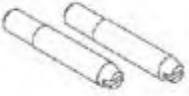


|                                                                                   |                                                                                      |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  | 205-149 (T80T-4000-R) Installer, Spindle Bearing                                     |
|  | 205-150 (T80T-4000-S) Installer, Spindle Bearing                                     |
|  | 205-153 (T80T-4000-W) Handle                                                         |
|  | 307-399 Alignment Pins, Transmission Fluid Pump<br>TKIT-2000AP-FLM/LM TKIT-2002N-DEW |
| Plastic Scraper                                                                   |                                                                                      |
| Oil Drain Equipment                                                               |                                                                                      |

## Materials

| Name                                                                 | Specification |
|----------------------------------------------------------------------|---------------|
| Motorcraft ® SAE 5W-20 Premium Synthetic Blend Motor Oil XO-5W20-QSP | WSS-M2C945-A  |
| Motorcraft ® High Performance Engine RTV Silicone TA-357             | WSE-M4G323-A6 |
| Motorcraft ® Silicone Gasket Remover ZC-30-A                         | -             |
| Motorcraft ® Metal Surface Prep ZC-31-B                              | -             |
| Metal Brake Parts Cleaner PM-4-A, PM-4-B                             | -             |

## REMOVAL AND INSTALLATION > ENGINE FRONT COVER > REMOVAL



**NOTE:** During engine repair procedures, cleanliness is extremely important. Any foreign material, including any material created while cleaning gasket surfaces that enters the oil passages, coolant passages or the oil pan, can cause engine failure.

With the vehicle in NEUTRAL, position it on a hoist. Refer to: Jacking and Lifting - Overview .

2.

Disconnect the battery ground cable. Refer to: Battery Disconnect and Connect .

3.

Remove the following items:

Refer to: Valve Cover LH .

Refer to: Valve Cover RH .

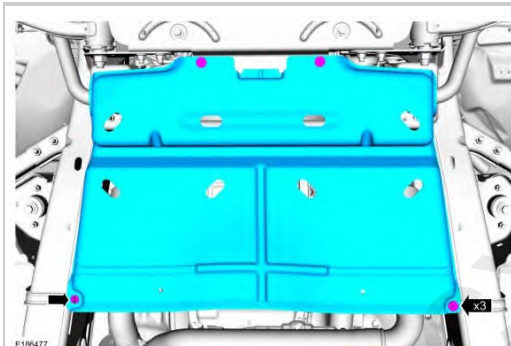
4.

Drain the cooling system. Refer to: COOLING SYSTEM DRAINING AND VACUUM FILLING

5.

If equipped, remove the bolts.

Release the retainer and remove the transmission housing cover.



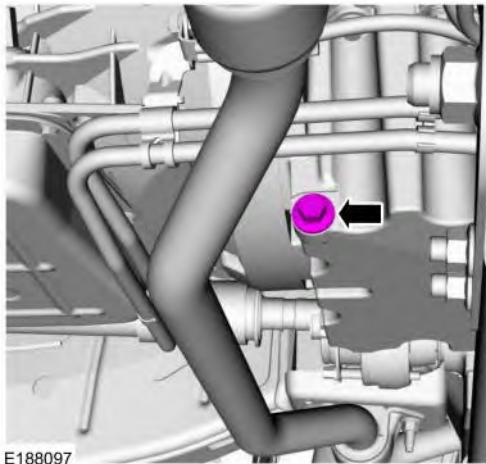
6.

Remove the oil pan drain plug and drain the engine oil. Use the General Equipment: Oil Drain Equipment

Install the oil pan drain plug.

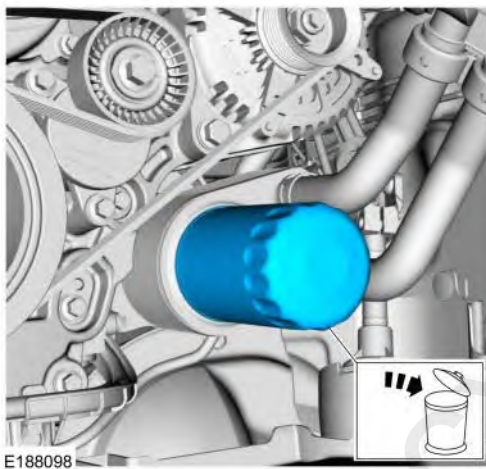
Torque

: 20 lb.ft (27 Nm)



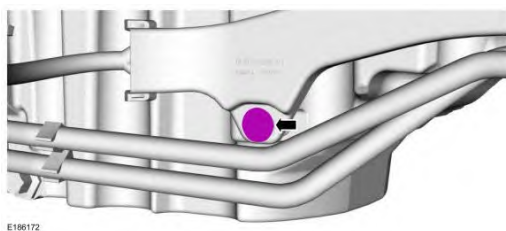
7.

Remove and discard the engine oil filter. Use the General Equipment: Oil Drain Equipment



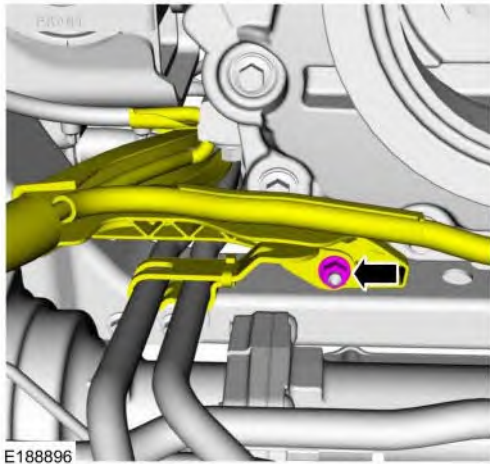
8.

Remove the wiring harness retainer from the oil pan.



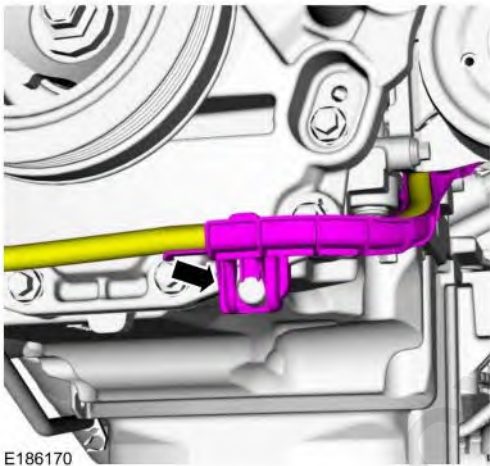
9.

Remove the nut and position the transmission cooler tube bracket and wiring harness aside.



10.

Disconnect the generator wiring from the engine front cover.



11.

Remove the following items:

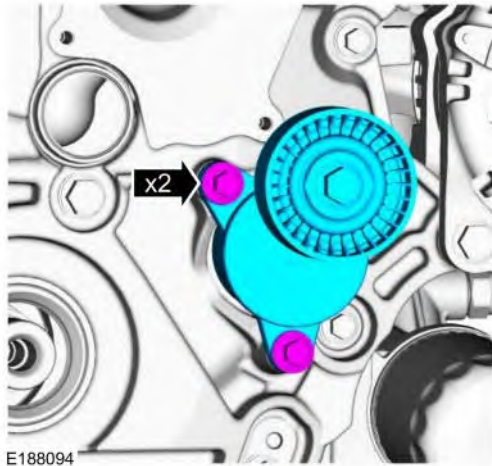
Refer to: Crankshaft Front Seal .

Refer to: DEGAS BOTTLE .

Refer to: COOLANT PUMP .

12.

Remove the bolts and the accessory drive belt tensioner.



13.

1.

Remove the nut.

2.

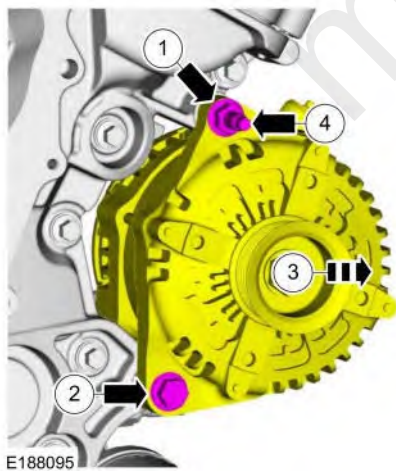
Remove the bolt.

3.

Position the generator aside.

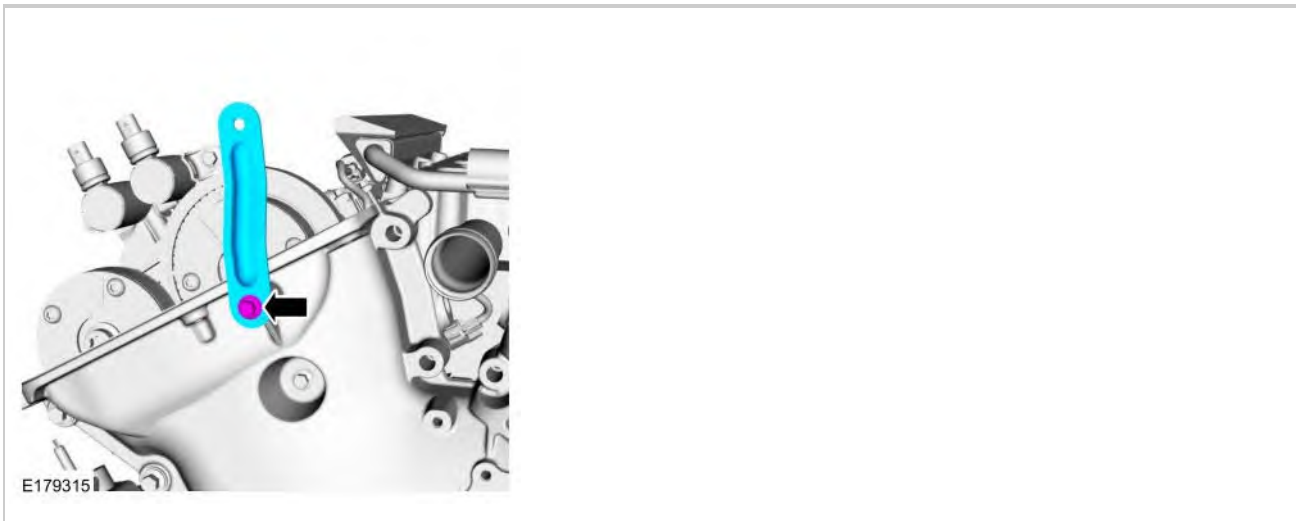
4.

Remove the stud bolt.



14.

Remove the bolt and the upper intake manifold support bracket.



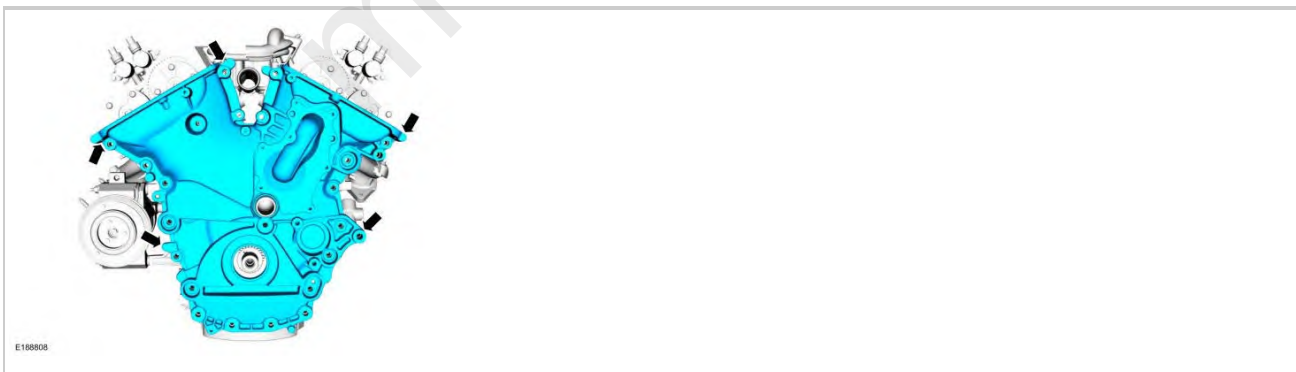
15.

Remove the engine front cover bolts.



16.

Using a pry tool, locate the pry pads shown and pry the engine front cover loose and remove.



17.

Using the special tools, remove the engine front cover to coolant pipe seal. Use Special Service Tool: 205-150 (T80T-4000-S) Installer, Spindle Bearing., 205-153 (T80T-4000-W) Handle.



18.

 **NOTE:** Only use a 3M™ Roloc ® Bristle Disk (2-in white, part number 07528) to clean the engine front cover. Do not use metal scrapers, wire brushes or any other power abrasive disk to clean front cover.

Clean the engine front cover using a 3M™ Roloc ® Bristle Disk (2-in white, part number 07528) in a suitable tool turning at the recommended speed of 15, 000 RPM. Refer to: RTV Sealing Surface Cleaning and Preparation .

Thoroughly wash the engine front cover to remove any foreign material, including any abrasive particles created during the cleaning process.

Material

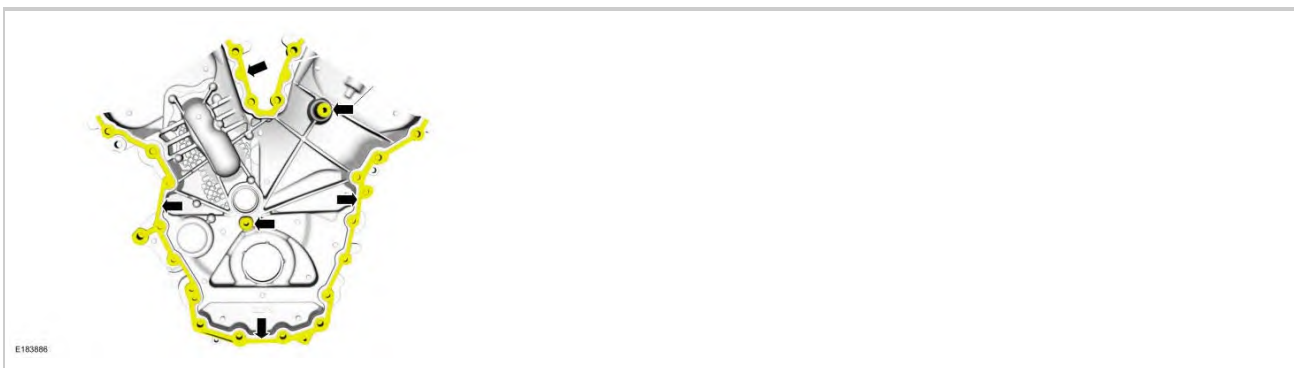
: Motorcraft ® Silicone Gasket Remover / ZC-30-A

Material

: Metal Brake Parts Cleaner / PM-4-A, PM-4-B

Material

: Motorcraft ® Metal Surface Prep / ZC-31-B



19.



*NOTE: Place clean, lint-free shop towels over exposed engine cavities. Carefully remove the towels so foreign material is not dropped into the engine. Any foreign material (including any material created while cleaning gasket surfaces) that enters the oil passages or the oil pan, may cause engine failure.*



*NOTE: Do not use wire brushes, power abrasive discs or 3M™ Roloc® Bristle Disk (2-in white part number 07528) to clean the sealing surfaces. These tools cause scratches and gouges that make leak paths. They also cause contamination that will cause premature engine failure. Remove all traces of the gasket.*

Make sure that the mating faces of the engine block and oil pan are clean and free of foreign material. Refer to: RTV Sealing Surface Cleaning and Preparation . Use the General Equipment: Plastic Scraper

Material

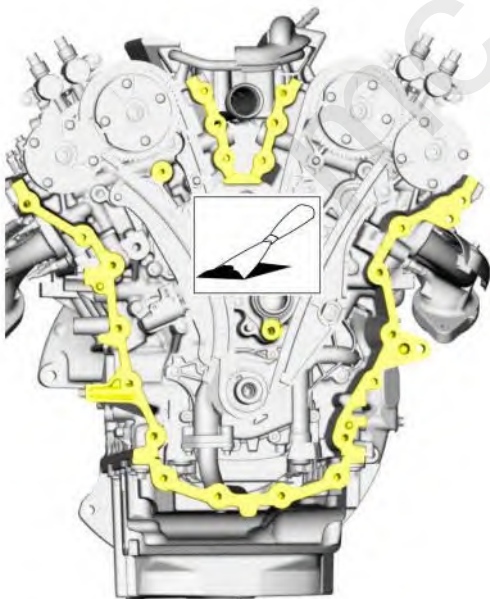
: Motorcraft® Silicone Gasket Remover / ZC-30-A

Material

: Metal Brake Parts Cleaner / PM-4-A, PM-4-B

Material

: Motorcraft® Metal Surface Prep / ZC-31-B



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