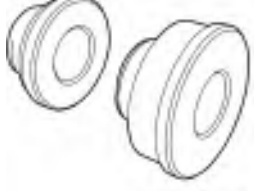


Valve Cover RH

Special Tool(s) / General Equipment

 E234304	205-142 (T80T-4000-J) Installer, Differential Bearing Cone
 E133913	205-153 (T80T-4000-W) Handle
 E175042	303-1247 VCT Spark Plug Tube Seal Remover and Installer TKIT-2006UF-FLM TKIT-2006UF-ROW
Plastic Scraper	

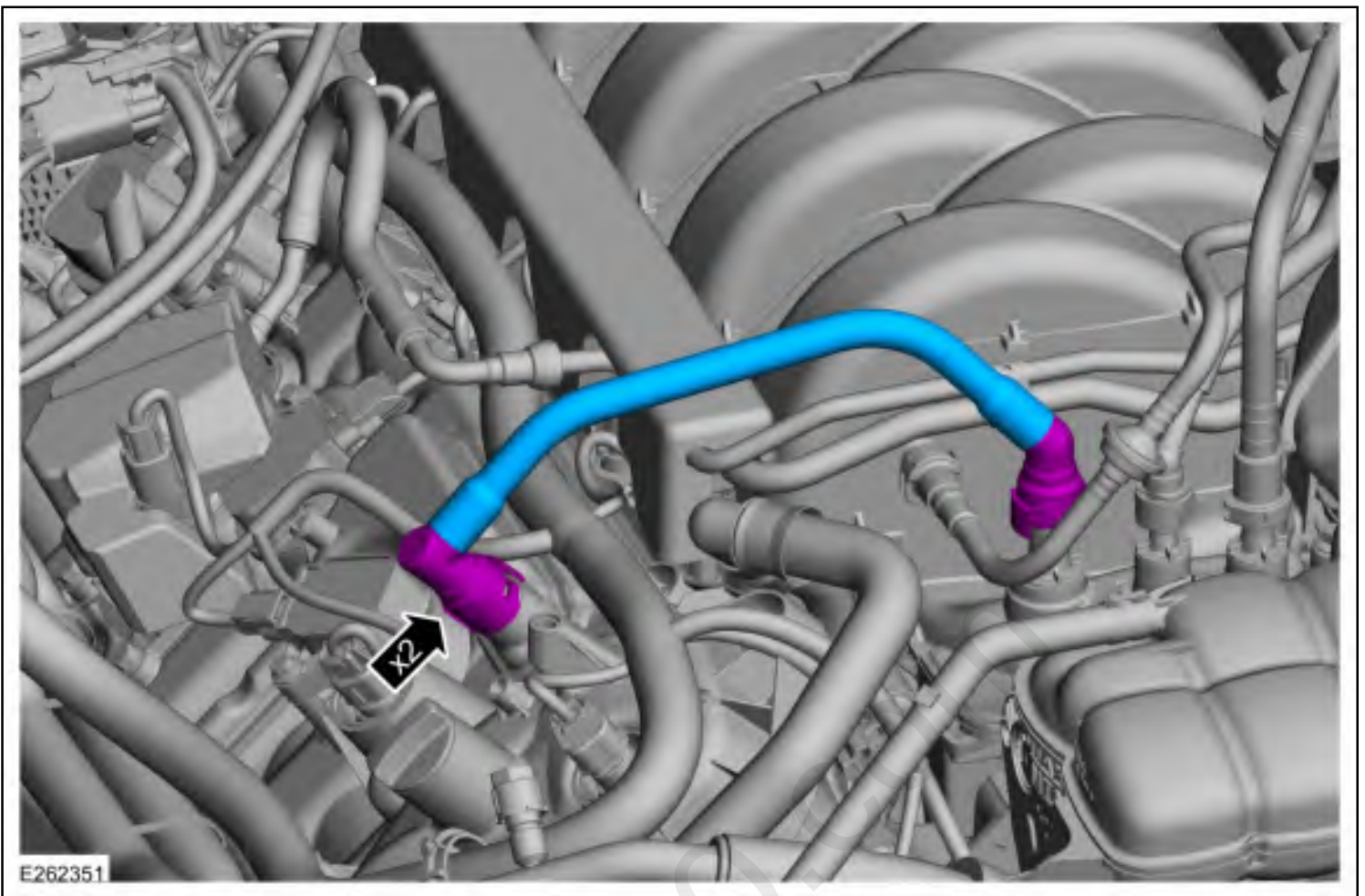
Materials

Name	Specification
Motorcraft® Silicone Gasket Remover ZC-30-A	-
Motorcraft® Metal Surface Prep Wipes ZC-31-B	-
Motorcraft® Silicone Gasket and Sealant TA-30	WSE-M4G323-A4

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.

1. With the vehicle in NEUTRAL, position it on a hoist.
Refer to: [Jacking and Lifting - Overview](#) (100-02 Jacking and Lifting, Description and Operation).
2. Release the fuel system pressure.
Refer to: [Fuel System Pressure Release](#) (310-00D Fuel System - General Information - 5.0L 32V Ti-VCT, General Procedures).
3. Disconnect the battery ground cable.
Refer to: Battery Disconnect and Connect (414-01 Battery, Mounting and Cables) .
4. Drain the engine cooling system.
Refer to: Cooling System Draining, Vacuum Filling and Bleeding (303-03 Engine Cooling - 5.0L 32V Ti-VCT) .
5. Disconnect the quick release couplings and remove the PCV tube.
Refer to: [Quick Release Coupling](#) (310-00D Fuel System - General Information - 5.0L 32V Ti-VCT, General Procedures).



6. Remove the following items:

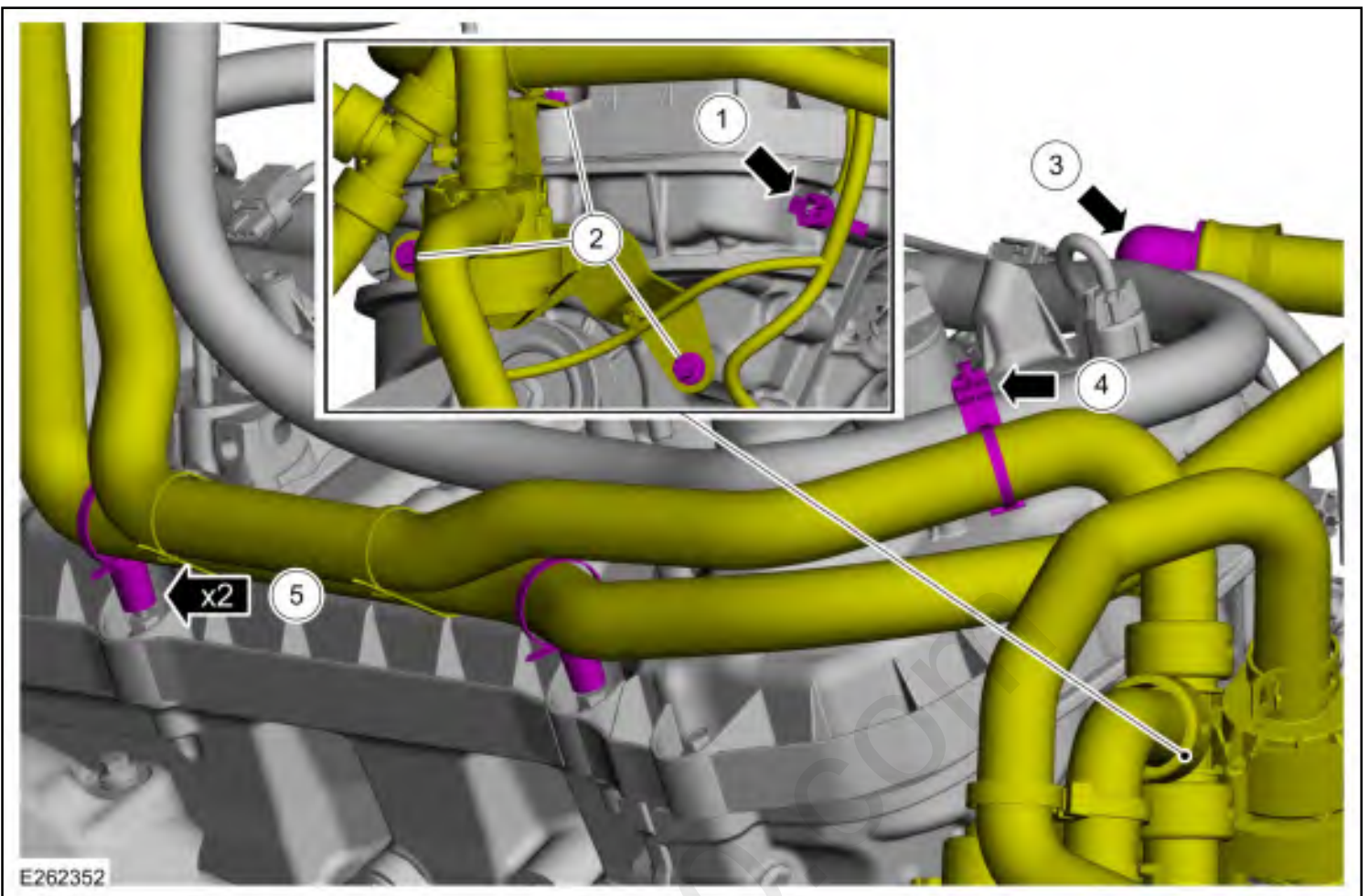
1. High pressure fuel pump.

Refer to: [High-Pressure Fuel Pump](#) (303-04D Fuel Charging and Controls - 5.0L 32V Ti-VCT, Removal and Installation).

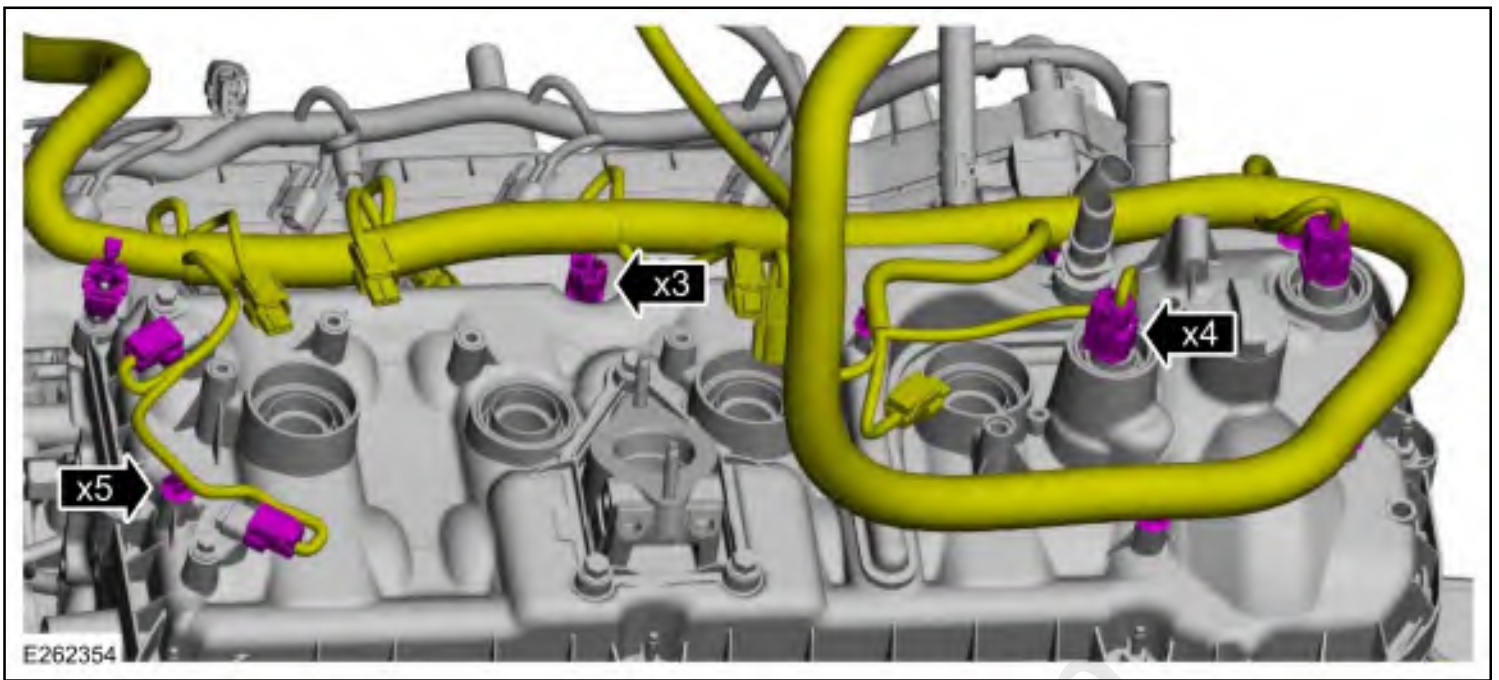
2. LH ignition coils.

Refer to: [Ignition Coil-On-Plug](#) (303-07D Engine Ignition - 5.0L 32V Ti-VCT, Removal and Installation).

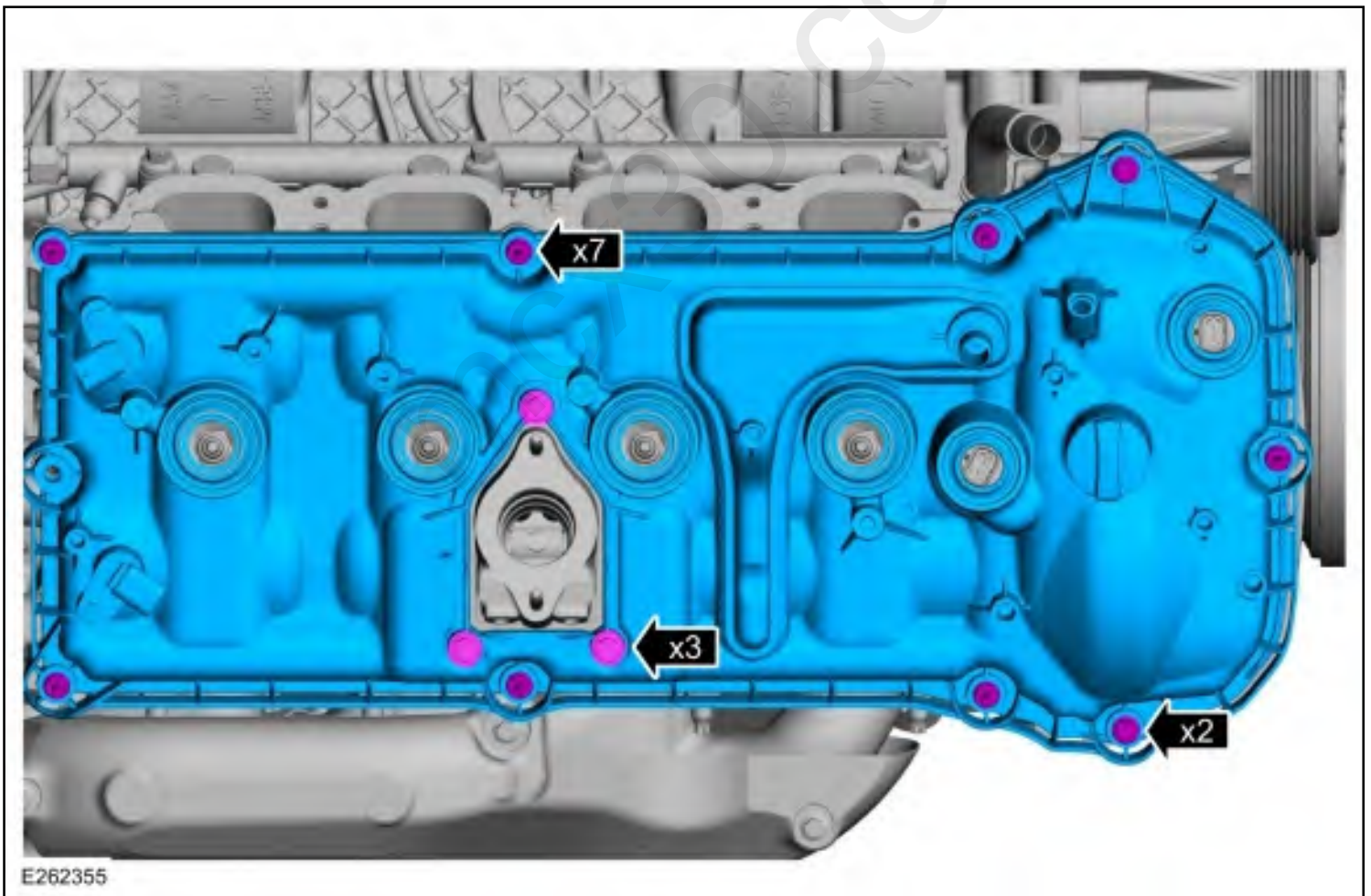
1. Detach the wiring harness retainer.
2. Remove the fasteners and position the coolant pump aside.
3. Disconnect the heater hose.
4. Detach the coolant hose retainer.
5. Detach the coolant hose retainers.



1. Remove the nut and the ground strap.
2. Disconnect the engine wiring harness connectors.
3. Detach the engine wiring harness retainer.
4. Detach the transmission wiring harness retainers.

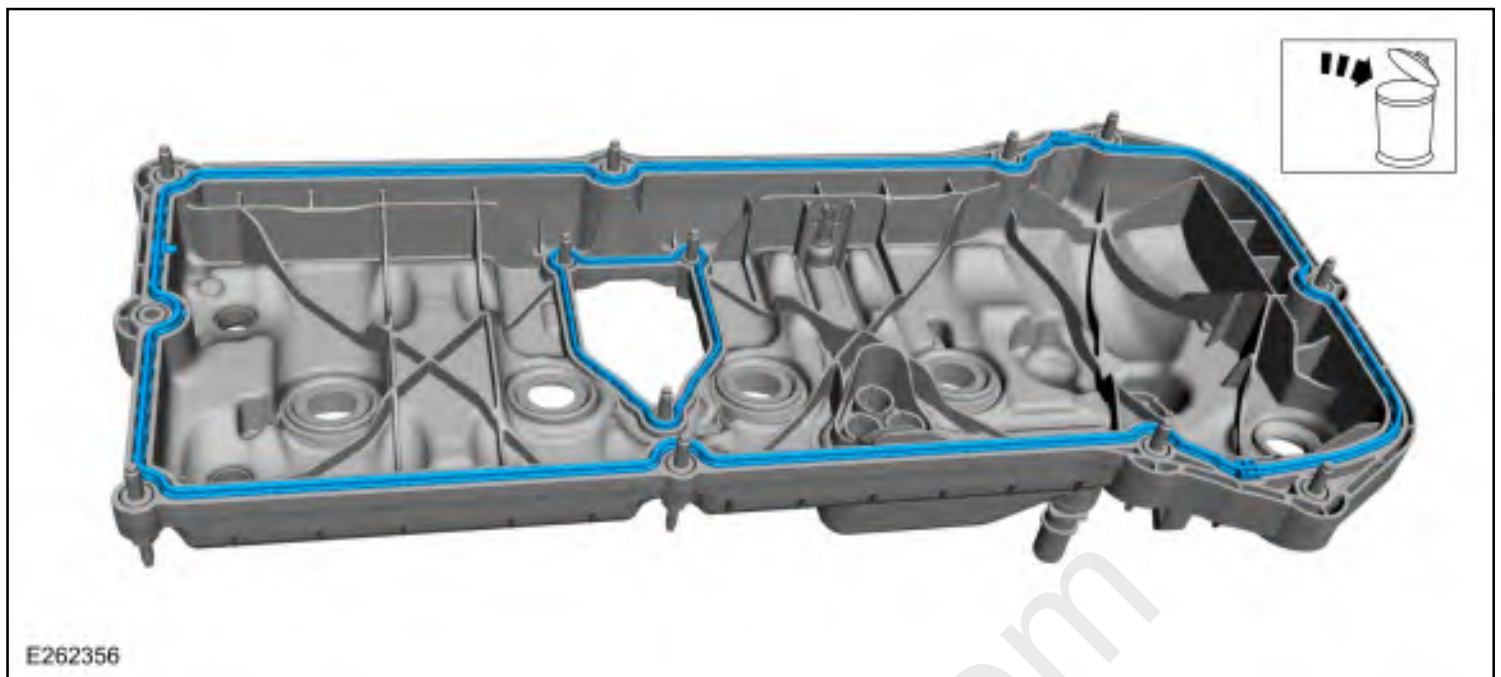


11. Loosen the bolts and remove the valve cover.

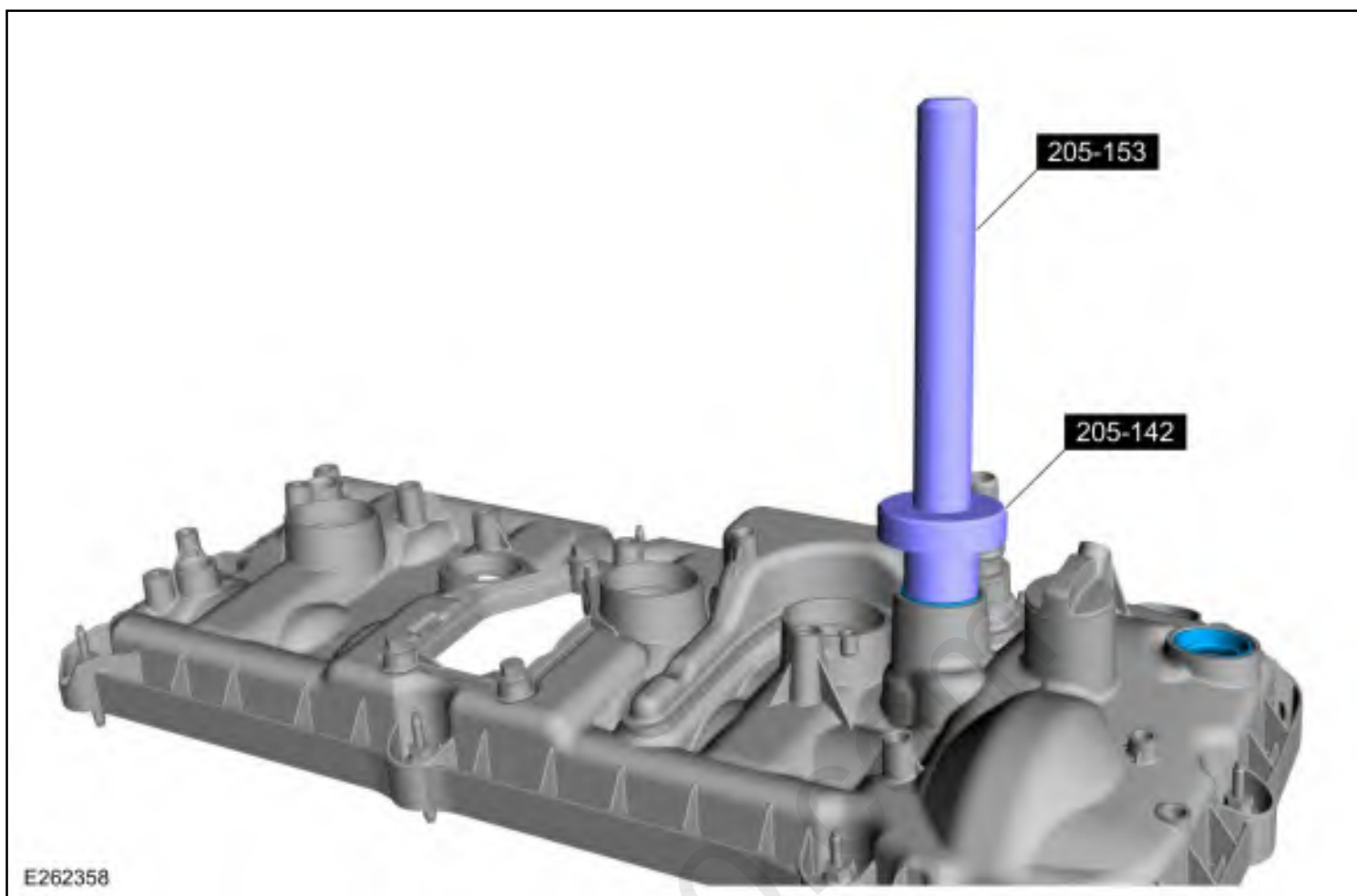


12. **NOTE:** Clean the valve cover gasket groove with soap and water or a suitable solvent.

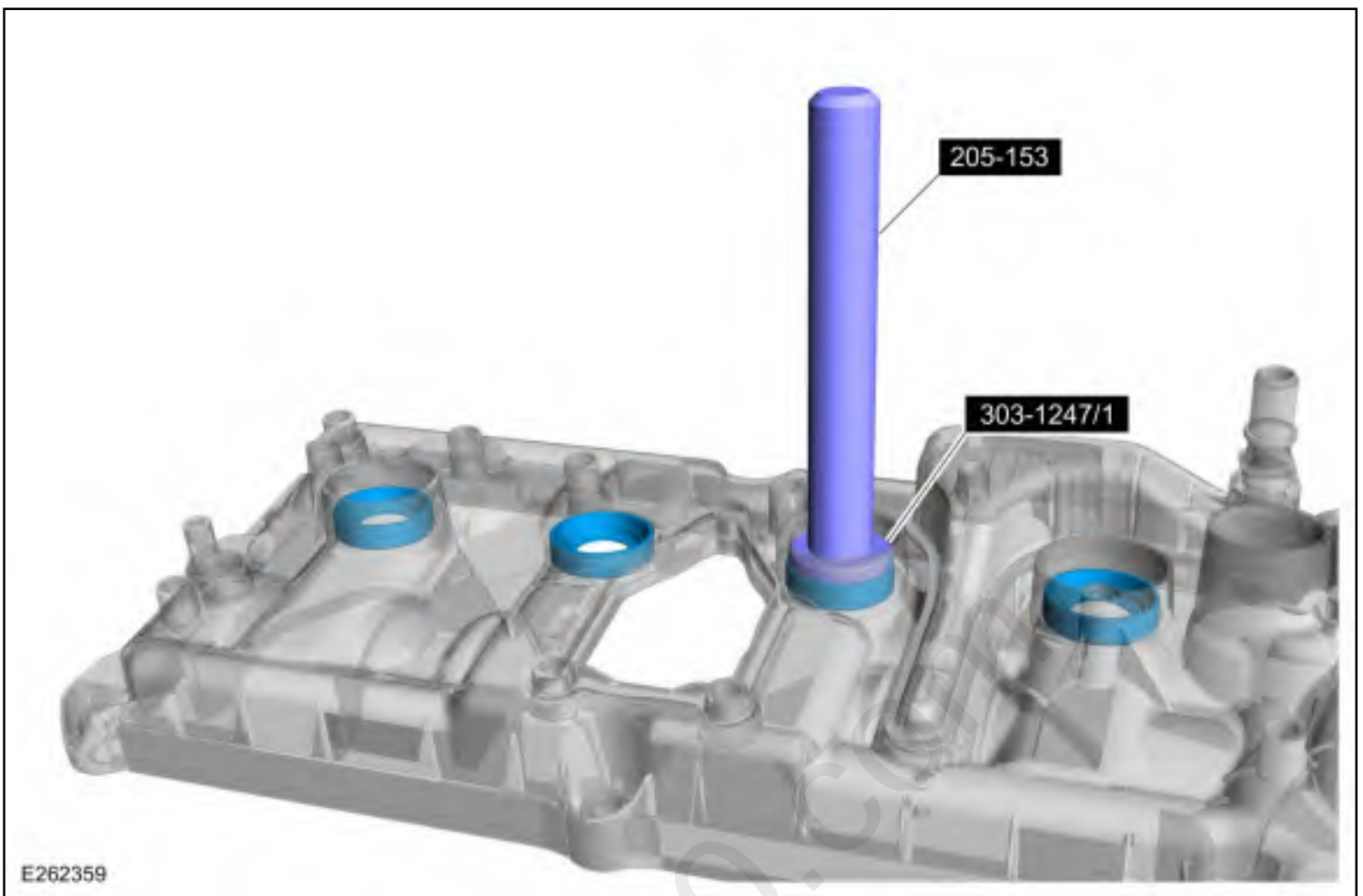
Remove and discard the gaskets.



13. Inspect the VCT variable force solenoid seals. Remove any damaged seals using the special tools. Use Special Service Tool: 205-153 (T80T-4000-W) Handle. , 205-142 (T80T-4000-J) Installer, Differential Bearing Cone.



14. Inspect the spark plug seals. Remove any damaged seals using the special tools.
Use Special Service Tool: 205-153 (T80T-4000-W) Handle. , 303-1247 VCT Spark Plug Tube Seal Remover and Installer.



15. **NOTICE:** 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 which make leak paths. Use a plastic scraping tool to remove all traces of old sealant.

Clean the valve cover mating surface of the cylinder head and engine front cover.

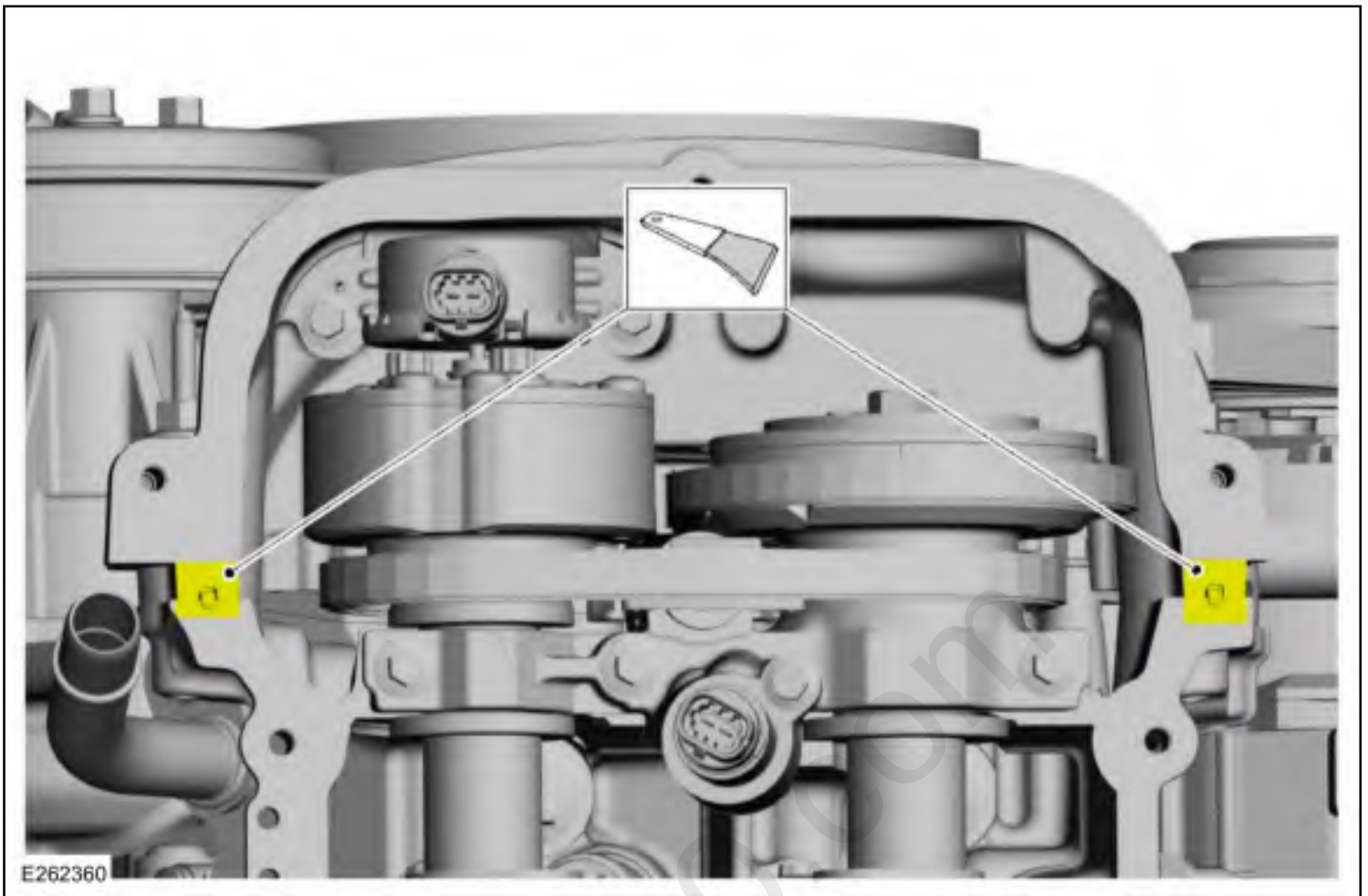
Refer to: [RTV Sealing Surface Cleaning and Preparation](#) (303-00 Engine System - General Information, General Procedures).

Use the General Equipment: Plastic Scraper

Material: Motorcraft® Silicone Gasket Remover / ZC-30-A

Material: Motorcraft® Metal Surface Prep Wipes / ZC-31-B

Material: Motorcraft® Metal Brake Parts Cleaner / PM-4-A, PM-4-B

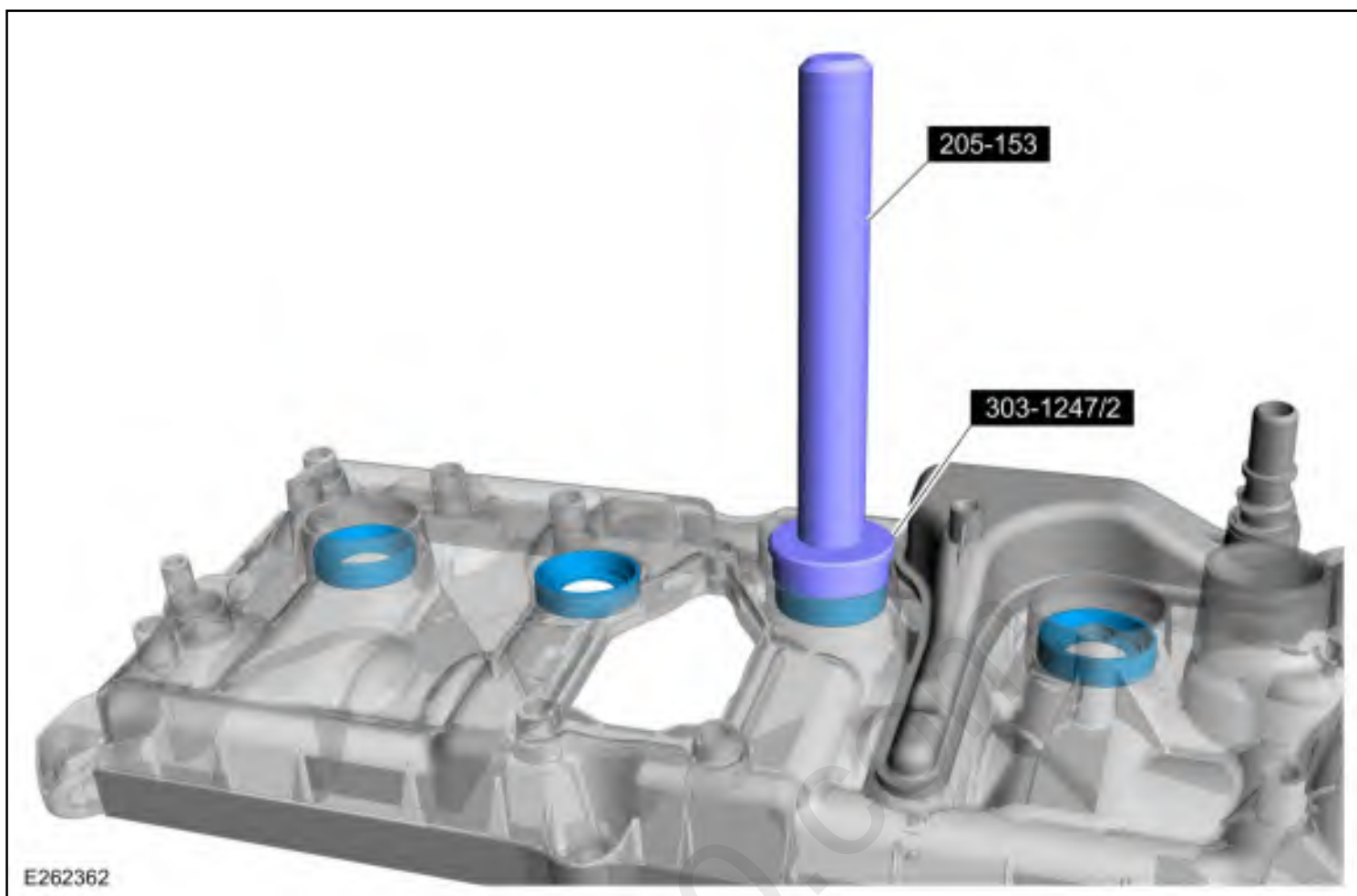


Installation

1. **NOTE:** *Installation of new seals is only required if damaged seals were removed.*

Using the special tools, install new spark plug tube seals.

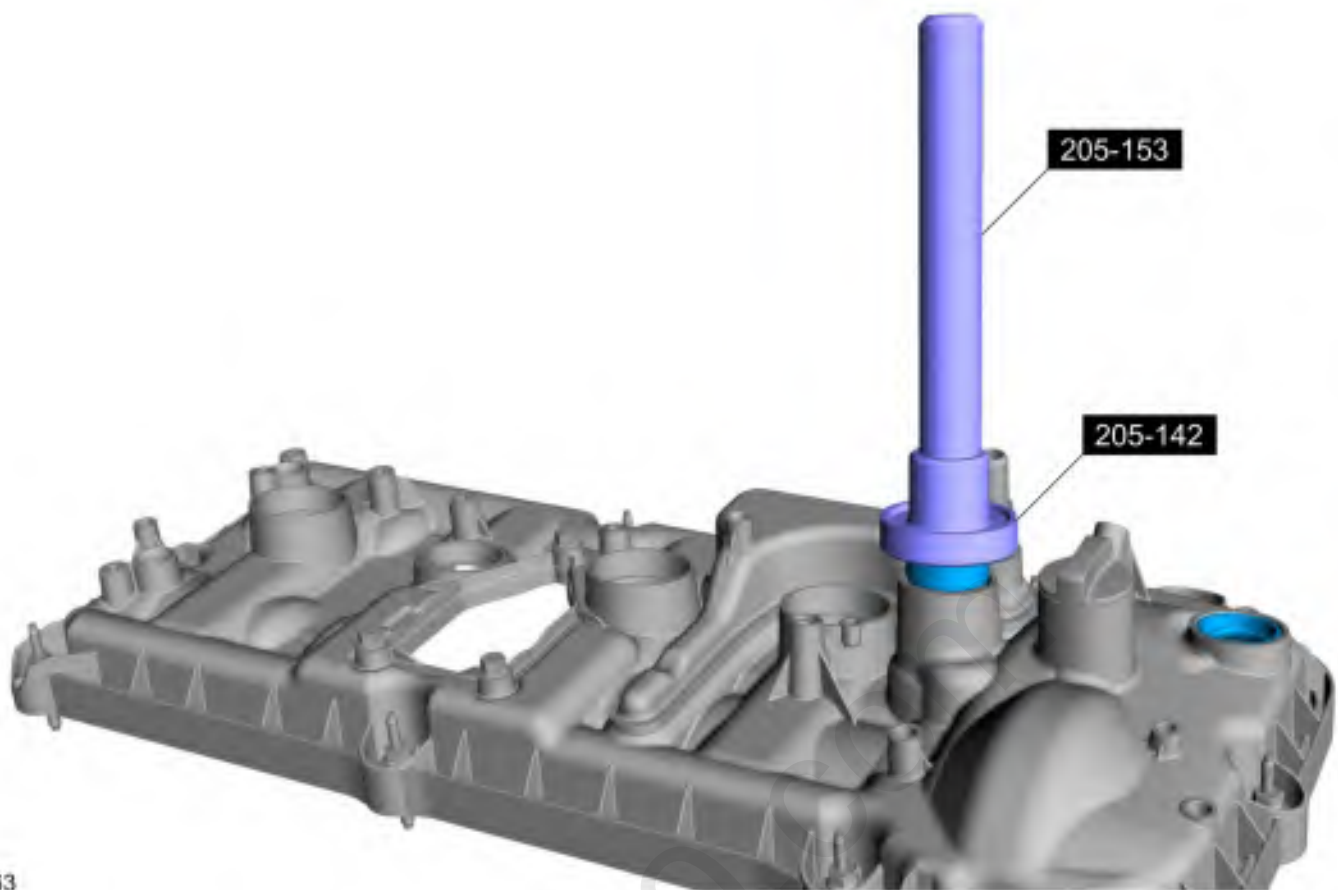
Use Special Service Tool: 205-153 (T80T-4000-W) Handle. , 303-1247 VCT Spark Plug Tube Seal Remover and Installer.



2. **NOTE:** *Installation of new seals is only required if damaged seals were removed.*

Using the special tools, install new VCT variable force solenoid seals.

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



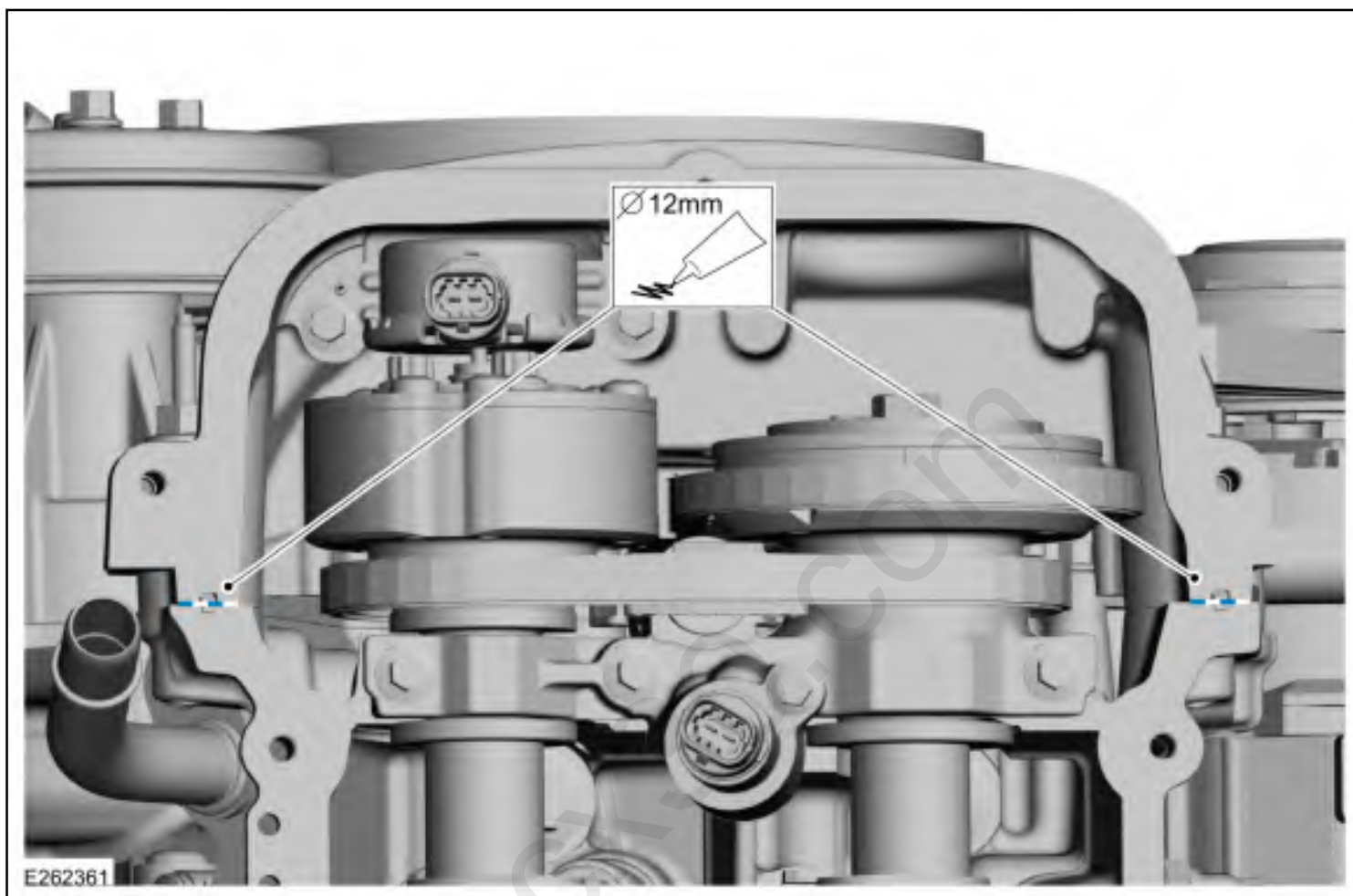
3. Install new gaskets.



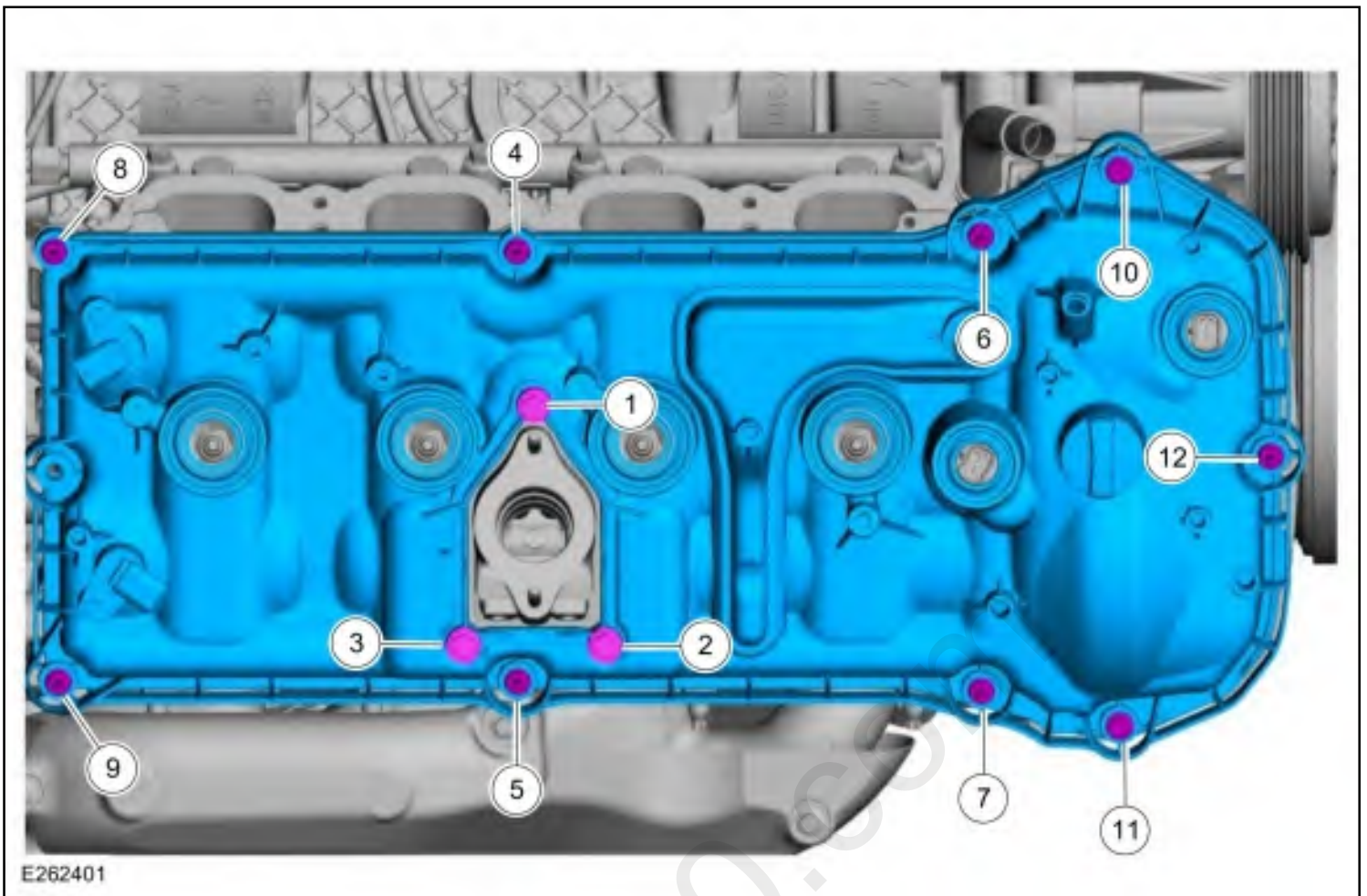
4. **NOTICE:** If the valve cover is not installed and the fasteners tightened within 5 minutes, the sealant must be removed and the sealing area cleaned.

Apply an 12 mm (0.47 in) bead of silicone gasket and sealant to the engine front cover-to-cylinder head joints.

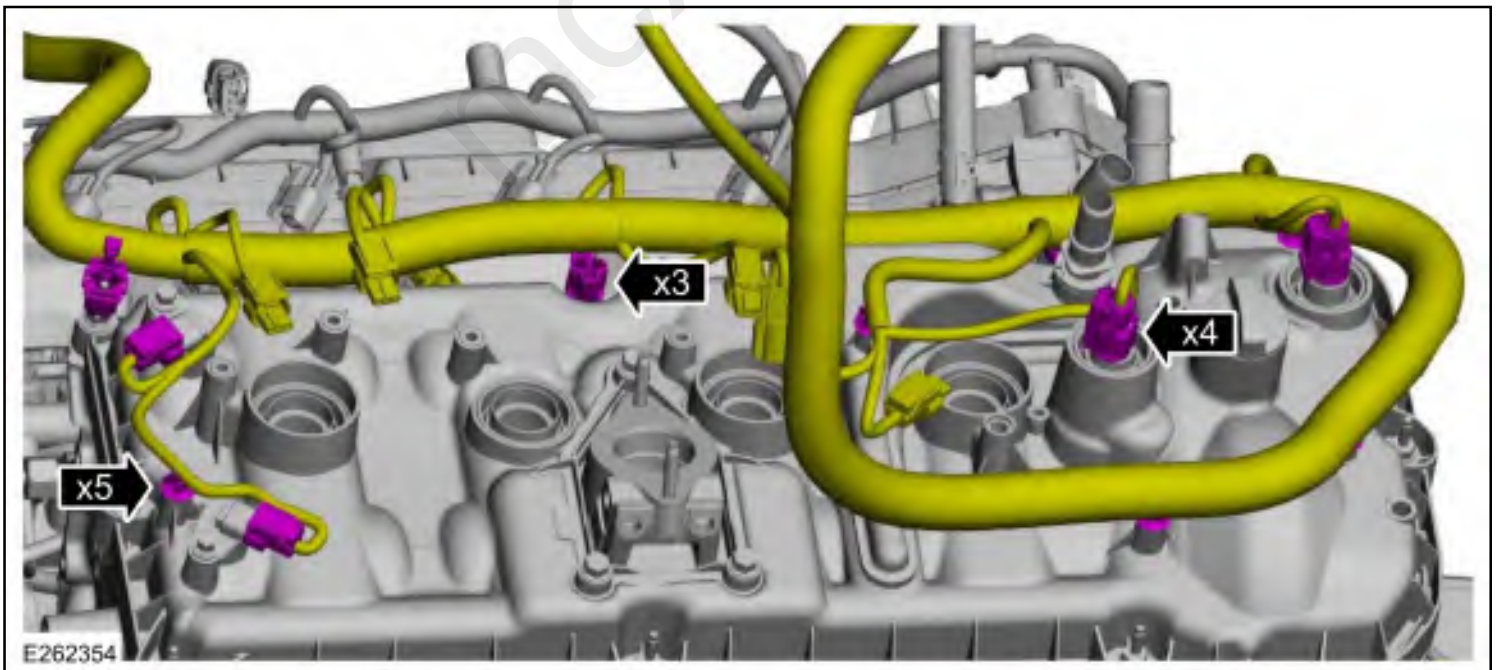
Material: Motorcraft® Silicone Gasket and Sealant / TA-30 (WSE-M4G323-A4)



5. Install the valve cover and tighten the bolts.
Torque: 89 lb.in (10 Nm)



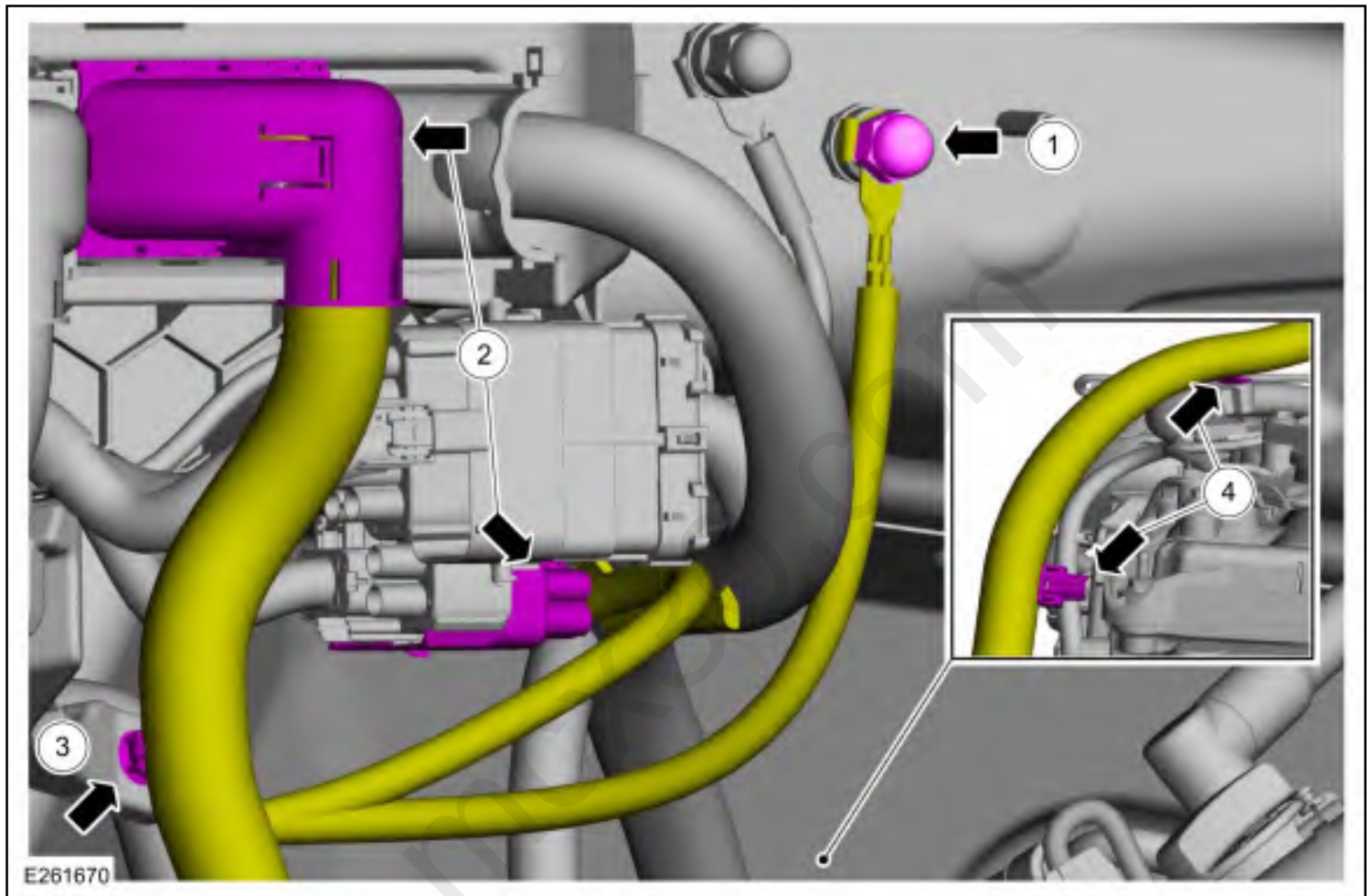
- Connect the engine wiring harness electrical connectors.
- Attach the wiring harness retainers.



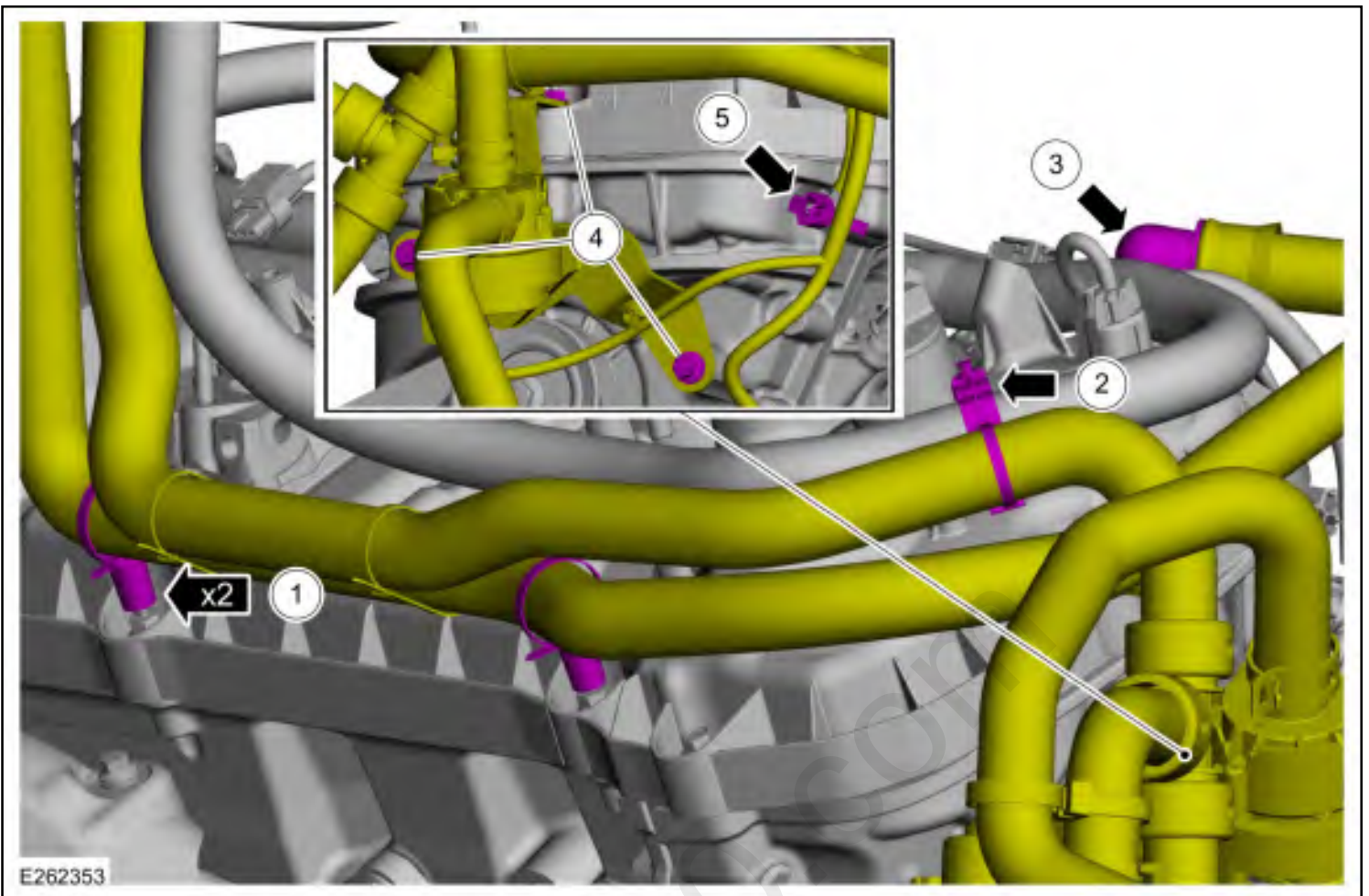
7. Install the RH ignition coils.

Refer to: Ignition Coil-On-Plug (303-07 Engine Ignition - 5.0L 32V Ti-VCT) .

1. Install the ground strap and the nut.
Torque: 106 lb.in (12 Nm)
2. Connect the engine wiring harness connectors.
3. Attach the engine wiring harness retainer.
4. Attach the transmission wiring harness retainers.



1. Attach the coolant hose retainers.
2. Attach the coolant hose retainer.
3. Connect the heater hose.
4. Position the coolant pump and install the fasteners.
Torque: 62 lb.in (7 Nm)
5. Attach the wiring harness retainer.



10. Install the following items:

1. LH ignition coils.

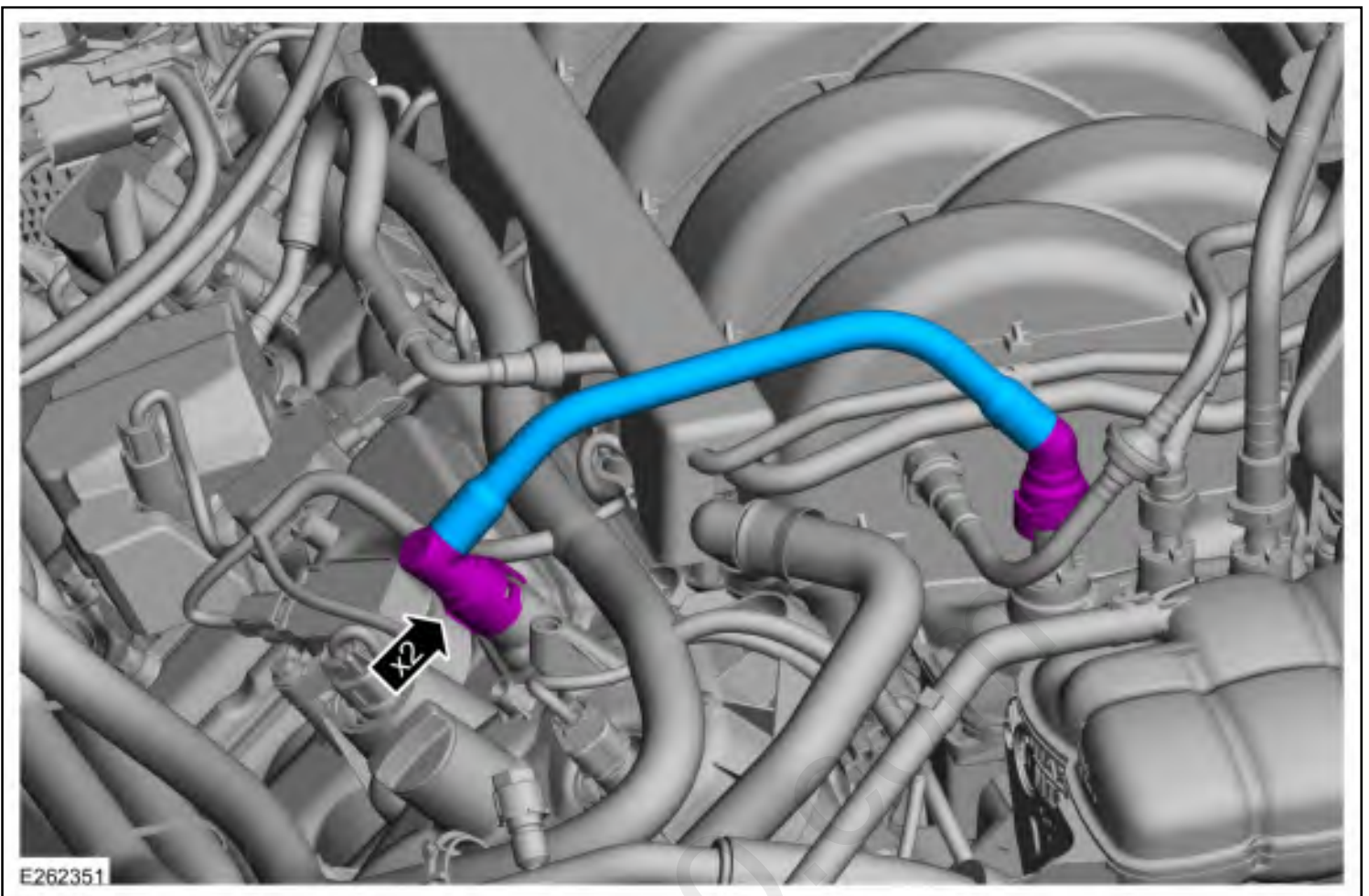
Refer to: [Ignition Coil-On-Plug](#) (303-07D Engine Ignition - 5.0L 32V Ti-VCT, Removal and Installation).

2. High pressure fuel pump.

Refer to: [High-Pressure Fuel Pump](#) (303-04D Fuel Charging and Controls - 5.0L 32V Ti-VCT, Removal and Installation).

11. Position the PCV tube and connect the quick release couplings.

Refer to: [Quick Release Coupling](#) (310-00D Fuel System - General Information - 5.0L 32V Ti-VCT, General Procedures).



12. Fill the engine cooling system.

Refer to: Cooling System Draining, Vacuum Filling and Bleeding (303-03 Engine Cooling - 5.0L 32V Ti-VCT) .