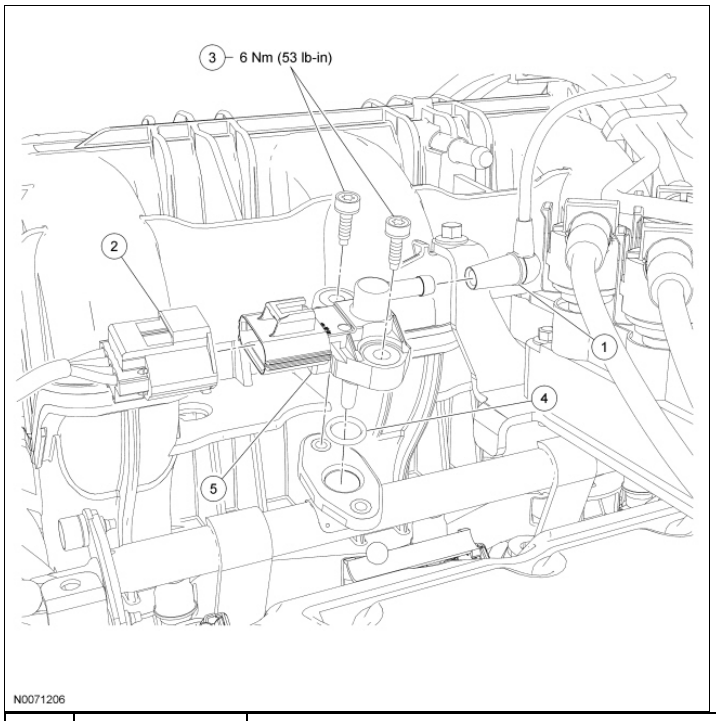
Fuel Rail Pressure and Temperature Sensor - 4.0L SOHC

Material

Item	Specification
Motorcraft SAE 5W-30 Premium Synthetic Blend Motor Oil XO-5W30-QSP (US); Motorcraft SAE 5W-30 Super Premium Motor Oil CXO-5W30-LSP12 (Canada); or equivalent	WSS-M2C929-A



Item	Part Number	Description
1	9E498	Fuel rail pressure and temperature sensor vacuum hose
2	14A464	Fuel rail pressure and temperature sensor electrical connector
3	-	Fuel rail pressure and temperature sensor bolts (2 required)
4	9G756	O-ring seal (part of 9G756)
5	9G756	Fuel rail pressure and temperature sensor

Removal and Installation

⚠ WARNING: Do not smoke, carry lighted tobacco or have an open flame of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions may result in serious personal injury.

⚠ WARNING: Before working on or disconnecting any of the fuel tubes or fuel system components, relieve the fuel system pressure to prevent accidental spraying of fuel. Fuel in the fuel system remains under high pressure, even when the engine is not running. Failure to follow this instruction may result in serious personal injury.

1. Release the fuel system pressure. For additional information, refer to Section 310-00 .

2. Disconnect the battery ground cable. For additional information, refer to Section 414-01 .

3. Disconnect the fuel rail pressure and temperature sensor electrical connector.

4. Disconnect the vacuum hose from the fuel rail pressure and temperature sensor.

5. Remove the 2 bolts and the fuel rail pressure and temperature sensor.
    - To install, tighten to 6 Nm (53 lb-in).

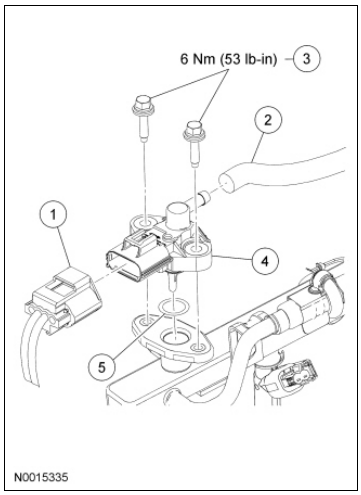
6. To install, reverse the removal procedure.
    - Inspect the O-ring seal and install new as necessary.
    - Lubricate the O-ring seal with clean engine oil.

Fuel Rail Pressure and Temperature Sensor - 4.6L (3V), 5.4L (4V)

Material

Item	Specification
Motorcraft SAE 5W-30 Premium Synthetic Blend Motor Oil XO-5W30-QSP (US); Motorcraft SAE 5W-30 Super Premium Motor Oil CXO-5W30-LSP12 (Canada); or equivalent	WSS-M2C929-A
Motorcraft SAE 5W-50 Full Synthetic Motor Oil XO-5W50-QGT or equivalent	WSS-M2C931-B

NOTE: 4.6L (3V) shown, 5.4L (4V) similar.



Item	Part Number	Description
1	14A464	Fuel rail pressure and temperature sensor electrical connector
2	9C482/9E498	Vacuum hose (4.6L [3V]/ 5.4L [4V])
3	W705870	Fuel rail pressure and temperature sensor bolts (2 required)
4	9G756	Fuel rail pressure and temperature sensor
5	-	O-ring seal

Removal and Installation

⚠ WARNING: Do not smoke, carry lighted tobacco or have an open flame of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions may result in serious personal injury.

⚠ **WARNING: Before working on or disconnecting any of the fuel tubes or fuel system components, relieve the fuel system pressure to prevent accidental spraying of fuel. Fuel in the fuel system remains under high pressure, even when the engine is not running. Failure to follow this instruction may result in serious personal injury.**

1. Release the fuel system pressure. For additional information, refer to Section 310-00 .

2. Disconnect the battery ground cable. For additional information, refer to Section 414-01 .

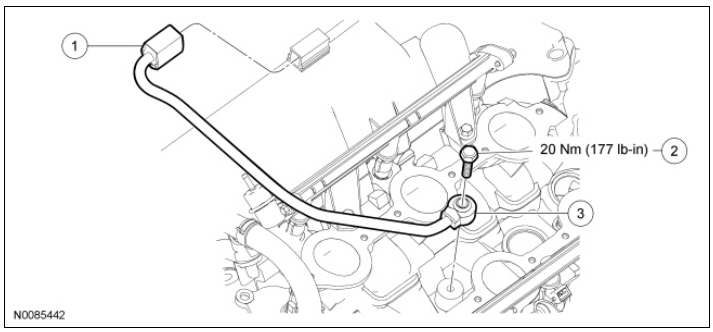
3. Disconnect the fuel rail pressure and temperature sensor electrical connector.

4. Disconnect the vacuum hose from the fuel rail pressure and temperature sensor.

5. Remove the 2 bolts and the fuel rail pressure and temperature sensor.
   - To install, tighten to 6 Nm (53 lb-in).

6. To install, reverse the removal procedure.
   - Inspect the O-ring seal and install new as necessary.
   - Lubricate the O-ring seal with clean engine oil.

Knock Sensor (KS) - 4.0L SOHC



Item	Part Number	Description
1	14A624	Knock Sensor (KS) electrical connector (part of 12B637)
2	W500225	KS bolt
3	12A699	KS

Removal and Installation

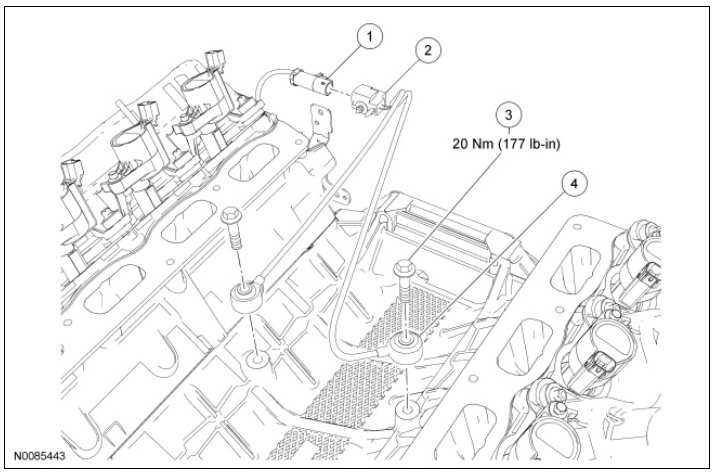
1. Remove the intake manifold. For additional information, refer to Section 303-01A .

2. Disconnect the Knock Sensor (KS) electrical connector.

3. Remove the bolt and the KS .
   - To install, tighten to 20 Nm (177 lb-in).

4. To install, reverse the removal procedure.

Knock Sensor (KS) - 4.6L (3V)



Item	Part Number	Description
1	14A464	Knock Sensor (KS) electrical connector (part of 12B637)
2	-	Pin-type retainer (part of 12A699)
3	W500110	KS bolt (2 required)
4	12A699	KS

Removal and Installation

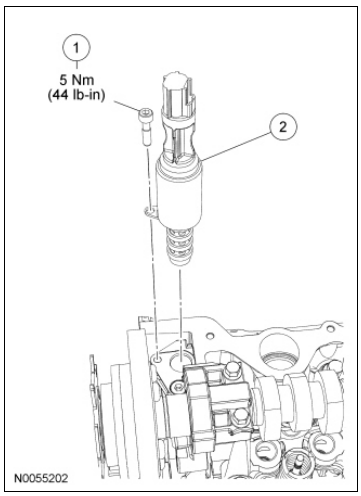
1. Remove the intake manifold. For additional information, refer to Section 303-01B .

2. Disconnect the Knock Sensor (KS) electrical connector.
   - Detach the pin-type retainer.

3. Remove the 2 bolts and the KS .
   - To install, tighten to 20 Nm (177 lb-in).

4. To install, reverse the removal procedure.

Variable Camshaft Timing (VCT) Oil Control Solenoid - 4.6L (3V)



Item	Part Number	Description
1	6C260	Variable Camshaft Timing (VCT) oil control solenoid bolt
2	6B297	VCT oil control solenoid

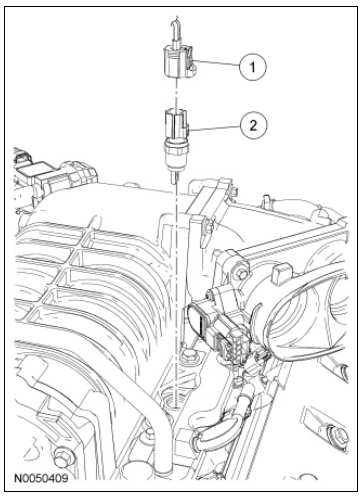
Removal and Installation

1. Remove the LH or RH valve cover. For additional information, refer to Section 303-01B .

2. Remove the bolt and the Variable Camshaft Timing (VCT) oil control solenoid.
   - To install, tighten to 5 Nm (44 lb-in).

3. To install, reverse the removal procedure.

Intake Air Temperature 2 (IAT2) Sensor - 5.4L (4V)



Item	Part Number	Description
1	14A464	Intake Air Temperature 2 (IAT2) sensor electrical connector
2	12A697	IAT2 sensor

Removal

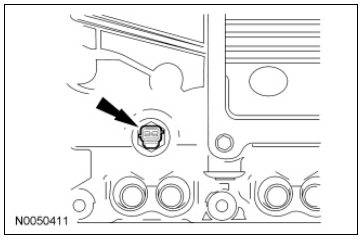
1. Disconnect the Intake Air Temperature 2 (IAT2) sensor electrical connector.

2. Remove the IAT2 sensor.

Installation

1. Install the IAT2 sensor. Tighten the IAT2 sensor in 2 stages:
   - Stage 1: Tighten the IAT2 sensor to 15 Nm (11 lb-ft).
   - **NOTE:** During Stage 2, do not tighten the IAT2 sensor more than one full turn and do not rotate the IAT2 sensor counterclockwise after tightening.

   Stage 2: Tighten the IAT2 sensor until it is aligned as shown.



2. Connect the IAT2 sensor electrical connector.