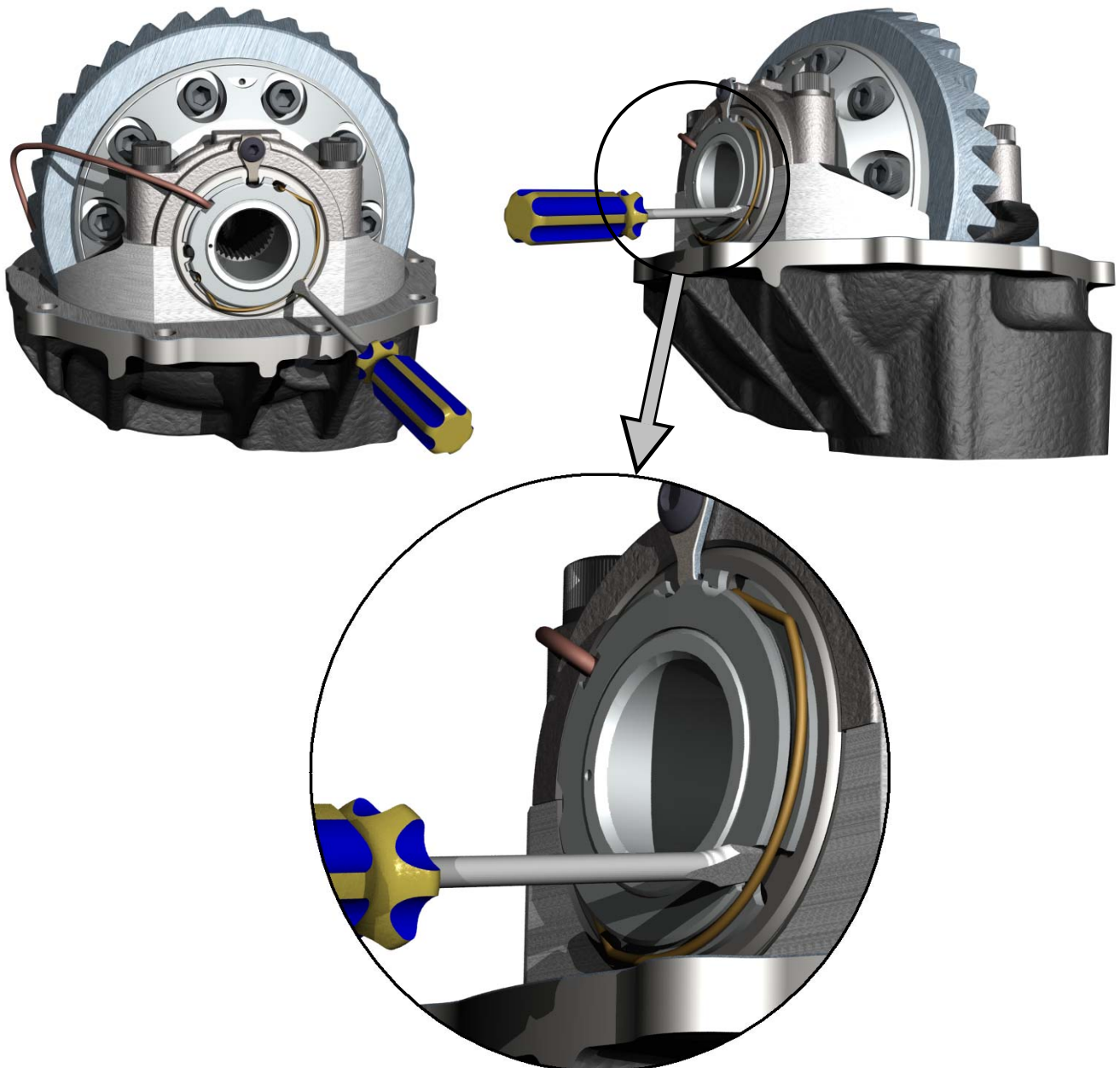


## SPRING CLIP SECURED SEAL HOUSING SET-UP

Spring clip retained seal housings do not require any installation adjustments to achieve a concentric set-up. The following procedure is recommended for installing spring clip secured seal housings:

1. Clean the sealing surfaces of the seal housing and bearing journal with a penetrating oil (eg. WD40) and ensure that these surfaces and the airways are clean and free of contaminants (e.g. dirt, water, metal filings etc.).
2. Inspect the O-rings for damage or contamination due to dirt.
3. Generously lubricate the sealing surfaces and O-rings with oil (differential oil is preferred).
4. Insert the O-rings into the grooves of the seal housing making sure they are not twisted.
5. Gently push the seal housing onto the Air Locker with a twisting motion. This will seat the O-rings without twisting them or causing damage.
6. Rotate the seal housing until one of its two large cutouts line up with the adjuster nut slot that is closest to the locking tab position at the center of the bearing cap.
7. Assemble the locking tab.
8. Install the spring clip by first hooking both ends of the clip into the small aligned cutouts of the seal housing and the adjuster nut, and then snapping the clip into the groove of the seal housing using a screwdriver. (The completed installation is shown in the figure below.)



## SPRING CLIP SECURED SEAL HOUSING SET-UP

9. Check that the seal housing is now secured from rotating and that it is sitting flat against the adjuster nut.
10. Check that the toe of the adjuster nut locking tab is not in contact with the seal housing as this would prevent the seal housing from floating correctly. Bend the toe of the tab upward with a screwdriver if necessary.
11. Bend the seal housing tube into a hook shape before trimming and connecting it to the bulkhead fitting. This will ensure that the seal housing tube is not under any tension so that the seal housing can still float.
12. Check that the seal housing tube is not in contact with any part except the seal housing and the bulkhead fitting (e.g., the bearing cap). Some clearance should exist between the tube and all other parts (especially moving parts) to prevent the possibility of contact from vibration or shock.

**NOTE:** To check if the seal housing is floating correctly; rotate the drive pinion flange back and forth while watching the seal housing. The seal housing should rotate very slightly back and forth against the adjuster nut face but it should always stay perfectly flat against the flat face of the adjuster nut. If the seal housing appears to pull away from the adjuster nut each time you reverse the direction of the drive pinion then there are outside forces pulling/pushing against the seal housing which could result in an oil pumping tendency created by non concentric pressure on the O-rings. Check the locking tab is not in contact with the seal housing and the seal housing tube is not pulling on the seal housing.

