


Oil Pump

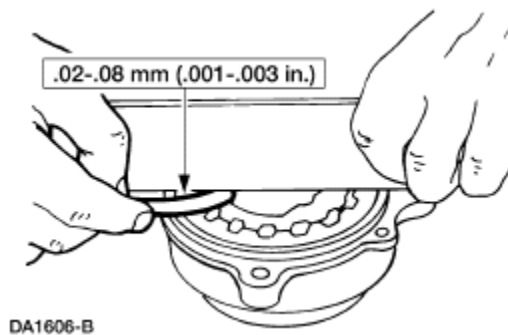
Special Tool(s)	
 ST1271-A	Feeler Gauge (D81L-4201-A) 303-D027

Pressure Test

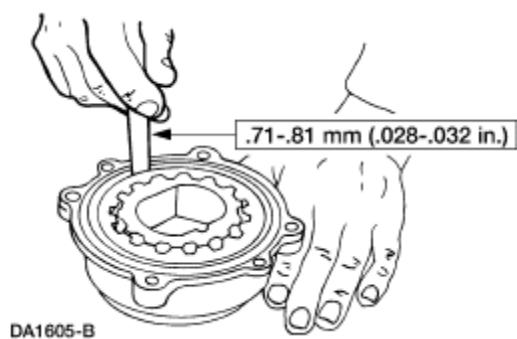
1. Attach an oil pressure gauge to an oil gallery port.
2. Start the engine and observe the oil pressure gauge. If readings are less than the specification, remove the oil pump and carry out the oil pump clearance test.

Clearance Test

1. Inspect the oil pump (6600) for excessive metal particles.
2. Inspect the oil pump for gouging, cracks or deep scratches.
3. Inspect the oil pump inner and outer gear rotors for damage or excessive wear.
4. Using a straightedge and the Feeler Gauge, measure the height clearance between the oil pump housing and the inner and outer rotors. If the measurement does not meet specifications, install new gerotors as a set.



5. Using the Feeler Gauge, measure the clearance between the outer rotor and the oil pump housing. If the measurement does not meet specifications, install new gerotors as a set.

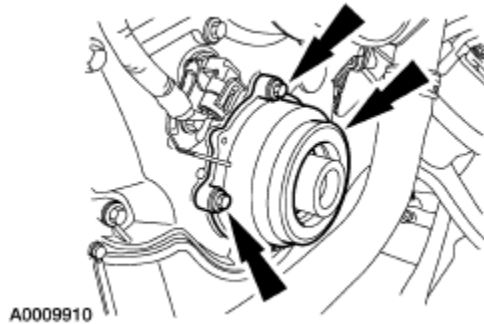


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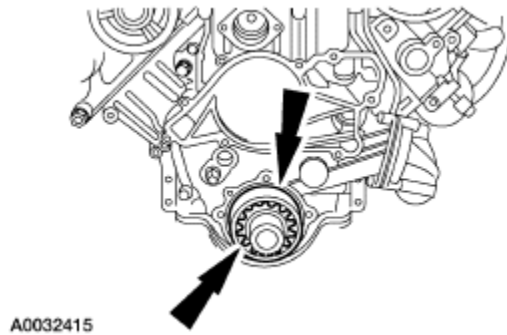
Special Tool(s)	
<p>ST2325-A</p>	Crankshaft Damper Tool 303-144 (T79T-6316-A)
<p>ST1052-A</p>	Damper Service Set 303-S479 (T94T-6379-AH)
<p>ST2324-A</p>	Front Crankshaft Seal Replacer 303-484 (T94T-6700-AH)
<p>ST1187-A</p>	Impact Hammer 307-005 (T59L-100-B)
<p>ST2322-A</p>	Lube Tube Remover 307-160 (T86P-70001-A)

Removal

1. Remove the crankshaft vibration damper. For additional information, refer to [Crankshaft Vibration Damper](#) in this section.
2. Remove the bolts and the oil pump body plate (6616). Remove and discard the O-ring seal.




3. Remove the outer and inner gerotors.



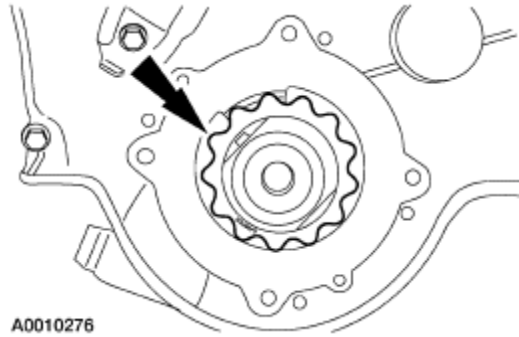
4. Refer to General Procedures in this section for pump component inspection.


Installation

1.  **CAUTION:** The inner gerotor must be installed with the words "OUT" or "DAMPER" facing away from the engine.

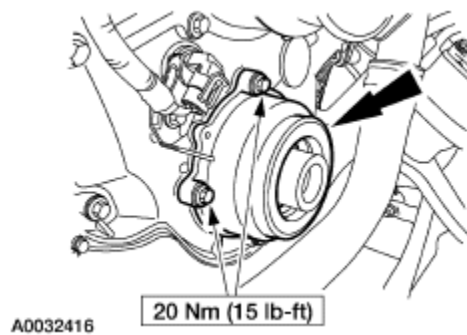
NOTE: The inner gerotor must be installed onto the crankshaft nose before the oil pump is installed onto the engine front cover.

Install the inner gerotor.

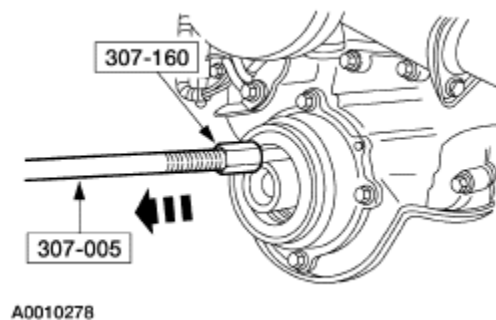


2.  **CAUTION:** The outer gerotor must be installed with the words "OUT" or "DAMPER" facing away from the engine.

Lubricate the oil pump with clean engine oil. Position the outer gerotor in the oil pump body plate. Install a new O-ring seal. Position the oil pump body plate and outer gerotor on the crankshaft nose. Install the bolts.



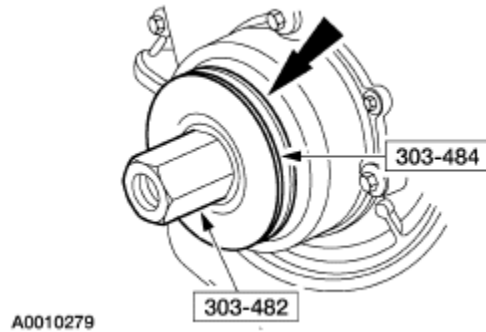
3. Using the special tools, carefully remove and discard the crankshaft front seal.



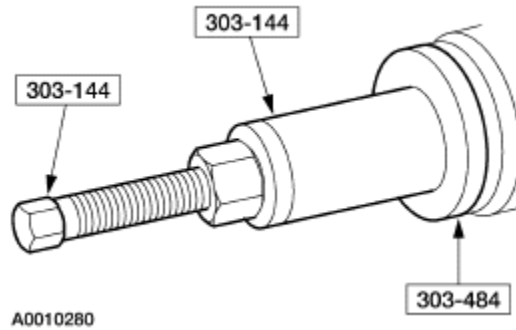
4. Thoroughly clean the crankshaft front seal mounting surface.
5. Coat the lip of the oil seal with Multi-Purpose Grease D0AZ-19584-AA or equivalent meeting Ford specification ESB-M1C93-B. Apply a coating of sealant on the outside surface of the seal.

6. **NOTE:** If necessary, rotate special tool 303-484 (T94T-6700-AH) to align it with the crankshaft key.

Position the crankshaft front oil seal. Install the special tools.



7. Using the special tools, install the new crankshaft front oil seal until it is fully seated.



8. Restore the vehicle to operating condition.
1. Install the crankshaft vibration damper. For additional information, refer to [Crankshaft Vibration Damper](#) in this section.
 2. Install a new engine oil filter.
 3. Fill the engine with the correct amount and type of engine oil.
 4. Start the vehicle and check for leaks. Repair as necessary.