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2013 Ford C-Max Service and Repair Manual

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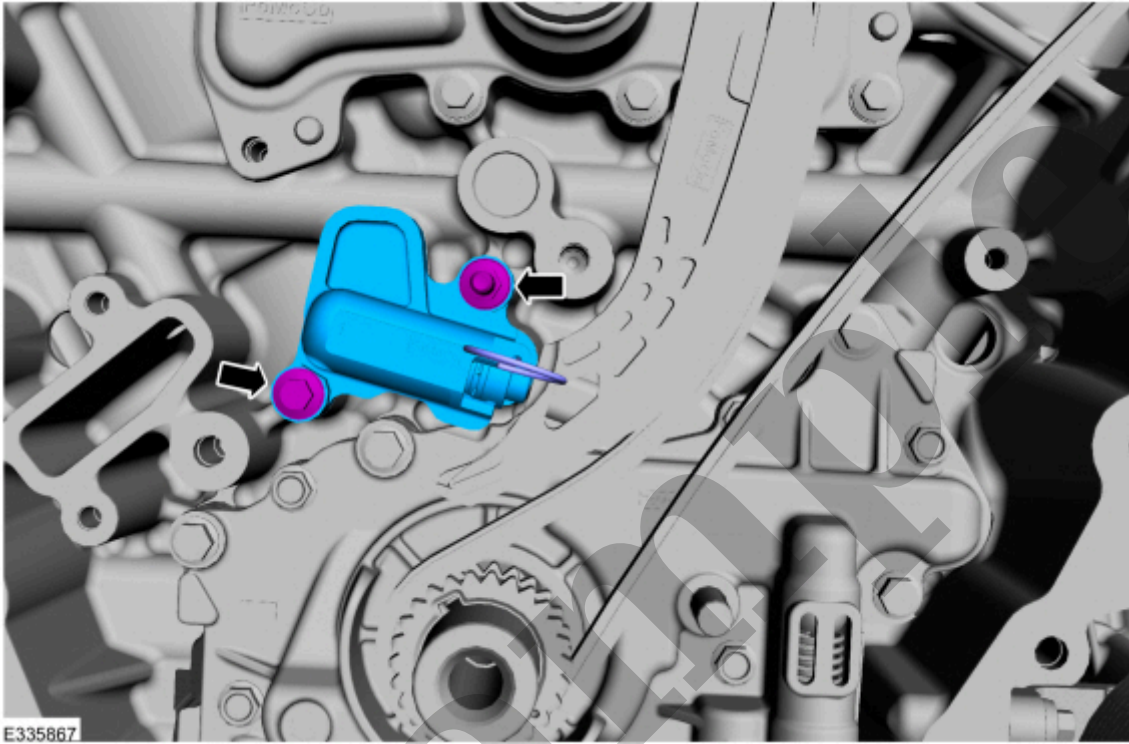
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7. Position the LH (left-hand) timing chain tensioner with the end of the tensioner correctly engaged to the tensioner arm and install the fasteners.

Torque :

Stage 1: 89 lb.in (10 Nm)

Stage 2: 30°



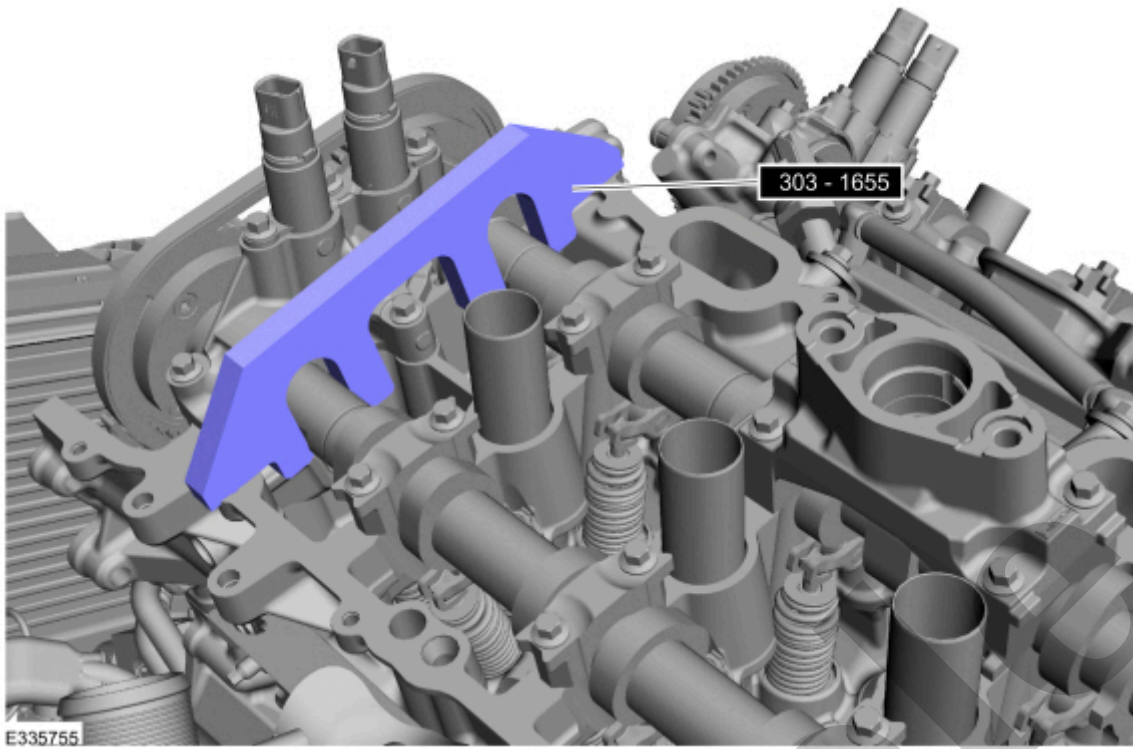
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8. Install the LH (left-hand) timing chain guide and bolts.

Torque :

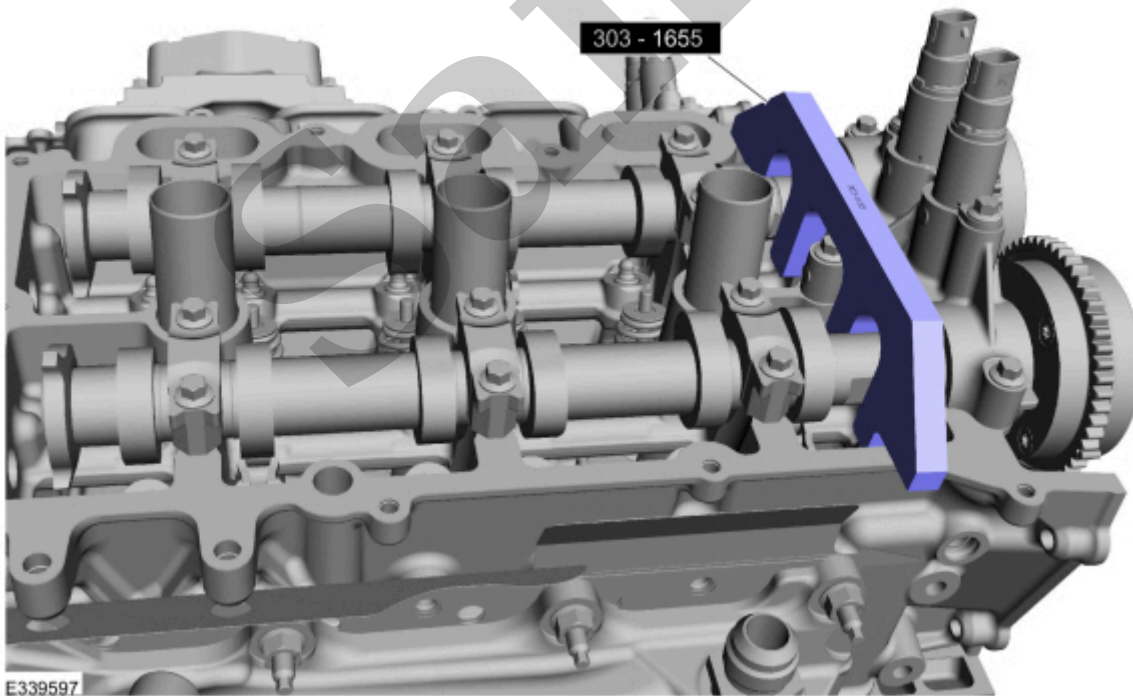
Stage 1: 89 lb.in (10 Nm)

Stage 2: 30°



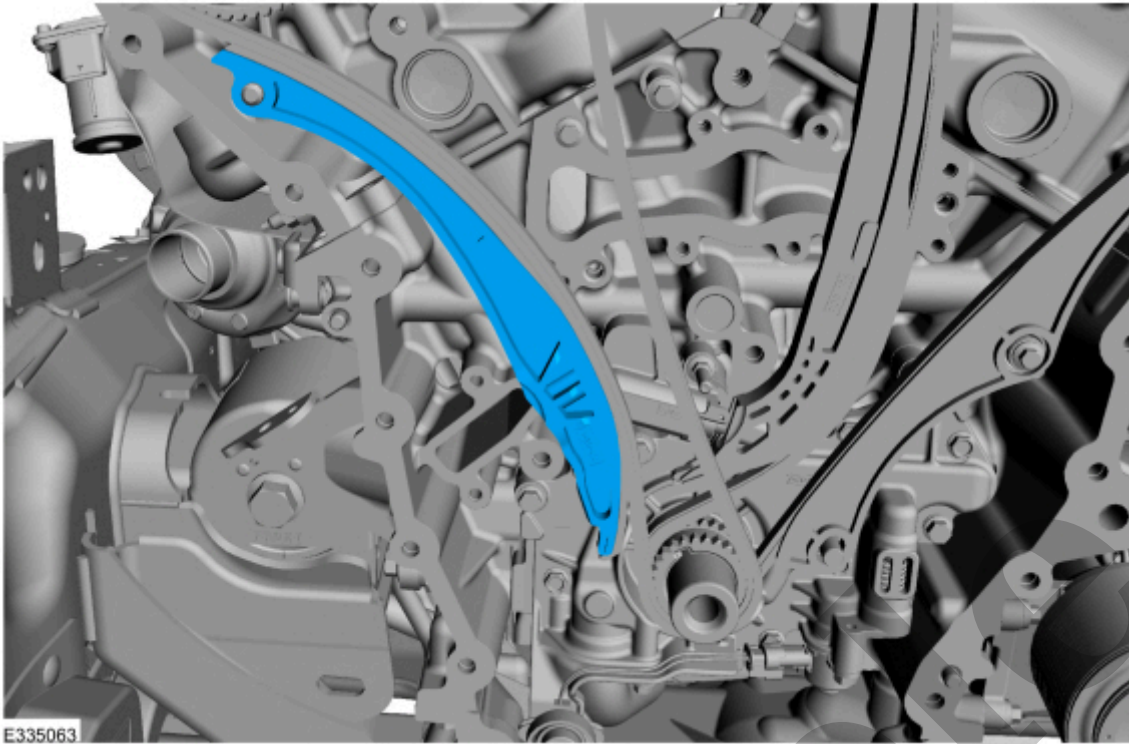
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11. **Install Special Service Tool** : 303-1655 Tool, Camshaft Holding



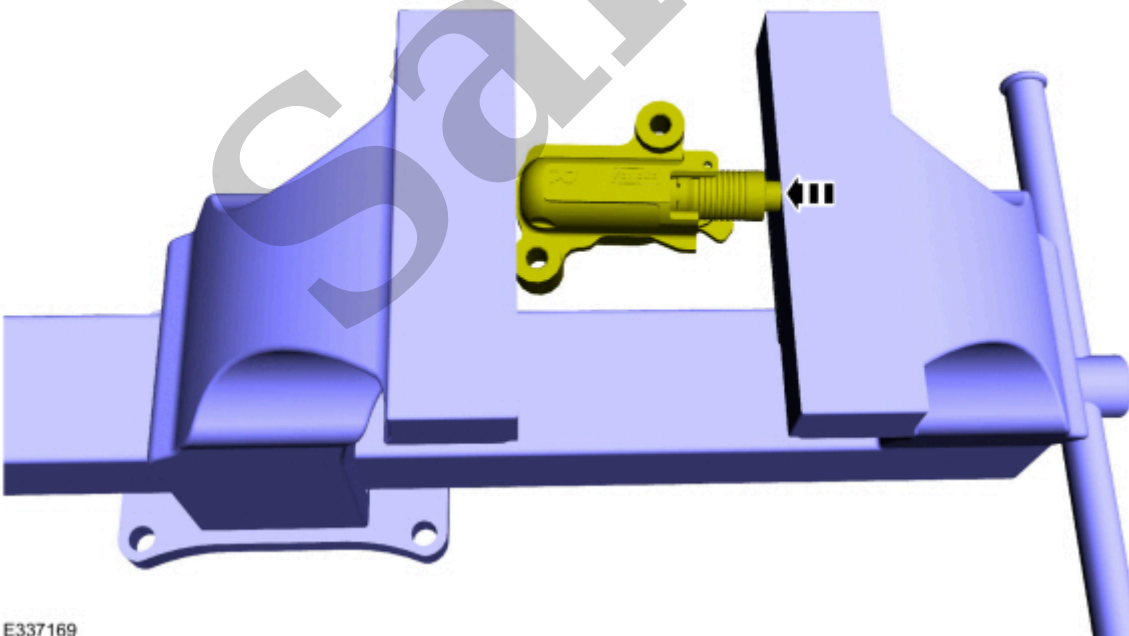
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RH timing chain

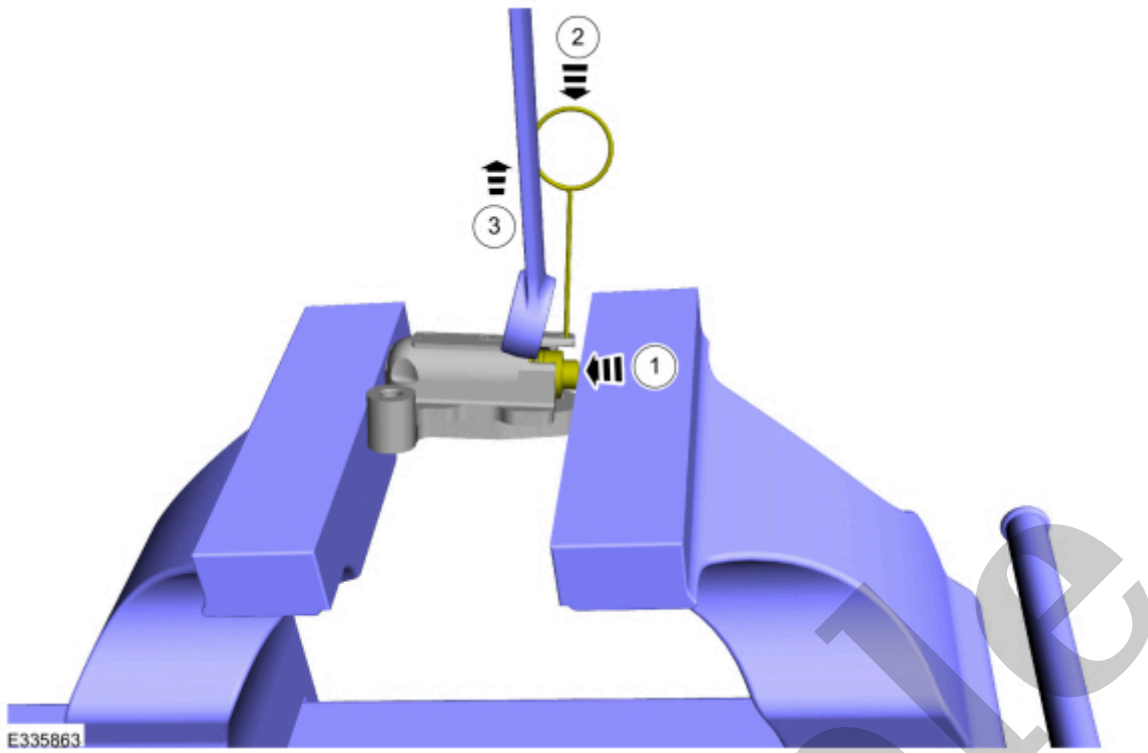


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14. Position the tensioner in a soft-jawed vise.



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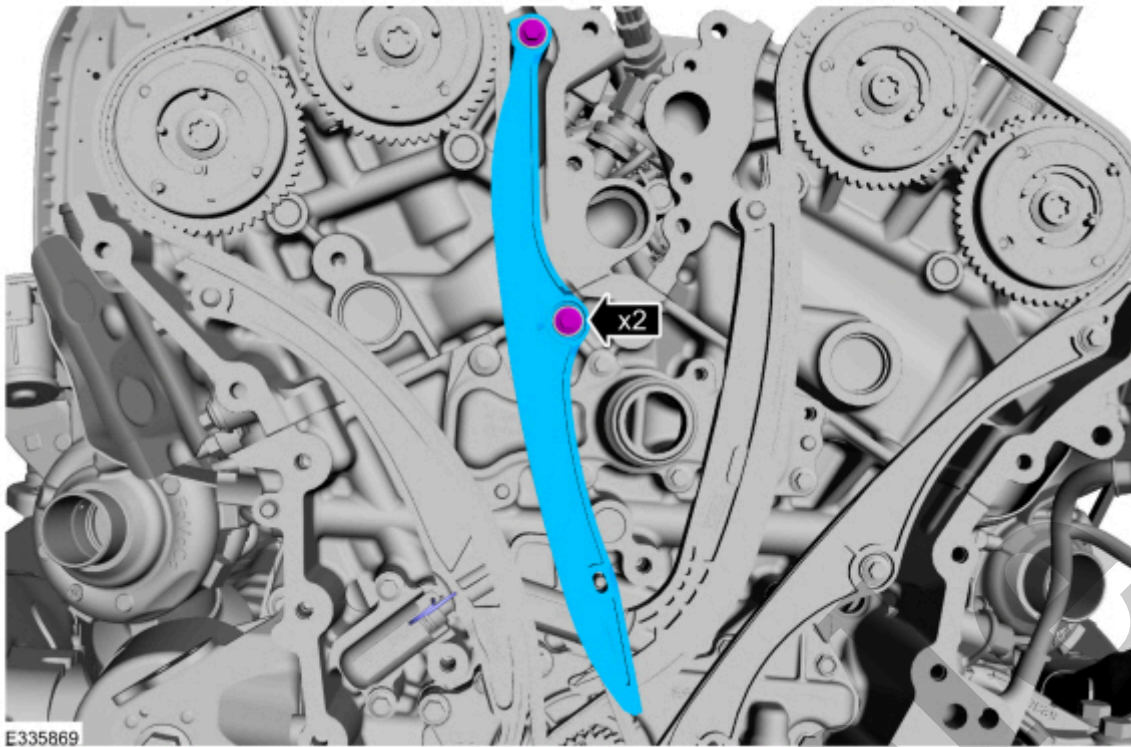
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17. Position the RH (right-hand) timing chain tensioner with the end of the tensioner correctly engaged to the tensioner arm and install the fasteners.

Torque :

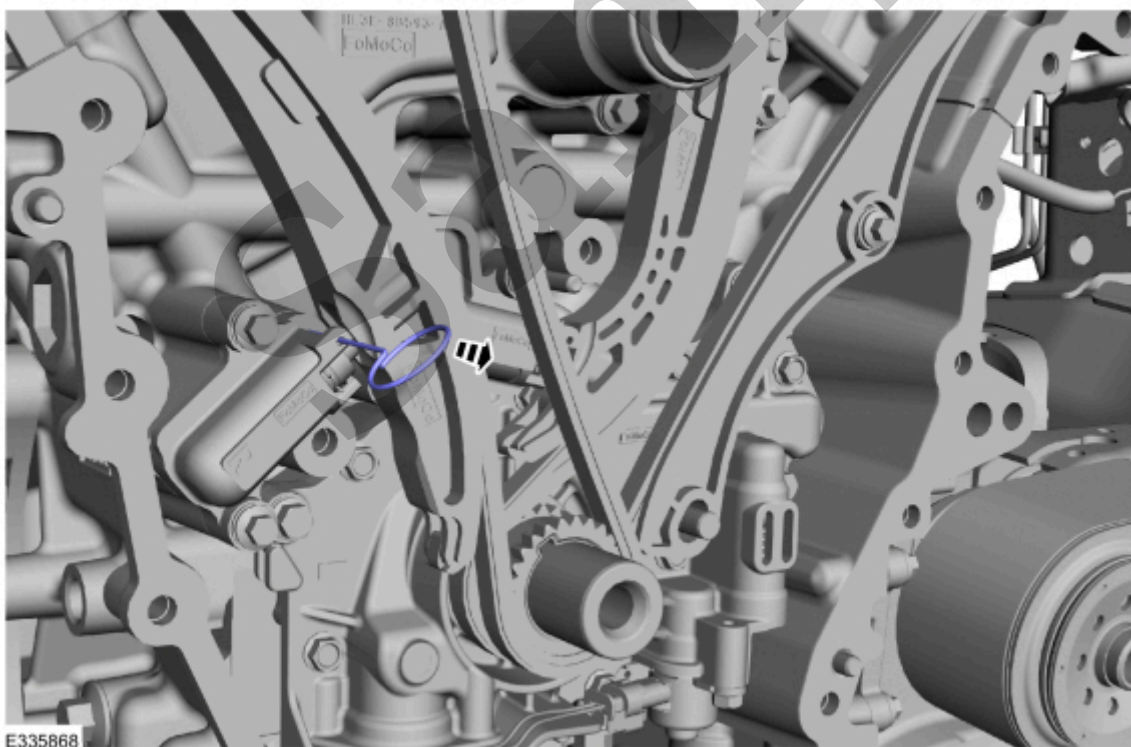
Stage 1: 89 lb.in (10 Nm)

Stage 2: 30°



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19. Remove the tensioner pins.



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20. **Remove Special Service Tool** : 303-1655 Tool, Camshaft Holding

Valve Cover LH

303-01D Engine - 3.5L V6 PowerBoost (CN)	2022 F-150
Removal and Installation	Procedure revision date: 12/7/2022

Valve Cover LH

Removal

NOTICE

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

Installation of new spark plug seals or VCT (variable camshaft timing) seals is only required if seals are damaged.

1. Release the fuel system pressure.

Refer to: Fuel System Pressure Release (310-00) .

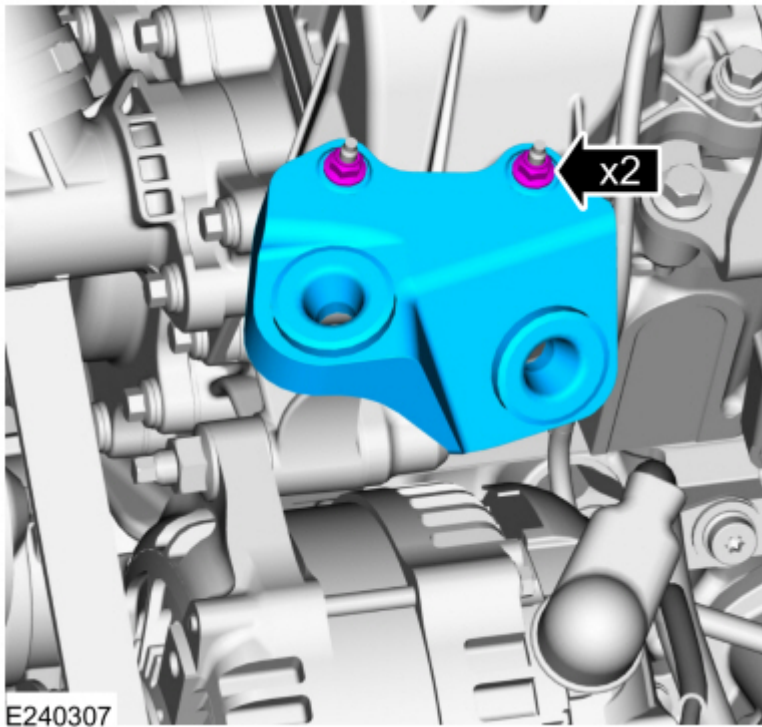
2. Remove the intake manifold.

Refer to: [Intake Manifold](#)(303-01C Engine - 3.5L EcoBoost (BM), Removal and Installation).

3. Remove the air cleaner assembly.

Refer to: [Air Cleaner](#)(303-12C Intake Air Distribution and Filtering - 3.5L EcoBoost (BM), Removal and Installation).

4. Remove the high pressure fuel pump.

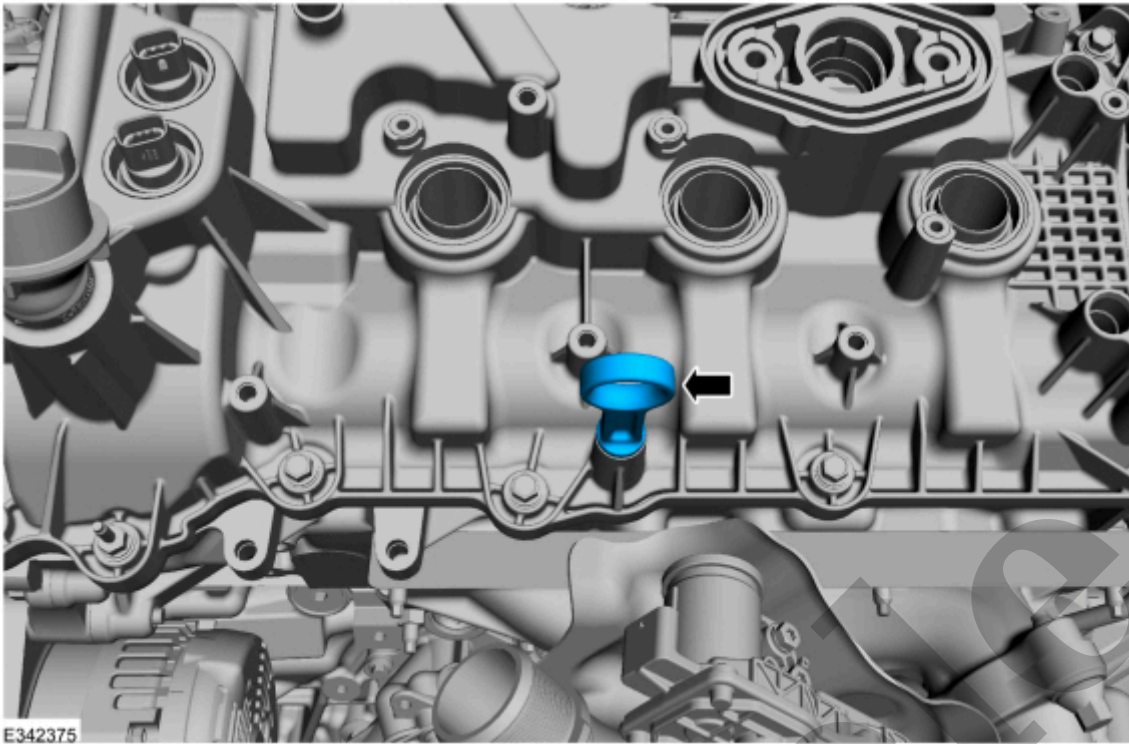


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8. Remove the LH (left-hand) ignition coil-on-plugs.

Refer to: [Ignition Coil-On-Plug\(303-07C Engine Ignition - 3.5L EcoBoost \(BM\), Removal and Installation\).](#)

- 9.
- Disconnect the VCT (variable camshaft timing) sensor electrical connectors.
 - Detach the wiring harness retainers and position the harness aside.
 - Disconnect the CMP (camshaft position) sensor electrical connectors.
 - Disconnect the LH (left-hand) TC (turbocharger) electrical connector.



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12. **NOTICE**

While removing the valve cover do not apply excessive force to the VCT (variable camshaft timing) oil control solenoid or damage may occur.

NOTICE

If the VCT (variable camshaft timing) oil control solenoid sticks to the VCT (variable camshaft timing) seal, carefully wiggle the valve cover until the bond breaks free or damage to the VCT (variable camshaft timing) seal and VCT (variable camshaft timing) oil control solenoid may occur.

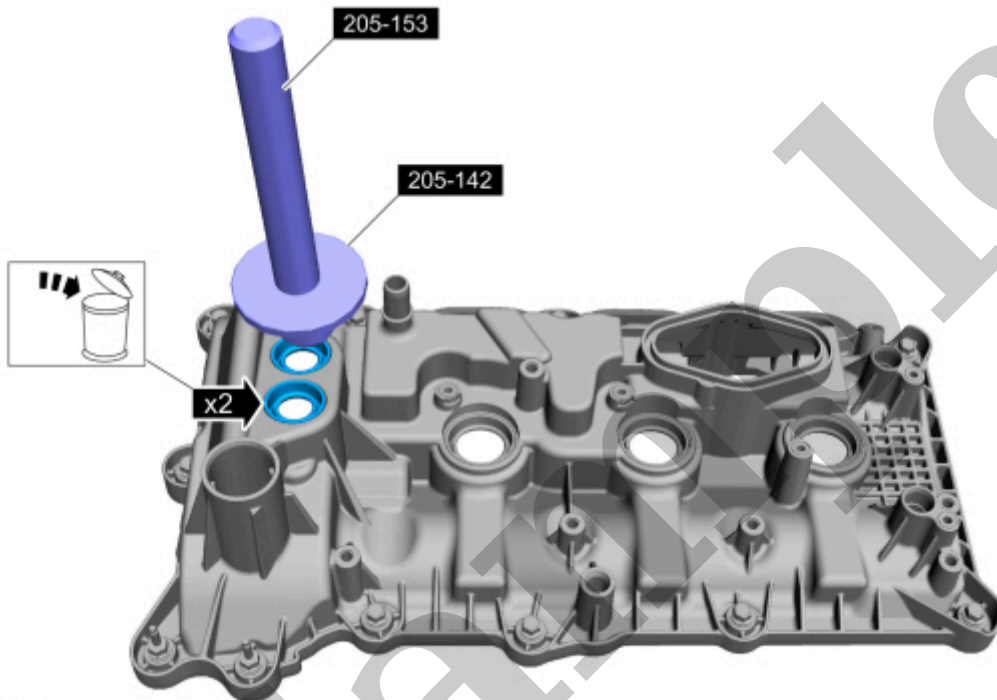
Remove the fasteners and the valve cover.

14. **NOTE**

Inspect the VCT (variable camshaft timing) oil control solenoid seals. Remove any damaged seals.

If necessary, using the special tools, remove the VCT (variable camshaft timing) oil control solenoid seals.

Use Special Service Tool : 205-142 (T80T-4000-J) Installer, Differential Bearing Cone , 205-153 (T80T-4000-W) Handle



E335280

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15. **NOTE**

Inspect the spark plug tube seals. Remove any damaged seals.

If necessary, using the special tools, remove the spark plug tube seals.

Use Special Service Tool : 303-1247 VCT Spark Plug Tube Seal Remover and Installer , 205-153 (T80T-4000-W) Handle