

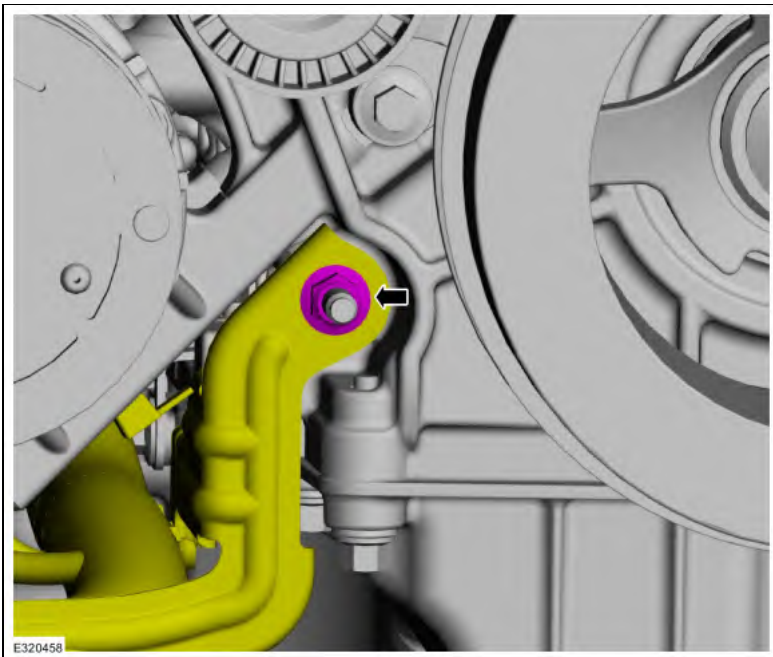
Engine Mount LH

Special Tool(s) / General Equipment

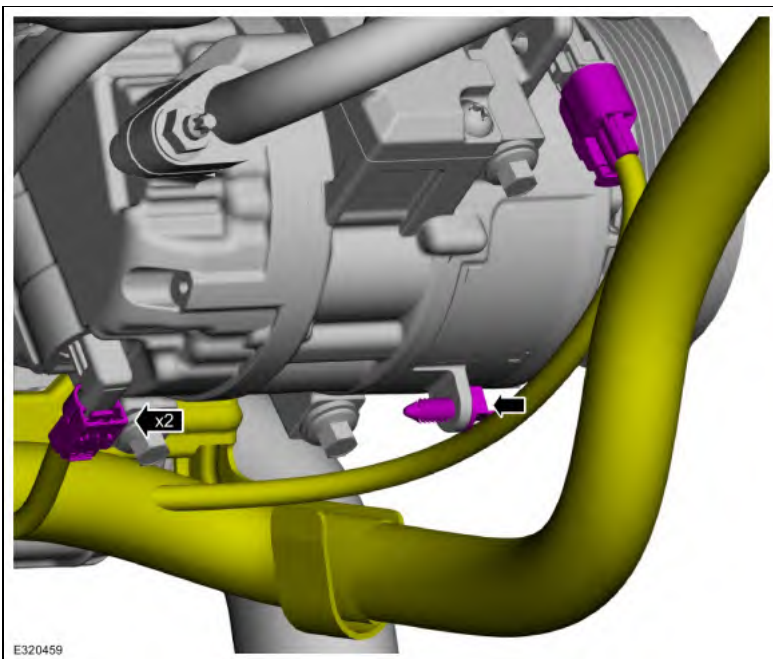
	303-050 (T70P-6000) Lifting Bracket, Engine
	303-050-01 7.3L Bracket, Engine (P558)
	303-F070 Support Bar, Engine TKIT-1999A-F/LT TKIT-1999A-FM/FLM

Removal

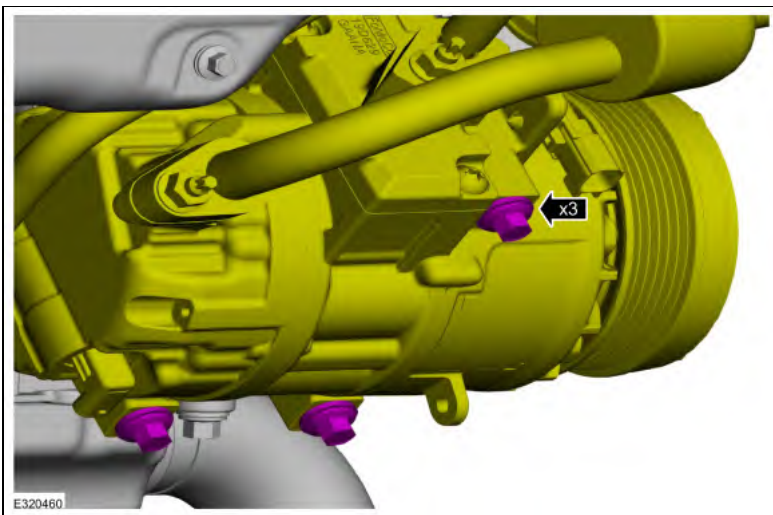
1. With the vehicle in NEUTRAL, position it on a hoist.
Refer to: Jacking and Lifting - Overview (100-02 Jacking and Lifting, Description and Operation).
2. Release the fuel system pressure.
Refer to: Fuel System Pressure Release (310-00C Fuel System - General Information - 7.3L 2V DEVCT V8 (239kW/320PS) (J0), General Procedures).
3. Disconnect the battery ground cable.
Refer to: Battery Disconnect and Connect (414-01 Battery, Mounting and Cables, General Procedures).
4. Remove the following items:
 1. Intake manifold.
Refer to: Intake Manifold (303-01C Engine - 7.3L 2V DEVCT V8 (239kW/320PS) (J0), Removal and Installation).
 2. Cooling fan.
Refer to: Cooling Fan (303-03D Engine Cooling - 7.3L 2V DEVCT V8 (239kW/320PS) (J0), Removal and Installation).
 3. A/C compressor belt.
Refer to: Air Conditioning (A/C) Compressor Belt (303-05C Accessory Drive - 7.3L 2V DEVCT V8 (239kW/320PS) (J0), Removal and Installation).
 4. Battery tray.
Refer to: Battery Tray (414-01 Battery, Mounting and Cables, Removal and Installation).
5. Remove the nut and position the starter motor wiring harness bracket aside.



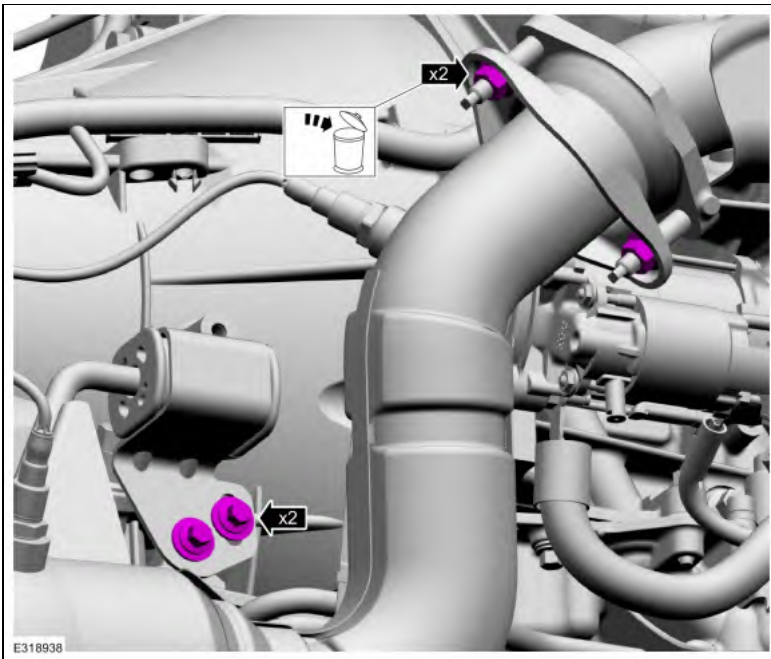
6. Disconnect the A/C compressor wiring harness electrical connectors and detach the wiring harness retainer.



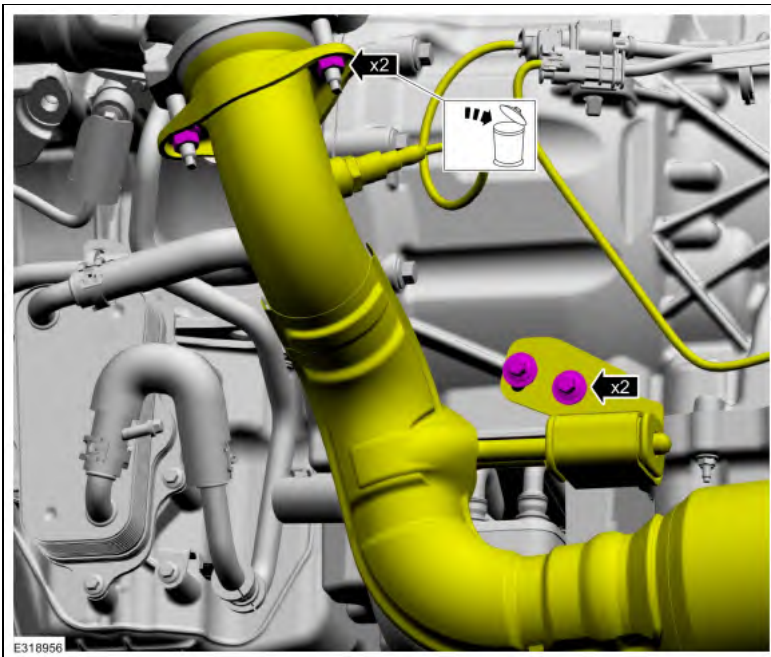
7. Remove the bolts and position the A/C compressor aside.



- 8.
1. Remove and discard the Y-pipe nuts.
 2. Remove the exhaust hanger bolts.

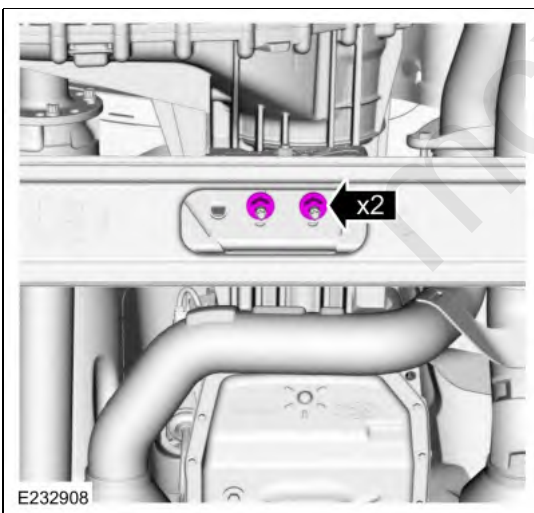


- 9.
1. Remove and discard the Y-pipe nuts.
 2. Remove the exhaust hanger bolts and lower the Y-pipe.



10. **NOTICE:** Failure to replace the transmission support insulator nuts may result in transmission support insulator damage. New transmission support insulator nuts will be installed during engine installation.

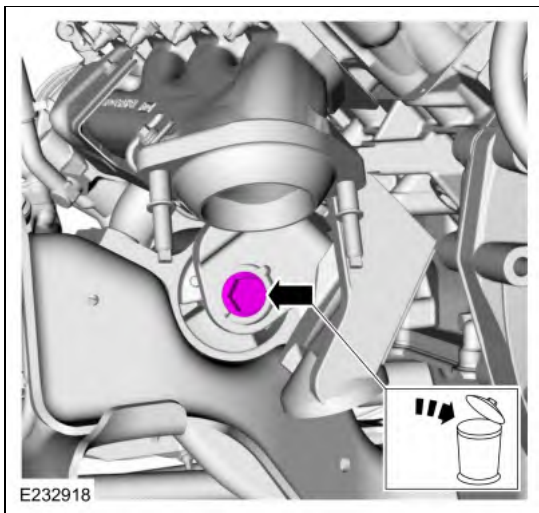
Loosen the transmission support insulator-to-crossmember nuts.



11. **NOTICE:** The engine mount through bolt must be discarded and a new bolt installed, or damage to the vehicle or engine mount may occur.

NOTICE: Only use hand tools when removing the engine mount through bolt or damage to the engine mount may occur.

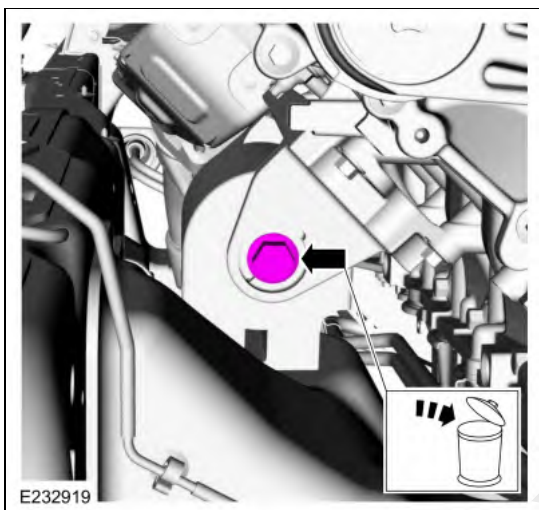
Remove and discard the LH engine mount through bolt.



12. **NOTICE:** The engine mount through bolt must be discarded and a new bolt installed, or damage to the vehicle or engine mount may occur.

NOTICE: Only use hand tools when removing the engine mount through bolt or damage to the engine mount may occur.

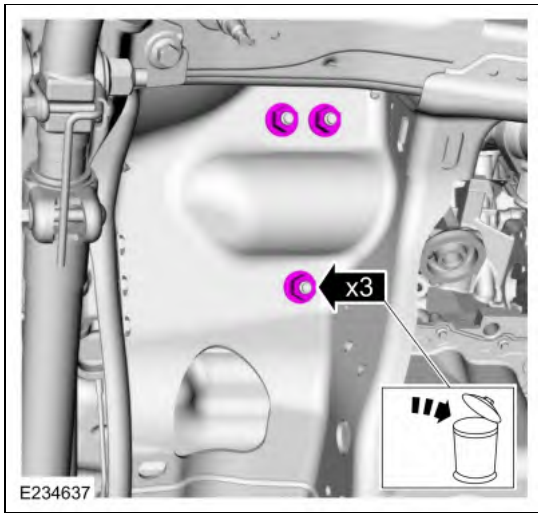
Remove and discard the RH engine mount through bolt.



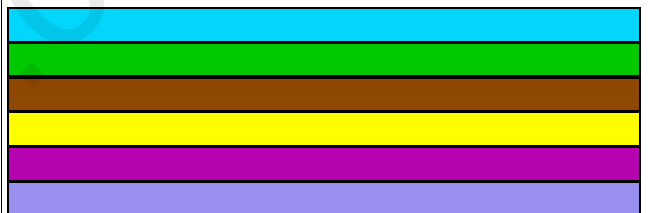
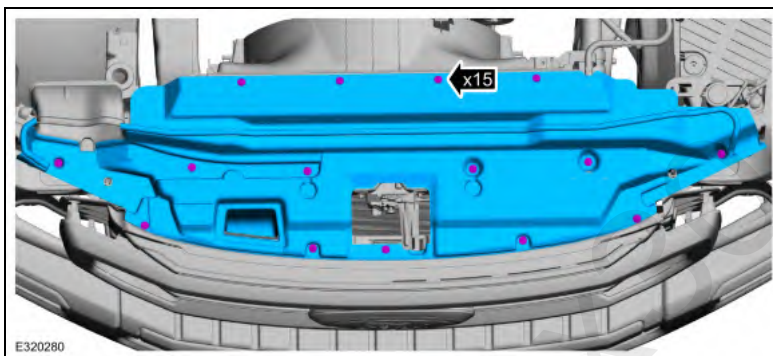
13. **NOTICE:** Failure to replace the engine mount nuts may result in engine mount damage.

NOTICE: Only use hand tools when loosening the engine mount nuts or damage to the engine mount may occur.

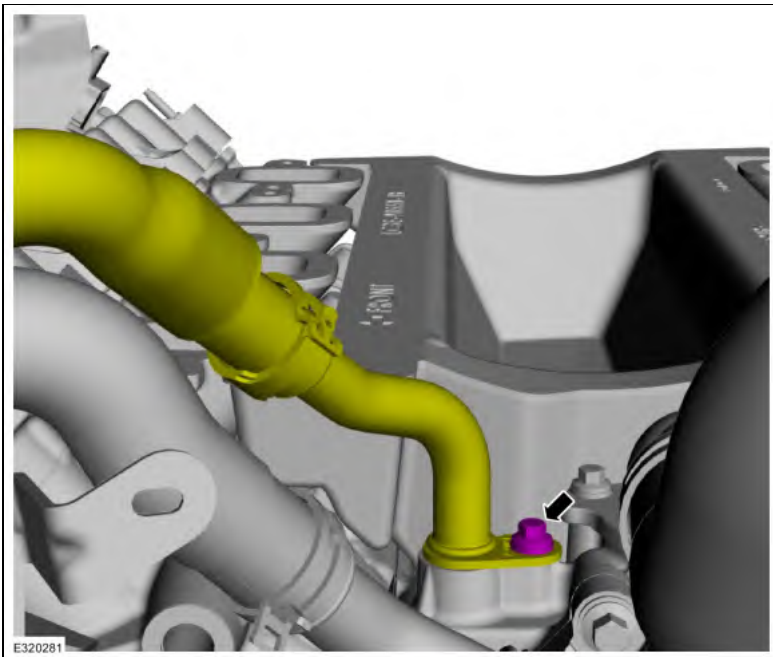
Remove and discard the LH engine support insulator bracket nuts.



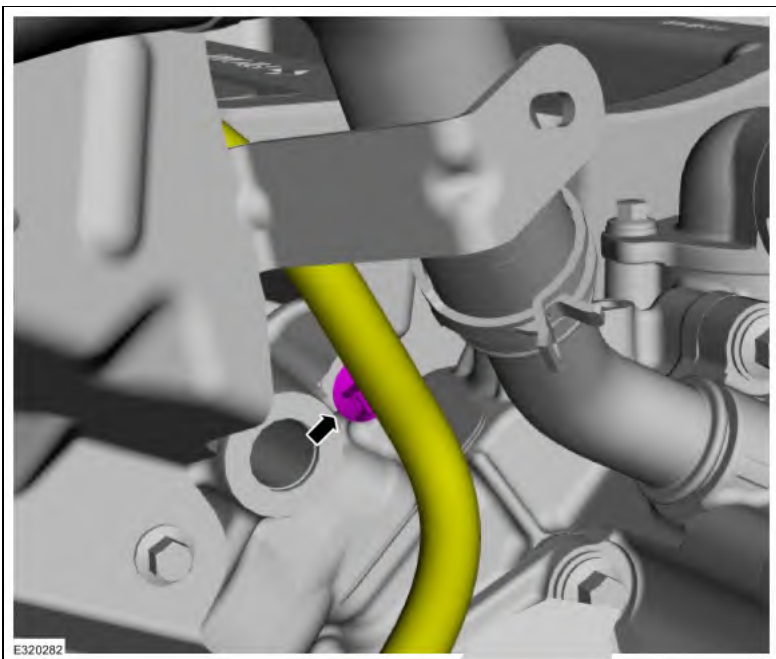
14. Remove and retainers and the upper radiator shield.



15. Remove the bolt and position the coolant outlet pipe aside.

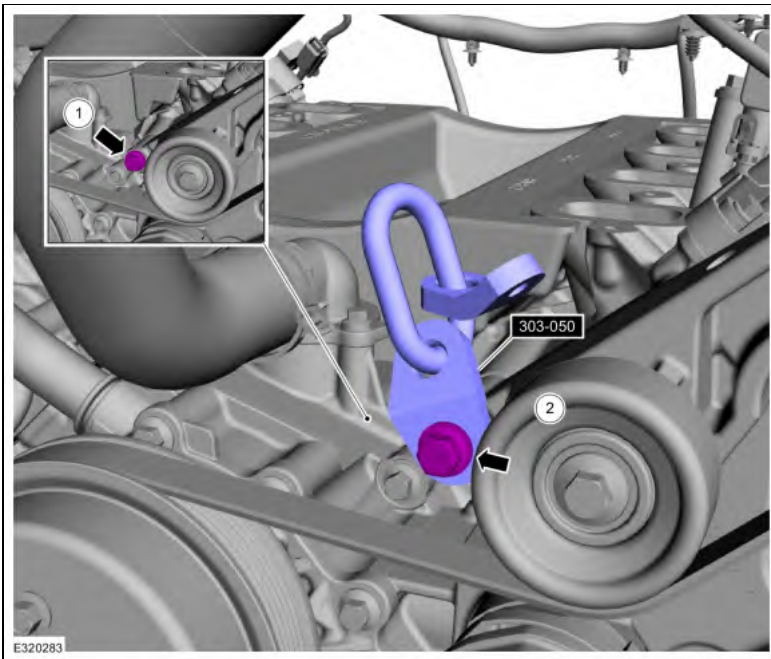


16. Detach the retainer and position the wiring harness aside.

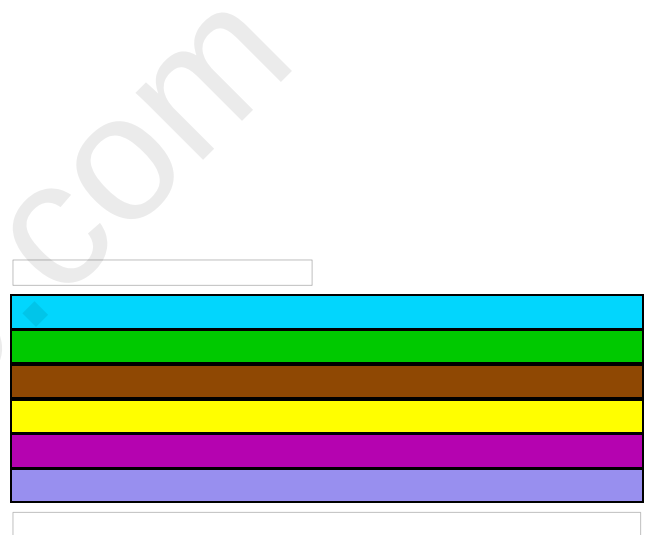
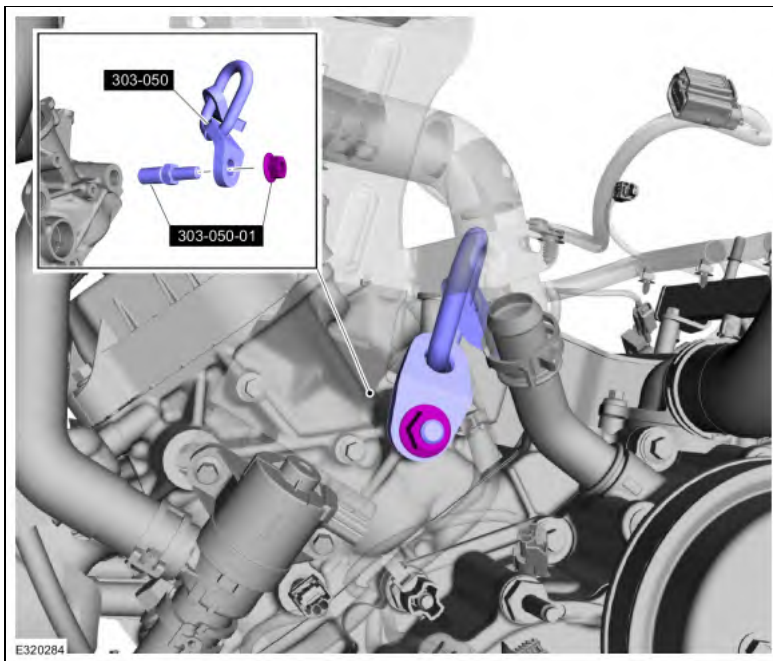


17.

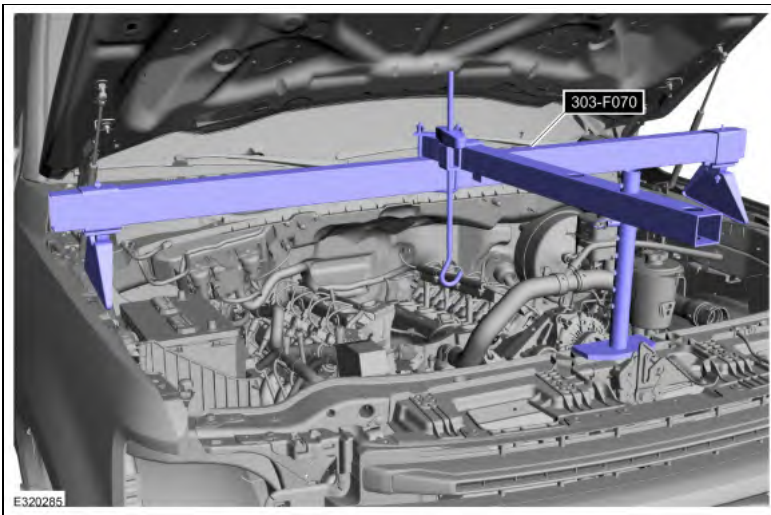
1. Remove the generator bracket bolt.
2. Install the special tool using the generator bracket bolt.
Install Special Service Tool: 303-050 (T70P-6000) Lifting Bracket, Engine.



18. Install Special Service Tool: 303-050-01 7.3L Bracket, Engine (P558). , 303-050 (T70P-6000) Lifting Bracket, Engine.

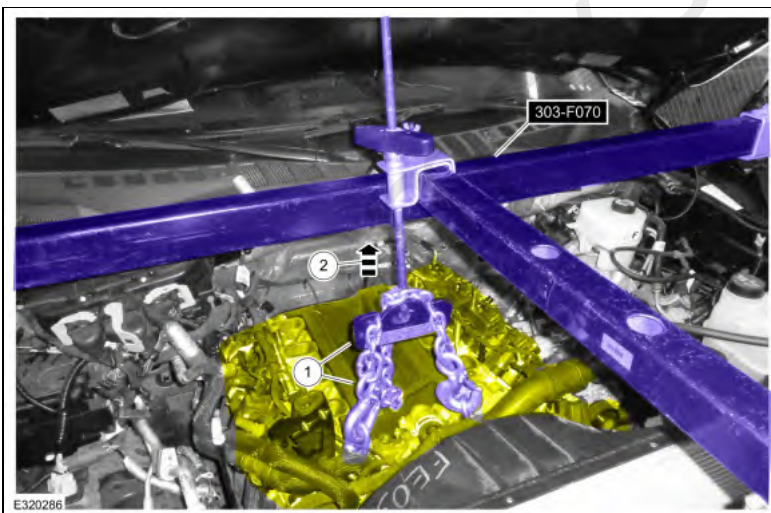


19. Install Special Service Tool: 303-F070 Support Bar, Engine.

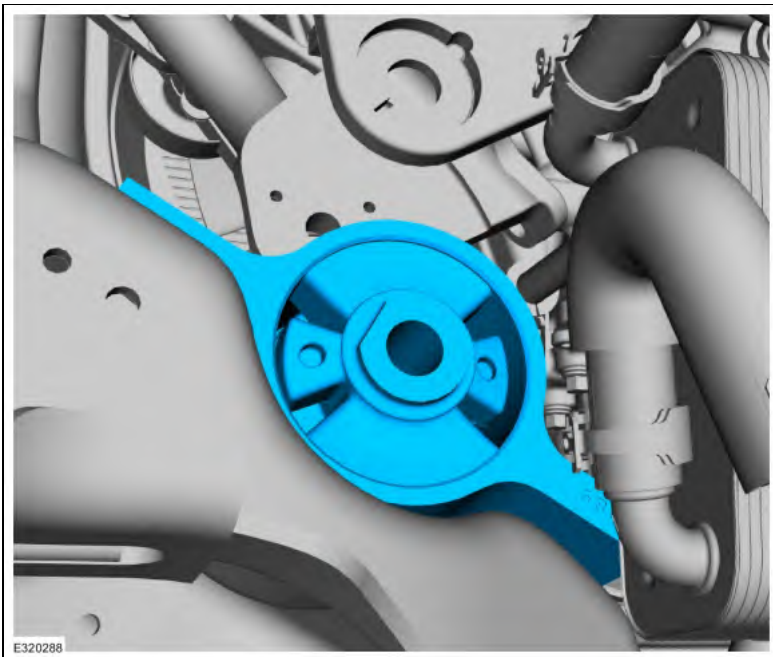


20.

1. **NOTE:** Use a commercially available sling (such as an OTC 38841 or equivalent).
Install a suitable length of chain and a sling.
2. Raise the engine 100 mm (4 in.).
Use Special Service Tool: 303-F070 Support Bar, Engine.

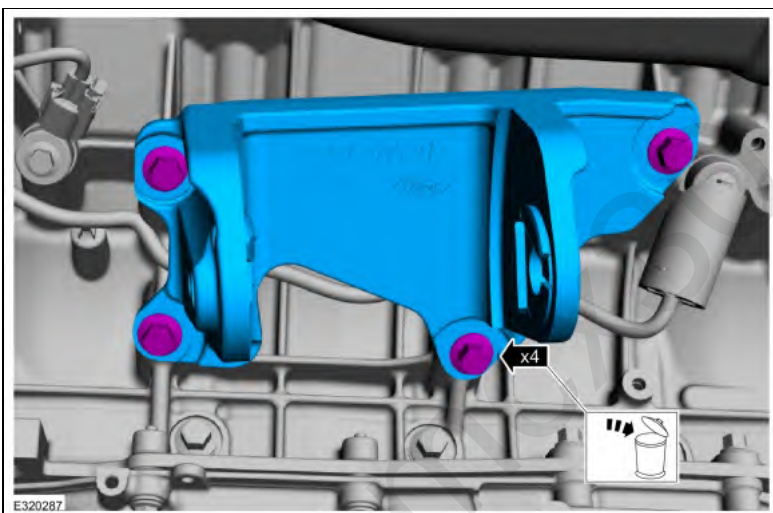


21. Remove the LH engine support insulator.



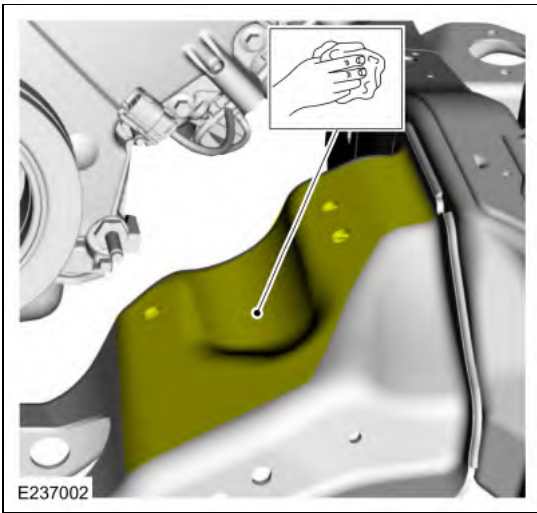
22. **NOTICE:** The engine support insulator bracket bolts must be discarded and new bolts installed or damage to the vehicle may occur. They are a tighten-to-yield design and cannot be reused.

- If servicing the LH engine support insulator bracket, remove the bolts and the LH engine support insulator bracket.
- Discard the bolts.



Installation

1. Clean the LH engine mount-to-frame mating surfaces of any dirt or foreign material prior to installation.



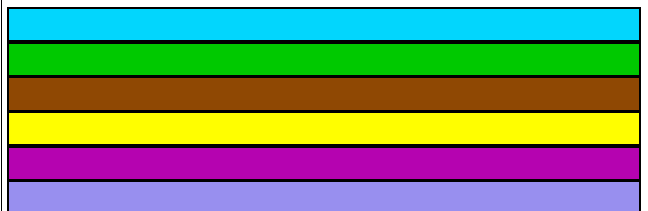
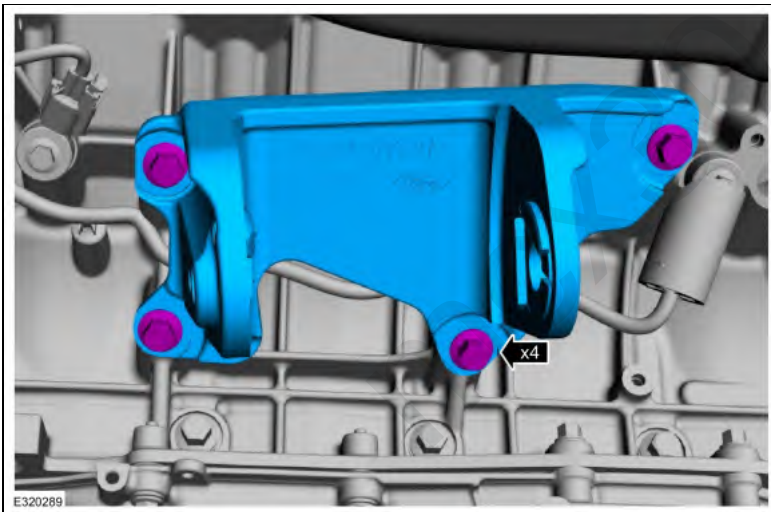
2. **NOTE:** Clean the engine mount bracket-to-cylinder block surfaces of any dirt or foreign material prior to installation.

If removed, install the LH engine support insulator bracket and the new bolts.

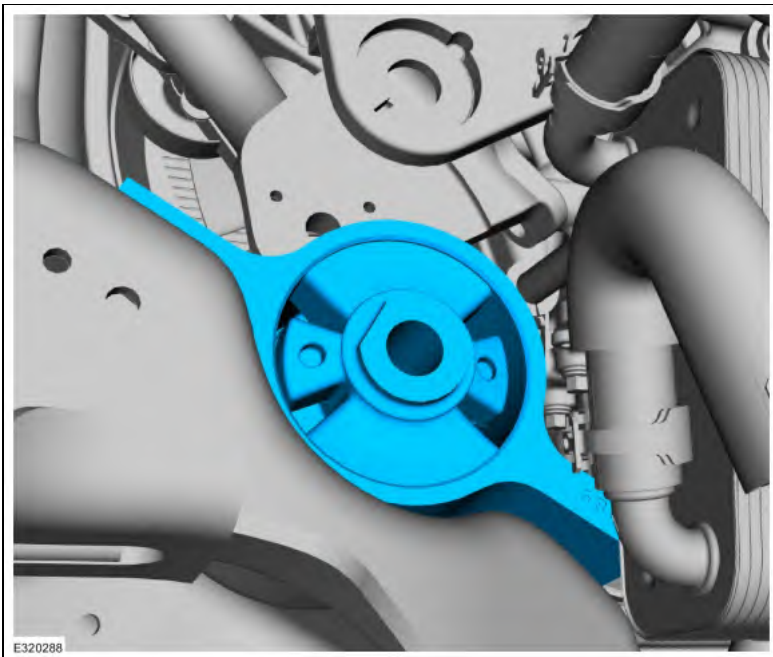
Torque:

Stage 1: 22 lb.ft (30 Nm)

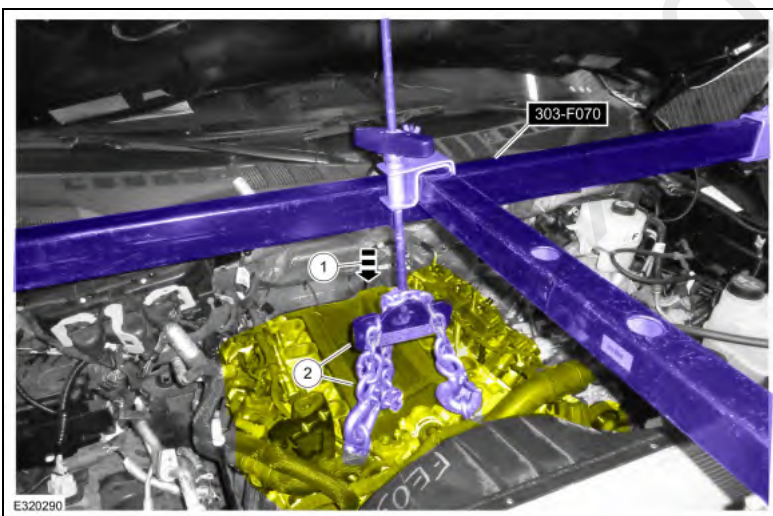
Stage 2: 60Â°



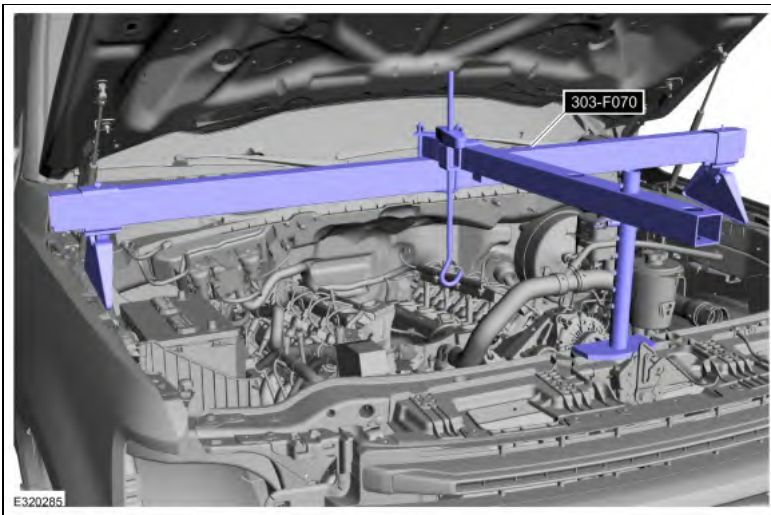
3. Install the LH engine support insulator.



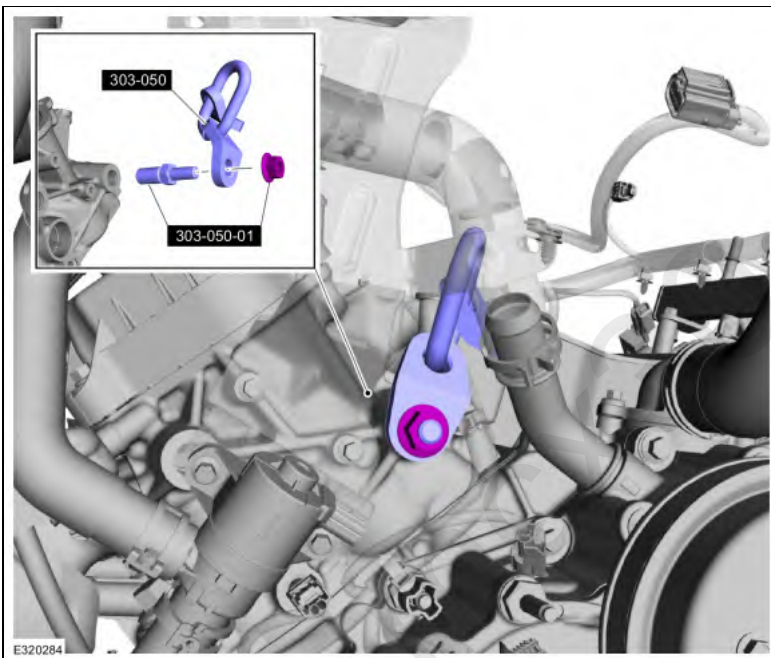
4.
 1. Lower the engine onto the engine mounts.
Use Special Service Tool: 303-F070 Support Bar, Engine.
 2. Remove the sling and the chain.



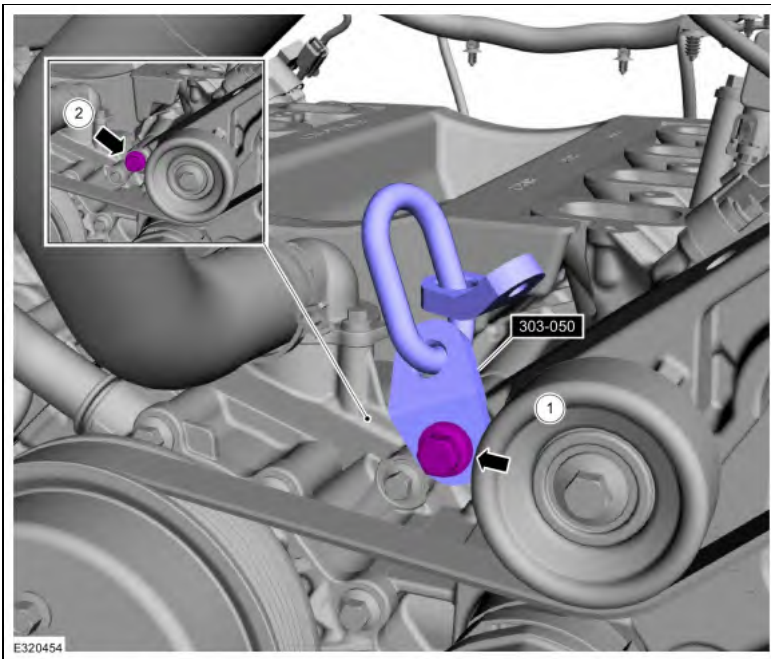
5. Remove Special Service Tool: 303-F070 Support Bar, Engine.



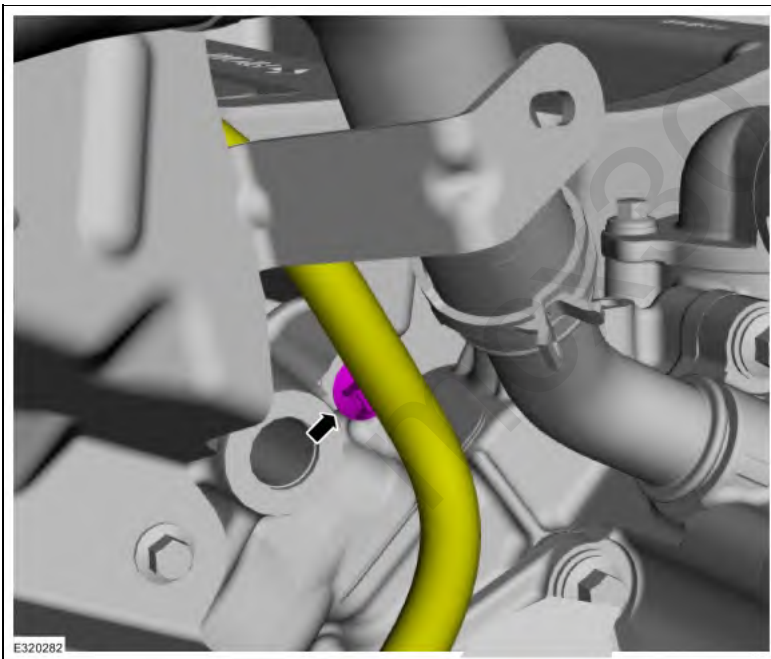
6. Remove Special Service Tool: 303-050 (T70P-6000) Lifting Bracket, Engine. , 303-050-01 7.3L Bracket, Engine (P558).



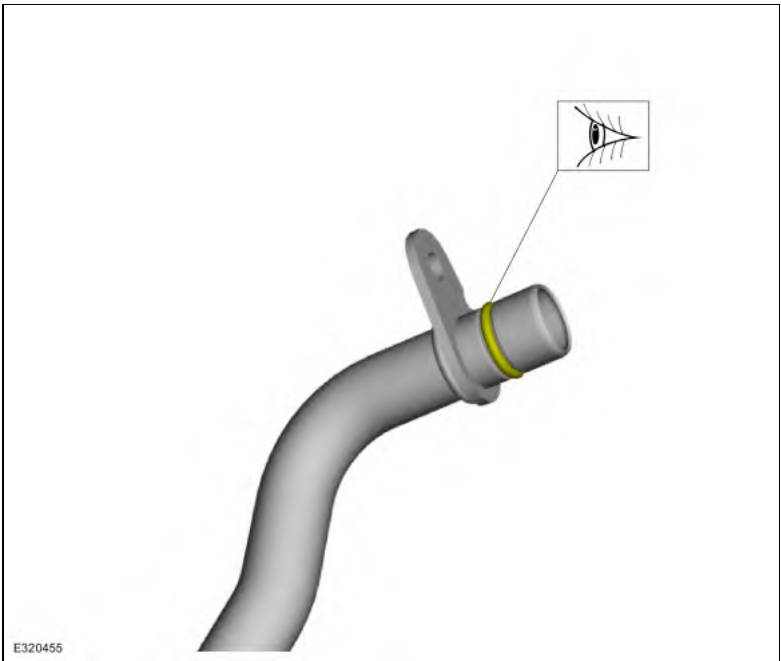
7.
 1. Remove the special tool and the generator bracket bolt.
Remove Special Service Tool: 303-050 (T70P-6000) Lifting Bracket, Engine.
 2. Install the generator bracket bolt.
Torque: 35 lb.ft (48 Nm)



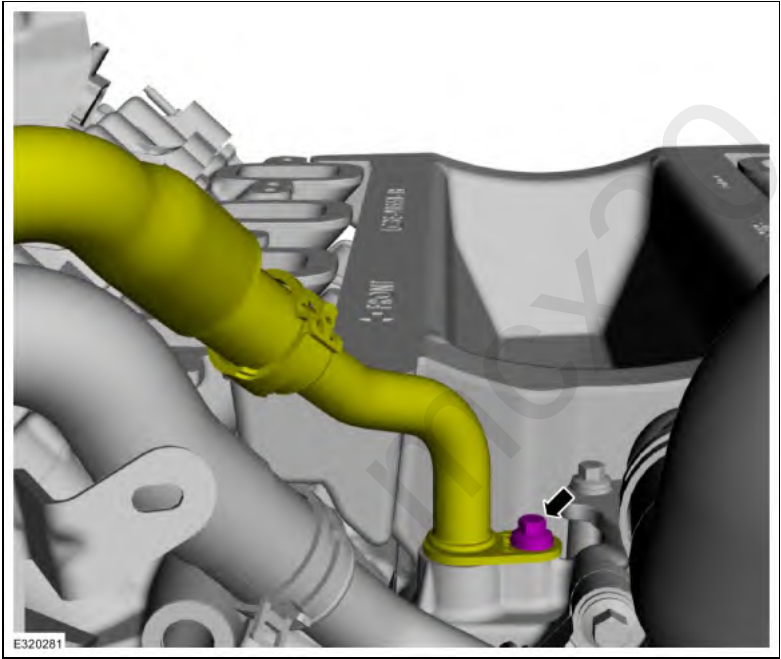
8. Attach the wiring harness retainer.



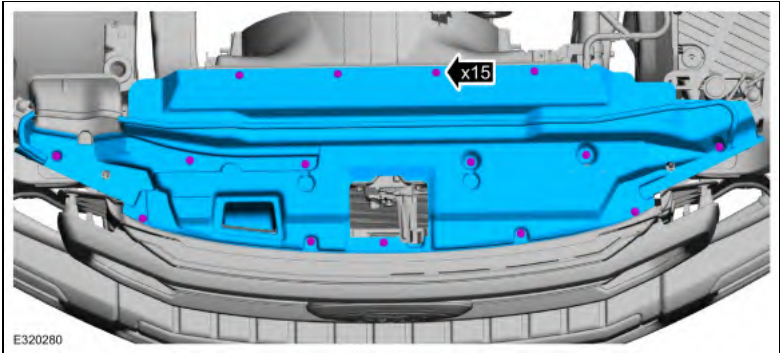
9. Inspect the O-ring seal and replace as necessary.



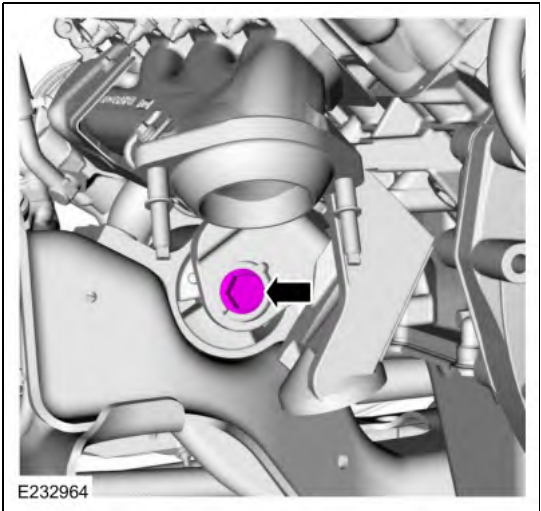
10. Install the coolant outlet pipe and the bolt.
Torque: 89 lb.in (10 Nm)



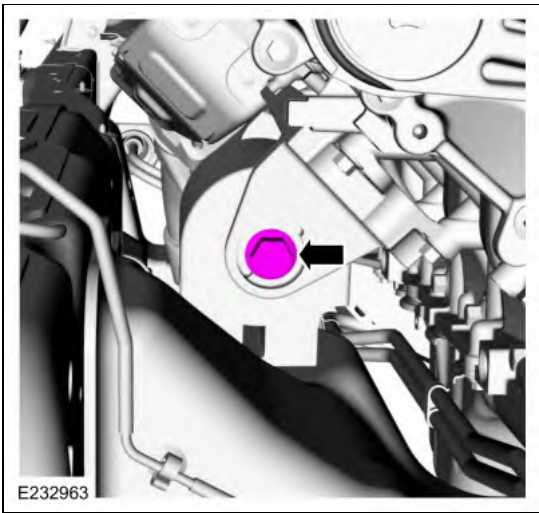
11. Install the upper radiator shield and the fasteners.



12. **NOTE:** Do not tighten the fasteners at this time.
Install the new LH mount through bolt.

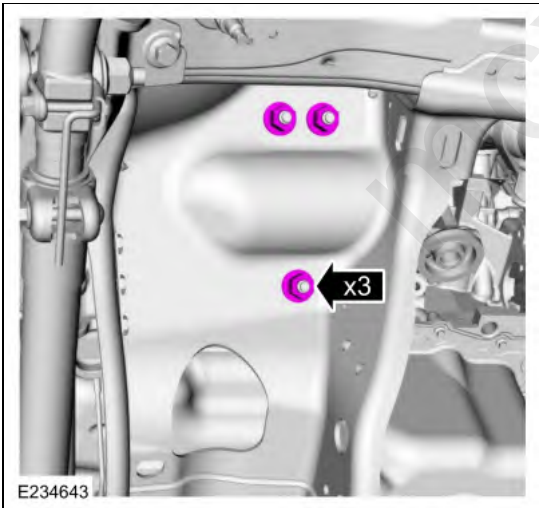


13. **NOTE:** Do not tighten the fasteners at this time.
Install the new RH mount through bolt.



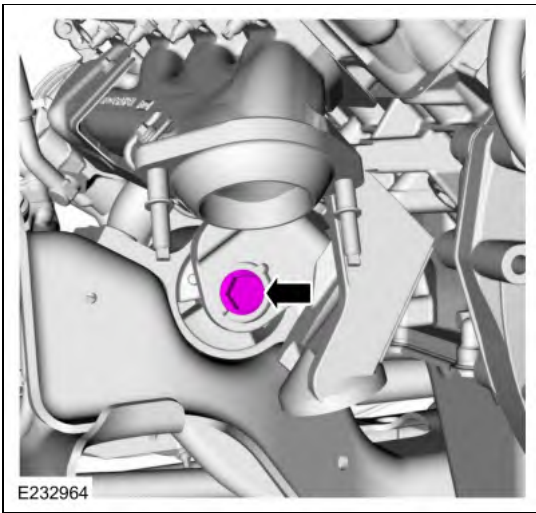
14. **NOTICE:** Only use hand tools when tightening the engine mount nuts or damage to the engine mount may occur.

Install the new LH engine support insulator bracket nuts.
Torque: 148 lb.ft (200 Nm)



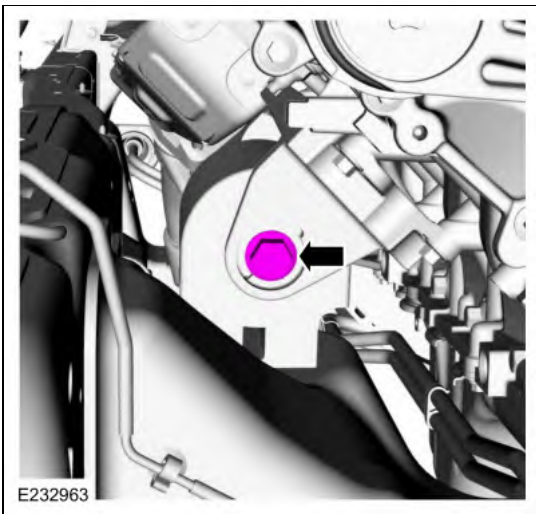
15. **NOTICE:** Only use hand tools when tightening the engine mount bolt or damage to the engine mount may occur.

Tighten the LH engine mount through bolt.
Torque: 258 lb.ft (350 Nm)



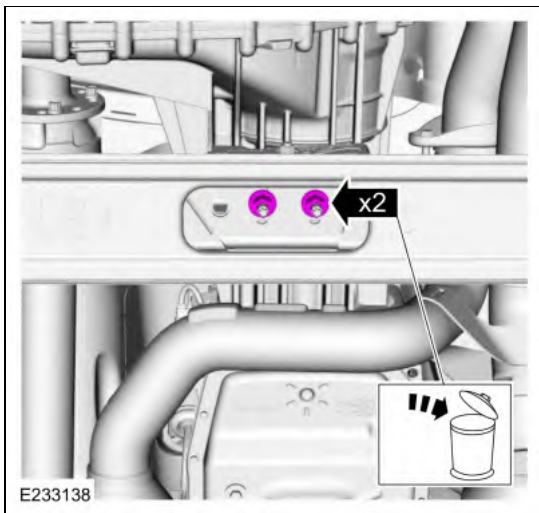
16. **NOTICE:** Only use hand tools when tightening the engine mount bolt or damage to the engine mount may occur.

Tighten the RH engine mount through bolt.
Torque: 258 lb.ft (350 Nm)



17. **NOTICE:** The transmission support insulator-to-crossmember nuts must be discarded and new nuts installed, or damage to the vehicle or transmission support insulator may occur.

Remove and discard the transmission support insulator nuts.



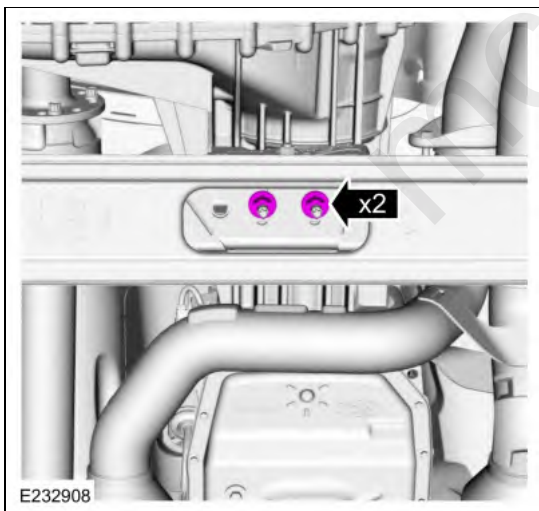
18.

- **NOTE:** The transmission support insulator studs may come out of the insulator while removing the nuts.

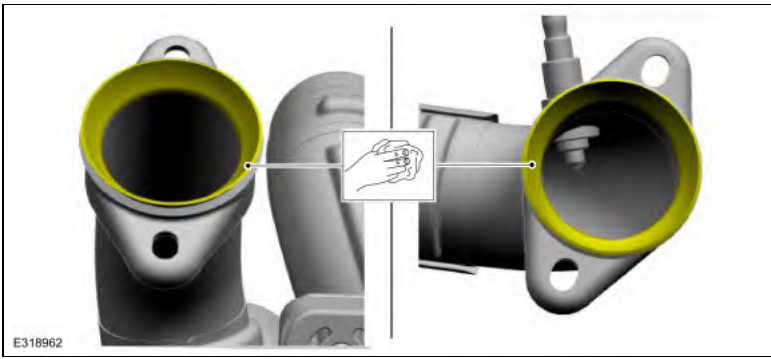
If required, tighten transmission support insulator studs.

Torque: 55 lb.ft (75 Nm)

- If the transmission support insulator studs can not be tightened, the transmission support insulator must be replaced.
Refer to: Transmission Support Insulator (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€” 10R140, Removal and Installation).
- Install new transmission support insulator nuts.
Torque: 85 lb.ft (115 Nm)

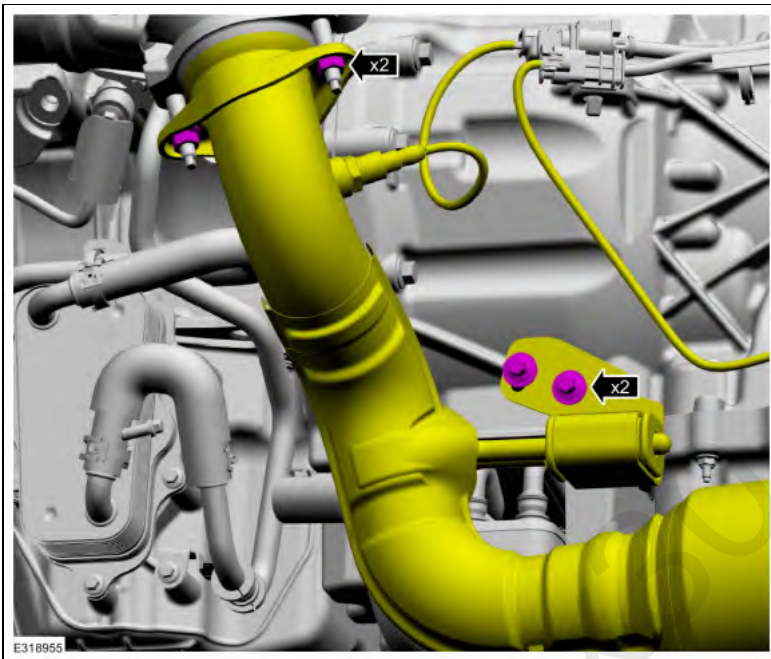


19. Make sure that the mating faces are clean and free of foreign material.



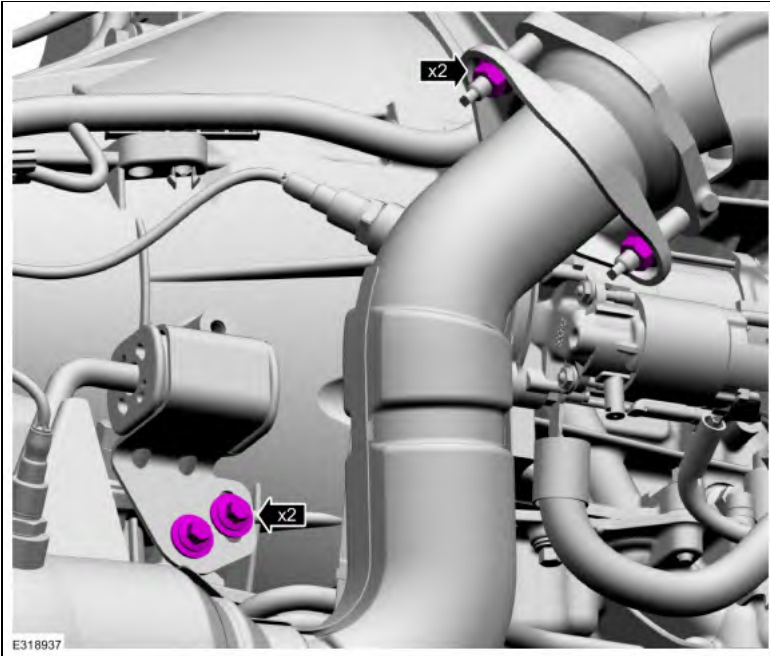
20.

1. Position the Y-pipe and install the new nuts.
Torque: 30 lb.ft (40 Nm)
2. Install the exhaust hanger bolts.
Torque: 18 lb.ft (25 Nm)

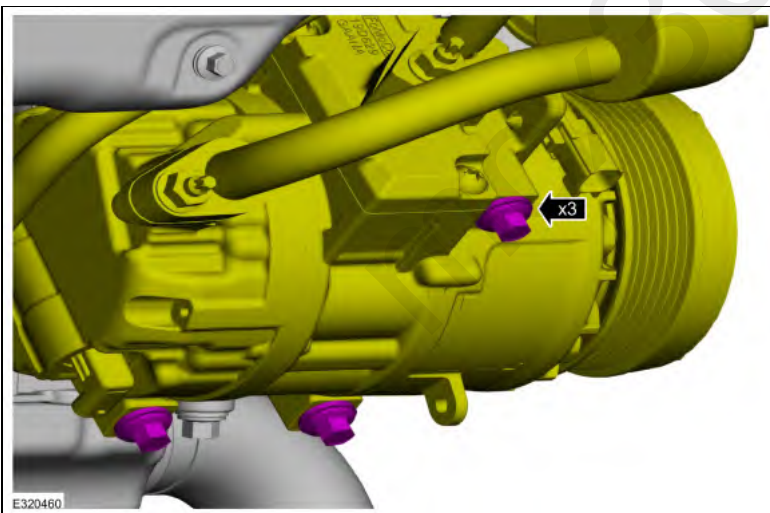


21.

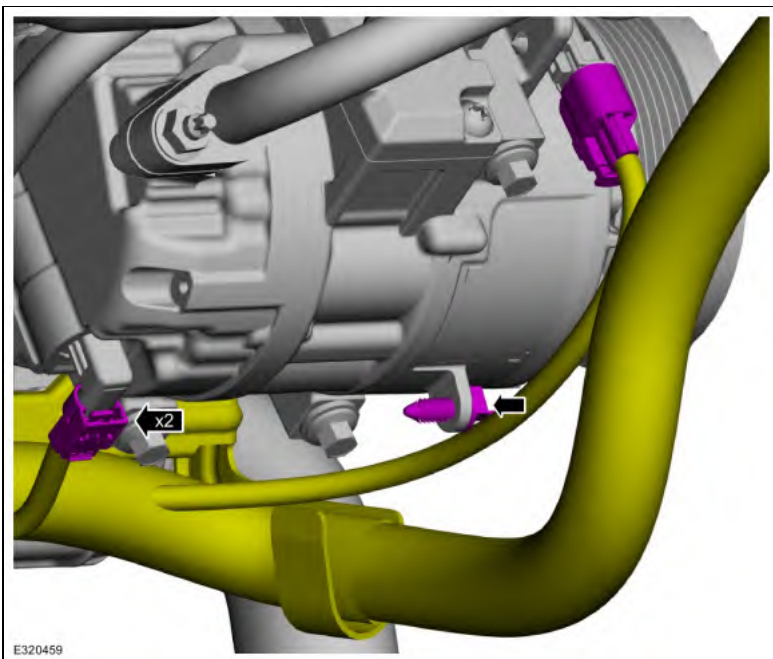
1. Install the new Y-pipe nuts.
Torque: 30 lb.ft (40 Nm)
2. Install the exhaust hanger bolts.
Torque: 18 lb.ft (25 Nm)



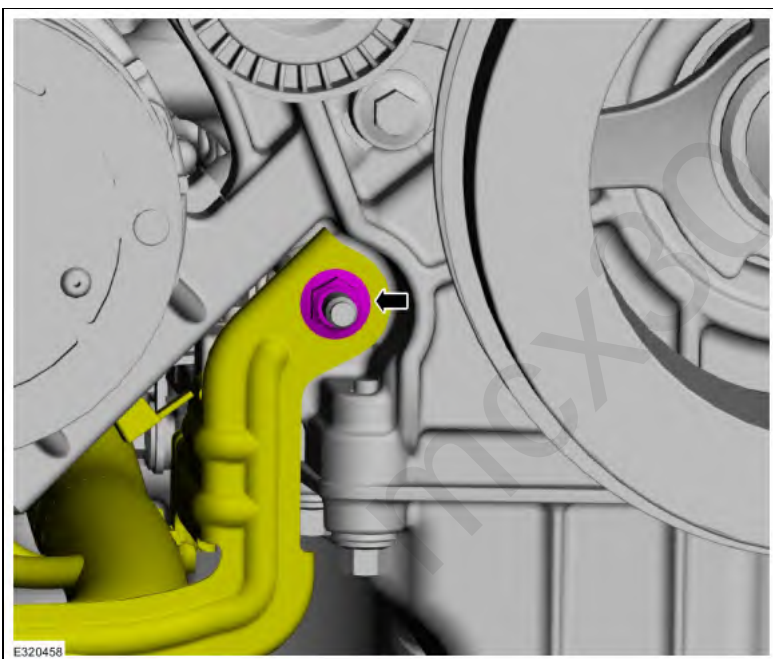
22. Position the A/C compressor and install the bolts.
Torque: 18 lb.ft (25 Nm)



23. Connect the A/C compressor wiring harness electrical connectors and attach the wiring harness retainer.



24. Install the starter motor wiring harness bracket and the nut.
Torque: 18 lb.ft (25 Nm)



25. Install the following items:
1. Battery tray.
Refer to: Battery Tray (414-01 Battery, Mounting and Cables, Removal and Installation).
 2. A/C compressor belt.
Refer to: Air Conditioning (A/C) Compressor Belt (303-05C Accessory Drive - 7.3L 2V DEVCT V8 (239kW/320PS) (J0), Removal and Installation).
 3. Cooling fan.
Refer to: Cooling Fan (303-03D Engine Cooling - 7.3L 2V DEVCT V8 (239kW/320PS) (J0), Removal and Installation).
 4. Intake manifold.
Refer to: Intake Manifold (303-01C Engine - 7.3L 2V DEVCT V8 (239kW/320PS) (J0), Removal and Installation).
26. Connect the battery ground cable.
Refer to: Battery Disconnect and Connect (414-01 Battery, Mounting and Cables, General Procedures).
27. Pressurize the fuel system.
Refer to: Fuel System Pressure Release (310-00C Fuel System - General Information - 7.3L 2V DEVCT V8 (239kW/320PS) (J0), General Procedures).
28. Start and check the exhaust system for leaks.