

5	6K302	Lower thrust washer
6	6A338	Crankshaft lower main bearing (4 required)
7	6303	Crankshaft
8	6333	Crankshaft upper main bearing (3 required)
9	6337	Crankshaft upper thrust main bearing
10	6A340	Piston oil coolers (3 required)
11	6010	Cylinder block
12	6100	Piston and rod assembly (6 required)
13	6A373	Spacer plate
14	6K318	Crankshaft rear seal retainer plate
15	12A227	Crankshaft sensor ring
16	6375	Flexplate

DIAGNOSIS AND TESTING > ENGINE

1.

For basic mechanical concerns. REFER to: Engine . For driveability concerns. ENGINE CONTROLS - INTRODUCTION (EXCEPT DIESEL & HYBRID) .

GENERAL PROCEDURES > ENGINE OIL DRAINING AND FILLING

Special Tool(s) / General Equipment

Oil Drain Equipment

Materials

Name	Specification
Motorcraft ® SAE 5W-30 Premium Synthetic Blend Motor Oil XO-5W30-QSP	WSS-M2C946-A

Draining

1.

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

2.

 **NOTE:** Use a shop towel when removing the oil filter housing to prevent oil from spilling on the engine or accessory components.

1.

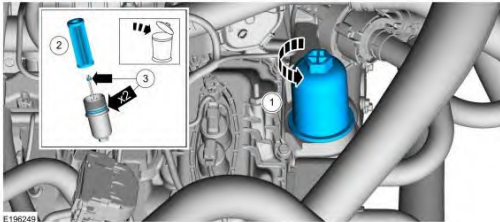
Loosen the oil filter housing and allow the oil to drain out of the housing and down into the engine.

2.

Remove the oil filter housing and discard the oil filter element.

3.

Remove and discard the O-ring seals.



3.

 **NOTE:** The drain plug should be removed and installed by hand, do not use tools.

1.

Turn the oil drain plug by hand counterclockwise 120 degrees. Use the General Equipment: Oil Drain Equipment

2.

Pull the oil drain plug out of the oil pan.

3.

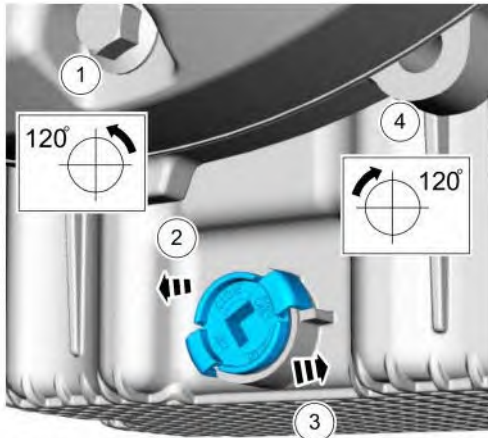
After the oil has drained, push the oil drain plug into the oil pan.

4.

 **NOTE:** Overtightening will damage the oil drain plug and possibly the oil

pan.

Turn the oil drain plug by hand clockwise 120 degrees.



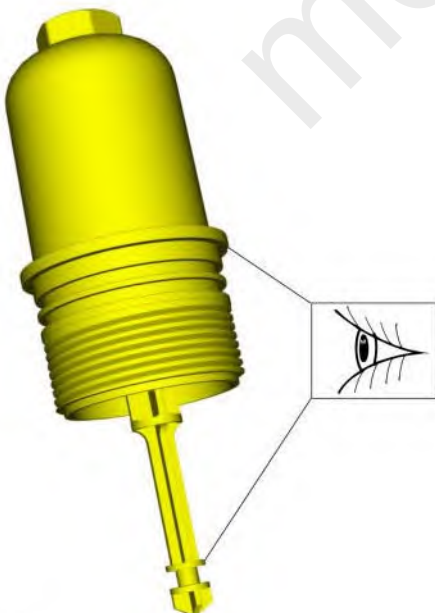
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Filling

1.

 **NOTE:** If the filter housing stem is damaged or missing the oil will flow through the reservoir drain port and a **loss** of engine oil pressure will occur.

Inspect the oil filter housing and stem for damage including cracks or separation of the stem from the housing. If damaged, a new oil filter housing assembly must be installed.



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2.

 **NOTE:** Failure to install new oil filter housing-to-engine front cover seals may result in oil leakage.

Install new oil filter housing-to-engine front cover seals and lubricate with clean engine oil.

Material

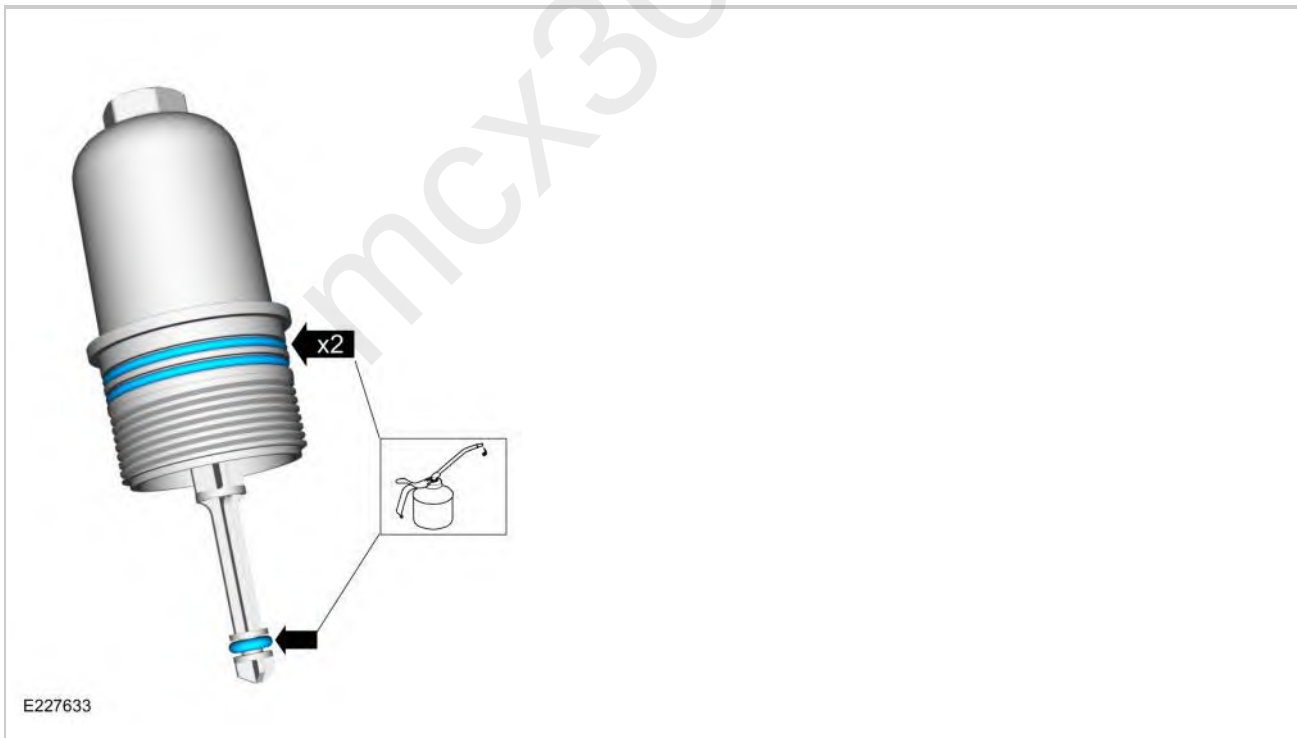
: Motorcraft ® SAE 5W-30 Premium Synthetic Blend Motor Oil / XO-5W30-QSP
(WSS-M2C946-A)

 **NOTE:** Failure to install a new oil filter housing stem-to-oil reservoir drain port seal will result with the oil flowing through the reservoir drain port and a **loss** of engine oil pressure.

Install a new oil filter housing stem-to-oil reservoir drain port seal and lubricate with clean engine oil.

Material

: Motorcraft ® SAE 5W-30 Premium Synthetic Blend Motor Oil / XO-5W30-QSP
(WSS-M2C946-A)



3.

1.

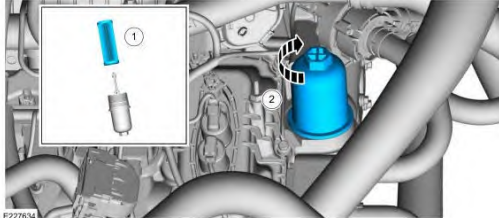
Install a new oil filter element.

2.

Install the oil filter housing.

Torque

: 18 lb.ft (24 Nm)

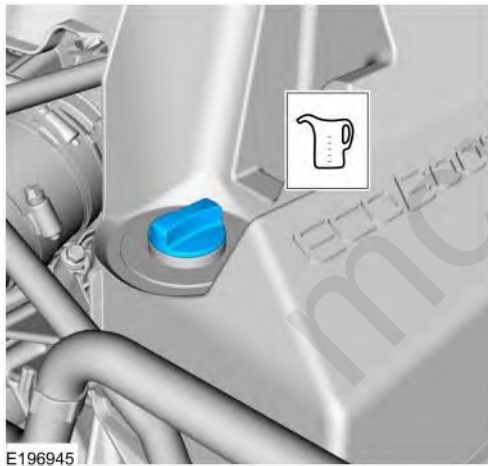


4.

Fill the engine with clean engine oil. Refer to: Specifications .

Material

: Motorcraft ® SAE 5W-30 Premium Synthetic Blend Motor Oil / XO-5W30-QSP
(WSS-M2C946-A)



5.

After filling the engine with oil, the oil must flow from the main chamber of the oil pan, through a check valve into the smaller side chamber to correctly register the oil level on the oil level indicator. This may take up to 15 minutes.