DAVIDSON® SPORTSTER® & BUELL® MODELS

1. Screw, SH - ¼"-20 x ¾" 4069A (each) **50-0067** \$3.95
2. Washer, flat - ¼" (each) **50-7017** \$3.95
12 pack **50-7013** \$8.95
3. Washer, flat - ¼" rubber covered (each) **50-7015** \$3.95
8 pack **50-7015-8** \$8.95
12 pack **50-7015-12** \$11.95
4. O-ring - 1½" I.D. x 1⅞" O.D. x ⅛" CS Viton®
5. Rocker cover umbrella valve 26856-89, 26856-89A
1990-up xl  **90-4030** \$3.95
6. Gasket, Bottom, Rocker Cover, 1986-2003
each **900-0538** \$13.95
2 pack **900-0592** \$14.95
7. Rocker cover base - billet
Chrome **90-4051±** \$418.95
Natural **90-4056** \$268.95
8. Screw, SH w/washer - ¼"-20 x 1" 4741A
(each) **50-0092-S** \$3.95
4 pack **50-0092P** \$6.95
9. Rocker cover o-ring gasket - S&S billet rocker cover
(Included in gasket set. See #16 below.)
10. Washer, flat - ⅝" (each) **50-7026** \$3.95
11. Bolt, rocker support - socket head
11a. ⅝"-18 x 2¼" (left support) (each) **50-0115-S** \$3.95
11b. ⅝"-18 x 2½" (right support) 876A (each) **50-0118** \$3.95
12. Rocker cover top - Billet Chrome **90-4054±** \$240.95
13. Right rocker shaft support - billet **90-4053** \$107.95
14. Left rocker shaft support - billet **90-4052** \$107.95
15. Rocker cover gasket set - S&S billet rocker cover
(Not shown) **90-4049** \$75.95



STEALTH AIR CLEANER REPLACEMENT PARTS





1. Cover, Air Cleaner Airstream		
Chrome	170-0118[±]	\$161.95
Gloss Black	170-0396	\$161.95
2. Cover, Air Cleaner, Domed Bobber		
Chrome	170-0120[±]	\$128.95
Wrinkle Black	170-0124	\$128.95
3. Cover, Air Cleaner, Dished Bobber		
Chrome	170-0119[±]	\$128.95
Wrinkle Black	170-0123	\$128.95
4. Cover Air Cleaner, Muscle		
Chrome	170-0172[±]	\$107.95
Gloss Black	170-0462	\$107.95
5. Lanyard, 6" Stainless Steel	500-0095	\$9.95
6. Lynch Pin	500-0083	\$18.95
7. Washer, Fender, Chrome Plated	500-0094[±]	\$3.95
8. Spring, Wave Washer, Stainless Steel	500-0093	\$7.95
9. Screw, Hex, Hood-pin, ¼-20, UNC	500-0113	\$17.95
10. Air Cleaner Cover Screw, SHCB, ¾"-18 UNC X .500"	170-0508	\$18.95
11. Screw, SHC, Flanged Button, ¼-20 UNC x .750"	500-0060	\$3.95
12. Top Plate, Air Filter, Molded, Plastic	170-0026	\$14.95
13. Filter, Air, Tapered,		
Standard Pleated, Cotton, Stealth Air Cleaner Kit.	170-0126	\$43.95
1" Taller Pleated, Cotton, Stealth Air Cleaner Kit	170-0127	\$73.95
1" Taller Pleated, Cotton Filter Only	170-0154	\$47.95
14. Screw, SHCB, ¼-20 UNC X .825"	500-0059	\$3.95
15. Backplate		
Stock CV & EFI, Black, Die Cast, 1991-2016 xl	170-0048	\$75.95
Super E/G, Black, Die Cast, 1991-2003 xl	170-0050	\$89.95
16. Screw, Backplate Vent, SHCB, ½-16 x 1½", Polished Stainless	170-0044	\$25.95
17. Washer, Flat, Nitrile Rubber Coated, .380" x .880" x .024"		
each	50-7054	\$3.95
10 pack	50-7059	\$13.95
18. Gasket, Backplate		
Stock CV Carb & EFI Throttle Body, 1991-2016 xl		
(except Throttle by Wire)	106-6022	\$4.95
Super E/G	106-1724	\$4.95
w/ lanyards for use with Muscle Cover	170-0137	\$25.95

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[±] WARNING: Cancer and Reproductive Harm

Milwaukee-Eight®
 2007-2017 Twin Cam
 96™/103™/110™
 1999-2006
 Twin Cam 88®
 1986-2020
 Sportster® & Buell®
 2014-2019 Street® &
 Street Rod™
 Indian® Models
 Tools &
 Shop Supplies
 Warranty &
 Company Policy
 Appendix &
 Index

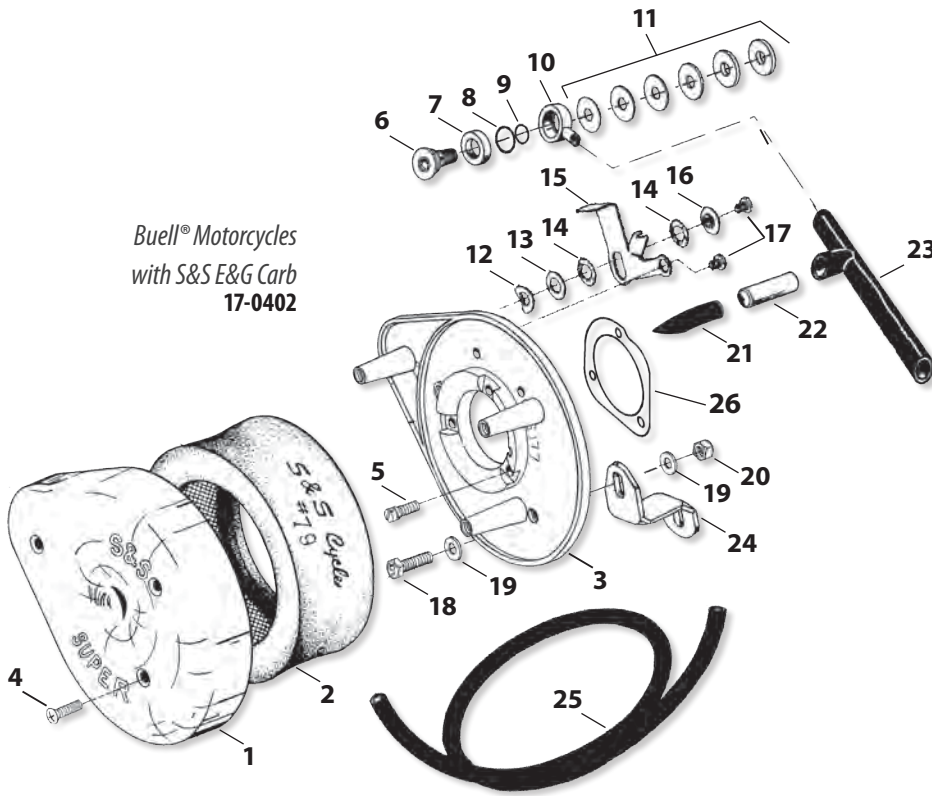
CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS FOR BUELL® MOTORCYCLES WITH STOCK OR S&S CARB

1. Air cleaner cover		
Chrome	17-0078±	\$168.95
2. Air cleaner element	17-0079	\$19.95
3. Air cleaner backing plate		
Super E & G carburetors	17-0000	\$99.95
Stock carburetors	17-0003	\$97.95
4. Cover screw		
Chrome 1305 (each)	50-0072±	\$3.95
3 pack	50-1052±	\$4.95
10 pack	50-0094±	\$9.95
Black 902 (each)	50-0310-S	\$5.95
3 pack	50-0310	\$11.95
5. Air cleaner backplate screw		
For S&S Super E&G		
Zinc Plated (each)	106-2084	\$3.95
10 pack	106-2105	\$8.95
6. Cap screw, breather & air cleaner mount	17-0338	\$9.95
7. Shim, .620" I.D. x .800" O.D. x .185" (each)	N/A	-
8. O-ring ½" O.D. x ⅜" I.D. x ¼" CS (each)	50-8270	\$3.95
5 pack	50-8130	\$4.95
9. O-ring ⅜" O.D. x ½" I.D. x ¼" CS 11110 (each)	50-8006	\$3.95
10 pack	50-8077	\$8.95
10. Breather fitting (each)	17-0350	\$5.95
2 pack	17-0355	\$8.95
11. Shim kit air cleaner backplate (includes 4 each of .018", .030", .048")	17-0464	\$18.95
Replacement Shims		
½" x 1" x .018 (each)	50-7085	\$3.95
½" x 1" x .030 (each)	50-7086	\$3.95
½" x 1" x .048 (each)	50-7087	\$3.95
½" x 1" x .105 (each)	50-7089	\$3.95
½" x 1" x .125 (each)	50-7090	\$5.95
12. Washer, friction, spring (each)	50-7035	\$3.95
10 pack	50-7058	\$7.95
13. Washer, flat .323" x ⅝" x ½" (each)	50-7037	\$3.95
10 pack	50-7061	\$4.95
14. Washer, flat, nylon .323" x ⅝" x .020" (each)	50-7036	\$3.95
10 pack	50-7060	\$4.95
15. Lever, fast idle,	17-0327	\$9.95
16. Washer, flat w/step, brass (each)	50-7007±	\$3.95
10 pack	50-7010±	\$13.95
17. Screw, PH slotted 10-24 x ¼" (each)	50-0041	\$3.95
10 pack	50-0062	\$5.95
18. Screw, HH, cap, ¼"-28 x ⅞"	50-0074	\$0.95
19. Washer, flat, .281" x .625" x .080" 6194, 6245, 6703, 6736, 6228W, 6192		
each	50-7021	\$3.95
20. Locknut - ¼" -28 (each)	50-5010	\$3.95
21. Hose, breather vent	17-0365	\$4.95
22. Fitting, hose, Buell air cleaner	17-0336C-S	\$8.95
23. Hose, breather	 17-0339	\$8.95
24. Bracket, carb support, air cleaner	17-0309	\$0.00
25. Tubing, rubber - ⅜" x ⅝" x 3'	 N/A	-
26. Gasket, Backplate, 1991-up xl/bt 29062-95B	106-6022	\$4.95

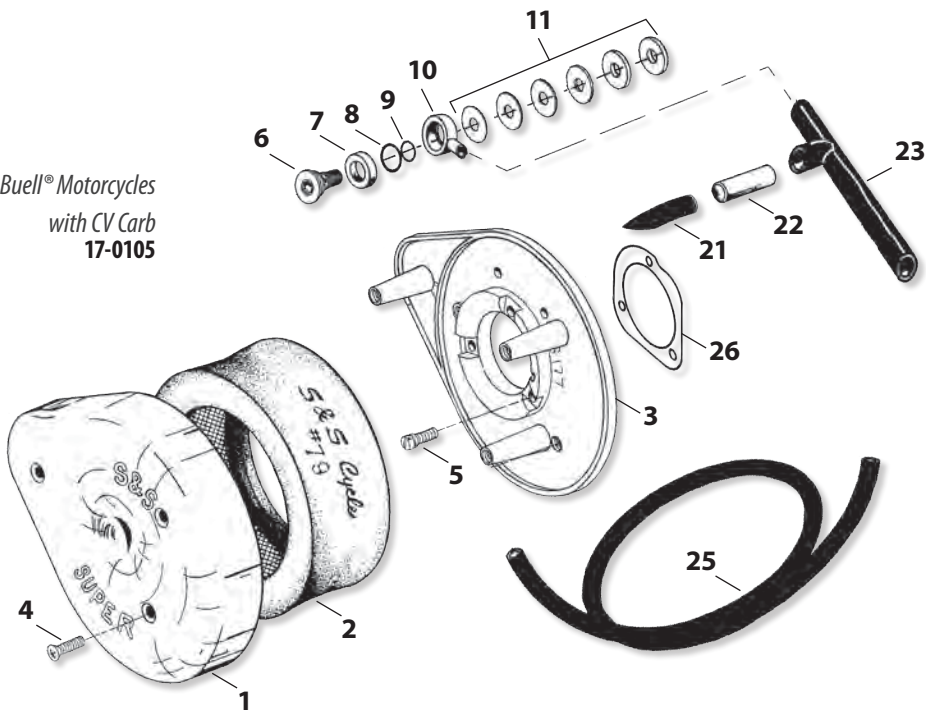
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±  WARNING: Cancer and Reproductive Harm

Buell® Motorcycles
with S&S E&G Carb
17-0402



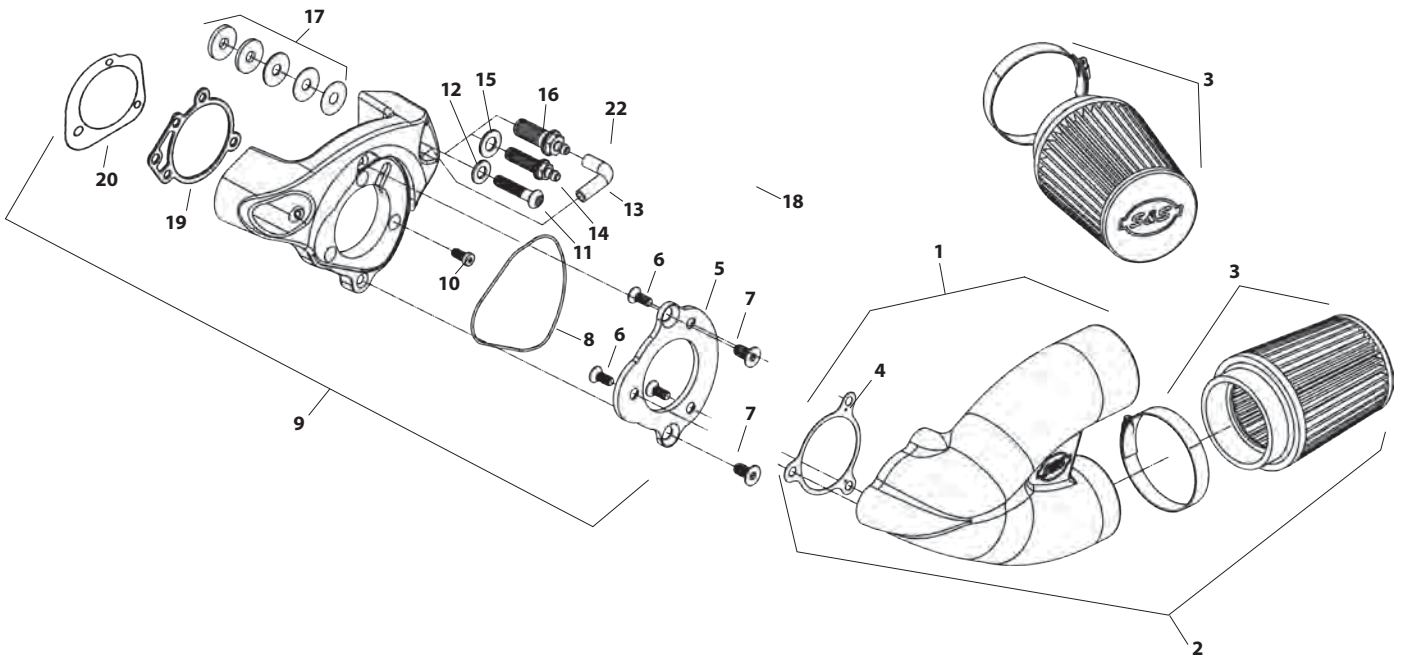
Buell® Motorcycles
with CV Carb
17-0105



SINGLE BORE TUNED INDUCTION SYSTEM REPLACEMENT PARTS

- | | | | |
|---|--------------------------|----------|--|
| 1. Tuned Intake Kit, 2.19" Single Bore | | | |
| Natural | 106-4968 | \$192.95 | |
| Gloss Black | 170-0453 | \$191.95 | |
| Chrome Plated | 106-4970 [‡] | \$192.95 | |
| 2. Tuned Intake Assembly, 2.19" Single Bore | | | |
| Gloss Black | 170-0454 | \$318.95 | |
| Chrome Plated | 106-4967 [‡] | \$321.95 | |
| 3. Air Filter, w/clamp, Stainless Cap – Conical – 2 ⁷ / ₁₆ " I.D. x 4" | | | |
| Red (each) | 17-1020 | \$59.95 | |
| Blue (each) | 17-1023 | \$59.95 | |
| 4. Gasket, Intake – Adapter Plate | 17-1022 | \$6.95 | |
| 5. Plate, Adapter, 2.19" Single Bore Tuned Intake | | | |
| Chrome Steel | 17-1014 [‡] | \$79.95 | |
| 6. FHSC 1/4-20 x 5/8" (each) | 50-0433 | \$4.95 | |
| 7. FHSC 5/16-18 x 5/8" (each) | 50-0432 | \$6.95 | |
| 8. O-Ring, Adapter Plate Bracket | | | |
| 3 ³ / ₈ " O.D. x 3 ¹ / ₂ " I.D. 1/16 CS, Viton (each) | 50-0446 | \$4.95 | |
| 9. Bracket Kit, 2.19" Single Bore Tuned Intake, Chrome | | | |
| Super E/G, 1986-'03 xl | 106-4975 [‡] | \$428.95 | |
| Stock CV & EFI, 1991-up xl | 106-6026 [‡] | \$428.95 | |
| 10. Backplate Screw | | | |
| Screw, SHC, w/Threadlock, 1/4-20 x 1/2" | 106-2084 | \$3.95 | |
| 10 pack | 106-2105 | \$8.95 | |
| 11. Screw, 5/16-18 x 1 1/4, BHC, Chrome (each) | 50-0309-5 [‡] | \$6.95 | |
| 12. Flat Washer 5/16" x 1/16" 6320, 70907-07, 6016, 6702 | 50-7034 | \$0.95 | |
| 13. Hose, Breather, 1/4" I.D., 90° | 19-0178A | \$4.95 | |
| 14. Screw, Breather Fitting, 3/8-16 x 1 1/4" | 50-0436 | \$15.95 | |
| 15. Washer, Flat, 3/8" x 1 3/16" x 1/16", Chrome | 50-7106-5 [‡] | \$4.95 | |
| 16. Screw, Breather Fitting, 1/2-13 x 1.25 | 50-0435 | \$12.95 | |
| 17. Shim Kit | | | |
| (a) 5/16" I.D. 1986-'90 xl | 17-0314 | \$11.95 | |
| (b) 1/2" I.D. 1991-up xl | 17-0464 | \$18.95 | |
| 18. Enrichment Device, S&S Super E & G carbs | USA 11-2084 [‡] | \$27.95 | |
| (Use in place of enrichment device on air cleaner backplate) | | | |
| 19. Gasket, Backplate – E/G/SBEFI (each) | 106-1724 | \$4.95 | |
| 10 pack | 106-2328 | \$27.95 | |
| 20. Gasket, Stock carb/Throttle Body 29062-95B | 106-6022 | \$4.95 | |
| 21. Hardware Kit, 1986-'03 (N/S) | | | |
| Stock CV & EFI | 500-0018 | \$69.95 | |
| S&S Super E or G carb. | 17-5099 [‡] | \$118.95 | |
| 22. Cap, Canister Purge Fitting | 50-8266-S | \$6.95 | |
| 23. Hose, Vent, Breather, Cut To Size, 3.13" x .438" x 24" (N/S) | 106-4982 | \$9.95 | |

(N/S) = Not Shown



ACCESSORIES

Description		Part #	MSRP
Air Filter Oil, 8 oz. Bottle	Red	106-1163	\$31.95
	Blue	106-1164	\$31.95
Nylon Air Filter Cover	each	106-0247	\$49.95
	2 pack	106-0248	\$98.95



106-0248



17-1020



17-1023



106-1163



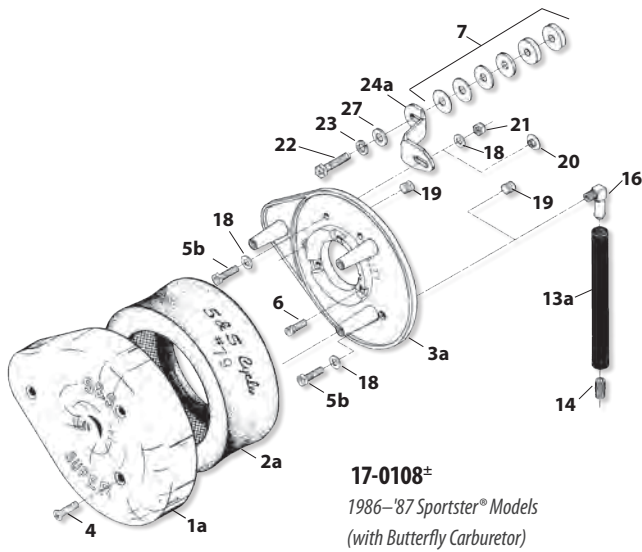
106-1164

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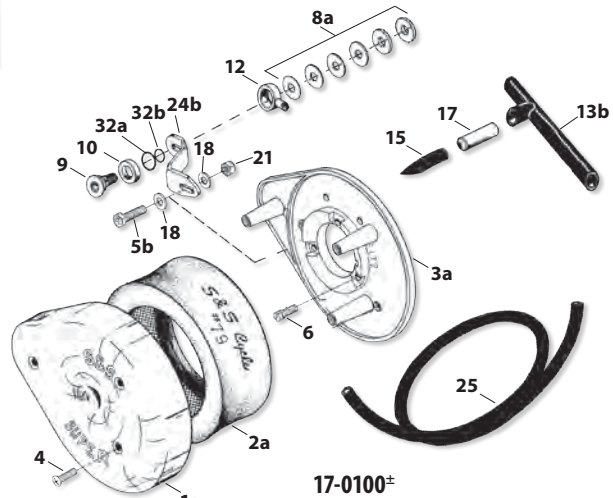
CLASSIC TEARDROP AIR CLEANER REPLACEMENT PARTS FOR STOCK FUEL SYSTEMS

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 1/4"-28 x 1-1/4"	N/A	
5b. All Others, HHCS 1/4"-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", 3/16" x .030", 3/16" x .048", 3/16" x .105" and 4 each 3/16" 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		
1/2" x .018 (each)	50-7085	
1/2" x .030" (each)	50-7086	
1/2" x .048" (each)	50-7087	
1/2" x .105" (each)	50-7089	
1/2" 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	USA 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, 1/4" 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 - 1/4"-28 x 7/8" (each)	50-5010	
22. Support bracket screw, 5/16"-18 x 1 1/4"	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 - 1/4" x 5/8" x 3'	USA N/A	
26. Wire tie (N/S)	50-8003	
27. Washer, flat - 3/8" x 7/8" x .146" (each)	50-7053	
28. Shim - 1/4" 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	

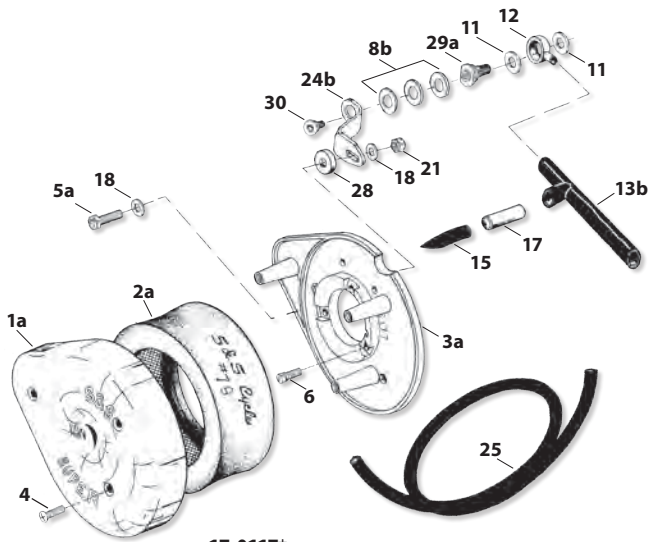
N/S = Not Shown



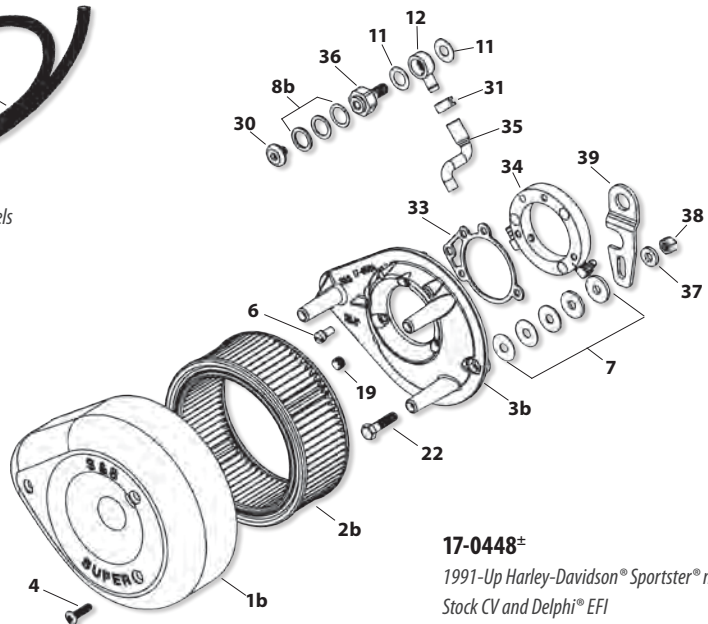
17-0108±
1986-87 Sportster® Models
(with Butterfly Carburetor)



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

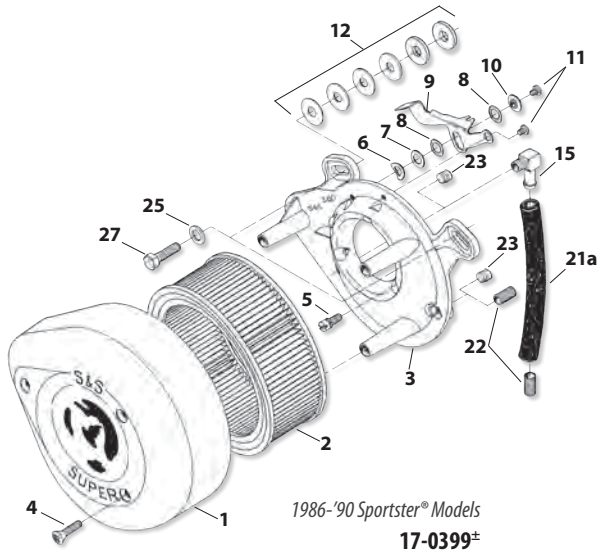
SUPER E AND G AIR CLEANERS REPLACEMENT PARTS FOR 1986-UP HARLEY-DAVIDSON® SPORTSTER® MODELS

1. Air cleaner cover			
Chrome	17-0378 ±	\$162.95	
Black	170-0384A	\$162.95	
Slasher	17-0004 ±	\$162.95	
2. Element, pleated	106-4722	\$24.95	
Element, pleated carbon	17-0375	\$54.95	
3. Backplate			
xl 1957-'85	17-0330	\$107.95	
xl 1991-'03	USA 17-0336	\$107.95	
xl 1986-'90 <i>Manufactured prior to 1-1-03</i>	17-0380	\$107.95	
xl 2004-'06	17-0361	\$82.95	
4. Cover screw			
Chrome 1305 (each)	50-0072 ±	\$3.95	
3 pack	50-1052 ±	\$4.95	
10 pack	50-0094 ±	\$9.95	
Black 902 (each)	50-0310-S	\$5.95	
3 pack	50-0310	\$11.95	
5. Backplate screw, Zinc Plated (each)	106-2084	\$3.95	
10 pack	106-2105	\$8.95	
6. Fast idle friction washer (each)	50-7037	\$3.95	
10 pack	50-7061	\$4.95	
8. Fast idle nylon washer (each)	50-7036	\$3.95	
10 pack	50-7060	\$4.95	
9. Fast idle lever	USA 17-0329	\$10.95	
10. Fast idle brass washer (each)	50-7007 ±	\$3.95	
10 pack	50-7010 ±	\$13.95	
11. Fast idle lever screw (one required)	50-0041	\$3.95	
10 pack	50-0062	\$5.95	
12. Shim kit			
xl 1986-'90	17-0314	\$11.95	
<i>(Includes two each 5/16" x .018", .030", .048", .105", and four each .125")</i>			
xl 1991-2016	17-0464	\$18.95	
<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	\$3.95	
5/16" x .030" (each)	50-7039	\$3.95	
5/16" x .048" (each)	50-7040	\$3.95	
5/16" x .105" (each)	50-7041	\$3.95	
5/16" x .125" (Use on BT 1936-84 and xl 1957-'85 when insulator block is installed.)			
each	50-7042	\$3.95	
2 pack	50-7042P	\$5.95	
b. xl 1991-2016			
5/8" x .025" (each)	50-7113	\$3.95	
10 pack	50-7110	\$8.95	
5/8" x .050" (each)	50-7114	\$3.95	
10 pack	50-7111	\$9.95	
5/8" x .075" (each)	50-7115	\$3.95	
10 pack	50-7112	\$12.95	
Shim, .515" x 1" x .125" (each)	50-7090	\$5.95	
14. Backplate mounting bolt — xl 1957-'85			
5/16"-18 x 1" 3987 (each)	USA 50-0108	\$3.95	
5/16"-24 x 3/4" (Discontinued)	N/A		
15. Elbow fitting (each)	50-8110	\$21.95	
16. Breather screw			
Standard length	17-0338	\$9.95	
17. Breather screw o-ring — 5/8" O.D. (each) 11140, 11273	50-8270	\$3.95	
5 pack	50-8130	\$4.95	
18. Breather screw o-ring — 1/2" O.D. 11110 each	50-8006	\$3.95	
10 pack	50-8077	\$8.95	
19. Breather screw washer	50-7119	\$3.95	
20. Breather fitting (each)	17-0350	\$5.95	
2 pack	17-0355	\$8.95	
21. Crankcase breather hose			
a. xl 1978-'90	17-0113	\$3.95	
b. xl 1991-'06	USA 17-0339	\$8.95	
22. Vent hose connector	50-8111	\$3.95	
23. Backplate plug 1/8"-27 (each)	50-8331A	\$3.95	
10 pack	50-1015	\$11.95	
24. Locknut — 5/16"-18 (Use with support bracket — see #26)	50-5021	\$0.95	
25. Flatwasher — 5/16" x 1/4" 6320, 70907-07, 6016, 6702	50-7034	\$0.95	
26. Support bracket			
xl 1957-'85	17-0393	\$21.95	
xl 2004-2016	17-0305	\$14.95	
27. Mounting bracket bolt — xl 1957-'90 and 2004-'06	50-0110	\$0.95	
28. Lockwasher — 5/8"	50-7032	\$0.95	
29. Flatwasher — 5/16" x 1/8"	50-7033	\$0.95	
30. Wire tie (N/S)	50-8003	\$3.95	
31. Hose clamp (N/S)	50-8002	\$3.95	
32. Air cleaner assembly (Includes: Chrome cover, backplate, filter element, and hardware kit)			
xl 1957-'85	17-0400 ±	\$279.95	
xl 1986-'90	17-0399 ±	\$269.95	
xl 1991-'03	17-0404 ±	\$269.95	
33. Mounting hardware package (N/S) <i>Includes all parts needed to install air cleaners:</i>			
xl 1957-'85	17-0441 ±	\$19.95	
xl 1986-'90	17-0458 ±	\$49.95	
34. Screw vent fitting			
a. BT 1993-'99	17-0347	\$18.95	
b. BT 1999-up	17-0345	\$21.95	
35. Screw, air cleaner to head	17-0346	\$6.95	
36. Washer, silicone coated steel, xl 1991-'06, .520" (each)	50-7055	\$3.95	
10 pack	50-7057	\$13.95	
37. Spring clamps (N/S)	50-8001	\$0.95	
38. Breather conversion kit, xl 1 1/8" carbs (N/S)	17-0487	\$56.95	

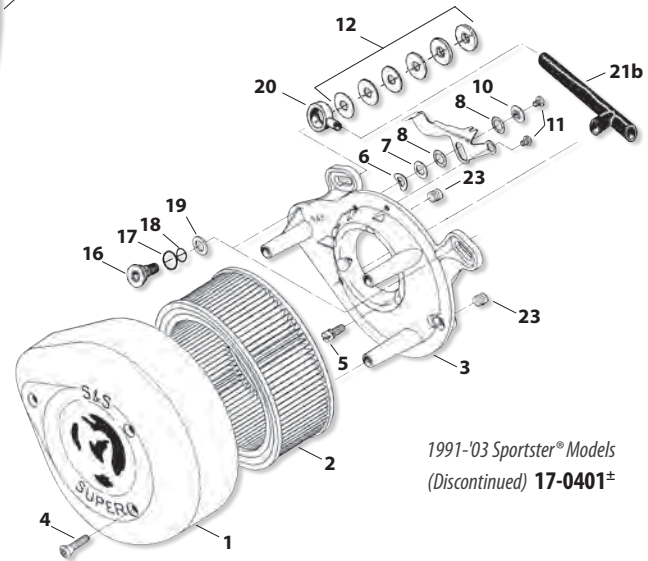
Convert early S&S air cleaners for 1991-'03 xl with o-ring breather fittings to new style breather hardware. xl kits include special insulator block, and manifold screws.

(N/S) = Not Shown

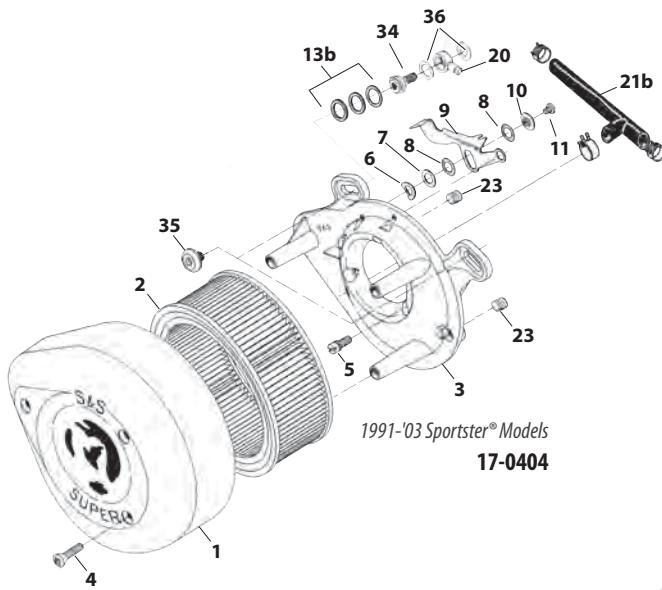
±  WARNING: Cancer and Reproductive Harm



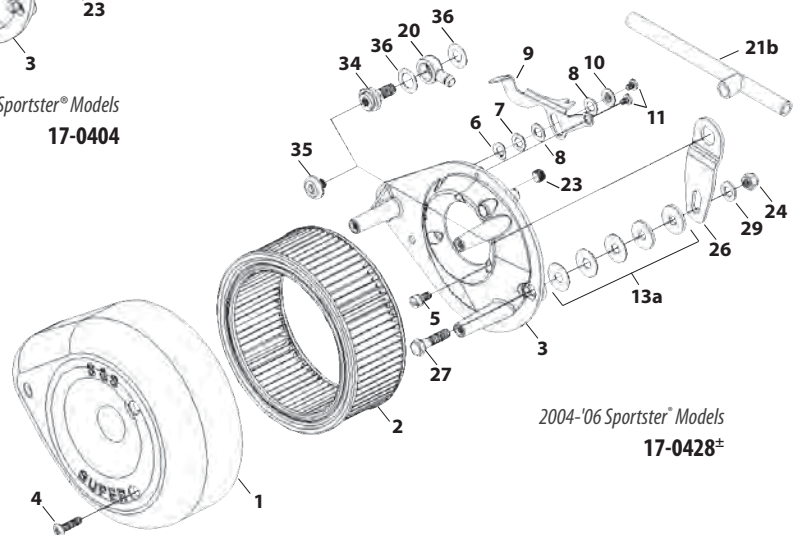
1986-'90 Sportster® Models
17-0399±



1991-'03 Sportster® Models
(Discontinued) 17-0401±



1991-'03 Sportster® Models
17-0404



2004-'06 Sportster® Models
17-0428±

Milwaukee-Eight™

2007-2017 Twin Cam
96™/103™/110™

1999-2006
Twin Cam 88®

1986-2020
Sportster® & Buell®

2014-2019 Street® &
Street Rod™

Indian® Models























Tools &
Shop Supplies

Warranty &
Company Policy

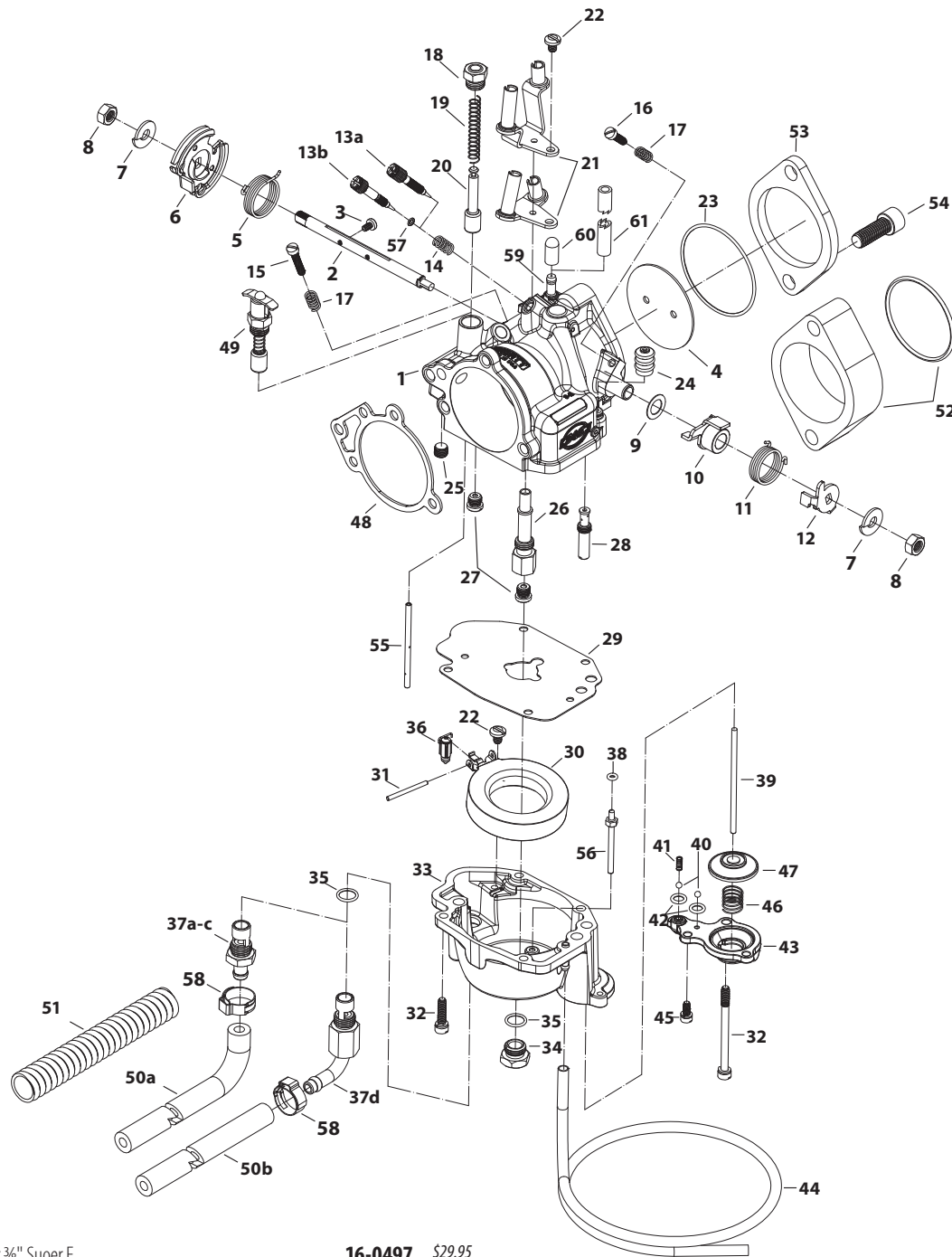
Appendix &
Index



SUPER E & G CARBURETOR REPLACEMENT PARTS

1. Carb body assembly			
1 7/8" Super E		11-2381±	\$256.95
2 1/4" Super G		11-2391±	\$268.95
2. Throttle shaft			
1 7/8" Super E — Includes two plate screws		11-2383	\$25.95
2 1/4" Super G — Includes two plate screws		11-2483	\$22.95
3. Throttle plate screw 11-2045— (two required) (each)		50-0055-S	\$3.95
10 pack		50-0064	\$10.95
4. Throttle plate			
1 7/8" Super E		11-2055	\$12.95
2 1/4" Super G		11-2355	\$17.95
5. Throttle return spring (each)		11-2382	\$3.95
5 Pack		11-3502	\$8.95
6. Throttle spool		11-2385	\$18.95
7. Throttle shaft lock washer (two required)		50-7031	\$3.95
8. Throttle shaft nut (two required) (each)		11-2350	\$3.95
5 pack		11-2363	\$8.95
9. Throttle shaft nylon washer (each)		50-7050	\$3.95
10 pack		50-7072	\$8.95
10. Pump actuator lever		11-2376	\$10.95
11. Actuator spring (each)		11-2375-S	\$3.95
5 pack		11-3501	\$10.95
12. Pump actuator arm		11-2377	\$4.95
13. Idle mixture screw			
a. Idle mixture screw, brass (each)		11-2354±	\$10.95
5 pack		11-2378±	\$42.95
b. Idle mixture screw only			
each		110-0003	\$12.95
Idle mixture screw w/ 500-0036 o-ring			
each		110-0068±	\$13.95
5 pack		110-0069±	\$57.95
14. Idle mixture screw spring (each)		11-2052	\$0.95
10 Pack		11-2060	\$8.95
15. Idle speed screw (each)		50-0038	\$3.95
10 Pack		50-0150	\$9.95
16. Pump adjustment screw (each)		50-0039	\$3.95
10 Pack		50-0146	\$6.95
17. Idle speed/pump adjuster spring (each)		11-2048	\$0.95
10 pack		11-2053	\$8.95
18. Plunger nut (each)		11-2344±	\$4.95
5 Pack		11-2372±	\$14.95
19. Plunger spring (each)		11-2340	\$3.95
10 Pack		11-2359	\$11.95
20. Fast idle plunger		11-2343	\$14.95
21. Cable guide assembly with screw			
Use with butterfly style cables		11-2339P	\$28.95
Use with constant velocity style cables		11-2338P	\$28.95
22. Cable clamp/float pin screw (each)		50-0041	\$3.95
10 Pack		50-0062	\$5.95
23. O-ring			
1 7/8" Super E (each)		50-8016	\$3.95
10 Pack		50-8094	\$11.95
2 1/4" Super G (each)		50-8015	\$3.95
10 pack		50-8093	\$11.95
24. Bellows seal (each)		11-2266	\$5.95
5 Pack		11-2279	\$19.95
25. Bowl vent plug (each)		50-0105	\$3.95
10 pack		50-0151	\$7.95
26. Main discharge tube		11-2085±	\$13.95
27. Main jet — See Chart on page 285			
28. Intermediate Jets — See Chart on page 284			
Series #94 fits all Super 1 7/8", 2 1/4", 2 1/4" gas carburetors.			
29. Bowl gasket (each)		11-2386	\$4.95
10 pack		11-2387	\$28.95
30. Float		11-2187	\$22.95
31. Float pin (each)		11-2369	\$3.95
5 Pack		11-2370±	\$8.95
32. Bowl screw			
10-24 x 3/4" — Three required (each)		50-0034	\$3.95
10 Pack		50-0063	\$15.95
10-24 x 2 3/8" — One required (each)		50-0040	\$3.95
10 Pack		50-0061	\$10.95
33. Carb bowl (only)			
		11-2388±	\$80.95
Carb bowl complete assembly		11-2388P	\$176.95
34. Bowl plug (each)		11-2090	\$4.95
5 pack		11-2092±	\$13.95
35. Seat o-ring*			
(required with part #11-2465 only when replaces 360° style fuel inlet.)			
each		50-8009	\$3.95
10 pack		50-8095	\$14.95
36. Needle			
1 7/8" Super E & 2 1/4" Super G		11-2195±	\$14.95
Racing only		11-2197±	\$64.95
37. Seat — Includes O-ring #35			
(Replaces obsolete seats 11-2347 and 11-2348)			
a. 1 7/8" E & 2 1/4" G (Uses part #11-2195± needle)		11-2465	\$14.95
b. Racing only (Uses part #11-2197± needle)		N/A	—
c. Racing only — threaded fuel inlet (6AN, .157" ID)			
(Uses part #11-2195± needle)		11-2395	\$34.95
d. Permeation Compliant fuel inlet seat Super E or G		106-2011	\$26.95
(Uses part #11-2195± needle)			
38. Ejector nozzle o-ring (each)		50-8011	\$3.95
10 Pack		50-8096	\$10.95
39. Pump pushrod (each)		11-2373	\$7.95
5 Pack		11-2393	\$26.95
40. Check ball — (two required) (each)		50-8090	\$3.95
10 pack		50-8125	\$6.95
41. Check ball spring (each)		11-2374	\$3.95
5 Pack		11-2392	\$10.95
42. Pump cap o-ring — (two required) (each)		50-8012	\$3.95
10 Pack		50-8100	\$12.95
43. Pump cap assembly		11-2389	\$28.95
44. Overflow hose per 24" 27369-76			
(each)		19-0262-S	\$6.95
5 Pack		19-0263	\$27.95
45. Pump cap screw 8-32 — (two required) (each)		50-0042	\$3.95
10 Pack		50-0098	\$6.95
46. Diaphragm spring (each)		11-2275	\$3.95
10 pack		11-2278	\$8.95
47. Diaphragm		11-2282	\$16.95
48. Gasket, backplate (each)		106-1724	\$4.95
10 pack		106-2328	\$27.95
49. Enrichment device (Use with air horn only)		11-2084±	\$27.95
50. Fuel line			
a. Fuel line With 90° bend* 19" (Use with part #11-2465)			N/A
b. Permeation Compliant straight, 311" x .563" x 17.5"			
(Use with part #106-2011, 90° seat)		190-0001	\$9.95
51. Fuel line insulator—12"		19-0172	\$29.95
52. Spacer, Kit, w/ O-ring			
1 7/8" x 1"		16-0057*	\$61.95
2 1/4" x 1"		16-0357*	\$74.95
2 1/4" x 1"		16-0157	\$71.95
*Use with 1" Spacer Block		16-0058	\$142.95
53. Insulator Block, Manifold, w/ O-ring			
1 7/8" x 1/4" Super E		16-0491	\$29.95

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	\$29.95
2 1/16" x 1/4" Super G	16-0492	\$29.95
2 1/16" x 3/8" Super G	16-0498	\$29.95
2 1/4" x 1/4" Super D	16-0499	\$42.95
54. Screw		
1" x 3/8"-16 (each)	50-0161	\$0.95
1 1/4" x 3/8"-16 (each)	50-0162	\$3.95
10 pack	50-0177	\$11.95
1 3/8" x 3/8"-16 (each)	50-0163	\$4.95
5 pack	50-0178	\$12.95
2" x 3/8"-16 (each)	50-0164	\$4.95
5 pack	50-0185	\$15.95
2004-'06 Top Carb to Manifold		
1 1/2" x 3/8"-16	50-0354-S	\$0.95
2004-'06 Low Carb to Manifold		
1 1/2" x 3/8"-16	50-0351-S	\$4.95
55. Tube, Fast Idle Pick-Up, Super E/G, .125" x 2.350", Brass	0381F±	\$6.95
56. Tube, Ejector Nozzle, Super E/G, Flared, Brass	106-6124±	\$10.95

57. O-ring, 3mm x 5mm x 1mm (each)	500-0036	\$3.95
10 pack	500-0148	\$8.95
58. Clamp, 5/8" - 7/8"	50-8002	\$3.95
59. Hose, Fitting straight, .040"	16-0134	\$4.95
60. VOES Fitting Cap	50-8372	\$3.95
61. VOES/Oil Return Hose	19-0395	\$4.95

*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.

± WARNING: Cancer and Reproductive Harm

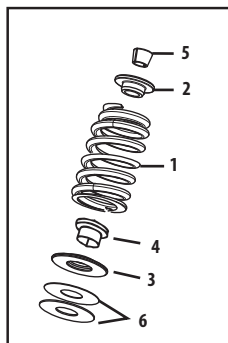
CARBURETOR REBUILD KITS
SEE PAGE 285

VALVE SPRING REPLACEMENT PARTS

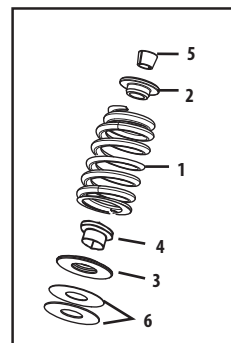
.650" Lift Sidewinder® Valve Springs (Stock, Super Stock® & CNC Ported Cylinder Heads)

1. SPRING, VALVE .650" **106-5689** \$54.95
2. Collar, Top, Steel **106-5690** \$14.95
3. Collar, Bottom, Steel **106-5691** \$10.95
4. Seal, Valve
S&S CNC Ported Heads & Stock w/7mm valve stem **106-5688** \$4.95
S&S Super Stock Heads Stock w/5/16 valve stem
.420" Cast (each) **900-0338** \$3.95
.562" Powder Metal (4 pack) **900-0737** \$10.95
5. Keeper, valve spring
S&S CNC Ported Heads & Stock w/7mm valve stem **106-5692** \$6.95
S&S Super Stock Heads & Stock w/5/16 valve stem **90-2094-S** \$4.95
6. Valve Spring Shim
.015" (each) **500-0013** \$3.95
.030" (each) **500-0014** \$3.95

**.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** \$29.95
2. Collar, Top **900-0550** \$10.95
3. Collar, Bottom
For Stock Heads w/7mm valve stem (includes seal) **900-0590** \$8.95
For CNC Ported Heads w/7mm valve stem **900-0549** \$10.95
For Super Stock Heads **900-0600** \$8.95
4. Seal, valve guide
For Stock Heads w/7mm valve stem (includes bottom collar) **900-0590** \$8.95
For CNC Ported Heads w/7mm valve stem **106-5688** \$4.95
For Super Stock Heads & Stock w/5/16 valve stem
.420" Cast (each) **900-0338** \$3.95
.562" Powdermetal (4 pack) **900-0737** \$10.95
5. Keeper, valve spring
For Stock and CNC Ported Heads **106-5692** \$6.95
For Super Stock Heads & Stock w/5/16 valve stem **90-2094-S** \$4.95
6. Valve spring shim
For Stock and CNC Ported Heads
.015" **500-0013** \$3.95
.030" **500-0014** \$3.95
For Super Stock Heads & Stock w/5/16 valve stem
.015" **90-2086** \$3.95
.030" **90-2087** \$3.95

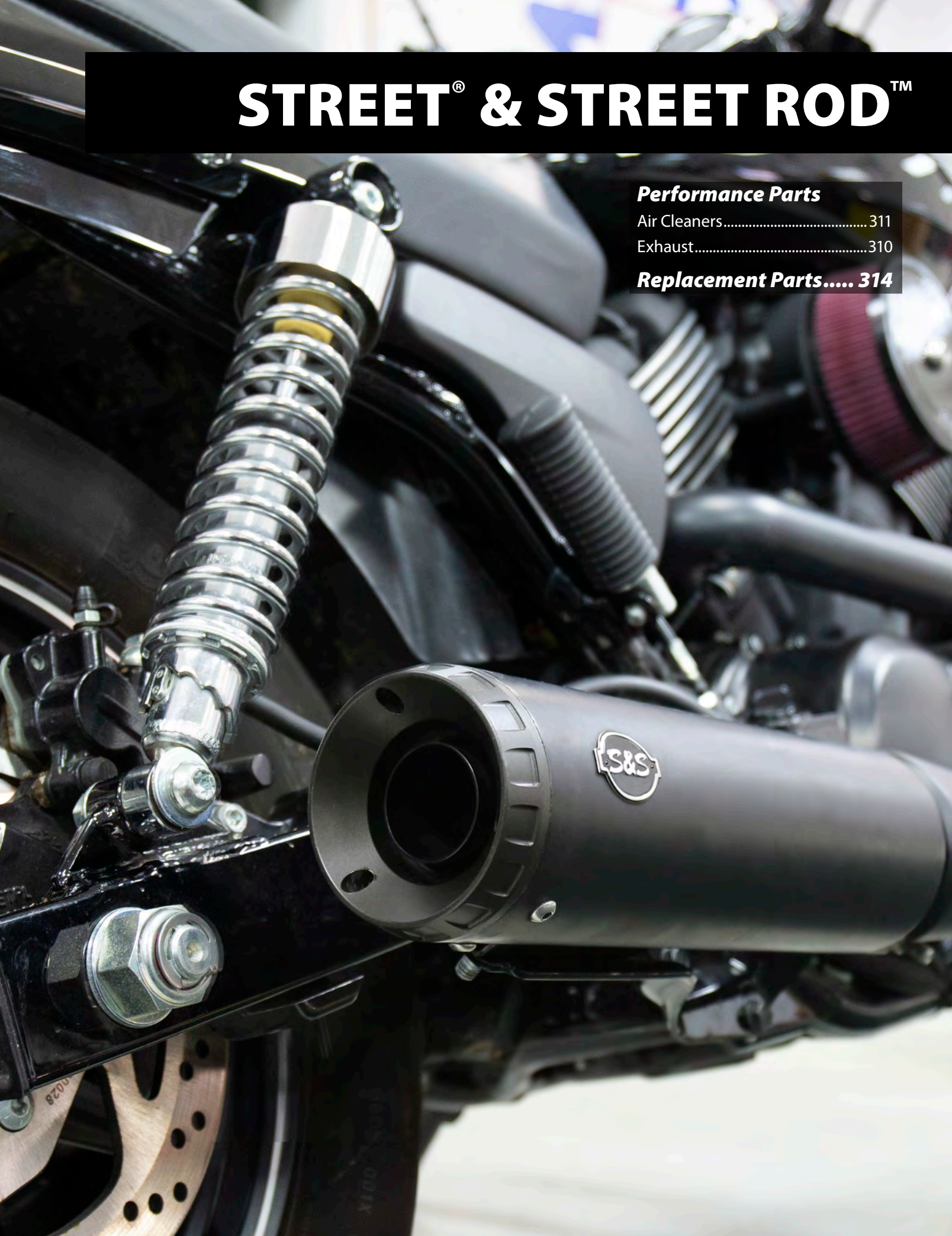
STREET® & STREET ROD™

Performance Parts

Air Cleaners..... 311

Exhaust..... 310

Replacement Parts..... 314



GRAND NATIONAL® 4" SLIP-ON MUFFLER

FITMENT

- 2014–'20 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!

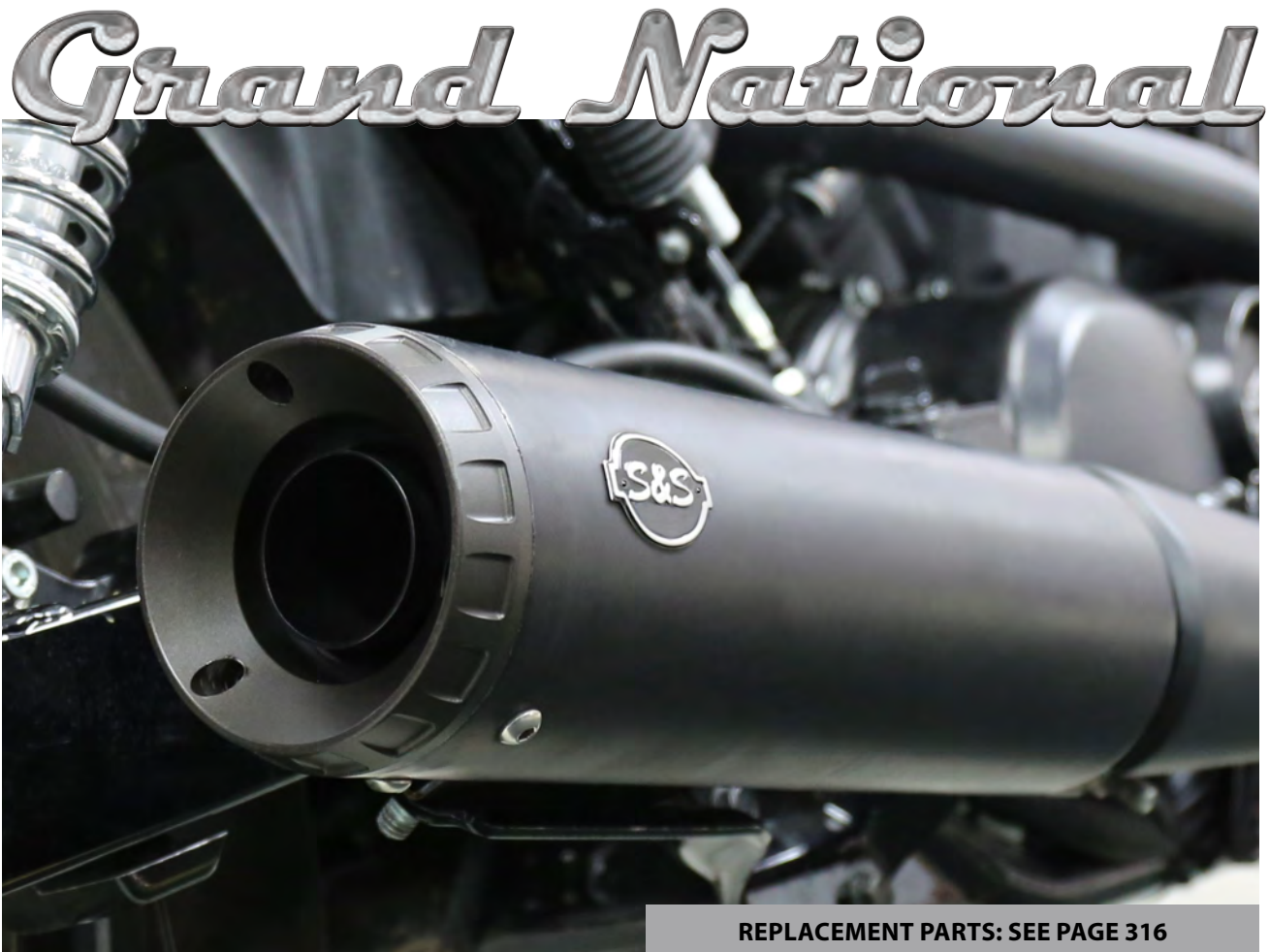


GRAND NATIONAL 4" SLIP-ON MUFFLER FOR 2014–'20 HD® STREET® XG750, XG500 & STREET ROD™

Description	Part #
Black	550-0703

*Qualified Manufacturer Declared Emissions Replacement Part on all 2014–2020 Street Models

⚠ WARNING: Cancer and Reproductive Harm



REPLACEMENT PARTS: SEE PAGE 316

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)



Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

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MINI TEARDROP STEALTH AIR CLEANER KITS			
KIT INCLUDES STEALTH AIR CLEANER KIT 170-0374B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-26			
Fitment	Fuel System	Finish	Part #
2014–2019 Street XG750 and XG500	Stock Bore	Chrome	170-0445B [±]
		Gloss Black	170-0446B



[±]  WARNING: Cancer and Reproductive Harm

STEALTH AIR CLEANER KIT FOR 2014–2018 STREET XG750 & XG500 EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-26	
Description	Part #
Stealth Air Cleaner Kit for Street	170-0374B



REPLACEMENT PARTS: SEE PAGE 314



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 170-0414B WHICH IS EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-26

Fitment	Fuel System	Finish	Part #
2017-'19 Harley-Davidson® Street Rod™ XG750A	Dual Bore	Chrome	170-0443B [±]
		Gloss Black	170-0444B



[±] ⚠️ WARNING: Cancer and Reproductive Harm — www.P65Warnings.ca.gov

STEALTH AC KIT FOR 2017-'19 HD® STREET ROD™ EXEMPT FROM EMISSIONS TAMPERING REGULATIONS UNDER CARB EO# D-355-26

Description	Part #
Stealth Air Cleaner Kit	170-0414B



REPLACEMENT PARTS: SEE PAGE 315

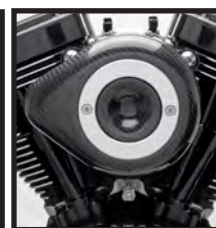
STEALTH AIR CLEANER KIT COVERS INCLUDING THE NEW STEALTH TRIBUTE



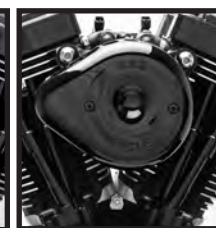
Stealth Tribute



Teardrop



Carbon Fiber



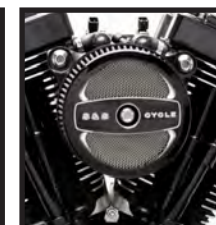
Mini in Gloss Black



Tri-Spoke



Torker



Air 1



Airstream in Chrome



Airstream in Gloss Black



Muscle in Chrome



Muscle in Gloss Black

STEALTH COVERS

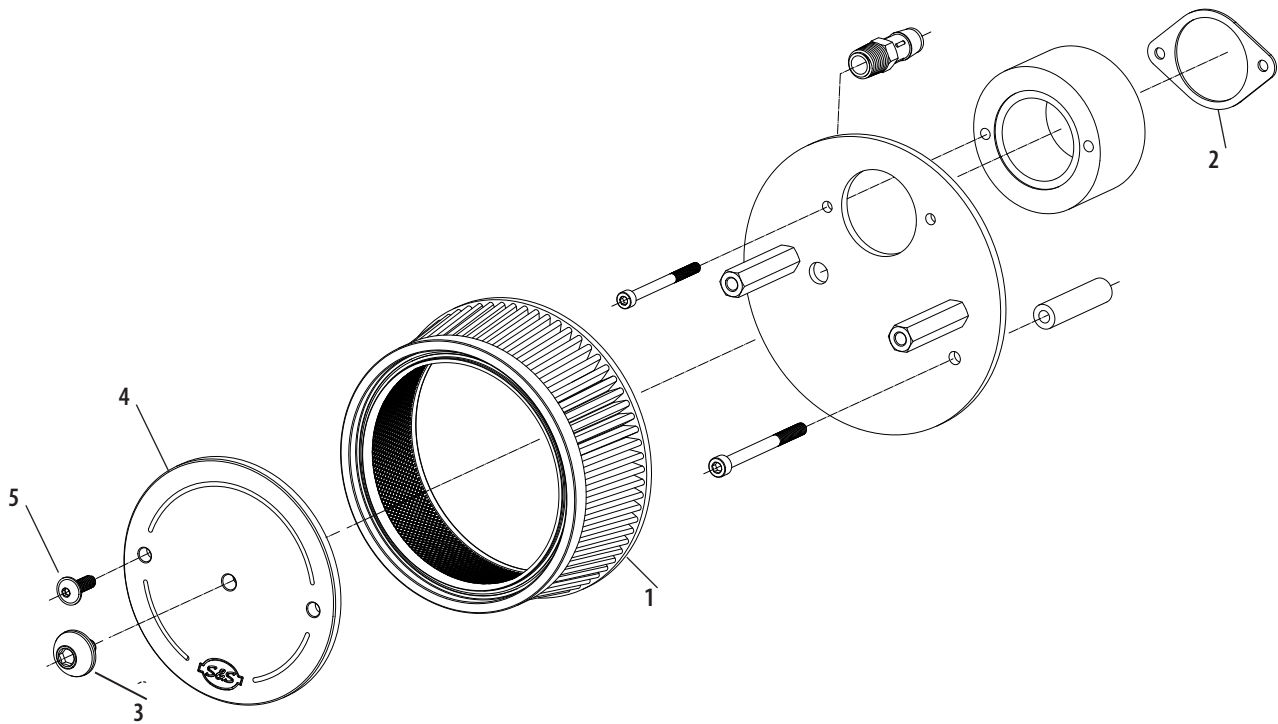
NEW FOR 2020 Tribute		Teardrop		Teardrop—Slasher		Carbon Fiber	Mini	
Chrome	Gloss Black	Chrome	Gloss Black	Chrome	Gloss Black	Black	Chrome	Gloss Black
170-0592	170-0593	170-0530	170-0531	170-0532	170-0533	170-0501	170-0367	170-0366

Tri-Spoke	Torker	Air 1	Airstream		Muscle	
Gloss Black w/Highlights	Gloss Black w/Highlights	Gloss Black w/Highlights	Chrome	Gloss Black	Chrome	Gloss Black with Highlighted Logo
170-0210	170-0206	170-0214	170-0118	170-0396	170-0121	170-0463

Displacement		
111	124	143
170-0319	170-0321	170-0323

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,3/16-18 x .500",Pol,Stnls Stl **170-0508**
- 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**

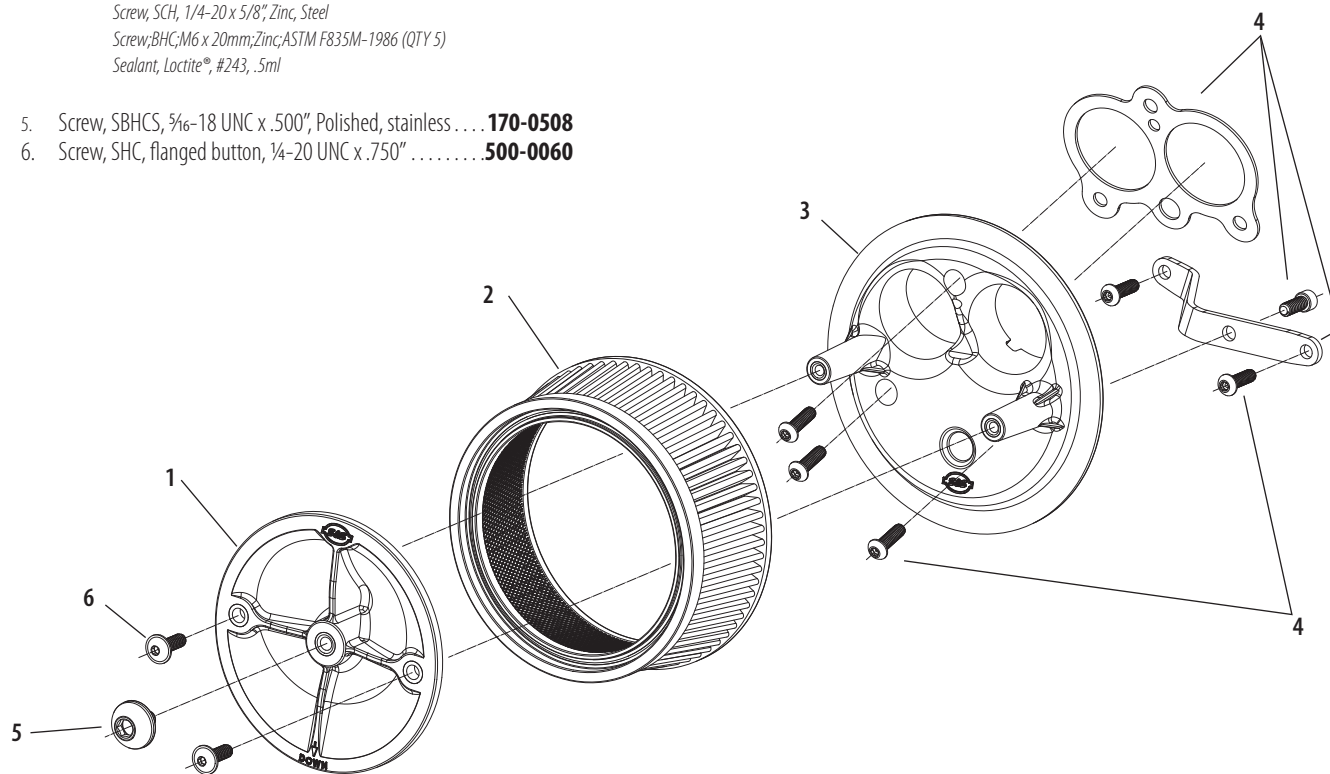


STEALTH AIR CLEANER KIT REPLACEMENT PARTS FOR STREET ROD™ MODELS

- 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 **170-0508**
- 6. Screw, SHC, flanged button, 1/4-20 UNC x .750" **500-0060**



Milwaukee-Eight®

2007-2017 Twin Cam
96"/103"/110"

1999-2006
Twin Cam 88°

1986-2019
Sportster® & Buell®

2014-2019 Street® &
Street Rod™

Indian® Models

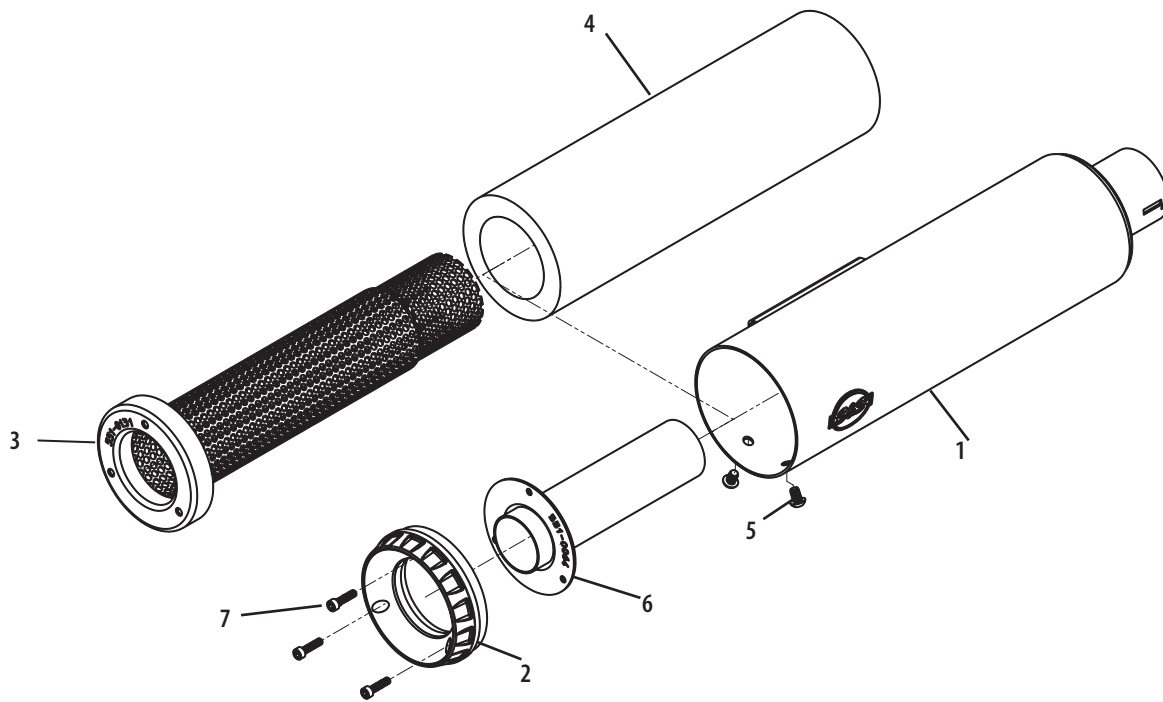
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GRAND NATIONAL 4" MUFFLER REPLACEMENT PARTS

- 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**



INDIAN® MODELS

Performance Parts

Air Cleaner Kit for Indian® Models	321
Air Cleaner Kit for Indian® Scout®, Indian® Scout® Sixty, Indian® Scout® Bobber & Victory® Octane™	320
Exhaust.....	318

Replacement Parts.....322



NEW FOR
FROM S&S CYCLE
2020

GRAND NATIONAL® SLIP-ON MUFFLER FOR INDIAN® FTR 1200®

FEATURES AND BENEFITS

- Stainless steel can with exposed tig welds for factory race styling
- Carbon fiber heat shield
- Race inspired Grand National endcap
- Removable dB reducer
- Meets J2825 sound levels (with dB reducer)
- Made in USA!



GRAND NATIONAL® SLIP-ON FOR 2019–2020 INDIAN® FTR 1200®

Stainless Steel

550-0854

*Qualified manufacturer declared U.S. 50-State legal emissions replacement part on all MY 2019–2020 FTR1200 models



REPLACEMENT PARTS: SEE PAGE 323

NEW FOR
FROM S&S CYCLE
2020

GRAND NATIONAL® 2:2 HIGH FOR INDIAN® FTR 1200®

CARB
compliant
CARB EO K-010-8

FEATURES AND BENEFITS

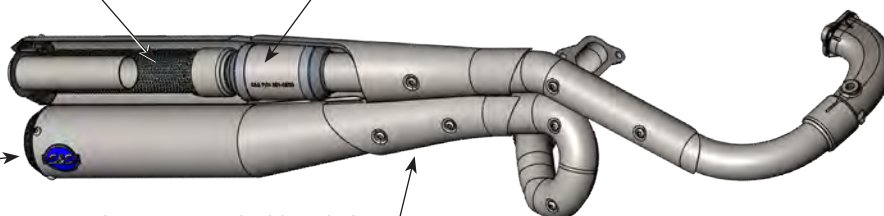
- S&S domination of American Flat Track series championship now available for FTR 1200
- True race replica system has same 3.5" can and Grand National endcap design styling as mighty FTR 750 racers
- 50 State legal CARB EO# K-010-8
- Features S&S engineered high flow catalytic converters that bring legal performance to the street!
- Header and muffler heat shields protect rider from excessive heat
- Meets SAE J2825 sound standard
- Made in the USA!



Stainless Steel perforated core baffle wrapped in fiberglass for a stealthy exhaust note

High Flow Cats Bring Legal Performance to the Street

Race style Grand National endcap design



Multi Layer Heat Shields including 6MM Ceramic Thermal Barrier to Protect Rider from exhaust heat

GRAND NATIONAL® 2:2 HIGH FOR 2019 INDIAN® FTR 1200® — STREET LEGAL

Stainless Steel

550-0950A

Exempt from emissions tampering regulations under CARB EO# K-010-8 for all 2019 Indian FTR 1200 Models

Grand National



REPLACEMENT PARTS: SEE PAGE 324



Milwaukee-Eight™

2007-2017 Twin Cam
96"/103"/110"

1999-2006
Twin Cam 88"

1986-2019
Sportster® & Buell®

2014-2019 Street® &
Street Rod™

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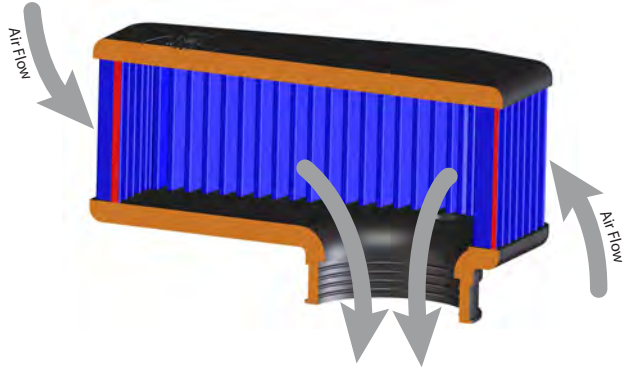
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STEALTHTWO AIR CLEANER KIT

FOR INDIAN® SCOUT®, INDIAN® SCOUT® SIXTY, INDIAN® SCOUT® BOBBER, AND VICTORY® OCTANE™

FITMENT

- 2015–2019 Indian Scout
- 2015–2019 Indian Scout Sixty
- 2015–2019 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-355-28

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 #
2015–2019 Indian® Scout®, 2015–2019 Indian® Scout® Sixty, 2015–2019 Indian® Scout® Bobber & 2017 Victory® Octane™	170-0298D

Exempt from emissions tampering regulations under CARB EO# D-355-28



AIR CLEANER KIT FOR INDIAN® MODELS



FITMENT

- 2014–2019 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

AIR CLEANER KIT FOR INDIAN® MODELS

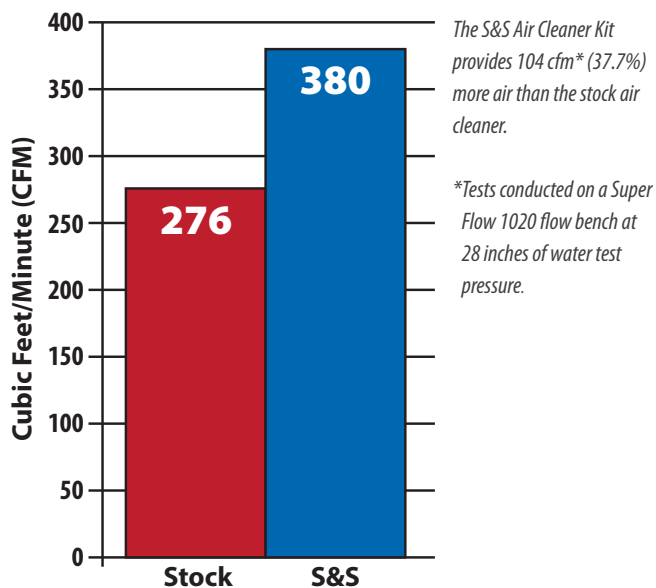
FITMENT	Part #
All 2014–2019 Indian Models originally equipped with TS111 Engines with S&S® Nostalgic Script Cover	170-0294D ±
All 2014–2019 Indian Models originally equipped with TS111 Engines with S&S® Cycle Logo Cover	170-0295D ±

Exempt from emissions tampering regulations under CARB EO# D-355-28

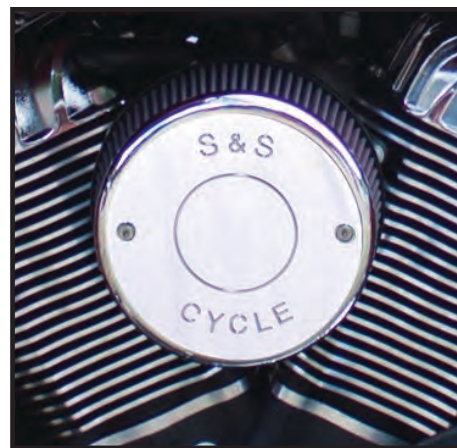
± WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov



S&S High flow air filter provides 2x increase in surface area for a 37% increase in airflow.



170-0295D



170-0294D

REPLACEMENT PARTS: SEE PAGE 322

Milwaukee-Eight®

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88®

1986–2019
Sportster® & Buell®

2014–2019 Street® &
Street Rod™

Indian® Models

Tools &
Shop Supplies

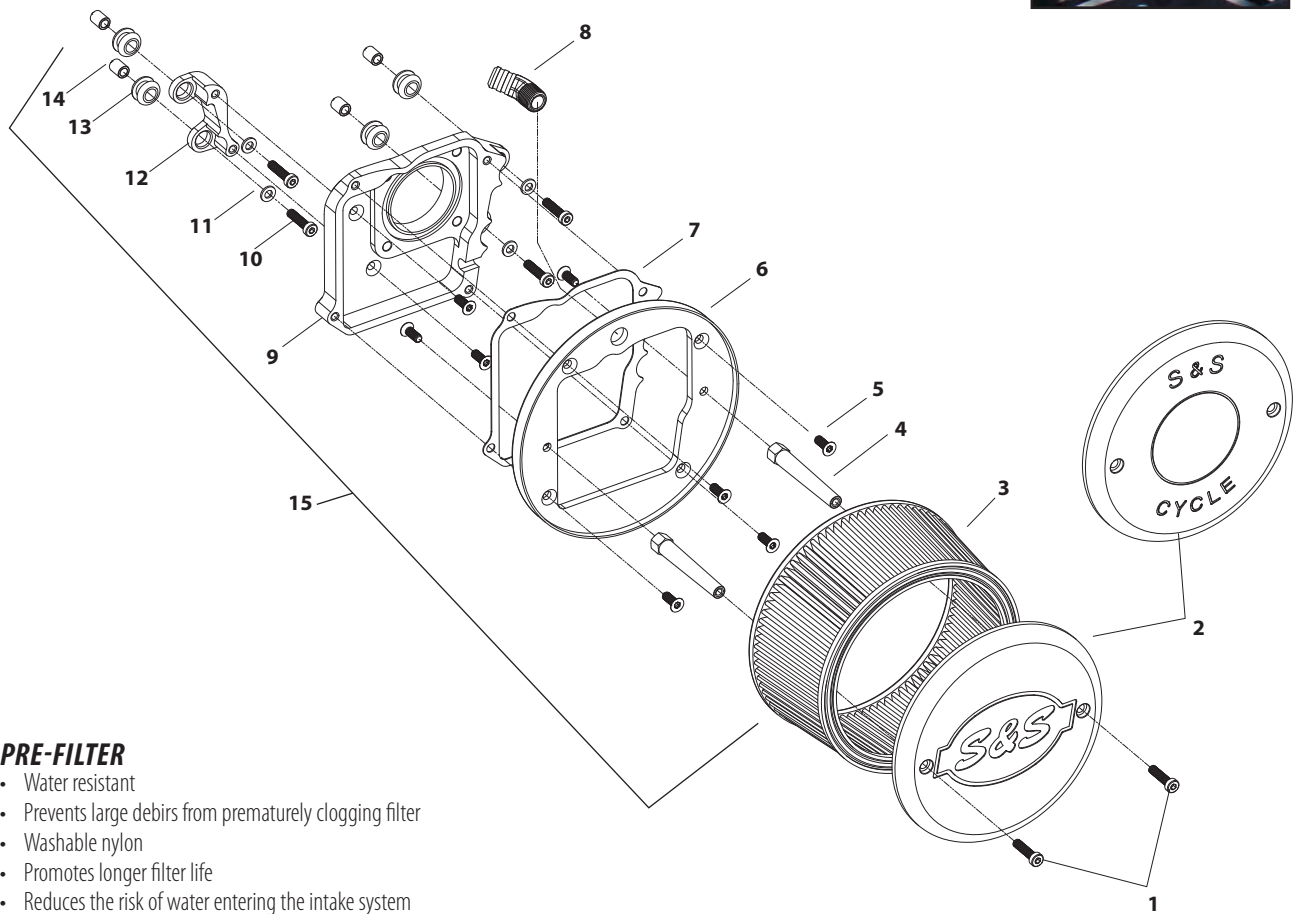
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AIR CLEANER KIT REPLACEMENT PARTS FOR INDIAN® MODELS

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
15. Air Cleaner Kit 170-0227D



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

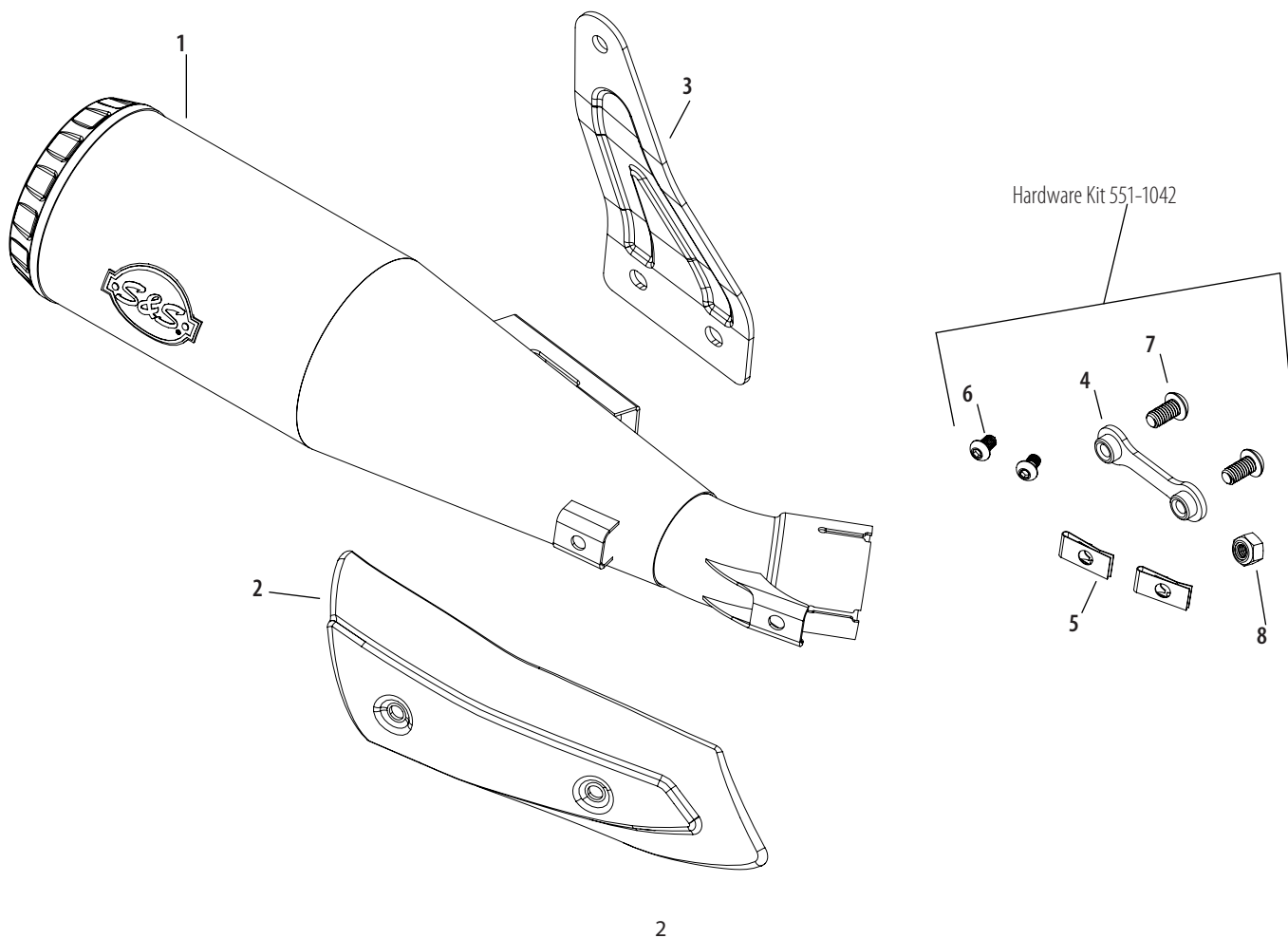
PRE-FILTER | 170-0255

± WARNING: Cancer and Reproductive Harm

GRAND NATIONAL® SLIP-ON MUFFLER

REPLACEMENT PARTS FOR INDIAN® FTR 1200®

- 1. Muffler..... **551-1040**
- 2. Heat Shield **551-0982**
- 3. Bracket..... **551-0987**
- Hardware Kit (includes 4-8 below) **551-1042**
- 4. Plate, Nut, 5/16-18 x 2", Chrome **551-0469**
- 5. Nut, Clip-On, 1/4-20, Zinc Plated..... **500-0848**
- 6. Screw, BHC, 1/4-20 x 5/16", Stainless Steel **500-0846**
- 7. Screw, BHC, High Temp Lock Patch,
5/16-18 x 5/8", Stainless Steel **500-1091**
- 8. Nut, Lock, Nylon Insert,
M8 x 1.25mm x 13mm x 8mm, Stainless Steel **500-1100**



Milwaukee-Eight®

2007-2017 Twin Cam
96"/103"/110"

1999-2006
Twin Cam 88"

1986-2019
Sportster® & Buell®

2014-2019 Street® &
Street Rod™

Indian® Models

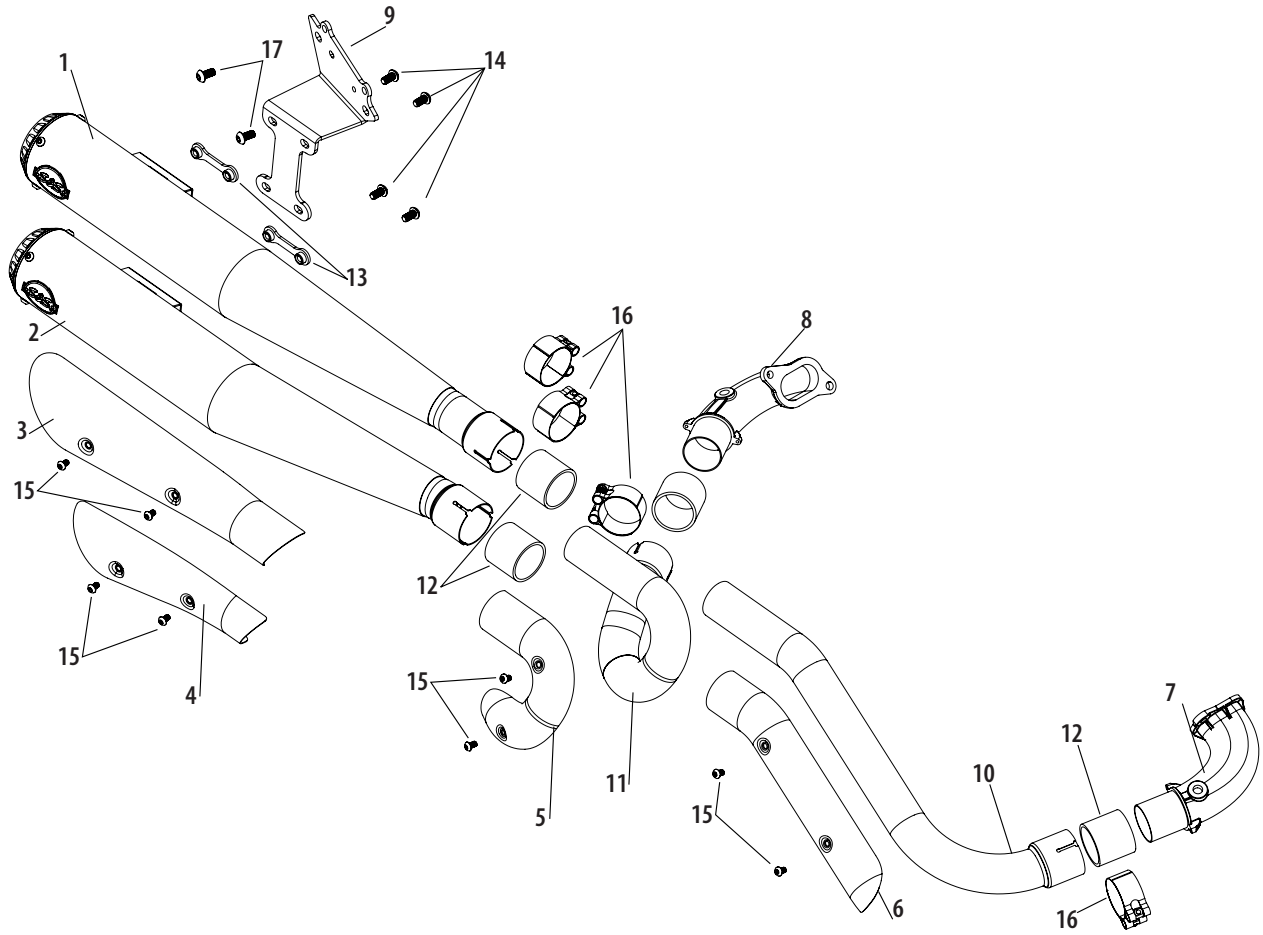
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GRAND NATIONAL[®] 2:2 HIGH REPLACEMENT PARTS FOR INDIAN[®] FTR 1200[®]

- | | | | |
|--|------------------|---|-----------------|
| 1. Muffler Assembly, Top..... | 551-1165A | 14. Screw, BHC, High Temp Lock Patch,
5/16-18 x 5/8", Stainless Steel..... | 500-1091 |
| 2. Muffler Assembly, Bottom..... | 551-1166A | 15. Screw, BHC, High Temp Lock Patch,
M6 x 1 x 10mm, Stainless Steel..... | 500-1090 |
| 3. Heat Shield, Top..... | 551-1107 | 16. Clamp, Band Style, 2.06" - 2.31"..... | 551-1181 |
| 4. Heat Shield, Bottom..... | 551-1109 | 17. Screw, BHC, M8 x 16mm, Stainless Steel..... | 500-1189 |
| 5. Heat Shield, Rear..... | 551-1111 | | |
| 6. Heat Shield, Front..... | 551-1113 | | |
| 7. Adapter, Front..... | 551-1068 | | |
| 8. Adapter, Rear..... | 551-1069 | | |
| 9. Mounting Bracket..... | 551-1114 | | |
| 10. Header, Front..... | 551-1119 | | |
| 11. Header, Rear..... | 551-1122 | | |
| 12. Gasket, Muffler..... | 551-1129 | | |
| 13. Plate, Nut, 5/16-18 x 2", Clear, Zinc..... | 551-0469 | | |



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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

Replacement Parts	Part #
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
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Triple Beam Platform Balance Scale

(2610 grams\maximum) without weights	53-0011
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Flywheel Balance Kit For 5-Piece Cranks

For 5-Piece Crank	53-0012
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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
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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

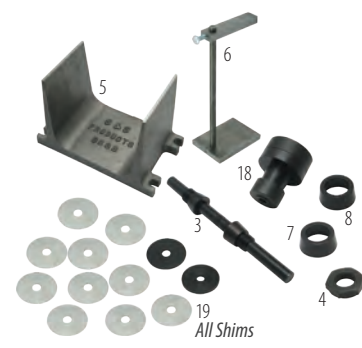
These balancing kits will not work with Harley-Davidson® Twin Cam 88® engines, 2000-up Sportster models, or any flywheel assemblies which use pressed-in crankpins.



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

Milwaukee-Eight®

2007–2017 Twin Cam
96™/103™/110™1999–2006
Twin Cam 88®1986–2019
Sportster® & Buell®2014–2019 Street® &
Street Rod™

Indian® Models

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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 | 3 pack	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
--	---------

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.	53-0045
---	---------

MAIN JET TOOL

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

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



53-0006



53-0007



53-0008



53-0035



Milwaukee-Eight®

2007–2017 Twin Cam 96"/103"/110"

1999–2006 Twin Cam 88®

1986–2019 Sportster® & Buell®

2014–2019 Street® & Street Rod™

Indian® Models

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CYLINDER TORQUE PLATE KITS

FITMENT

- S&S 4 $\frac{1}{8}$ " bore
- 4" bore 1999—up big twin
- 3 $\frac{3}{8}$ " 1984—'99 big twin
- Harley-Davidson® Sportster® models in 3 $\frac{3}{8}$ " and 4" bore
- S&S X-Wedge® 4 $\frac{1}{8}$ " bore and 4 $\frac{1}{4}$ " 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 4 $\frac{1}{8}$ " bore and 4 $\frac{1}{4}$ " 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 3/8"-24 x 6"	Bolt 7/16"-20 x 6"	Bolt 7/16"-20 x 7"	Vise Tab	Tab Bolt 5/16"-18 x 1"
4 $\frac{1}{8}$ " - 4 $\frac{1}{4}$ "	S&S® X-Wedge®	—	106-0837	106-0835	53-0014	106-0840	—	—	53-0034	50-0108
4 $\frac{3}{8}$ " - 4 $\frac{7}{16}$ "	S&S 4 $\frac{3}{8}$ " Pattern	53-0055	53-0056	53-0057	53-0014	—	—	50-0192	53-0034	50-0108
4 $\frac{1}{8}$ "	Stock 1999-up big twin	53-0054	106-3190	106-3191	53-0014	—	—	50-0192	53-0034	50-0108
4 $\frac{1}{8}$ "	S&S 4 $\frac{1}{8}$ " 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
3 $\frac{3}{8}$ "	1984-'99 big twin	53-0016	53-0017	53-0018	53-0014	—	—	50-0192	53-0034	50-0108
3 $\frac{3}{8}$ "	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 #
4 $\frac{3}{8}$ " - 4 $\frac{7}{16}$ "	S&S 4 $\frac{3}{8}$ " Pattern	53-0055
4 $\frac{1}{8}$ "	Stock 1999—up big twin	53-0054
4 $\frac{1}{8}$ "	S&S 4 $\frac{1}{8}$ " Pattern	53-0051
4"	S&S 4" Pattern	53-0030
3 $\frac{3}{8}$ "	1984-'99 big twin	53-0016
3 $\frac{3}{8}$ "	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
4⅞"	Stock 1999-up big twin	106-3190
4⅞"	S&S 4⅞" Pattern	53-0052
4"	Stock 1999-up big twin	53-0049
3⅝"	1984-'99 big twin	53-0017
3⅝"	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
4⅞"	Stock 1999-up big twin	106-3191
4⅞"	S&S 4⅞" Pattern	53-0053
4"	Stock 1999-up big twin	53-0050
4"	S&S 4" Pattern	53-0032
3⅝"	1984-'99 big twin	53-0018
3⅝"	1984-'03 Sportster®	53-0018

STOP ARM

Bore Size	Case Bolt Pattern	Part #
All	All	53-0014

BOLT ⅜"-24 X 6"

Bore Size	Bore Size	Part #
4¼"	S&S® X-Wedge®	106-0840

BOLT ⅞"-20 X 6"

Bore Size	Case Bolt Pattern	Part #	
4⅞"	S&S® 4⅞" Pattern	Each	50-0191
		4 pack	50-0191P
4"	S&S 4" Pattern	Each	50-0191
		4 pack	50-0191P

BOLT ⅞"-20 X 7"

Bore Size	Case Bolt Pattern	Part #	
4¾"	S&S 4¾" Pattern	Each	50-0192
		4 pack	50-0192P
4⅞"	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
3⅝"	1984-'99 big twin	Each	50-0192
		4 pack	50-0192P
3⅝"	1984-'03 Sportster®	Each	50-0192
		4 pack	50-0192P

WISE TAB

Bore Size	Case Bolt Pattern	Part #
All	All	53-0034

TAB BOLT ⅝"-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

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> 4 quarts of SAE 20W-50 Synthetic Engine Oil with chrome oil filter	3601-0412
Harley-Davidson® Twin Cam 88®/96™/103™/110™ engines <i>(using OEM filter #63798-99, 63731-99A)</i> 4 quarts of SAE 20W-50 Synthetic Engine Oil with chrome oil filter	3601-0413
2017-2019 Harley-Davidson® Models with Milwaukee-Eight® engine 5 quarts of SAE 20W-50 Synthetic Engine Oil with chrome oil filter	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	310-0239
1999-'17* Twin Cam 88®/96™/103™ and all X-Wedge®	10µ	each	31-4104A	31-4103A
		12 pack	310-0242	310-0241

*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® &
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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

[±] ⚠️ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov



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

[±] ⚠️ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov



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			

[±] ⚠️ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov



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.

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			

[±] WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

MAIN JET AIR BLEED KIT[±] (One Jet Each Size)

Sizes	Part #
.042" - .060"	106-3517
.084" - .120"	106-3518

[±] WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov



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

[±] WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

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



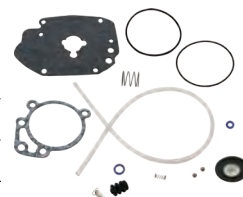
[±] WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

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



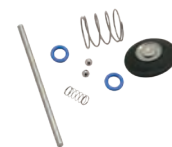
[±] WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

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

Description	Part #
Fuel Line, Kit, Carb, Super E/G, Swivel Retrofit	190-0005[±]
Fuel Line, .311" x .563" x 17.5", SAE 30R14 (replacement fuel line only)	190-0001

[±] WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

Milwaukee-Eight[™]

2007–2017 Twin Cam
96"/103"/110"

1999–2006
Twin Cam 88[™]

1986–2019
Sportster[™] & Buell[™]

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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

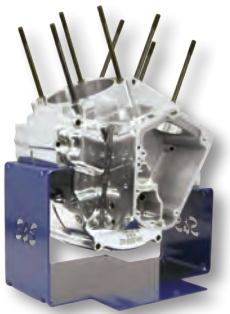
4 oz. (118ml) Can	51-9009
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ThreeBond® Liquid Gasket 1194

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

DEALER SERVICE KIT FOR STREET LEGAL EXHAUST



DEALER SERVICE KIT 510-0684

(Includes S&S proprietary tamper-proof bit (**available only to dealers**) and spare fasteners. Provides everything necessary to perform any required service or end cap replacement.)

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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"



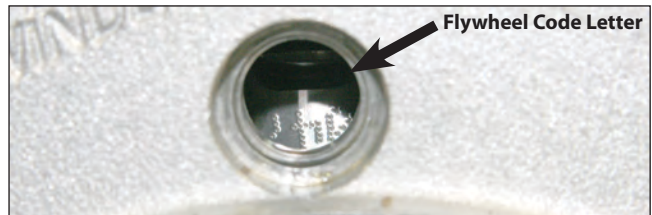
S&S® FLYWHEEL IDENTIFICATION CODES FOR 1936-UP BIG TWIN

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	4⅝"	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 4⅝" Bore	Press In	Press In	Press In		
13	3½" (Stock 61")	SM	1995-'99 EFI	Press In	S&S	1981-'99		
14	3⅜" (Stock 74")	Y	74'/80" Indian®	Stock	Stock	Stock		
16	5⅝"							
17	4"							
18	3⅝"							
19	4⅞"							
TA	3⅞"	Titan Special						
TB	4450"							

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 7⅞" 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	4⅞"	None	1957-'76	Stock	Stock	Stock	Stock	None	7⅞" (Stock)
2	4⅜"	B	1957-Early '81	Stock	Stock	Stock	Stock	A	7¾"
3	4⅞"	SB	1957-Early '81	S&S	Stock	Stock	Stock	X	7⅝"
4	4⅞"	BD	1957-Early '81	Stock		Stock	Stock		
6	4⅝"	SBD	1977-Early '81	S&S		Stock	Stock		
7	4⅜"	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	3⅜"	D	Late 1986-'03	S&S	S&S	S&S	S&S		
16	5⅝"	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	3⅝"	KRS	45" WR/KR	Stock	Stock	1957-'81 XL	1957-'81 XL		
19	4⅞"	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

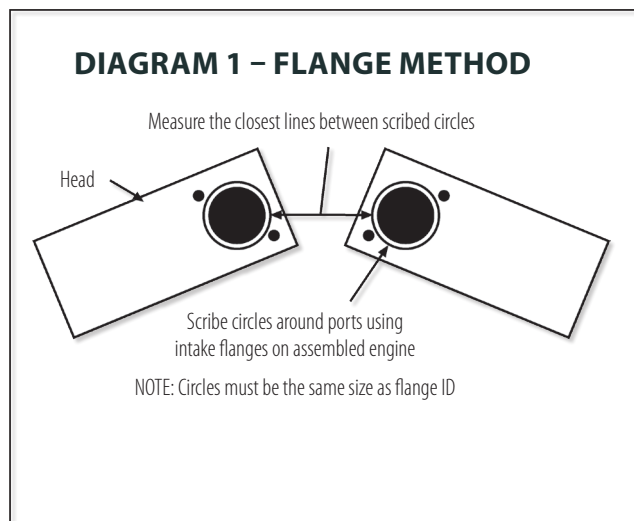
The most accurate method for specifying length for a special order manifold:

- Use the S&S Manifold Measuring Tools to measure port-center to port-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.

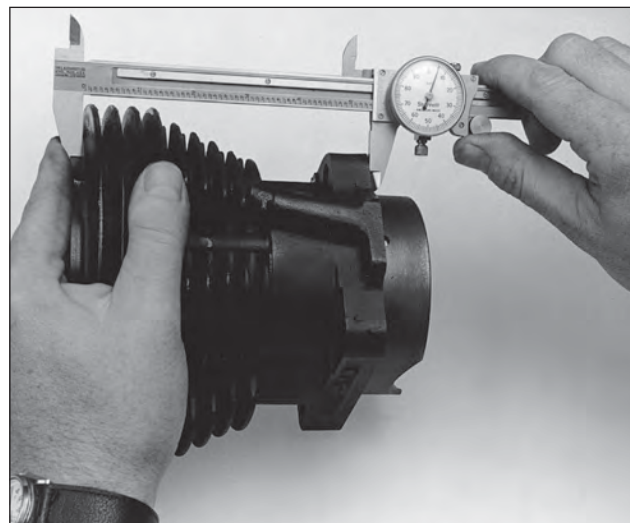
- Measure the cylinder length from gasket-surface to gasket-surface without the head and base gaskets in place. (A precision measuring instrument, such as a dial caliper, should be used to insure accurate results).
- If all components except the cylinder are stock, the actual cylinder length and the 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	X	2019
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

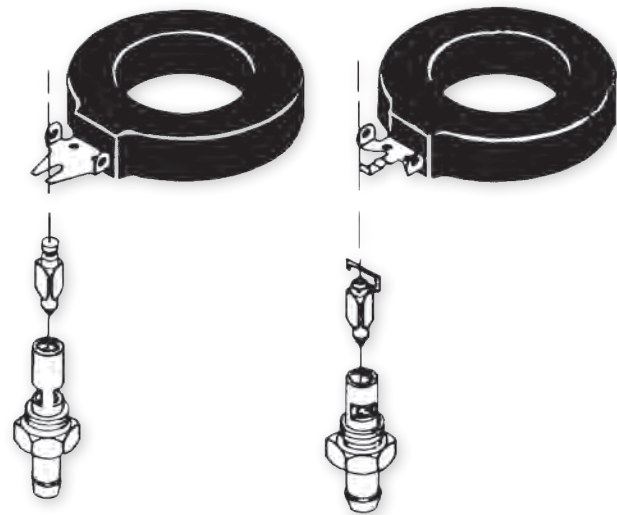
Forked Mechanism: Older style that utilizes a forked float tang, which slides into a slot in the top of the needle

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



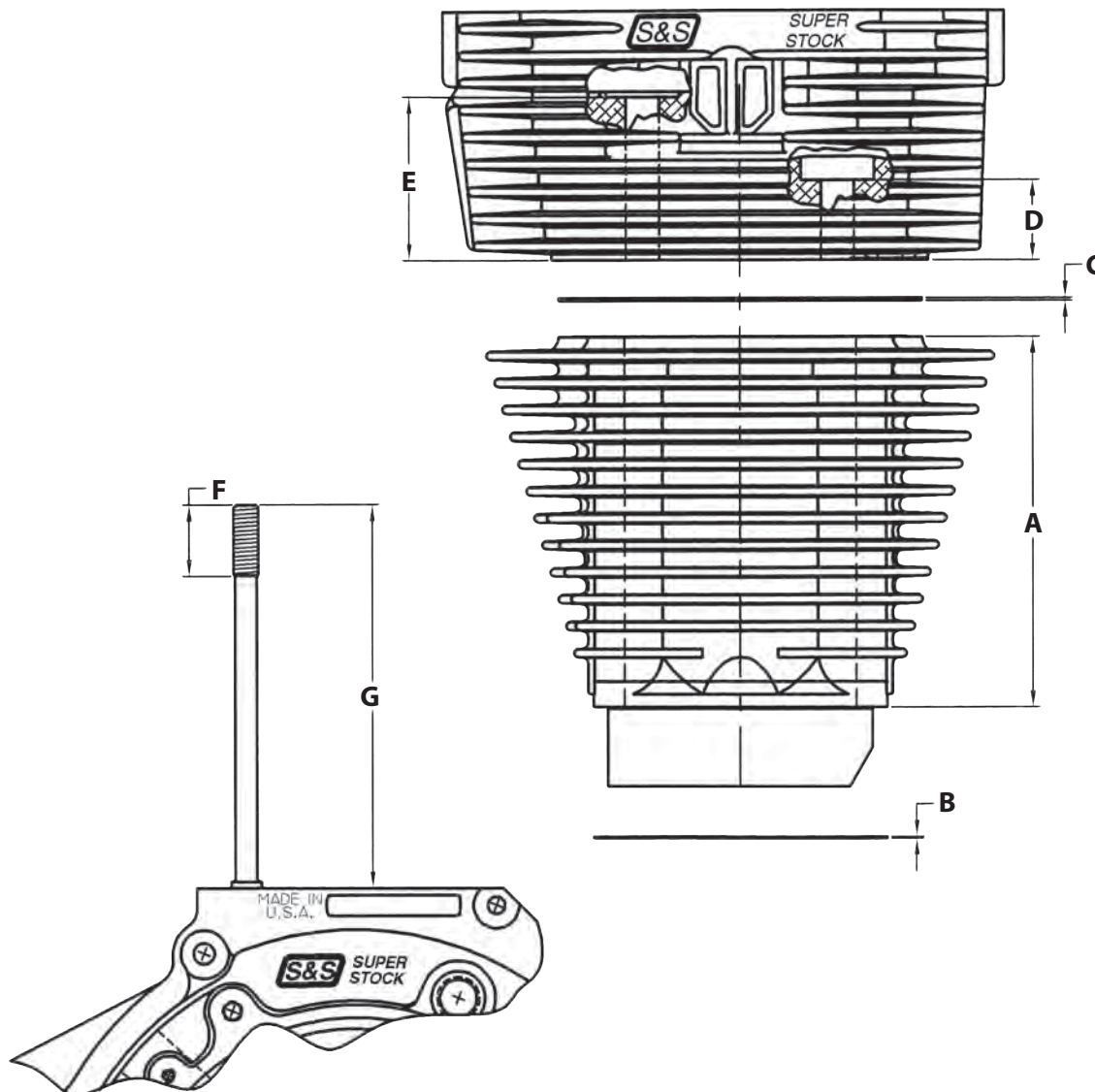
CALCULATING CUSTOM HEAD BOLT LENGTHS

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)



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