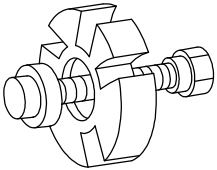
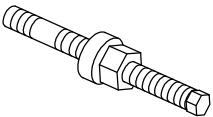


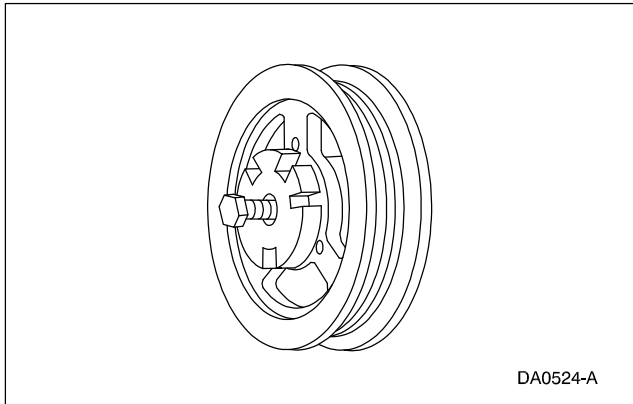
Crankshaft Pulley Removal and Replacement

Special Service Tool(s)

 <p>ST1286-A</p>	<p>Crankshaft Damper Remover 303-009(T58P-6316-D)</p>
 <p>ST1287-A</p>	<p>Crankshaft Damper Replacer 303-102(T74P-6316-B)</p>

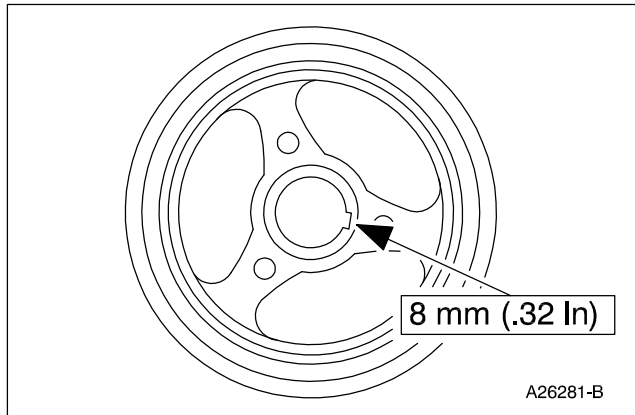
Removal

1. Remove the engine cooling fan and fan shroud (8146). For additional information, refer to Section 303-03.
2. Remove the drive belt (8620). For additional information, refer to Section 303-05.
3. Raise the vehicle on a hoist. For additional information, refer to Section 100-02.
4. Remove the crankshaft pulley bolt (6A340).
5. Using the Crankshaft Damper Remover, remove the crankshaft pulley (6312).



Crankshaft Pulley Removal and Replacement

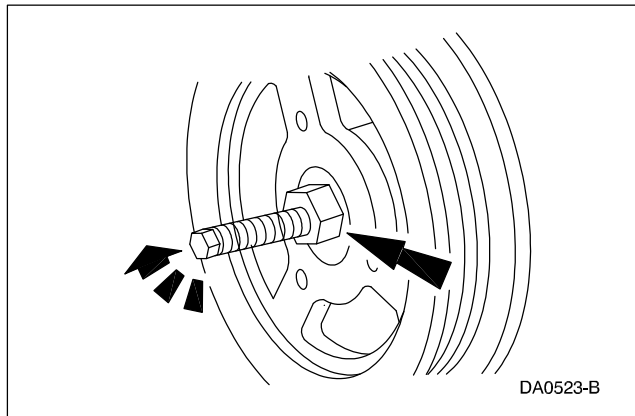
Installation



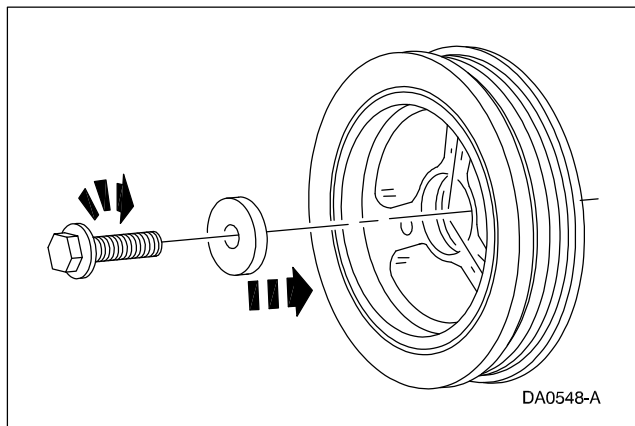
1. Note: If not secured within 4 minutes, the sealant must be removed and the sealing area cleaned with Metal Surface Cleaner F4AZ-19A536-RA or equivalent meeting Ford specification WSE-M5B392-A. Allow to dry until there is no sign of wetness, or 4 minutes, whichever is longer. Failure to follow this procedure can cause future oil leakage.

Apply silicone to the Woodruff key slot in the crankshaft pulley.

Use Silicone Gasket and Sealant F7AZ-19554-EA or equivalent meeting Ford specification WSE-M4G323-A4.



2. Use the Crankshaft Damper Replacer to install the crankshaft pulley.



3. Tighten the crankshaft pulley bolt in four stages.
 - Stage 1: Tighten to 90 Nm (66 lb-ft).
 - Stage 2: Loosen 360 degrees.
 - Stage 3: Tighten to 47-53 Nm (35-39 lb-ft).
 - Stage 4: Tighten an additional 85-95 degrees.

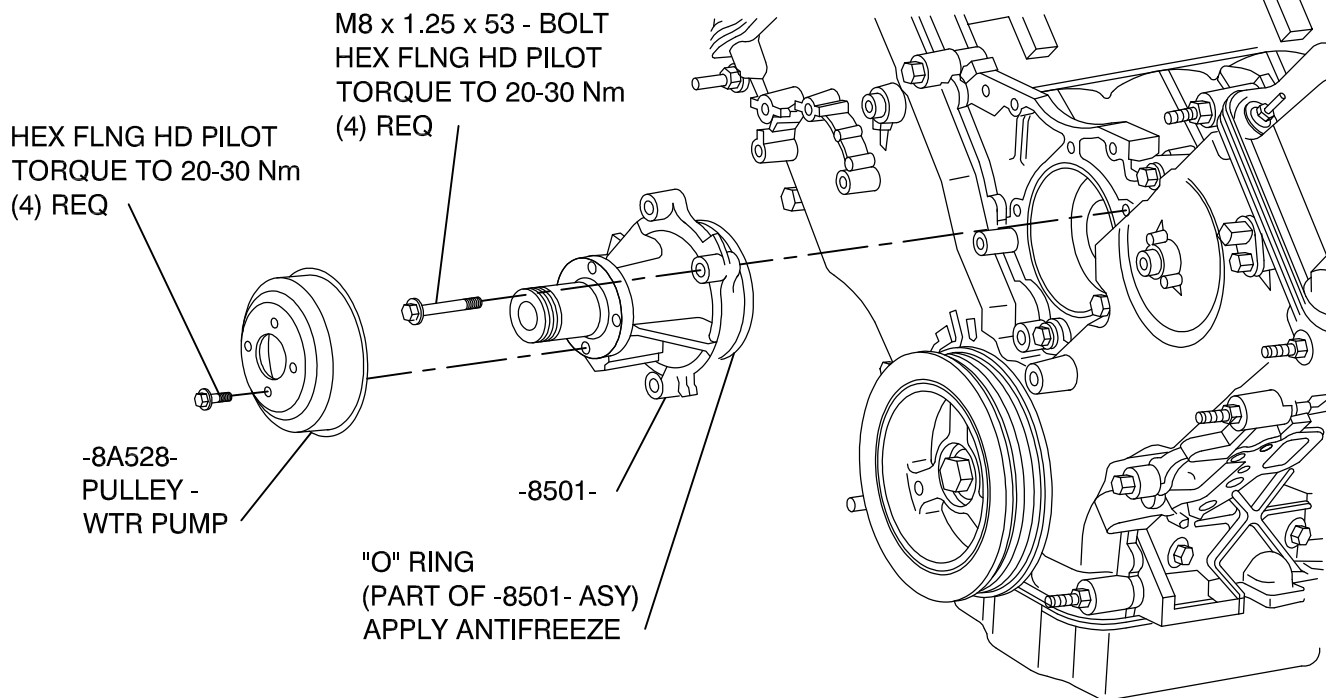
4. Lower the vehicle.

5. Install the engine cooling fan and the fan shroud. For additional information, refer to Section 303-03.

FORD PRODUCT ENGINEERING

INSTALLATION INSTRUCTIONS FOR FRONT END ACCESSORY DRIVE CRANKSHAFT EXT. SUPPORT (SPIDER)

5.4L (DewEze 740276) INSTALLATION SHOWN, 6.8L (DewEze 740275) PROCESS IS IDENTICAL EXCEPT WHERE NOTED.

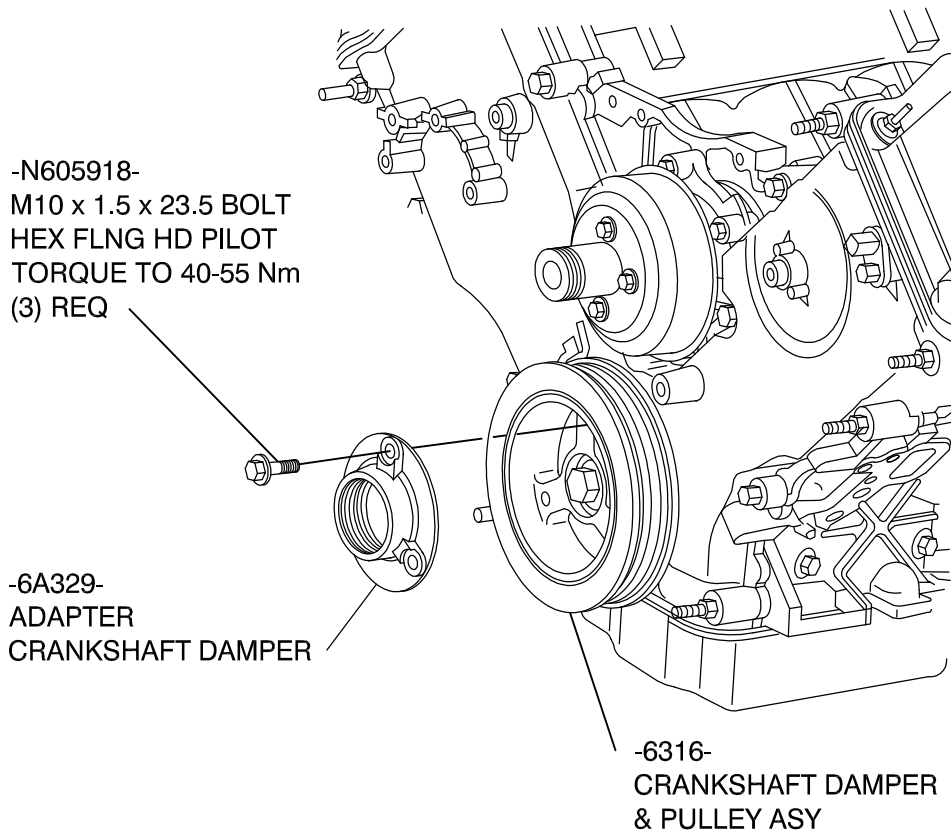


1. REMOVE AND DISCARD -8501- PRODUCTION WATER PUMP
2. INSTALL -8501- PTO WATER PUMP WITH EXTENDED HUB
3. REATTACH -8A528- PULLEY - WATER PUMP TO -8501- WATER PUMP ASY WITH (4) BOLTS TORQUE TO 20-30 Nm (15-22 lb-ft)

FORD PRODUCT ENGINEERING

INSTALLATION INSTRUCTIONS FOR FRONT END ACCESSORY DRIVE CRANKSHAFT EXT. SUPPORT (SPIDER)

5.4L (DewEze 740276) INSTALLATION SHOWN, 6.8L (DewEze 740275) PROCESS IS IDENTICAL EXCEPT WHERE NOTED.

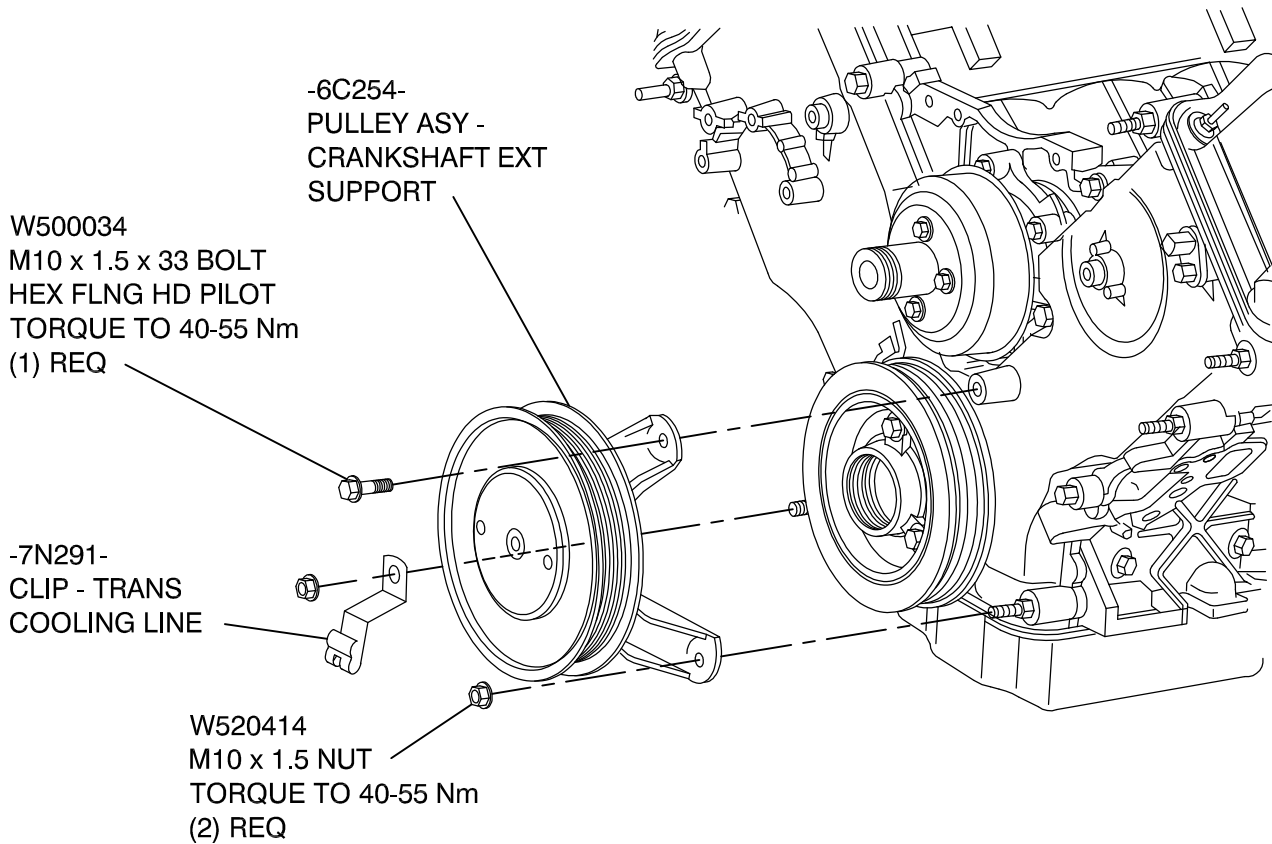


4. INSTALL -6A329- ADAPTER - CRANKSHAFT DAMPER TO -6316- DAMPER - CRANKSHAFT WITH (3) N605918 BOLTS TORQUE TO 40-55 Nm (30-40 lb-ft)
5. COAT THREADS OF ADAPTER WITH A HIGH TEMPERATURE NICKEL ANTI-SEIZE LUBRICANT SUCH AS FORD MOTOR COMPANY PART NUMBER F6AZ-9L494-AA, SPECIFICATION ESE-M12A4-A OR EQUIVALENT

FORD PRODUCT ENGINEERING

INSTALLATION INSTRUCTIONS FOR FRONT END ACCESSORY DRIVE CRANKSHAFT EXT. SUPPORT (SPIDER)

5.4L (DewEze 740276) INSTALLATION SHOWN, 6.8L (DewEze 740275) PROCESS IS IDENTICAL EXCEPT WHERE NOTED.

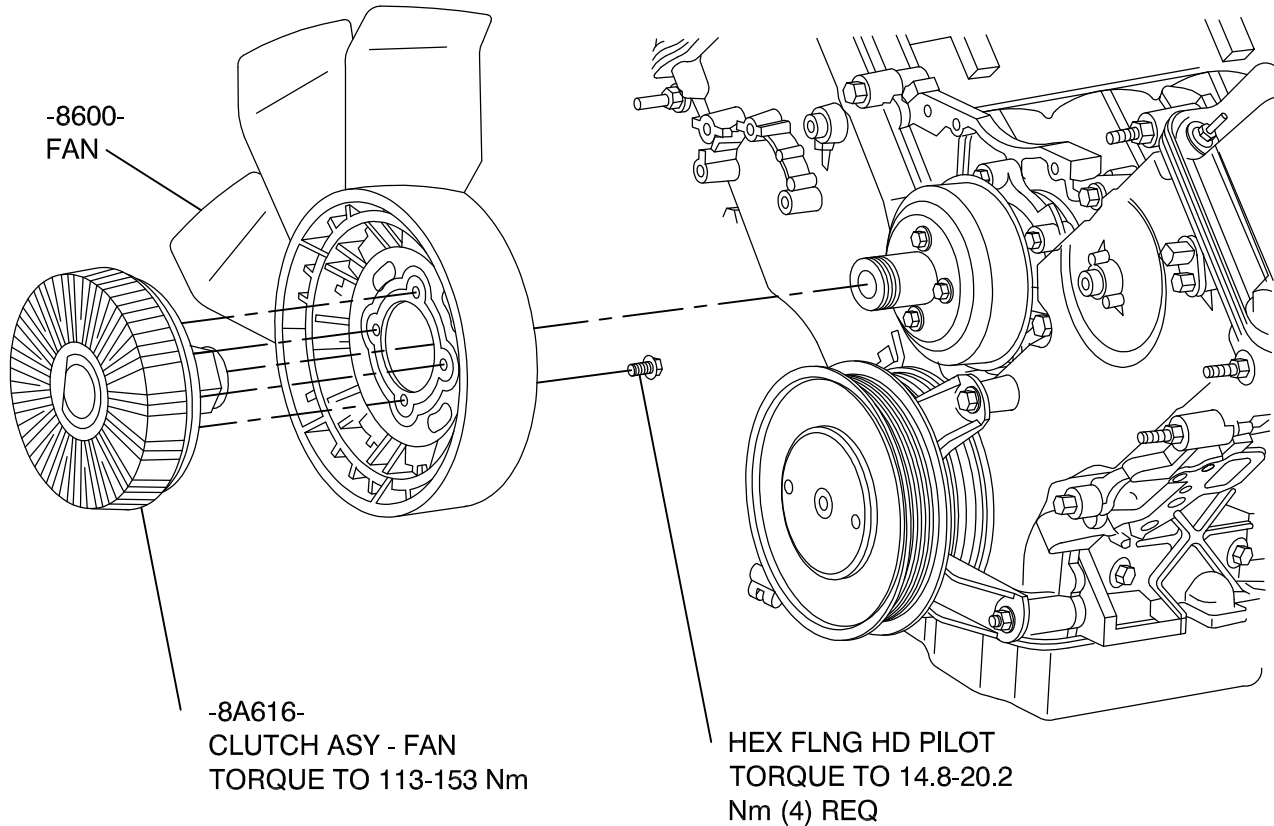


6. RETAIN CRANKSHAFT WITH FORD ROTUNDA TOOL TO BE ANNOUNCED
7. INSTALL -6C254- PULLEY ASY - CRANKSHAFT EXT SUPPORT BY TURNING PULLEY COUNTER CLOCKWISE INTO -6A329- ADAPTER - CRANKSHAFT TORQUE TO 95-105 Nm (70-77 lb-ft)
8. PLACE LEGS OF -6C254- PULLEY ASY - CRANKSHAFT EXT SUPPORT ON TWO STUDS LOCATED AT FRONT OF ENGINE, BOTTOM OF BLOCK
9. ATTACH -7N291- CLIP - TRANS COLING LINES TO STUD AT FRONT OF ENGINE, PASSENGER SIDE BOTTOM OF BLOCK
10. SECURE TWO LEGS WITH TWO -W520414- NUTS M10 x 1.5 TORQUE TO 40-55 Nm (30-40 lb-ft)
ATTACH OTHER BRACKETS TO STUD ABOVE LEGS OF -6C254- PULLEY ASY-CRANKSHAFT EXT SUPPORT AND SECURE
11. SECURE LAST LEG WITH ONE -W500034- BOLT M10 x 1.5 x 33 TO TAPPED HOLE IN ENGINE FRONT COVER TORQUE TO 40-55 Nm (30-40 lb-ft)

FORD PRODUCT ENGINEERING

INSTALLATION INSTRUCTIONS FOR FRONT END ACCESSORY DRIVE CRANKSHAFT EXT. SUPPORT (SPIDER)

5.4L (DewEze 740276) INSTALLATION SHOWN, 6.8L (DewEze 740275) PROCESS IS IDENTICAL EXCEPT WHERE NOTED.



NOTE: (PROCESSES 12 AND 13 APPLY ONLY TO 5.4L EQUIPPED VEHICLES,
CORRECT CLUTCH EXISTS ON 6.8L EQUIPPED VEHICLES)

12. REMOVE AND DISCARD 5.4L FAN CLUTCH ASY
13. ATTACH FAN TO NEW -8A616- FAN CLUTCH ASY WITH
FOUR SCREWS
TORQUE TO 14.8-20.2 Nm (11-15 lb-ft)
14. INSTALL FAN AND FAN CLUTCH ASY TO WATER PUMP HUB
TORQUE TO 113-153 Nm (83-113 lb-ft)