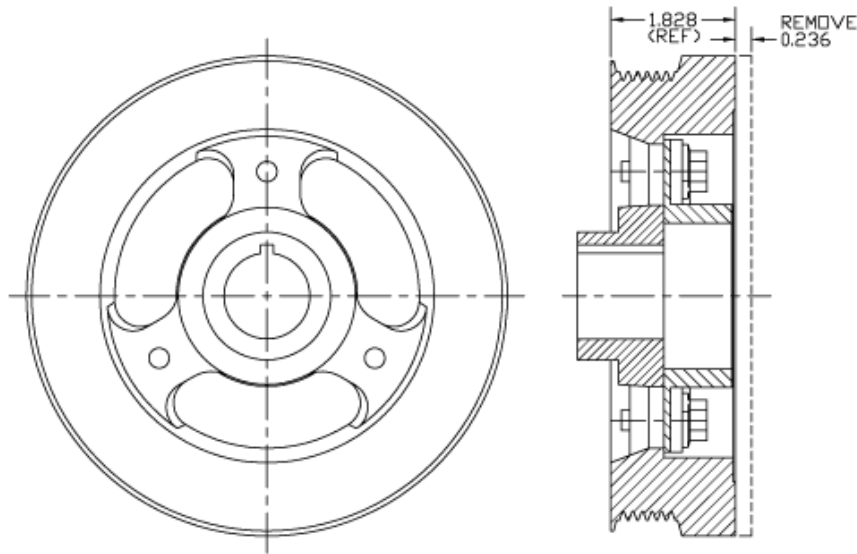


ATTENTION – CORE RETURN '05-'10 Ford 6.8L Crankshaft Pulley

The original pulley used on '05-'10 Ford 6.8L engines that is removed with the installation of a DewEze clutch-pump kit may be returned to the factory for credit. A credit of \$90.00 (less your customer discount) will be credited to your account when this part is returned in usable condition. Adequately package pulley to prevent damage in transit. Return freight is your responsibility. Please complete the form below and return a copy with the pulley within 90 days from purchase.



740400 Crankshaft Pulley (740399 – Unmachined)

Please fill out form completely.

Dealer Name _____ Date _____

CO Number _____

HII Dealer Customer Number _____ HII RGA Number _____

Please retain a copy of this form for your records.

If you have any questions, please call HII Service personnel (800-835-1042).

Harper Industries, Inc.

151 E Hwy 160

Harper, KS 67058

Ford, 6.8L:G, 2005+, F-350, w/Spider Kit, A Pump, 12, 17 GPM, Rear Port

Bolt Packages:

Bracket	711652 (Inc. Item 9, 15)
Idler pulley	711653 (Inc. Items 10, 15)
Pulley	None
Tensioner	None

Issue Date	10-22-04	Revision Date	F 12-6-11
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Item Part No. Description

1.	711646	Engine bracket	13.	OEM	Bolt
2.	-----	-----	14.	-----	-----
3.	110780	Washer, M8 x .188" thick	15.	110676	3/8 Flat washer
4.	-----	-----	16.	-----	-----
5.	740261	Idler pulley, flat 3.00"	17.	-----	-----
6.	740388	Tensioner assy.	18.	-----	-----
7.	*	Pump, A rear port	19.	740436	Spider drive
8.	742009	Clutch	20.	740400	Damper, crank
9.	110292	M8 x 1.25 x 120 Bolt	21.	740280	Belt, Micro-V K080716
10.	110282	M10 x 1.5 x 20 Bolt			
11.	110425	3/8-16 x 1 1/4 Bolt			
12.	110747	M12 x 1.75 x 75 Bolt			

* See pump list for sizes and part numbers.

FIG. 1

BELT DIAGRAM

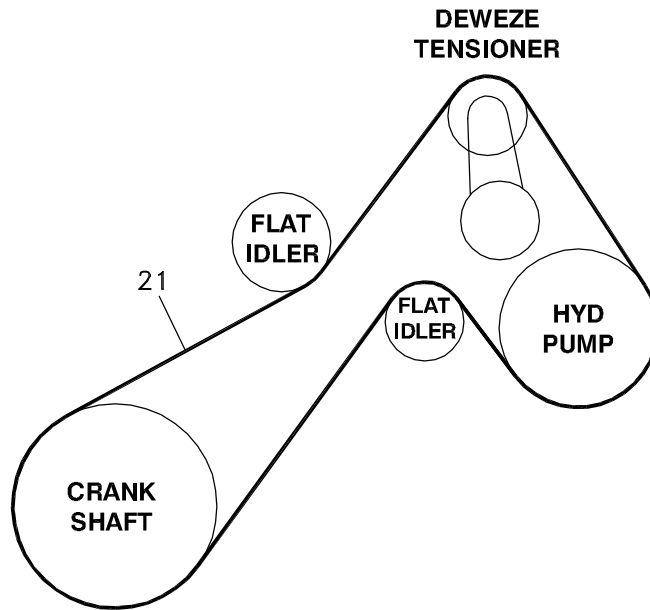
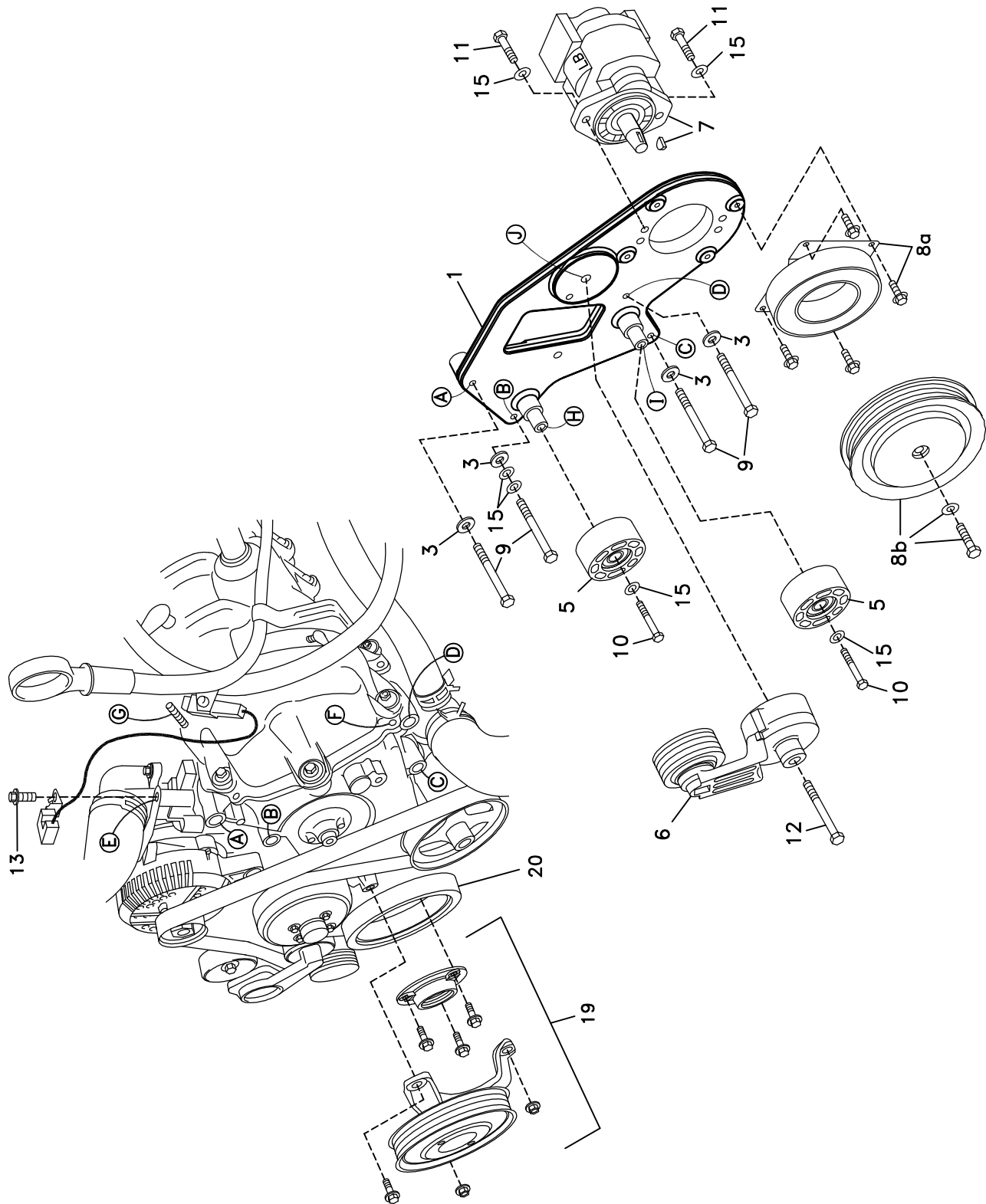


FIG. 2



DewEze

Clutch Pump Kit

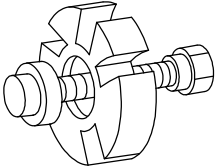
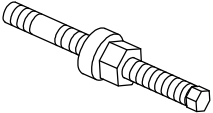
Clutch Pump Kit
700431
Ford 6.8
Spider drive
2005+

INSTALLATION INSTRUCTIONS

1. Disconnect the battery.
2. Remove the air cleaner assembly.
3. Drain the radiator. Remove the top radiator hose.
4. Remove the fan and shroud.
5. Remove the three OEM stud bolts from Locations A, C, and D. Remove one OEM bolt from Location B.
6. Remove the OEM bolt (13) from the front of the thermostat housing (Location E), place the OEM electrical wire as shown there and fasten with the OEM bolt.
7. Remove the wiring harness from the attachment points on the valve cover at the front corner (Location F) and the stud bolt under the air tube (Location G). Push the wiring harness back on top of the valve cover to clear the pump and bracket.
8. Install the crank damper (20) and spider drive (19). Replace the OEM water pump with the new water pump with extended hub, using the original water pump pulley over. Refer to the separate sheets for these procedures.
9. Attach the pump (7) to the back of the pump plate (1) using two 3/8 x 1 1/4 bolts (11) and two 3/8 flat washers (15).
10. Attach the clutch coil (8a) to the front of the pump plate using the four 1/4 x 1/2 flange bolts provided with the clutch. Attach the clutch pulley (8b) to the pump shaft using the 5/16 x 1 1/4 bolt and heavy flat washer provided with the clutch.
11. Place the tensioner (6) on the bracket at Location J using the M12 x 75 bolt (12) placing the locating pin in the hole in the bracket.
12. Attach the pump plate to the engine at Locations A, B, C, and D using four M8 x 120 bolts (9) with one .188" thick washer (3) on each bolt and two standard 3/8" flat washers (15) on the bolt at Location B only.
13. Attach one flat idler (5) to the plate with the M10 x 20 bolt (10) and 3/8 flat washer (15) at Location H. Attach the other flat idler (5) with an M10 x 20 bolt (10) and 3/8 flat washer (15) at Location I.
14. Install the new serpentine belt (21) as shown in Fig. 1. **Check to be sure the belt does not contact the airbox. If it does, remove the airbox and loosen the bolt where the support rod attaches to the airbox bracket. Pull the bracket toward the driver's side fender as far as it will go and tighten the bolt. Replace the airbox.**
15. Replace the fan and shroud.
16. Replace the radiator hose and the coolant.
17. Replace the air intake assembly. Line up the support bracket (19) with the mounting hole in the air intake at Location J. Attach the intake to the bracket with the 5/16 x 1 1/4 wiz bolt (20) and the 5/16 wiz nut (21). Tighten the M10 x 110 bolt at Location A.
18. Connect the battery.
19. Run the engine and check for any clearance or alignment problems. Adjust as needed.

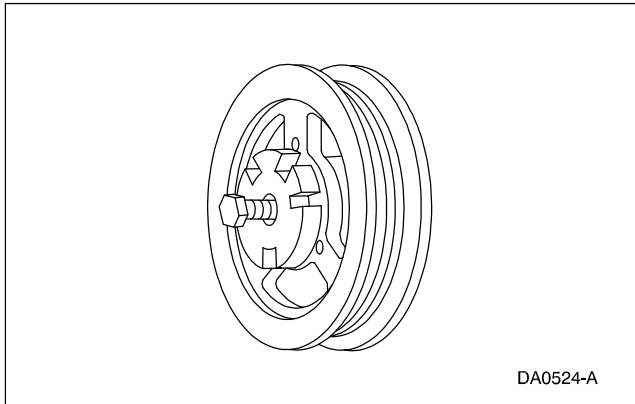
Crankshaft Pulley Removal and Replacement

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>

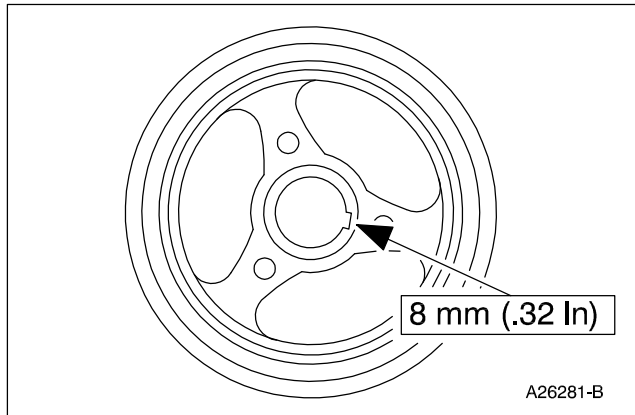
Removal

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

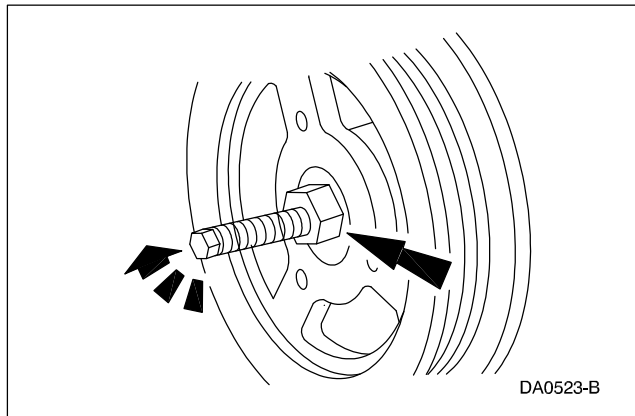
Installation



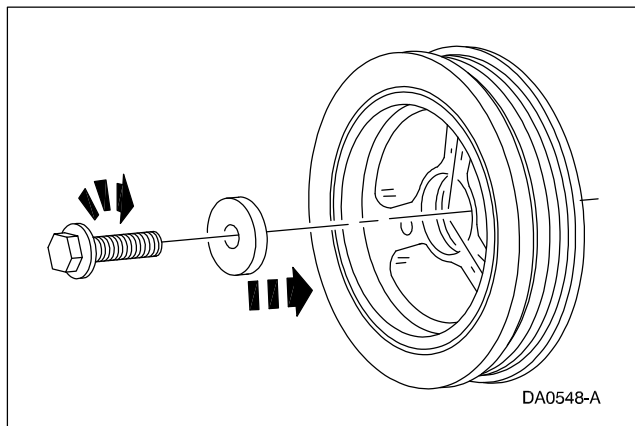
1. Note: If not secured within 4 minutes, the sealant must be removed and the sealing area cleaned with Metal Surface Cleaner F4AZ-19A536-RA or equivalent meeting Ford specification WSE-M5B392-A. Allow to dry until there is no sign of wetness, or 4 minutes, whichever is longer. Failure to follow this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

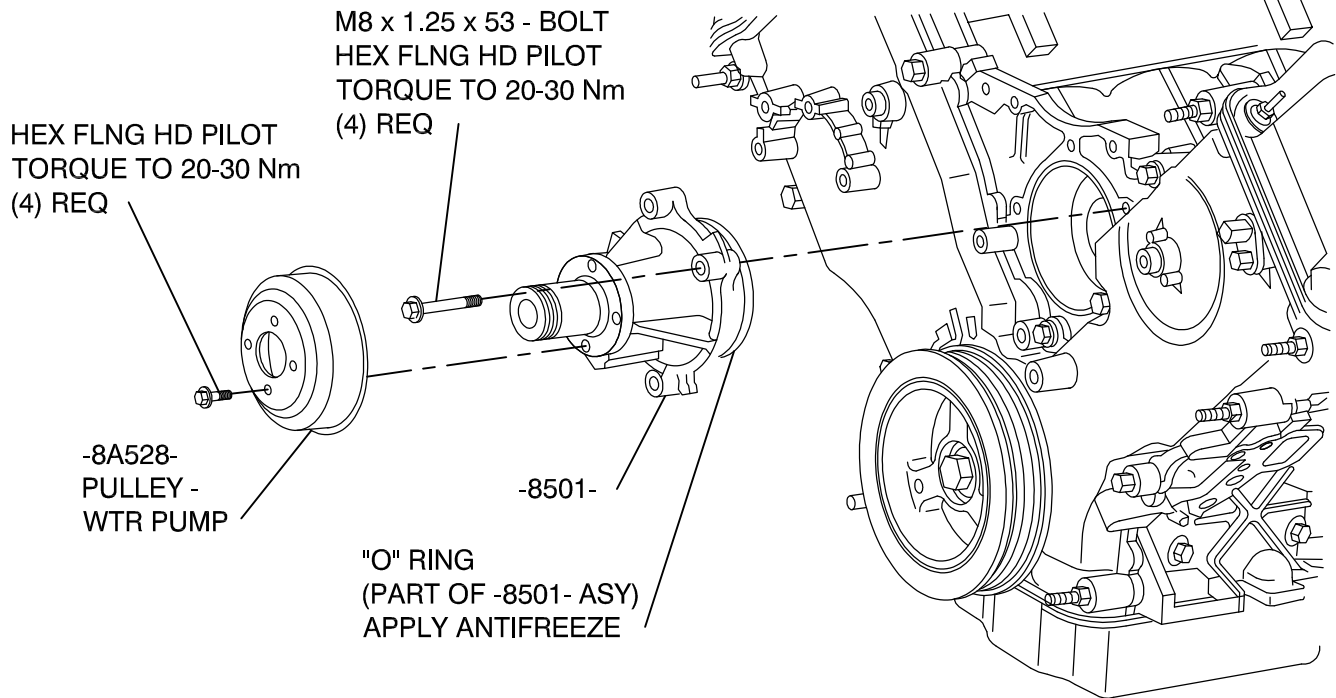
4. Lower the vehicle.

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.

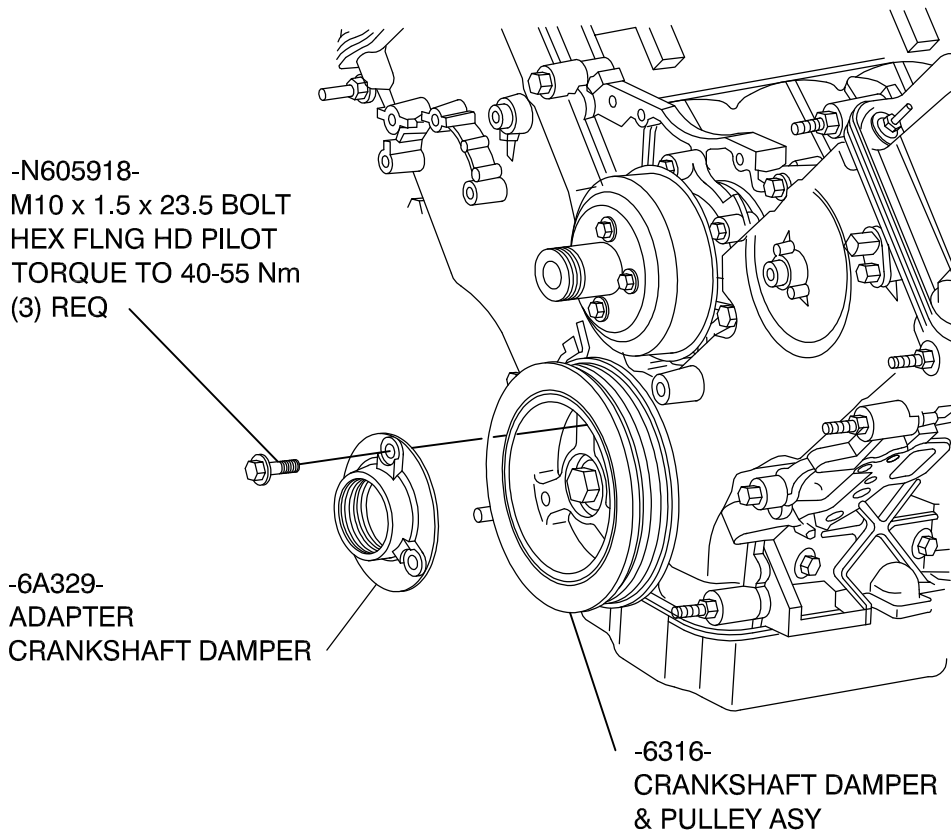


1. REMOVE AND DISCARD -8501- PRODUCTION WATER PUMP
2. INSTALL -8501- PTO WATER PUMP WITH EXTENDED HUB
3. REATTACH -8A528- PULLEY - WATER PUMP TO -8501- WATER PUMP ASY WITH (4) BOLTS TORQUE TO 20-30 Nm (15-22 lb-ft)

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.

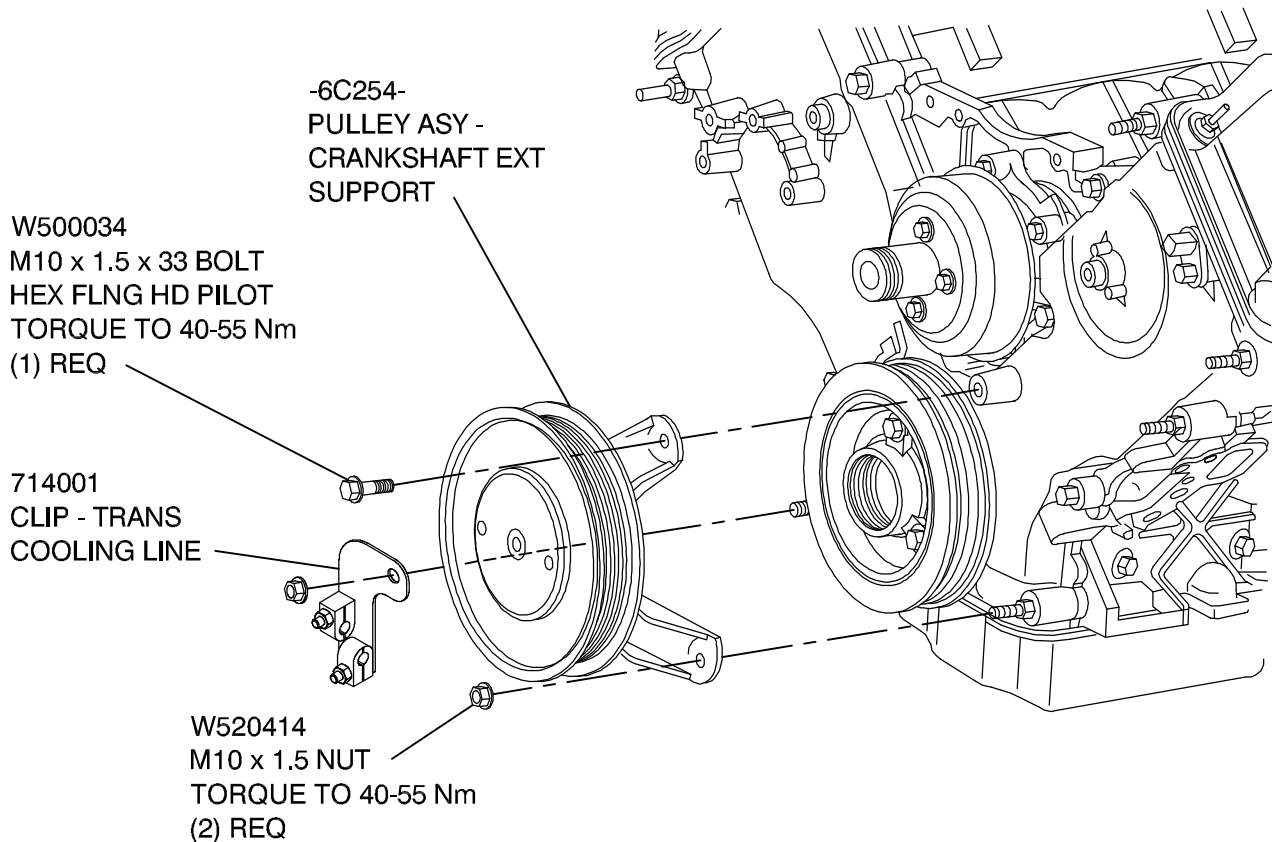


4. INSTALL -6A329- ADAPTER - CRANKSHAFT DAMPER TO -6316- DAMPER - CRANKSHAFT WITH (3) N605918 BOLTS TORQUE TO 40-55 Nm (30-40 lb-ft)
5. COAT THREADS OF ADAPTER WITH A HIGH TEMPERATURE NICKEL ANTI-SEIZE LUBRICANT SUCH AS FORD MOTOR COMPANY PART NUMBER F6AZ-9L494-AA, SPECIFICATION ESE-M12A4-A OR EQUIVALENT

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.

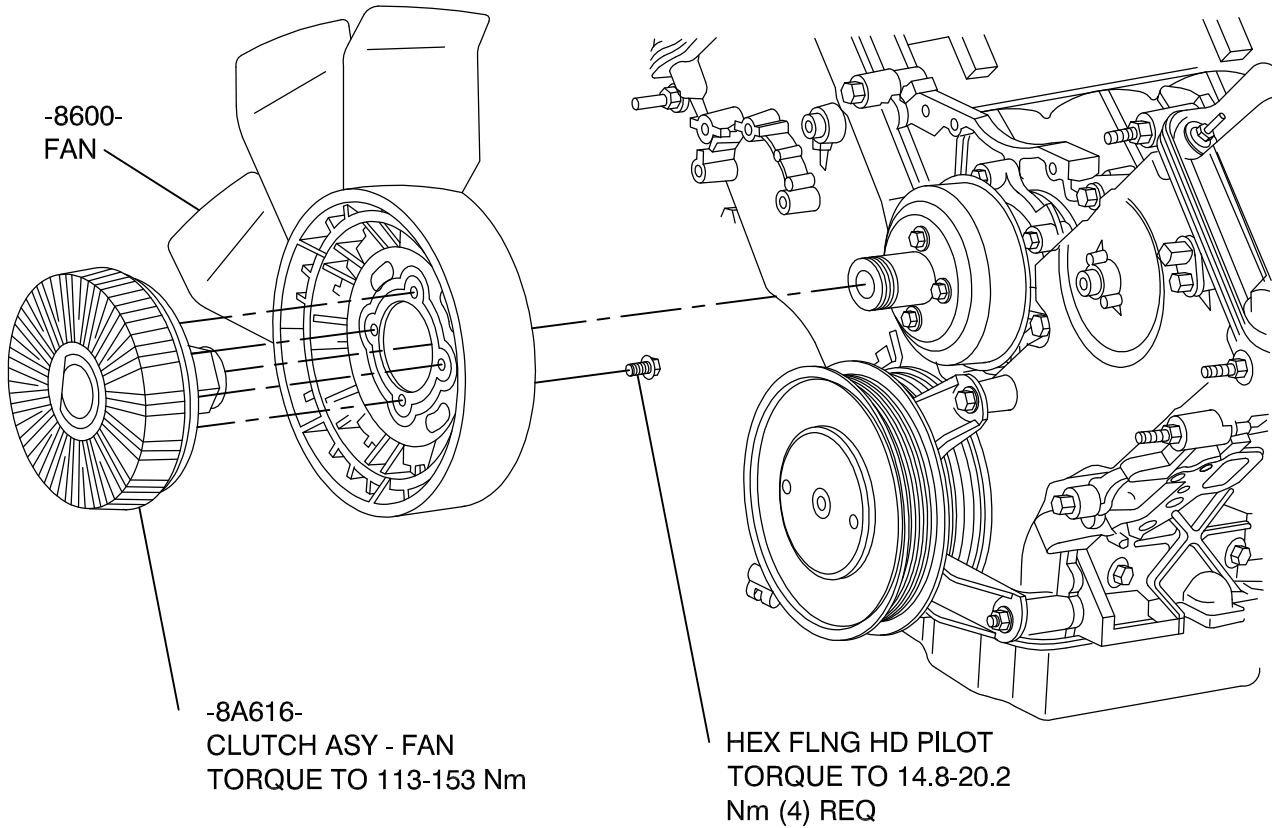


6. RETAIN CRANKSHAFT WITH FORD ROTUNDA TOOL
7. INSTALL -6C254- PULLEY ASY - CRANKSHAFT EXT SUPPORT BY TURNING PULLEY COUNTER CLOCKWISE INTO -6A329- ADAPTER - CRANKSHAFT TORQUE TO 95-105 Nm (70-77 lb-ft)
8. PLACE LEGS OF -6C254- PULLEY ASY - CRANKSHAFT EXT SUPPORT ON TWO STUDS LOCATED AT FRONT OF ENGINE, BOTTOM OF BLOCK
9. ATTACH 714001 CLIP - TRANS COOLING 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)