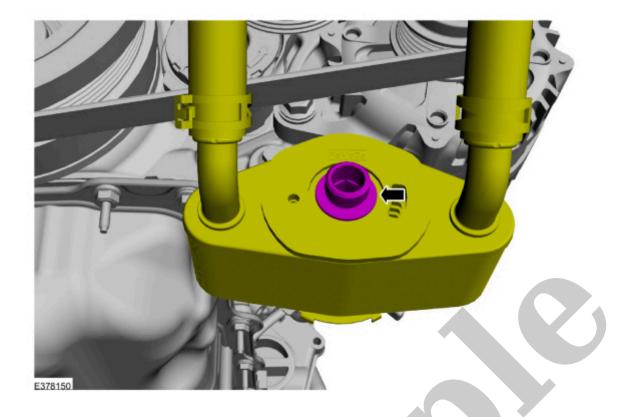


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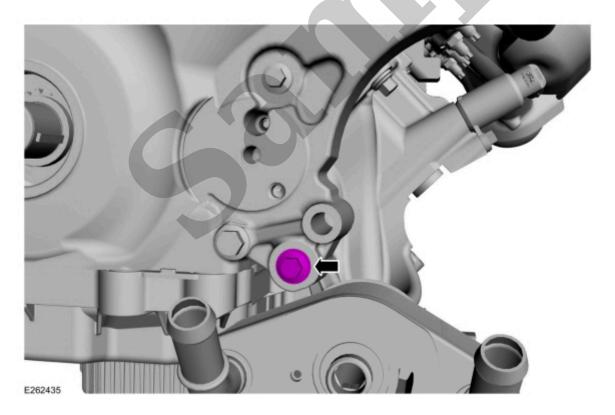
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2015 Ford E-450 Super Duty Service and Repair Manual

Go to manual page

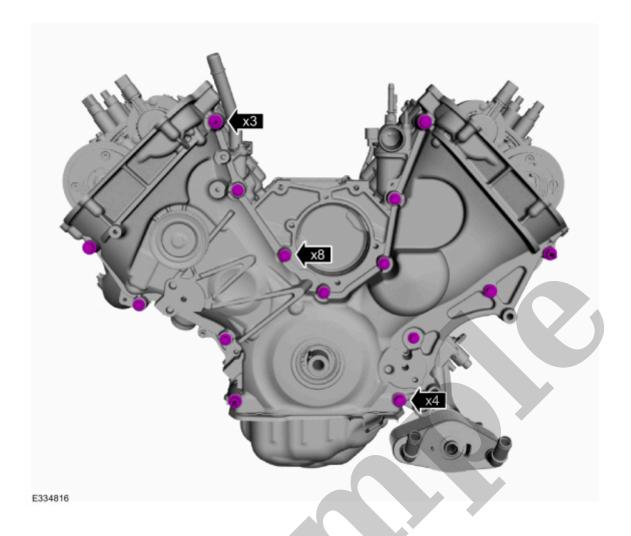


24. Remove the engine front cover-to-oil filter adapter bolt.

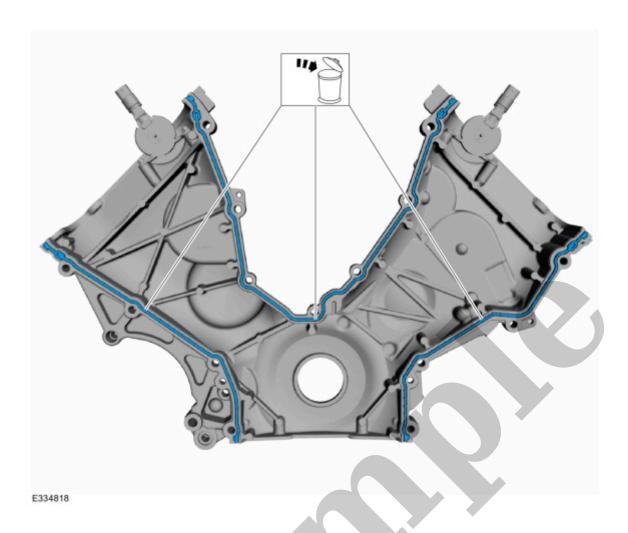


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25. Using a 10 mm Hex Bit loosen the engine front cover-to-oil filter adapter jack screw.

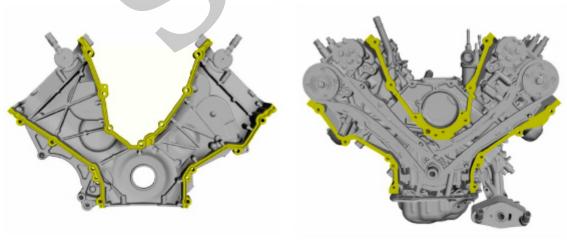


28. Remove the engine front cover from the front cover-to-cylinder block dowels.

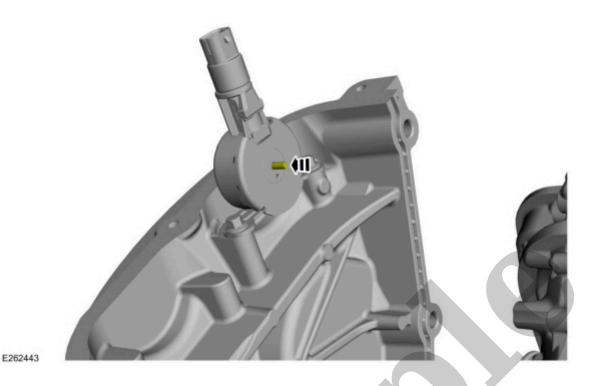


30. Clean and prepare the RTV sealing surface.

Refer to: RTV Sealing Surface Cleaning and Preparation(303-00 Engine System - General Information, General Procedures).



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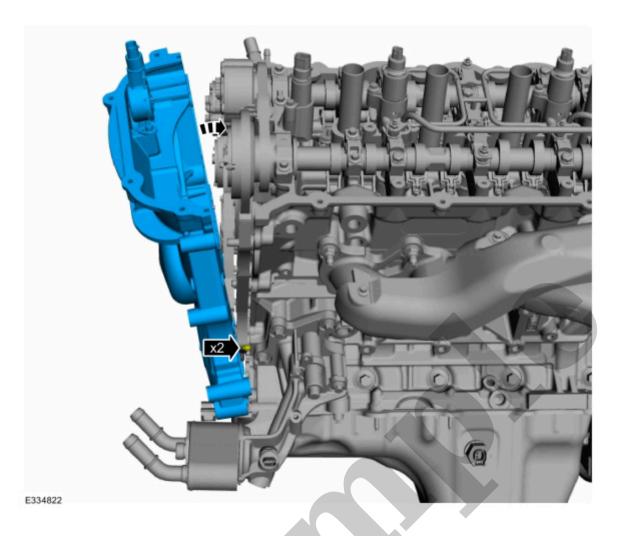


## 3. NOTICE

The engine front cover must be installed and all fasteners final tightened within 5 minutes of applying the sealer. If this cannot be accomplished, install the engine front cover and tighten fasteners 6, 7, 8, 9, 10 and 11 to 8 Nm (71 lb-in) within 5 minutes of applying the sealer. All of the fasteners must then be final tightened within 1 hour of applying the sealer. If this time limit is exceeded, all sealant must be removed and the sealing area cleaned. Failure to follow this procedure can cause future oil leakage.

Apply a 15 mm (0.59 in) diameter drop of silicone gasket and sealant to the camshaft carrier-to-cylinder head joints, the cylinder head-to-cylinder block joints and the oil pan-to-cylinder block joints.

*Material*: Motorcraft® High Performance Engine RTV Silicone / TA-357 (WSE-M4G323-A6)



#### 5. **NOTICE**

The engine front cover must be installed and all fasteners final tightened within 5 minutes of applying the sealer. If this cannot be accomplished, install the engine front cover and tighten fasteners 6, 7, 8, 9, 10 and 11 to 8 Nm (71 lb-in) within 5 minutes of applying the sealer. All of the fasteners must then be final tightened within 1 hour of applying the sealer. If this time limit is exceeded, all sealant must be removed and the sealing area cleaned. Failure to follow this procedure can cause future oil leakage.

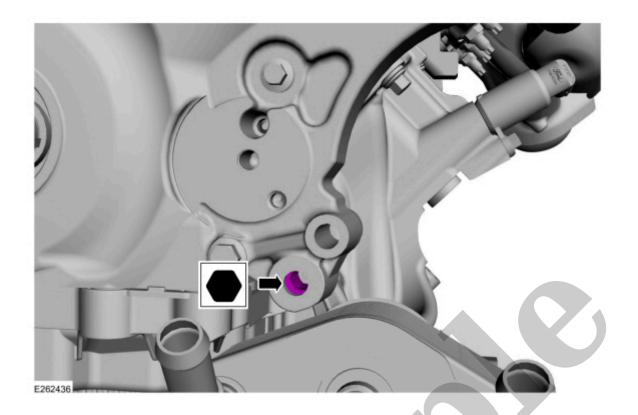
Install the bolts and stud bolts.

# Torque:

Stage 1: Fasteners 1-15: 18 lb.ft (25 Nm)

Stage 2: Fasteners 16-19: 89 lb.in (10 Nm)

Stage 3: Fasteners 1-15: 60°



7. Install the engine front cover-to-oil filter adapter bolt.

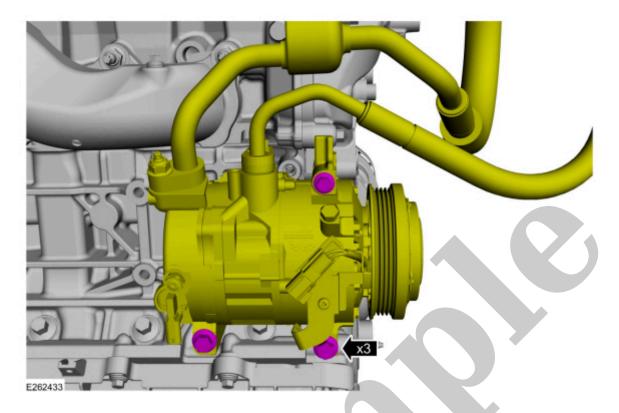
# Torque:

Stage 1: 18 lb.ft (25 Nm)

Stage 2: 60°

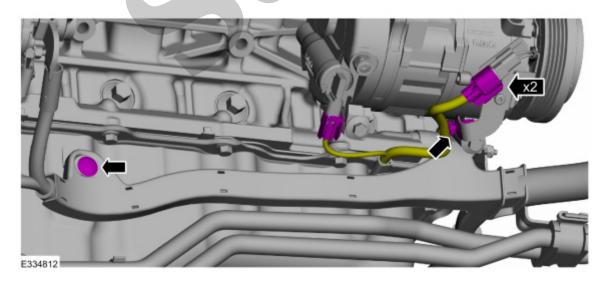
9. Install the A/C (air conditioning) compressor and the bolts.

**Torque**: 18 lb.ft (25 Nm)



Click here to learn about symbols, color coding, and icons used in this manual.

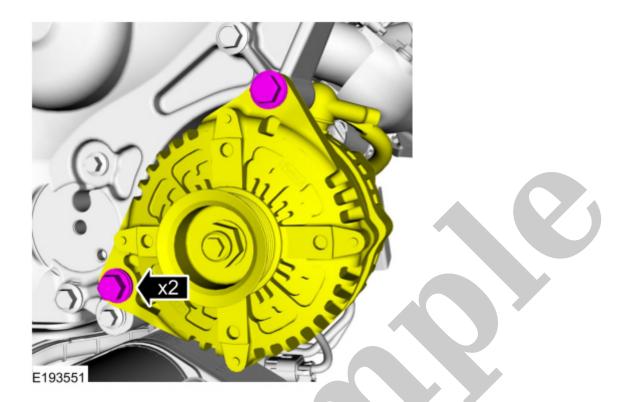
- 10. 1. Install the pin-type retainer.
  - 2. Attach the wiring harness retainer.
  - 3. Connect the A/C (air conditioning) compressor electrical connectors.



Click here to learn about symbols, color coding, and icons used in this manual.

13. Install the generator and the bolts.

Torque: 35 lb.ft (48 Nm)



Click here to learn about symbols, color coding, and icons used in this manual.

- 14. Install the following items:
  - 1. RH (right-hand) valve cover.

Refer to: Valve Cover RH(303-01E Engine - 5.0L 32V Ti-VCT, Removal and Installation).

2. LH (left-hand) valve cover.

Refer to: Valve Cover LH(303-01E Engine - 5.0L 32V Ti-VCT, Removal and Installation).

3. Crankshaft front seal.

Refer to: Crankshaft Front Seal(303-01E Engine - 5.0L 32V Ti-VCT, Removal and Installation).

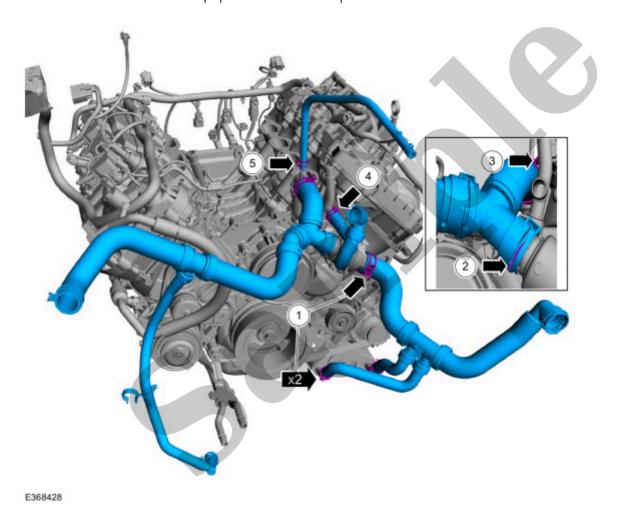
4. Coolant pump.

Refer to: Coolant Pump(303-03E Engine Cooling - 5.0L 32V Ti-VCT, Removal and Installation).

5. A/C (air conditioning) compressor belt tensioner.

Refer to: Air Conditioning (A/C) Compressor Belt Tensioner(303-05E Accessory Drive - 5.0L 32V Ti-VCT, Removal and Installation).

- 2. Install the coolant bypass T assembly and engage the spring clip.
- 3. Install the coolant hose and clamp.Use the General Equipment: Hose Clamp Remover/Installer
- Install the coolant hose and clamp.
  Use the General Equipment: Hose Clamp Remover/Installer
- Install the coolant hose and clamp.
  Use the General Equipment: Hose Clamp Remover/Installer



17. Position the coolant hose and connect the quick release coupling.