

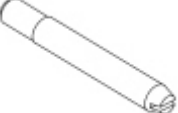

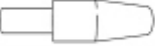



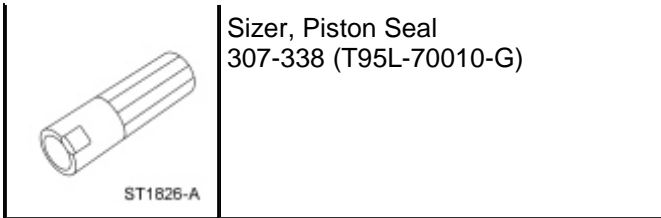


Fluid Pump

Special Tool(s)

 <p>ST2532-A</p>	<p>Alignment Gauge, Transmission Fluid Pump 307-431</p>
 <p>ST2533-A</p>	<p>Alignment Gauge, Transmission Fluid Pump 307-432</p>
 <p>ST2419-A</p>	<p>Alignment Pins, Transmission Fluid Pump 307-398</p>
 <p>ST1817-A</p>	<p>Alignment Set, Fluid Pump 307-S039 (T74P-77103-X)</p>
 <p>ST2684-A</p>	<p>Installer Tools, Transmission Fluid Pump Seal (Aligner) 307-451/1</p>
 <p>ST2686-A</p>	<p>Installer Tools, Transmission Fluid Pump Seal (Installer) 307-451/3</p>
 <p>ST2685-A</p>	<p>Installer Tools, Transmission Fluid Pump Seal (Sizer) 307-451/2</p>
 <p>ST1833-A</p>	<p>Installer, Torque Converter Fluid Seal 307-349 (T97T-77000-A)</p>

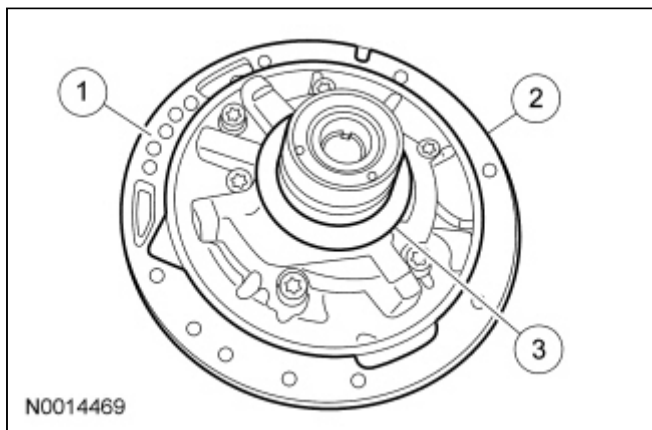


Material

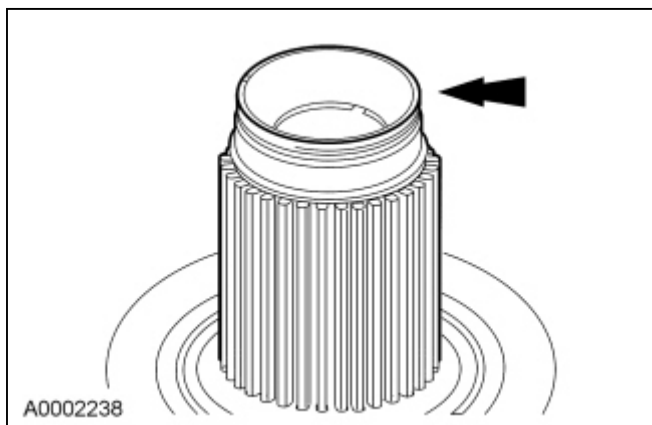
Item	Specification
Multi-Purpose Grease XG-4 and/or XL-5	ESB-M1C93-B

Disassembly

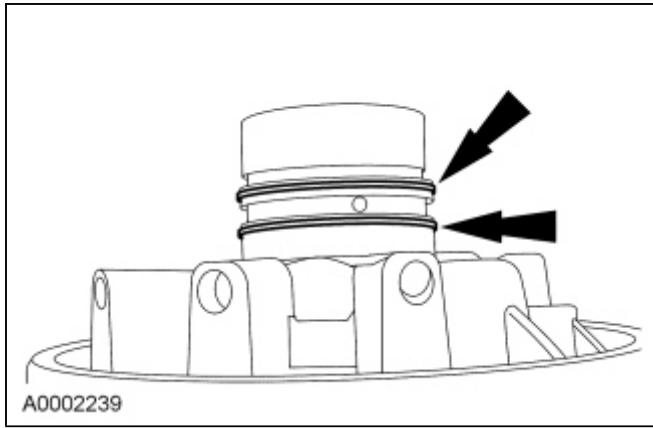
1. Remove the fluid pump gasket, fluid pump seal ring and the No. 1 thrust washer.
 1. Remove and discard the fluid pump gasket.
 2. Remove and discard the fluid pump seal (square cut).
 3. Remove and tag the No. 1 thrust washer.



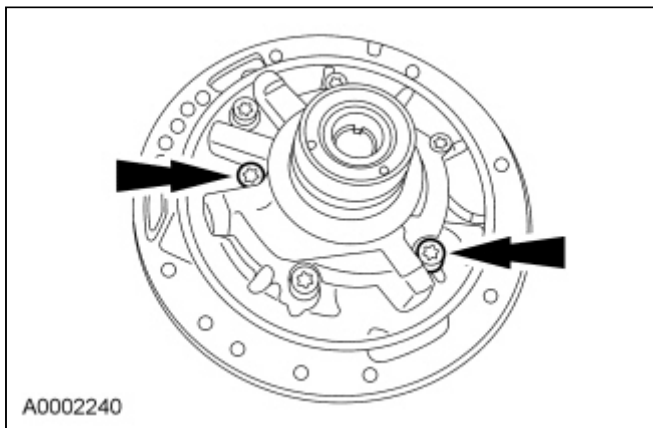
2. Remove the fluid pump support seal ring.



3. Remove the seal rings.



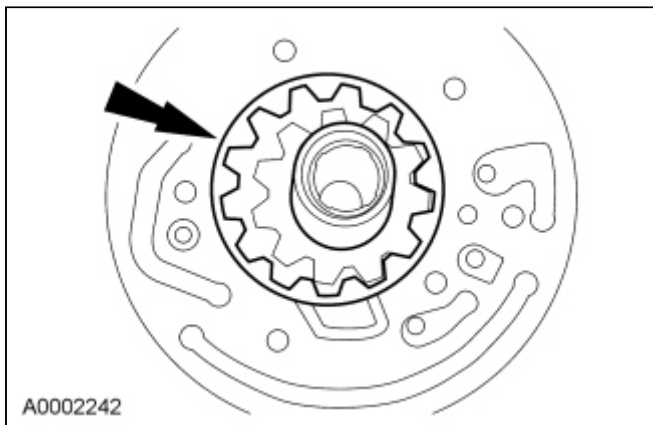
4. Remove the fluid pump housing.



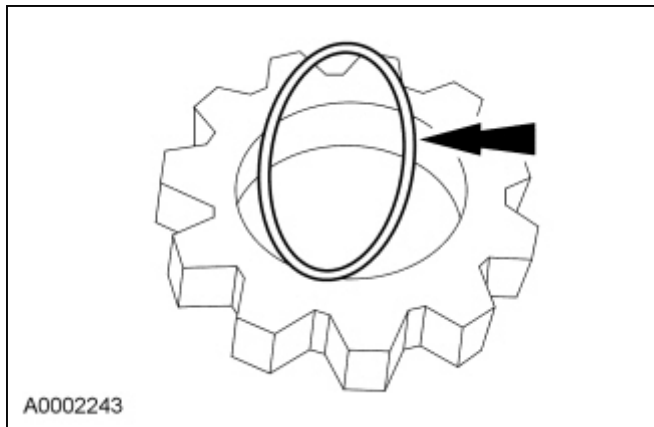
5. **NOTE:** A rough casting on the pump surface crescent is not a flaw.

NOTE: The fluid pump gears are part of the pump assembly and are not repaired separately.

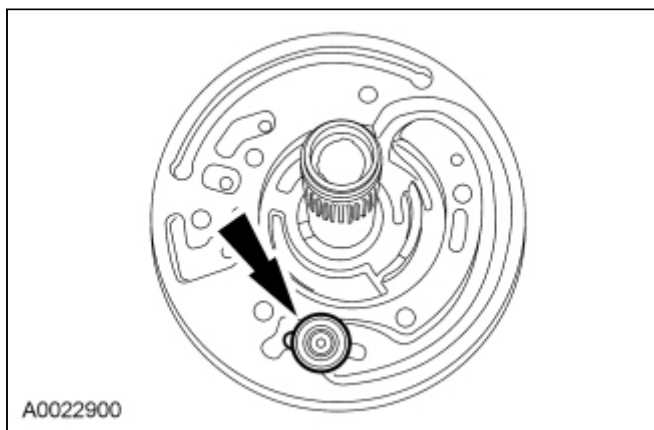
Remove the fluid pump gears.



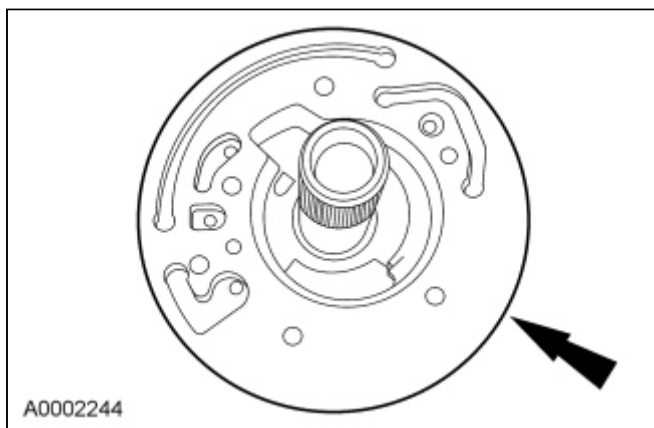
6. Remove the drive gear O-ring seal and discard. Inspect the fluid pump gears for cracks and scoring.



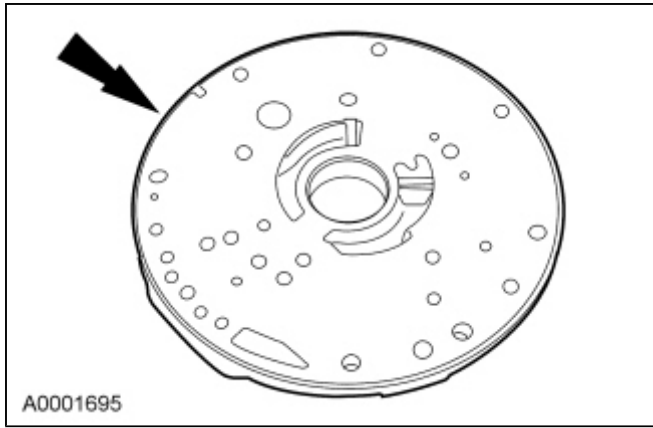
7. Remove and discard the valve.



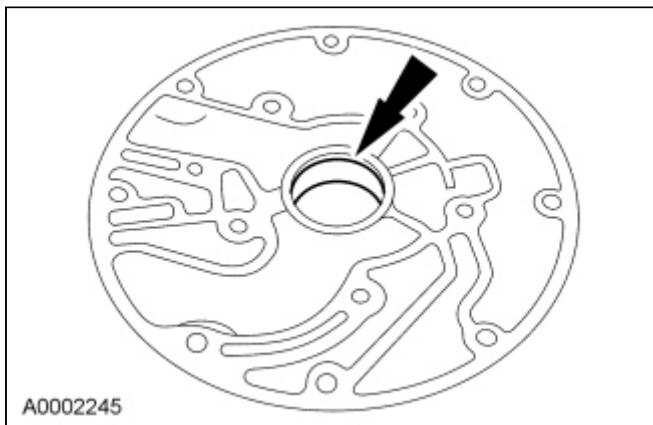
8. Inspect the Overdrive (O/D) pump.
- Inspect the O/D pump support gear pockets for scoring and wear.
 - Clean and inspect the O/D and rear input shaft bushings.



9. Inspect the fluid pump adapter plate for scoring and wear.



10. Inspect the fluid pump to converter housing bushing.



Assembly

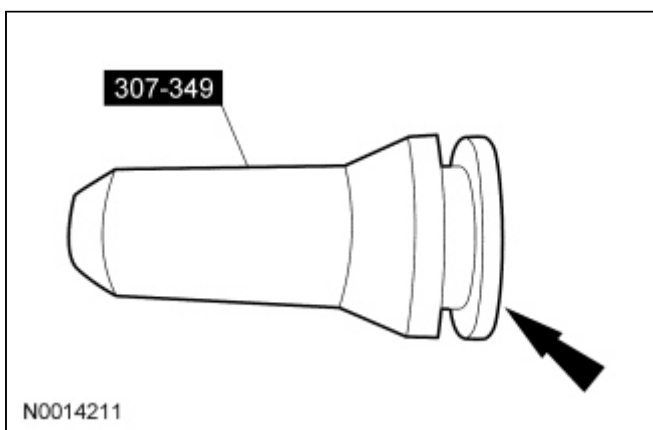
1. **NOTE:** Minor burrs and scoring may be removed with crocus cloth. If damage is found, install a new assembly.

Inspect the fluid pump components for the following:

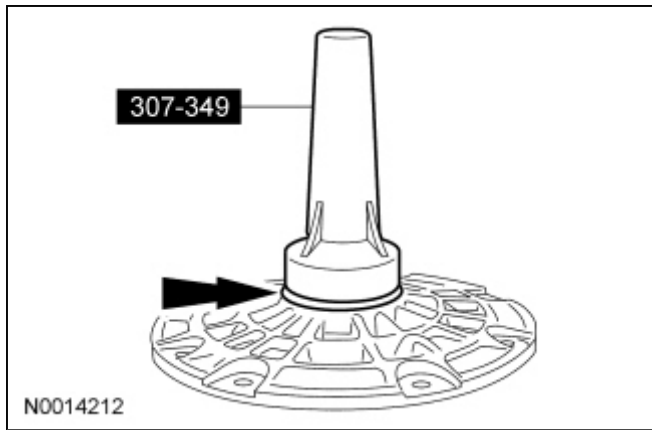
- Pump body and case for burrs.
- Fluid passages for obstructions.

2. **NOTE:** Check and make sure that the garter spring in the seal has not popped off of the converter hub seal.

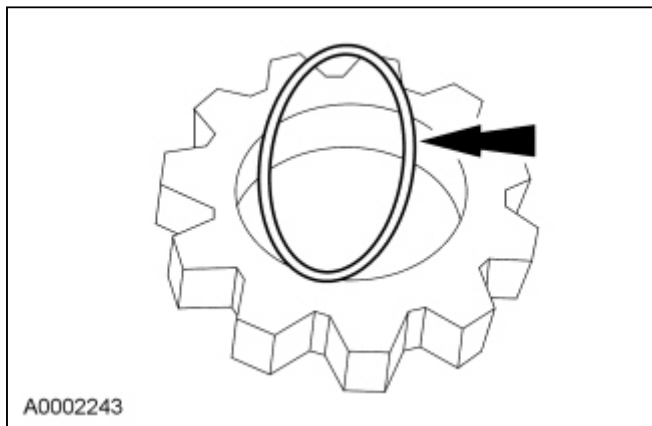
Install a new seal onto the Torque Converter Fluid Seal Installer.



3. Using the Torque Converter Fluid Seal Installer, install the converter hub seal.

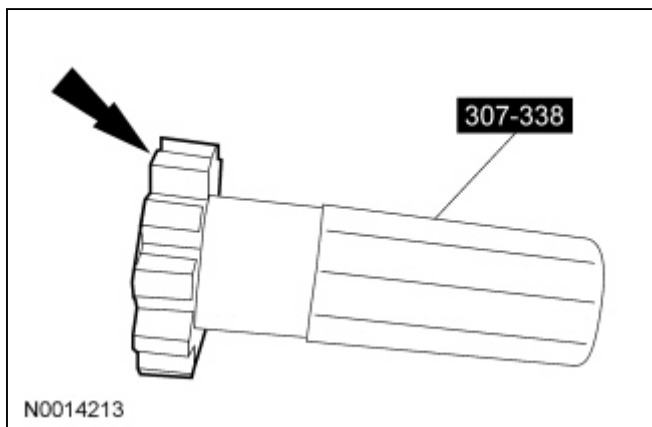


4. Install a new O-ring seal in the fluid pump drive gear.



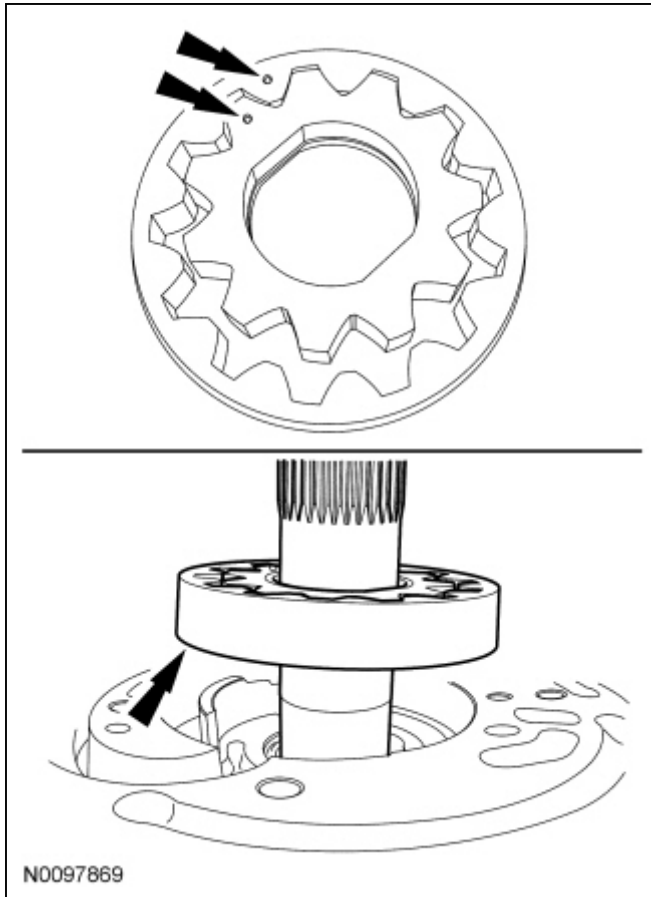
5. **NOTE:** Lubricate the Piston Seal Sizer with multi-purpose grease.

Using the Piston Seal Sizer, seat the O-ring seal in the pump gear.

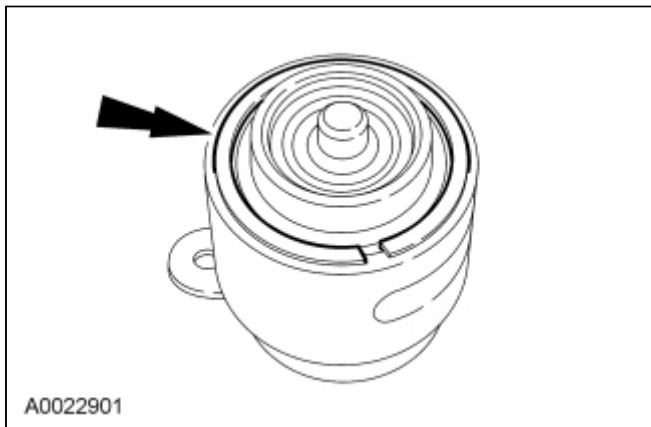


6. **NOTE:** The chamber on the inside edge of the small gear must be UP when in the pump housing gear pocket. The dimples on the gears must be facing DOWN when installed into the pump housing gear pocket.

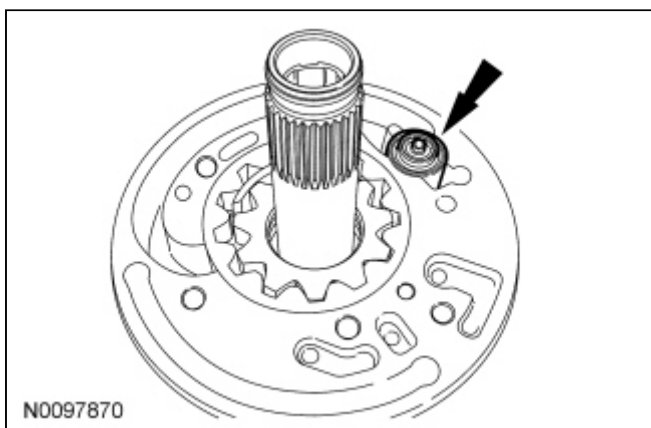
Install the pump gears into the fluid pump housing. Apply multi-purpose grease to the pump gear to prevent scoring at start up.



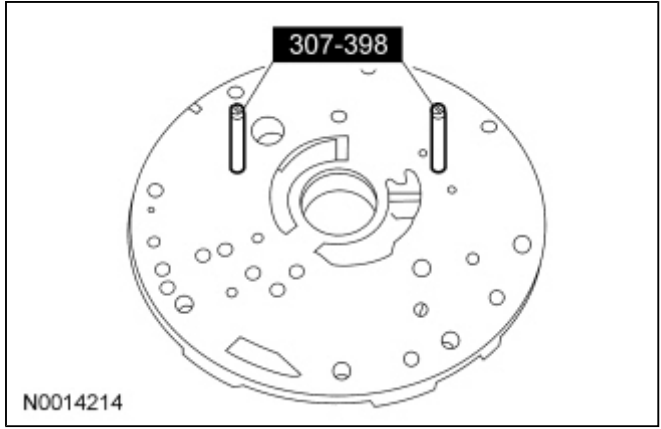
7. Install a new seal on the new valve.



8. Install a new valve with the tab facing down.

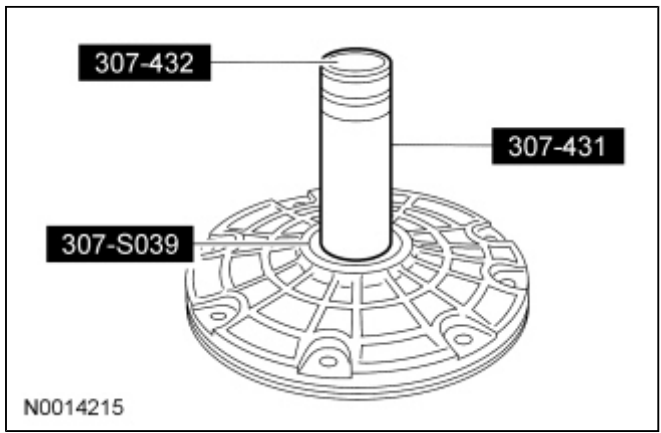


9. First, install the fluid pump adapter plate, then install the Transmission Fluid Pump Alignment Pins in their correct location.

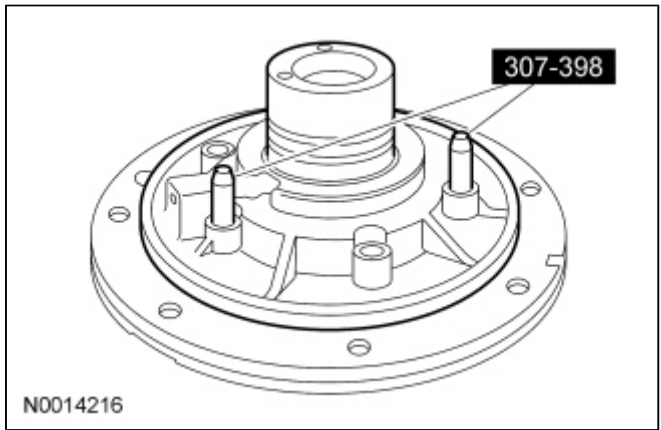


10. **NOTICE:** The Fluid Pump Alignment Set along with the Transmission Fluid Pump Alignment Gauge must be used to correctly align the pump with the adapter plate to reduce gear noise, bushing failure and leakage.

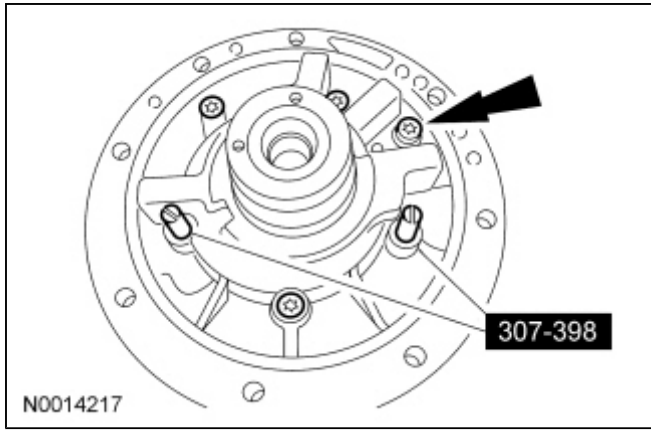
Using the Fluid Pump Alignment Set along with the Transmission Fluid Pump Alignment Gauge, align the fluid pump to the adapter plate.



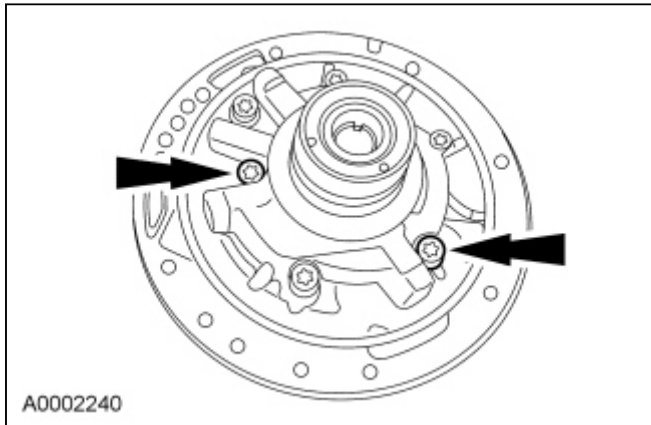
11. Using the Transmission Fluid Pump Alignment Pins, assemble the pump.



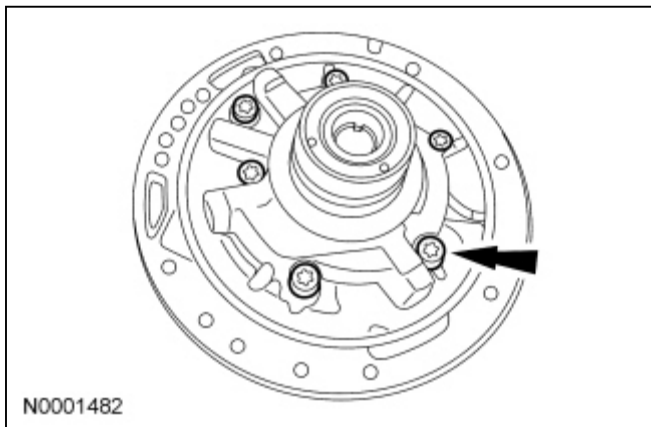
12. Loosely install the fluid pump housing screws in their correct location and remove the Transmission Fluid Pump Alignment Pins.



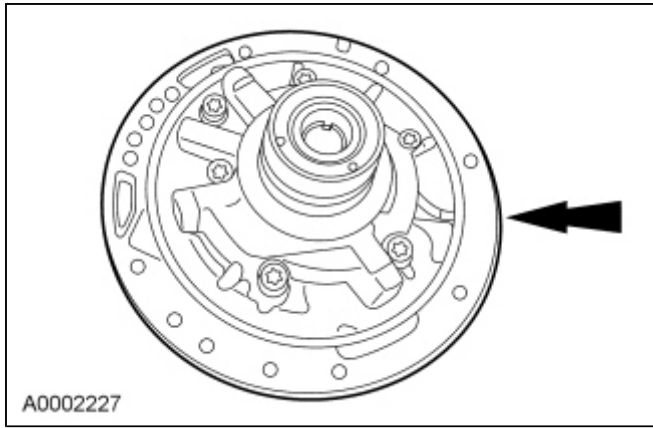
13. Install the 2 remaining screws.



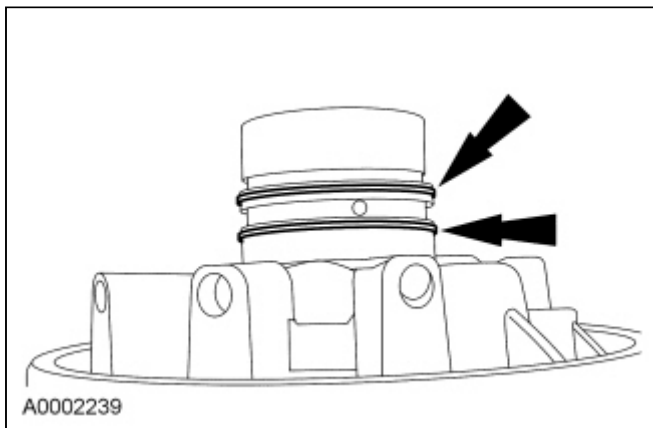
14. Tighten all of the fluid pump screws in a star pattern.
• Tighten to 22 Nm (16 lb-ft).



15. Install a new fluid pump seal.

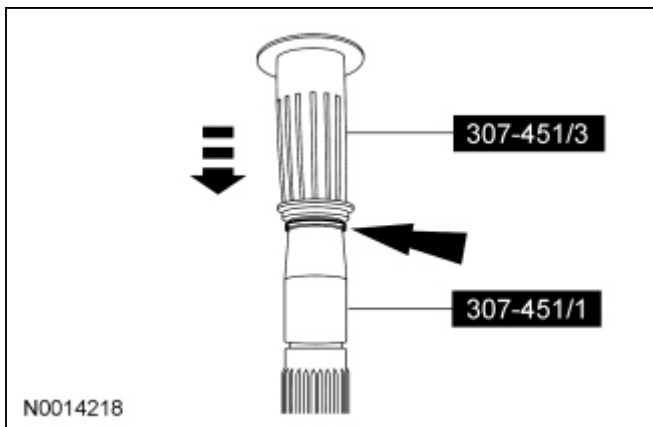


16. Install the 2 new seal rings.



17. **NOTICE:** Be careful not to overstretch the seal ring past the seal ring groove. Damage to the seal will occur.

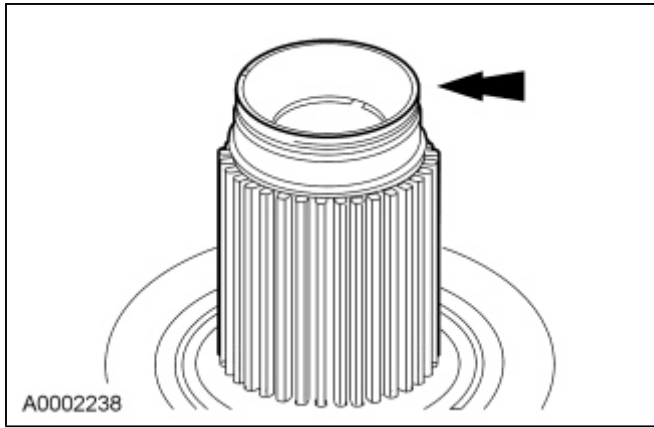
Using the Transmission Fluid Pump Seal Installer Tools, install the fluid pump seal ring.



18. **NOTE:** Verify correct seal ring installation. Make sure seal ring grooves are clean and free of burrs.

NOTE: Make sure seal ring grooves are clean and free of burrs. Make sure that the seal ring is seated into the groove.

Verify the seal ring is installed correctly.



19. **NOTICE:** Failure to correctly size the seal will cause damage to the seal when the torque converter is installed.

Using the Transmission Fluid Pump Seal Installer Tools, size the seal to the correct size. Leave the Transmission Fluid Pump Seal Installer Tools on the seal ring for 2 minutes to obtain the correct seal size.

