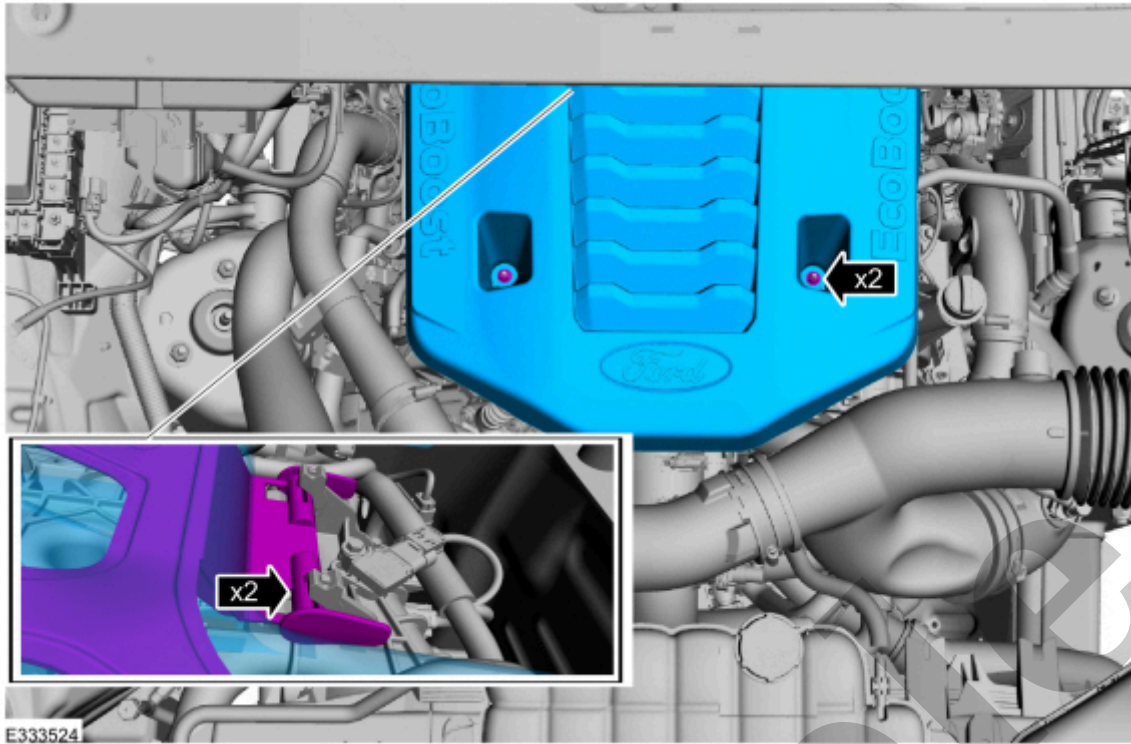


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2013 Ford F-150 Service and Repair Manual

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14. Connect the battery ground cable.

Refer to: [Battery Cables - 3.5L EcoBoost \(BM\)](#)(414-01 Battery, Mounting and Cables, Removal and Installation).

15. If a new intake manifold was installed, road test the vehicle.

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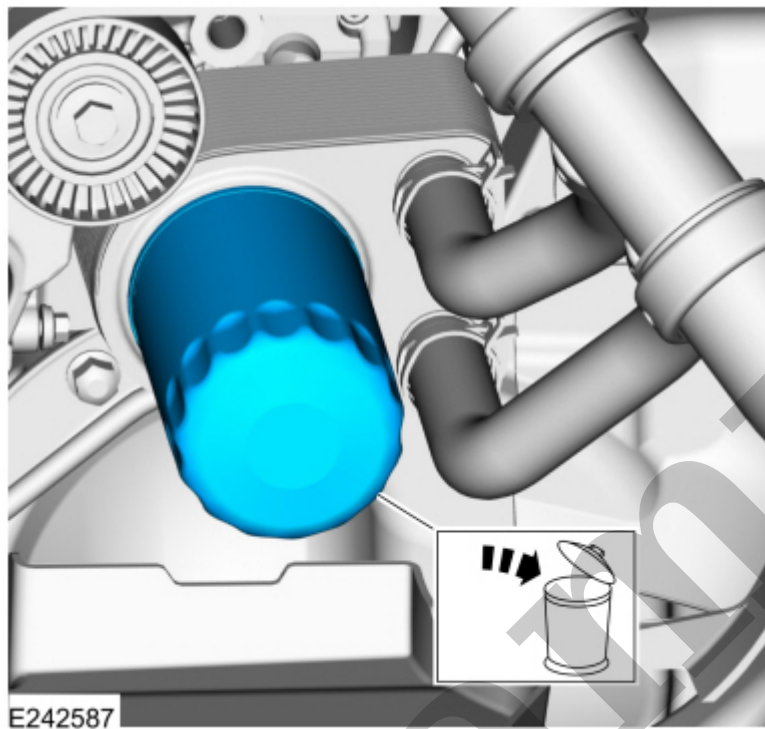
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3. Remove the air cleaner outlet pipe LH (left-hand) .

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

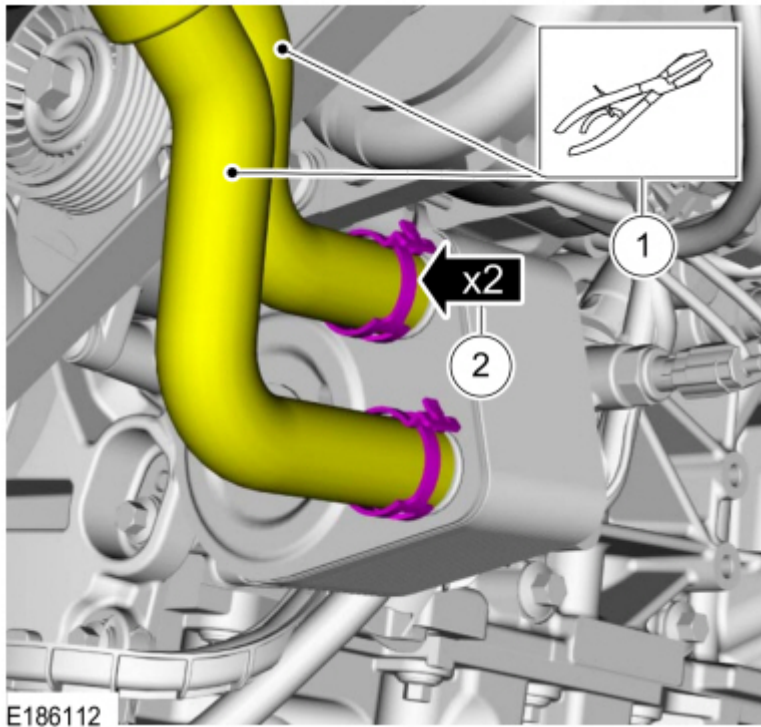
4. Remove and discard the engine oil filter.

Use the General Equipment: Oil Drain Equipment



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5. Disconnect the block heater cord.

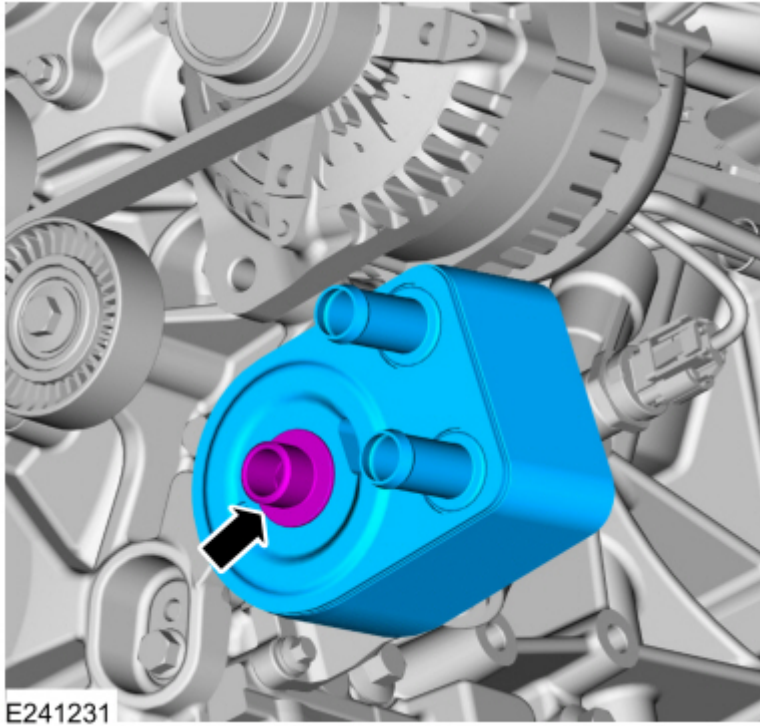


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7. NOTICE

If metal or foreign material is present in the oil cooler, mechanical concerns exist. To diagnose the mechanical concerns refer to section 303-00.

Remove the retainer and the oil cooler.



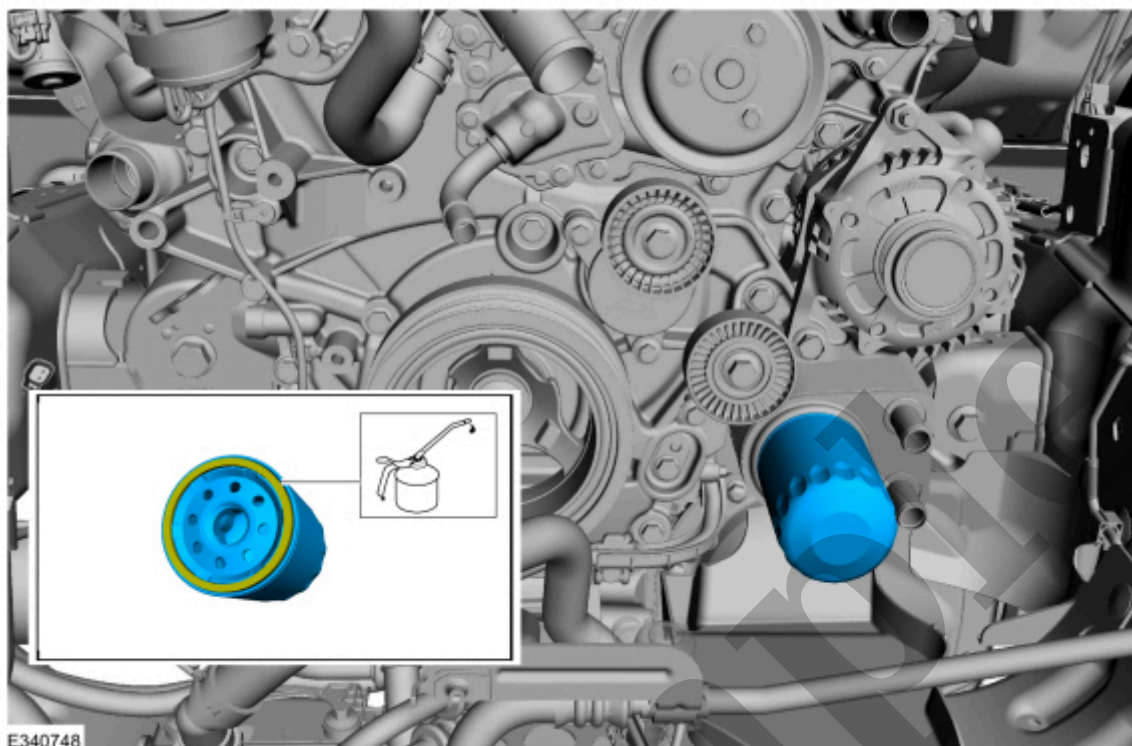
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2. 1. Using the hose clamp installer, install the coolant hoses.
Use the General Equipment: Hose Clamp Remover/Installer
2. Remove the hose locking pliers.
Use the General Equipment: Locking Pliers

Torque :

Stage 1: 44 lb.in (5 Nm)

Stage 2: 180 °



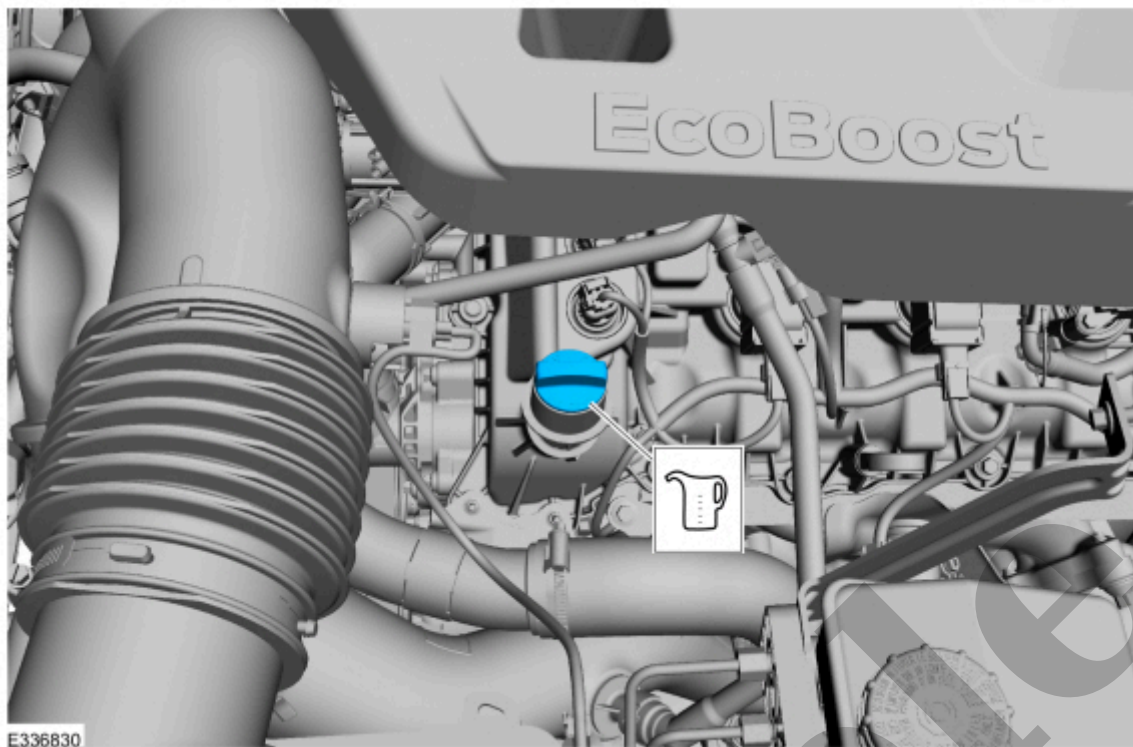
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5. Install the air cleaner outlet pipe LH (left-hand) .

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

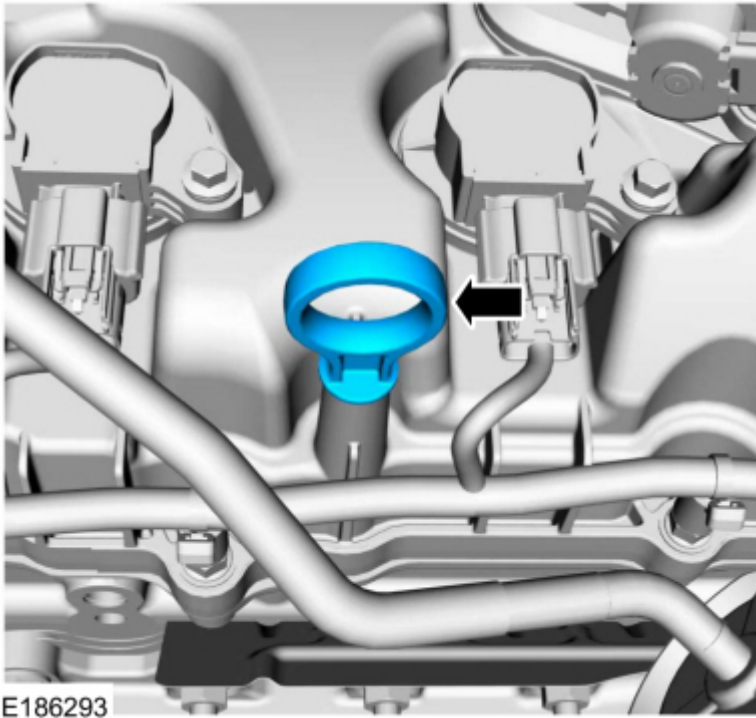
6. • Insert the engine appearance cover into the rear support.
- Install the engine appearance cover retainers.

Torque : 44 lb.in (5 Nm)



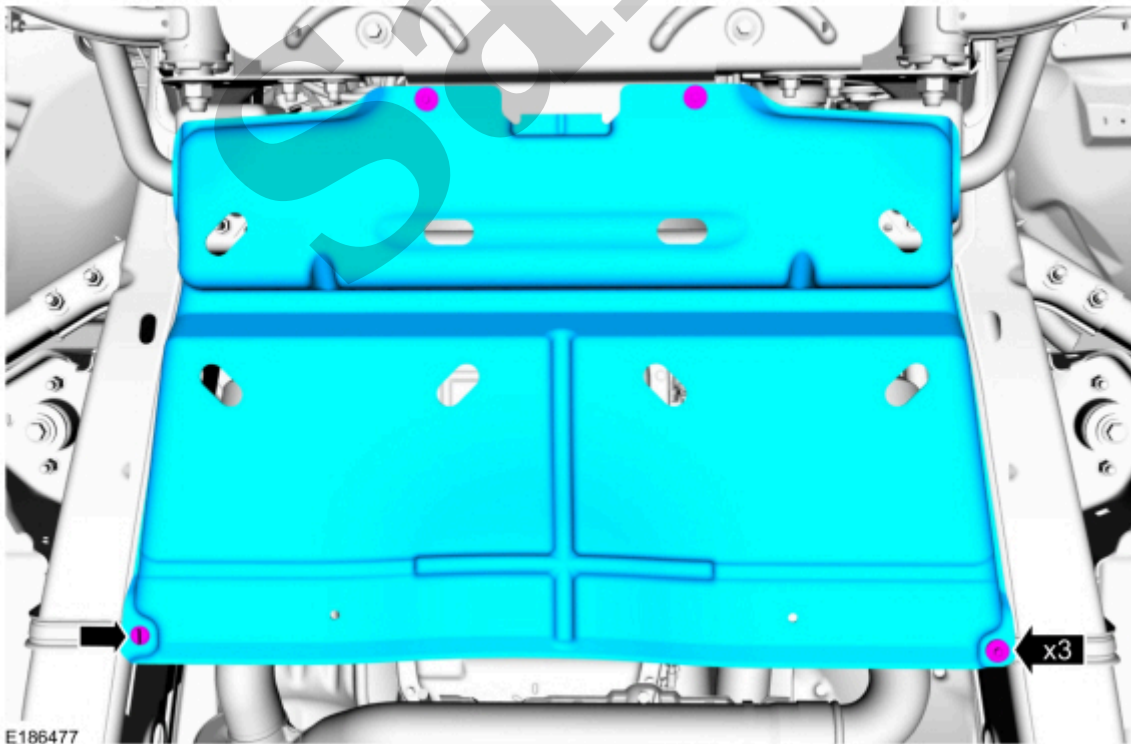
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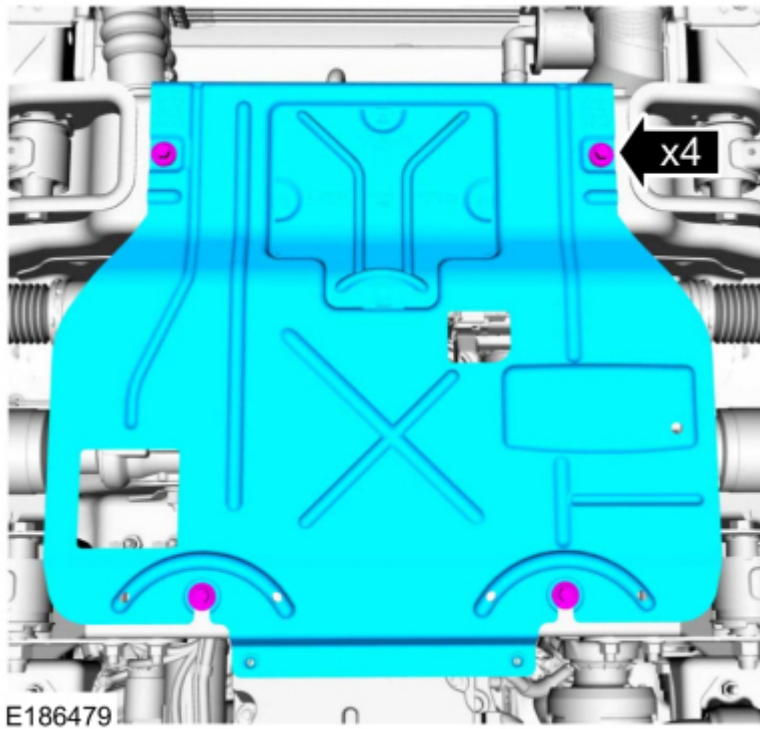
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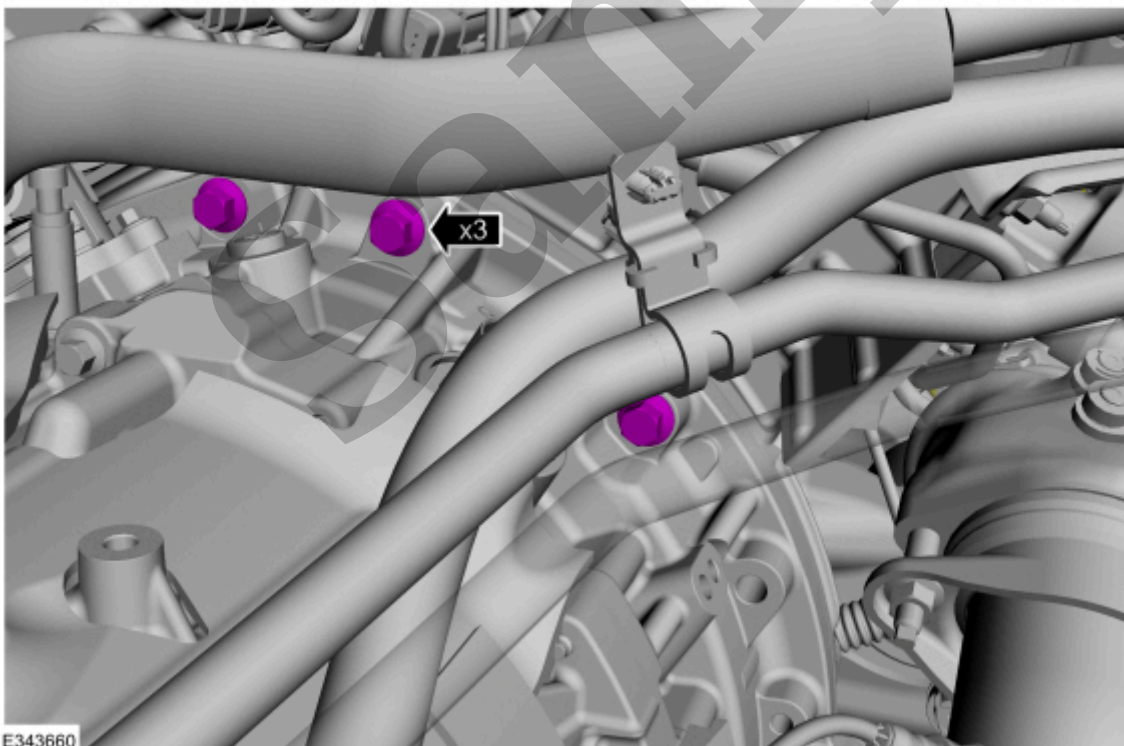
5.
 - If equipped.
Remove the bolts.
 - Release the retainer and remove the transmission housing cover.





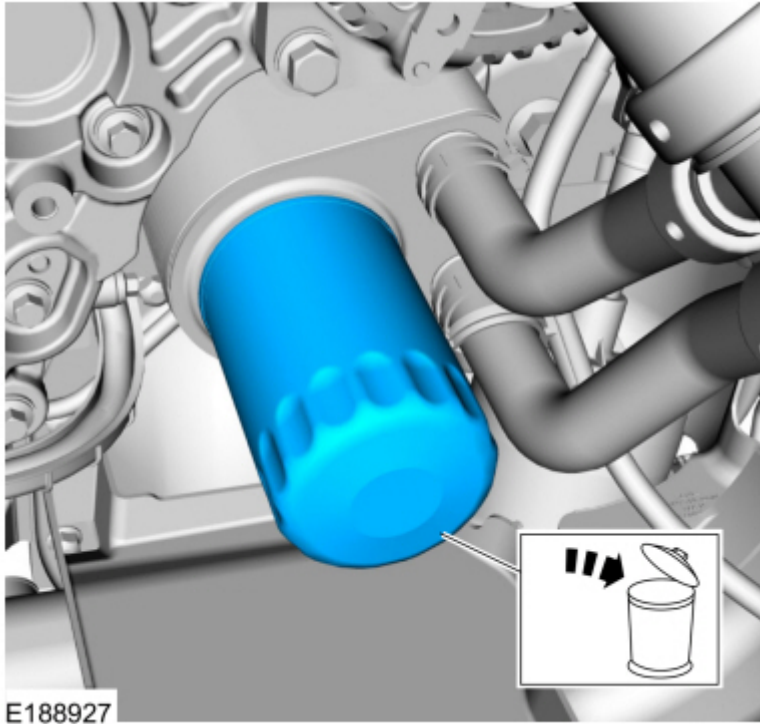
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8. Loosen the upper bellhousing bolts 5 mm (0.19 in).



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9. Remove the oil pan plug and drain the engine oil.



[Click here to learn about symbols, color coding, and icons used in this manual.](#)

11. Remove the starter.

Refer to: [Starter Motor](#)(303-06C Starting System - 3.5L EcoBoost (BM), Removal and Installation).

12. Remove the bolt and position the wire harness bracket.

