

12.

Install the LH turbocharger. Refer to: Turbocharger LH .

13.

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

REMOVAL AND INSTALLATION > CYLINDER HEAD RH

Special Tool(s) / General Equipment

Hose Clamp Remover/Installer

Materials

Name	Specification
Motorcraft ® SAE 5W-30 Premium Synthetic Blend Motor Oil XO-5W30-QSP	WSS-M2C946-A
Motorcraft ® Silicone Gasket Remover ZC-30-A	-
Motorcraft ® Metal Surface Prep ZC-31-B	-

REMOVAL AND INSTALLATION > CYLINDER HEAD RH > 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.



NOTE: If the cylinder head is replaced, a new secondary timing chain tensioner will need to be installed. Refer to Variable Camshaft Timing (VCT) Unit .

1.

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

2.

Release the fuel system pressure. Refer to: FUEL SYSTEM PRESSURE RELEASE .

3.

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

4.

Remove the RH turbocharger. Refer to: Turbocharger RH .

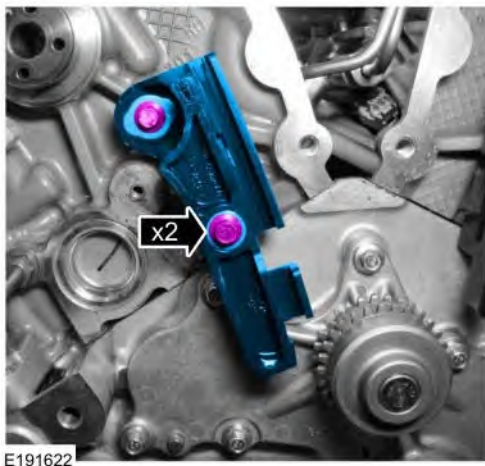
5.

Remove the RH camshafts. Refer to: Camshafts .

6.

 **NOTE:** Do not use power tools to remove the bolt or damage to the upper RH timing chain guide may occur.

Remove the bolts and the RH timing chain guide.

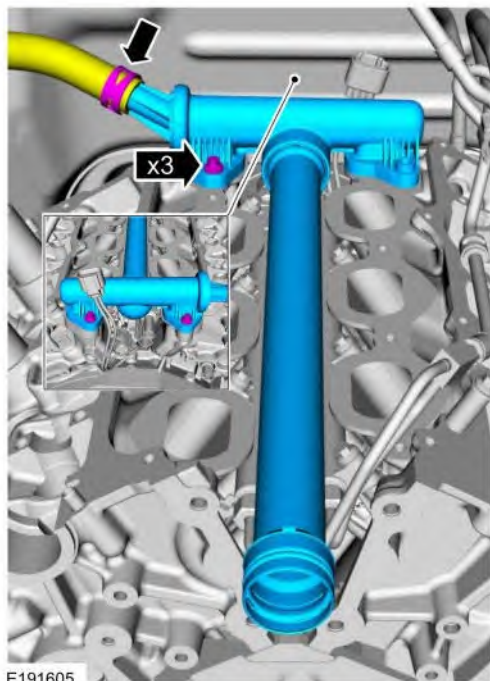


7.

Disconnect the heater hose. Use the General Equipment: Hose Clamp Remover/Installer

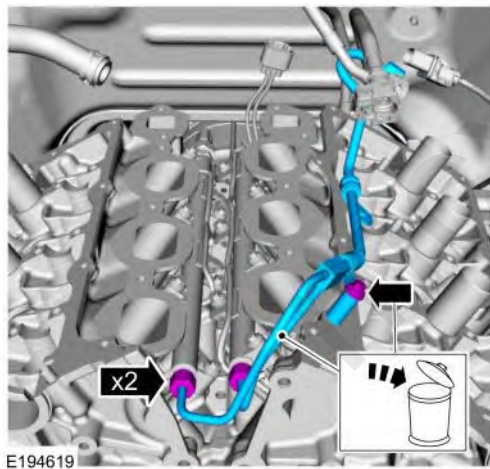
Remove the bolts and the coolant crossover manifold assembly.

Discard the gaskets.



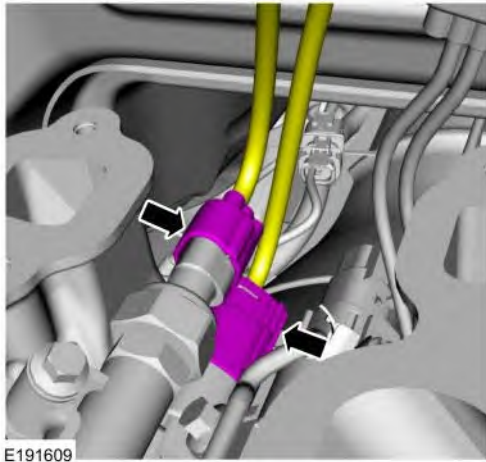
8.

Loosen the flare nuts, remove the bolt and the high-pressure fuel tube. Discard the bolt and the high-pressure fuel tube.



9.

Disconnect the fuel rail pressure sensor and RH fuel charge harness electrical connectors.

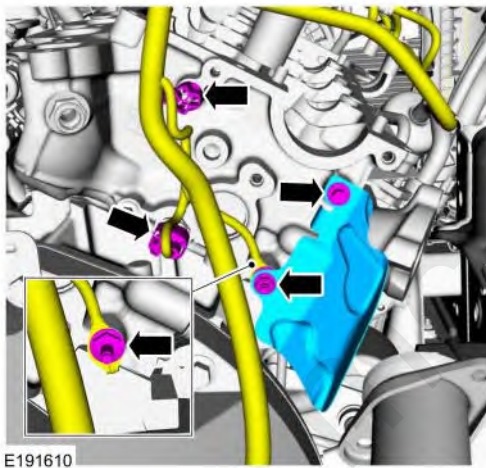


10.

Remove the retainers and the heat shield.

Remove the stud bolt.

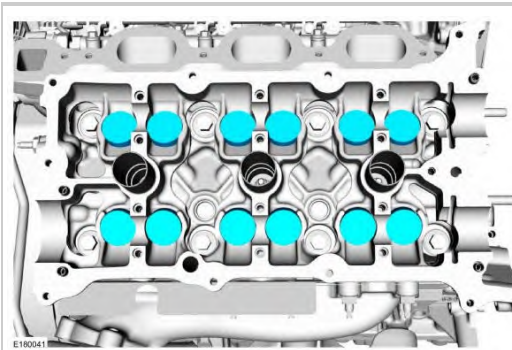
Disconnect the CHT sensor electrical connector and wiring harness retainer.



11.

 **NOTE:** If the components are to be reinstalled, they must be installed in the same positions. Mark the components for installation into their original locations.

Remove the valve tappets.



12.

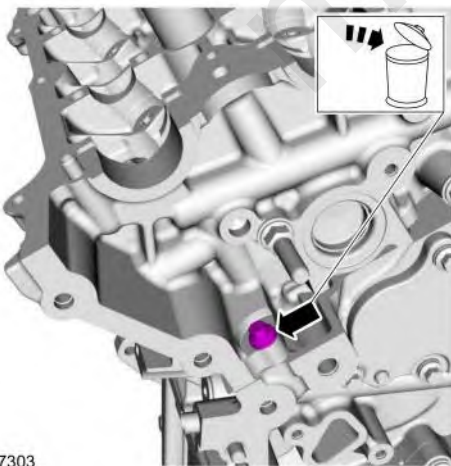
Inspect and install new components as necessary.



E177302

13.

Remove and discard the M6 bolt.



E177303

14.

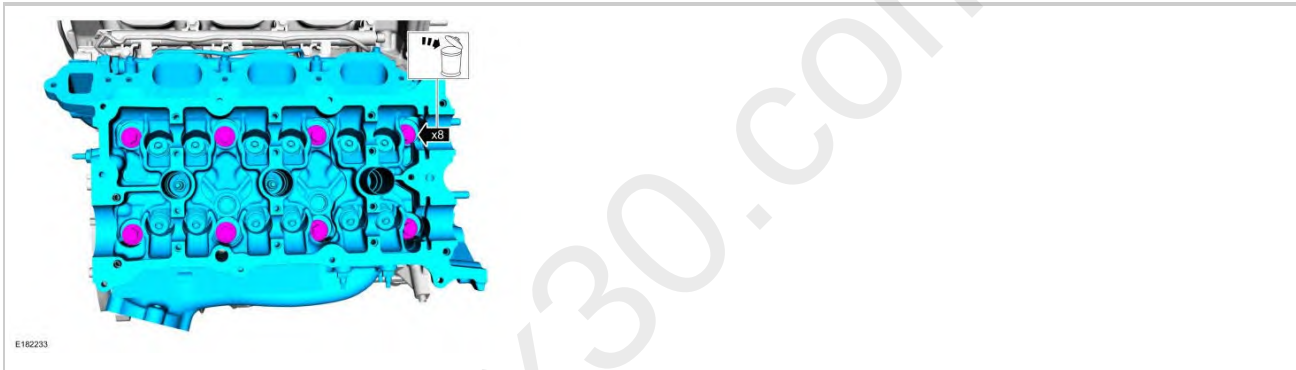
 **NOTE:** Place clean shop towels over exposed engine cavities. Carefully remove the towels so foreign material is not dropped into the engine. Any foreign material (including any material created while cleaning gasket surfaces) that enters the oil passages or the oil pan, may cause engine failure.

 **NOTE:** Aluminum surfaces are soft and can be scratched easily. Never place the cylinder head gasket surface, unprotected, on a bench surface

 **NOTE:** The cylinder head bolts must be discarded and new bolts must be installed. They are tighten-to-yield designed and cannot be reused.

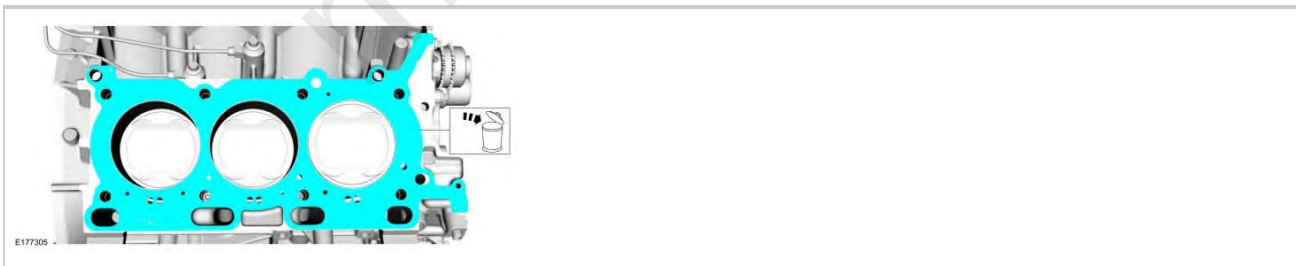
Remove and discard the bolts.

Remove the cylinder head.



15.

Remove and discard the cylinder head gasket.



16.

 **NOTE:** Do not use metal scrapers, wire brushes, power abrasive discs or other abrasive means to clean the sealing surfaces. These tools cause scratches and gouges that make leak paths. Use a plastic scraping tool to remove all traces of the head gasket.