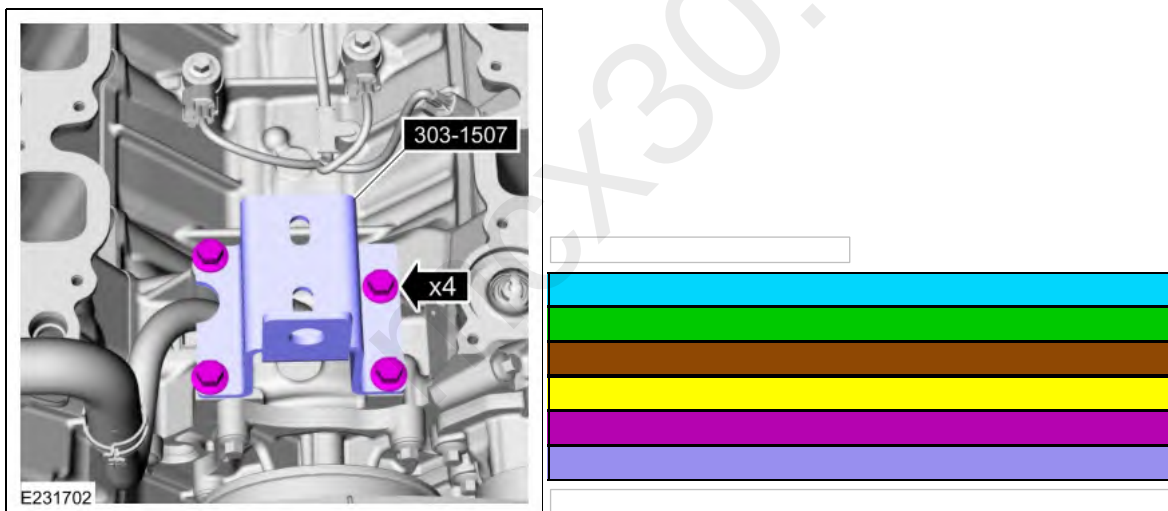


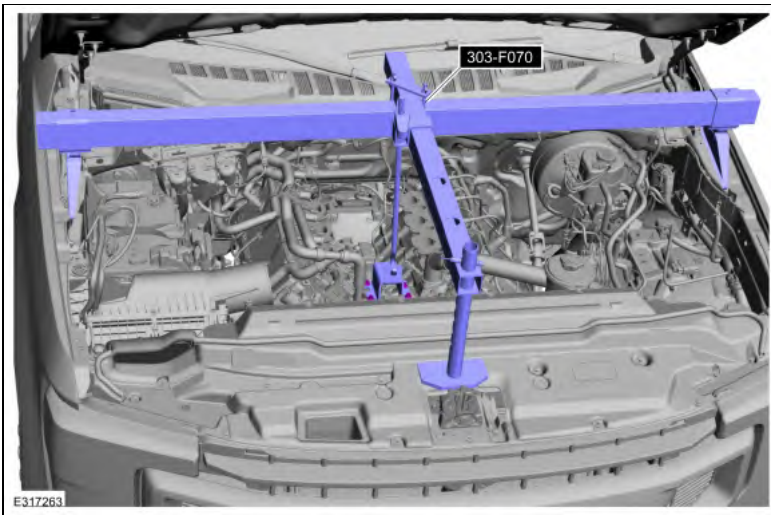
Special Tool(s) / General Equipment

	303-1507 Brackets, Support
	303-F070 Support Bar, Engine TKIT-1999A-F/LT TKIT-1999A-FM/FLM
Oil Drain Equipment	

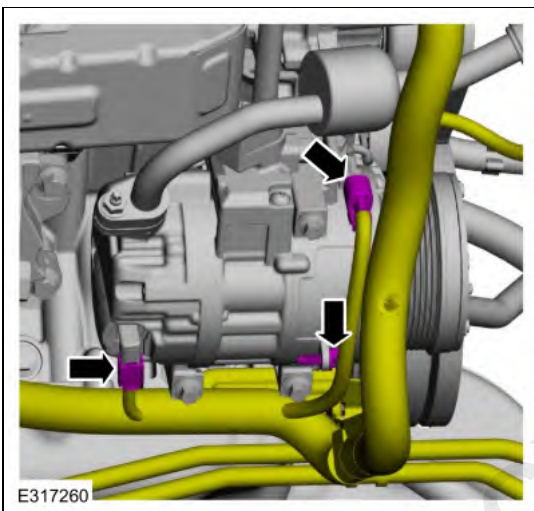
1. With the vehicle in NEUTRAL, position it on a hoist.
Refer to: Jacking and Lifting - Overview (100-02 Jacking and Lifting, Description and Operation).
2. Remove the following items:
 1. Remove the intake manifold.
Refer to: Intake Manifold (303-01A Engine - 6.2L V8, Removal and Installation).
 2. Remove the cooling fan shroud.
Refer to: Cooling Fan Shroud (303-03A Engine Cooling - 6.2L V8, Removal and Installation).
 3. Remove the accessory drive belt.
Refer to: Accessory Drive Belt (303-05A Accessory Drive - 6.2L V8, Removal and Installation).
3. Drain the cooling system.
Refer to: Engine Cooling System Draining, Vacuum Filling and Bleeding (303-03A Engine Cooling - 6.2L V8, General Procedures).
4. Install Special Service Tool 303-1507 Brackets, Support.



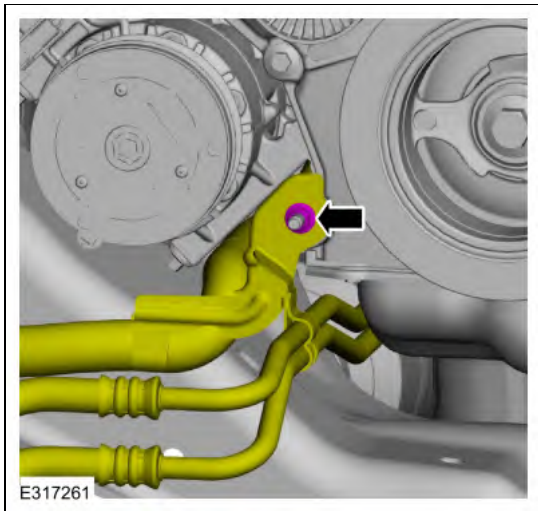
5. Install Special Service Tool: 303-F070 Support Bar, Engine.



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

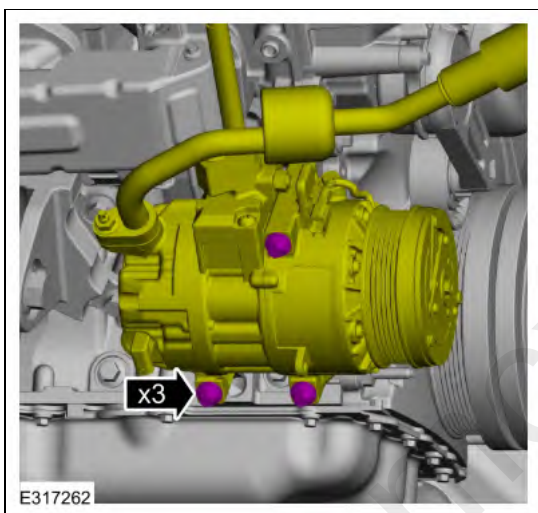


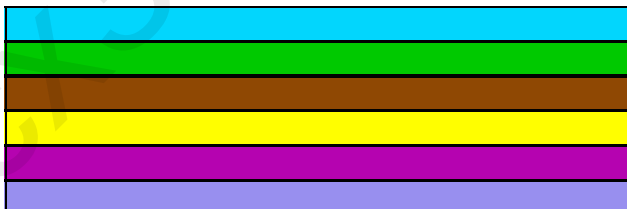
- 7.
- Remove the nut.
 - **NOTE:** 6R100 transmission lines shown, 10R140 similar.
If equipped with automatic transmission, remove the transmission cooler lines bracket.
 - Remove the starter motor wiring harness bracket.





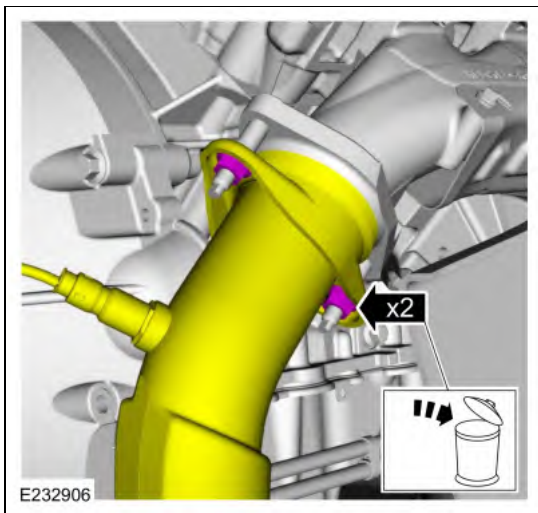
8. Remove the bolts and position the A/C compressor aside.





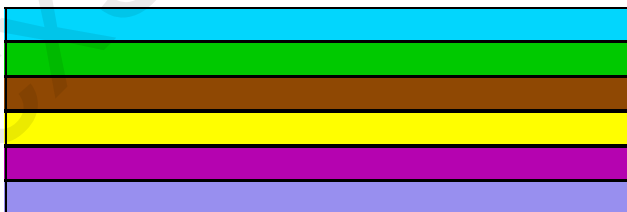
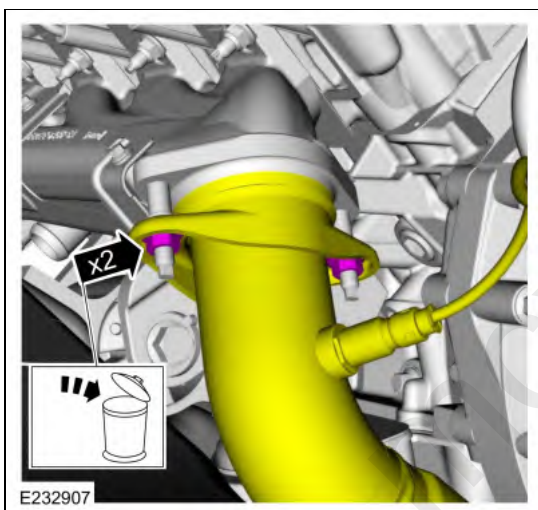
9.

- Remove the RH catalytic converter pipe-to-manifold nuts and discard.
- Make sure that the mating faces are clean and free of foreign material.



10.

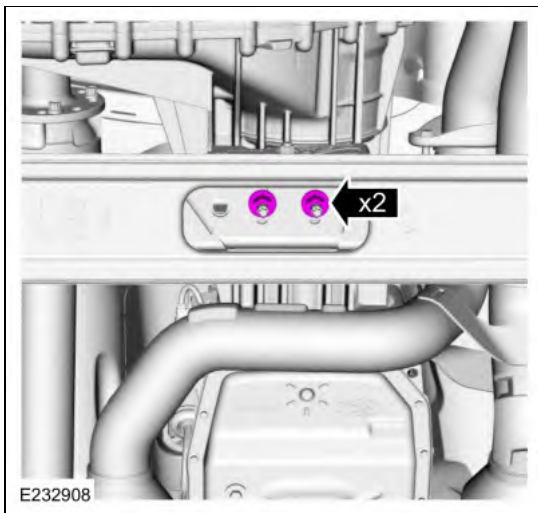
- Remove the LH catalytic converter pipe-to-manifold nuts and discard.
- Make sure that the mating faces are clean and free of foreign material.



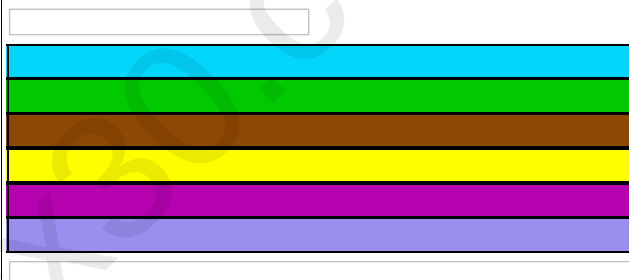
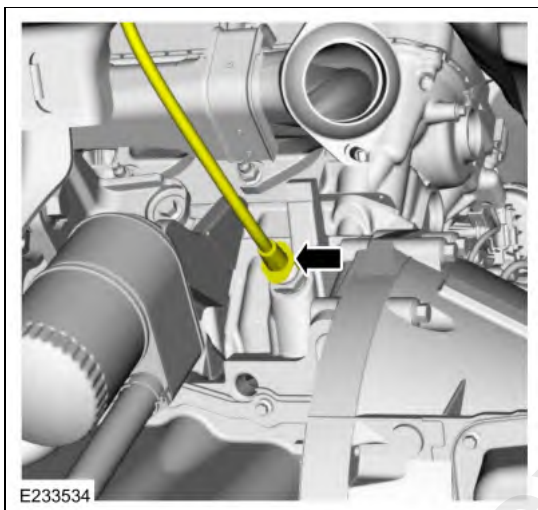
11. **NOTICE:** Failure to replace the transmission support insulator nuts may result in transmission support insulator damage. New transmission support insulator nuts will be installed during engine installation.

NOTE: If the transmission support insulator stud loosens when the transmission support insulator nut is removed, the stud must be discarded and a new stud installed.

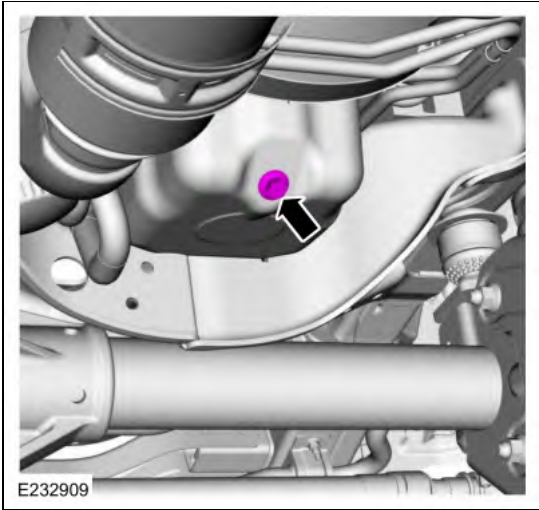
Loosen the transmission support insulator-to-crossmember nuts.



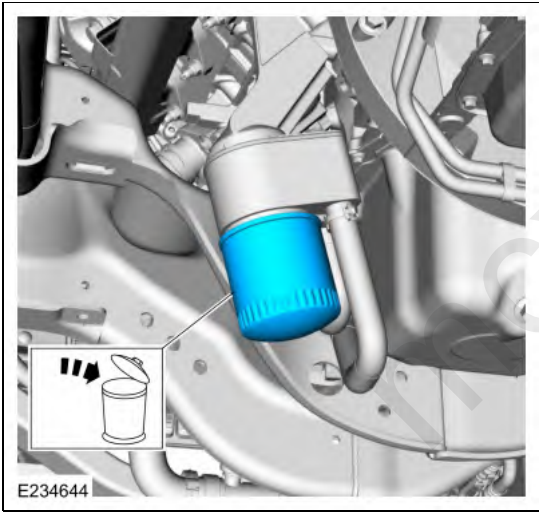
12. If equipped with an engine block heater, disconnect the engine block heater electrical connector and position the wiring harness aside.



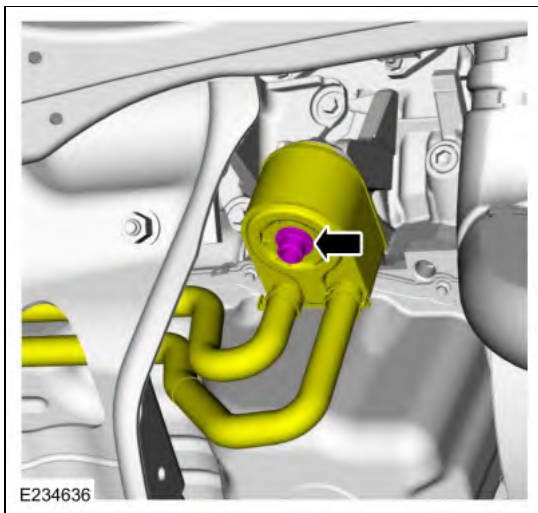
- 13.
- Remove the drain plug and drain the engine oil.
Use the General Equipment: Oil Drain Equipment
 - Install the drain plug.
Torque: 17 lb.ft (23 Nm)



14. Remove and discard the engine oil filter.
Use the General Equipment: Oil Drain Equipment



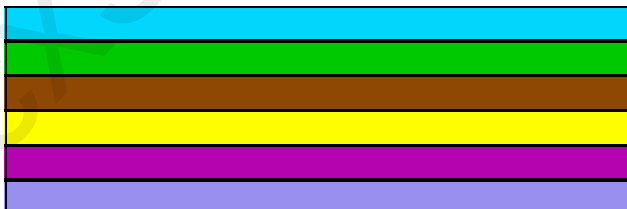
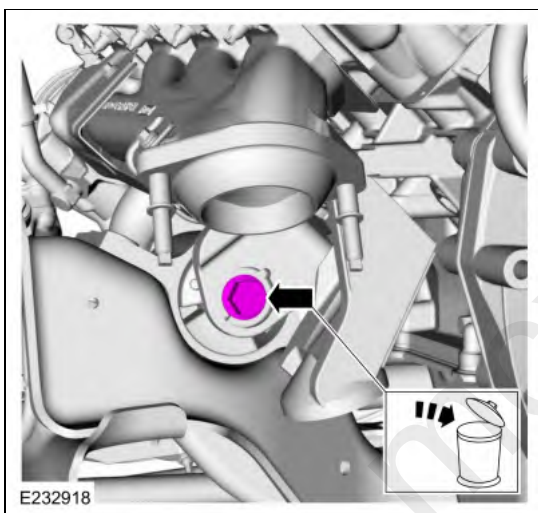
15. Remove the retainer and position the engine oil cooler aside.



16. **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.

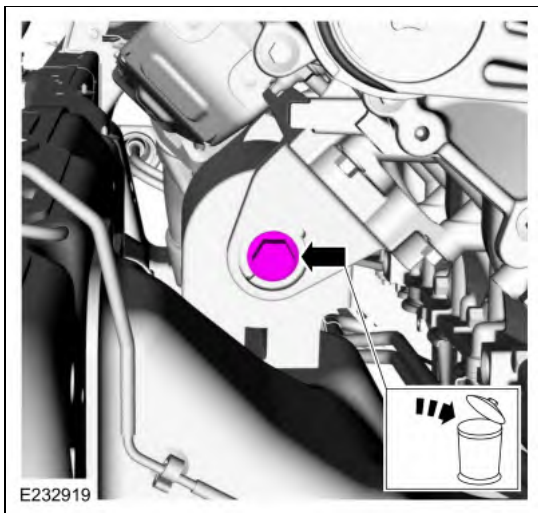
Remove and discard the LH engine mount through bolt.



17. **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.

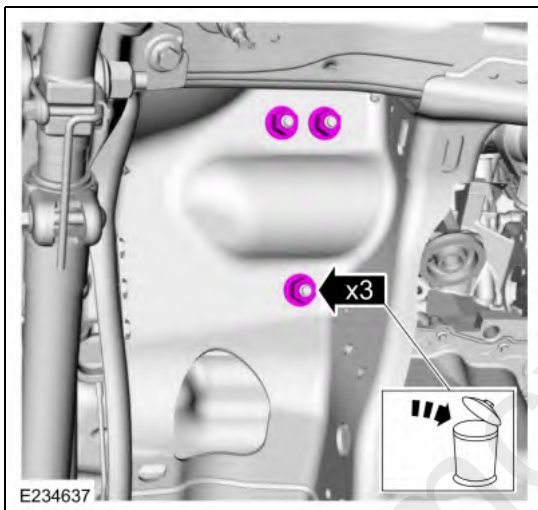
Remove and discard the RH engine mount through bolt.



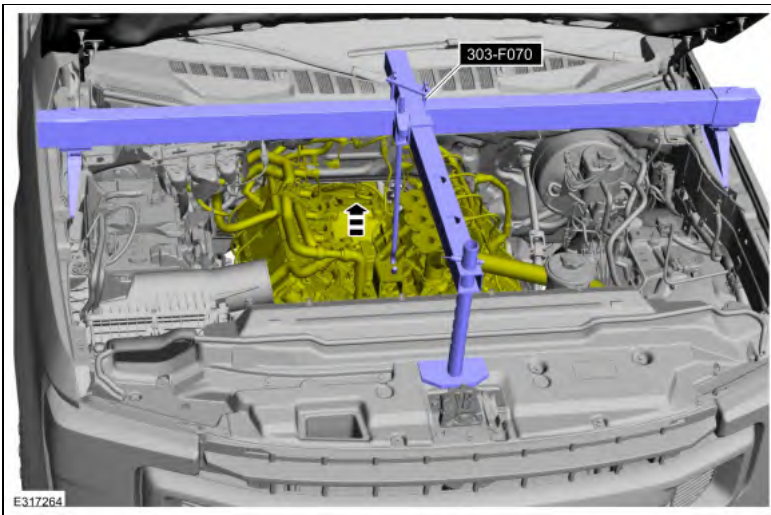
18. **NOTICE:** Failure to replace the engine mount nuts may result in engine mount damage.

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

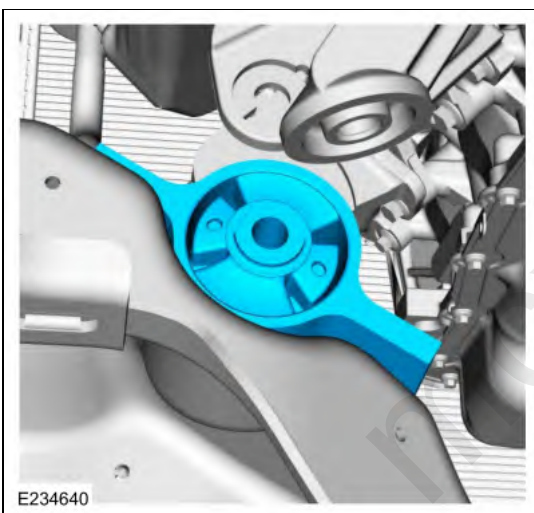
Remove and discard the LH engine support insulator bracket nuts.



19. Using the engine support bar, raise the engine.
Use Special Service Tool: 303-F070 Support Bar, Engine.

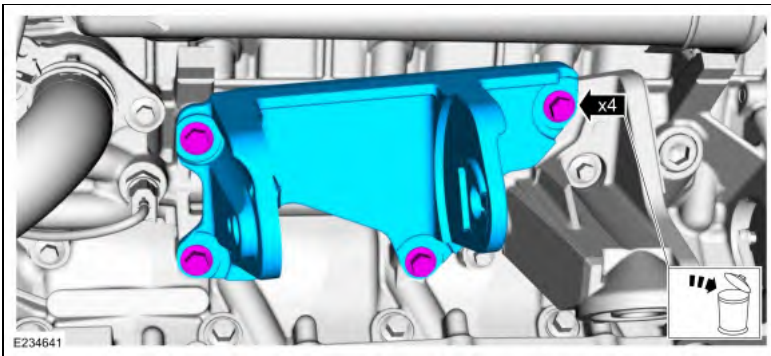


20. Remove the LH engine support insulator.



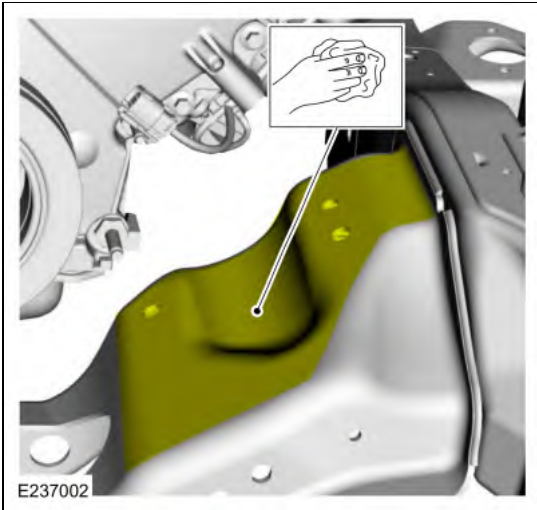
21. **NOTICE:** The engine support insulator bracket bolts must be discarded and new bolts installed or damage to the vehicle may occur. They are a tight-to-yield design and cannot be reused.

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

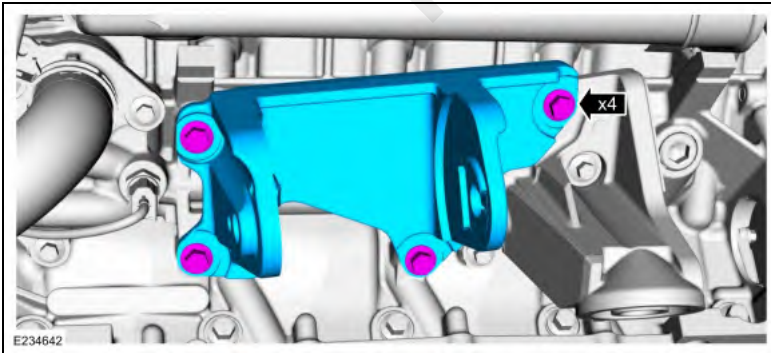
NOTE: Clean the engine mount bracket-to-cylinder block surfaces of any dirt or foreign material prior to installation.

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

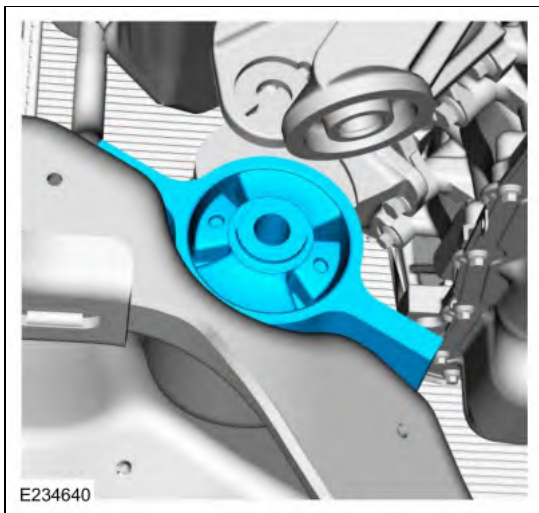
Torque:

Stage 1: 22 lb.ft (30 Nm)

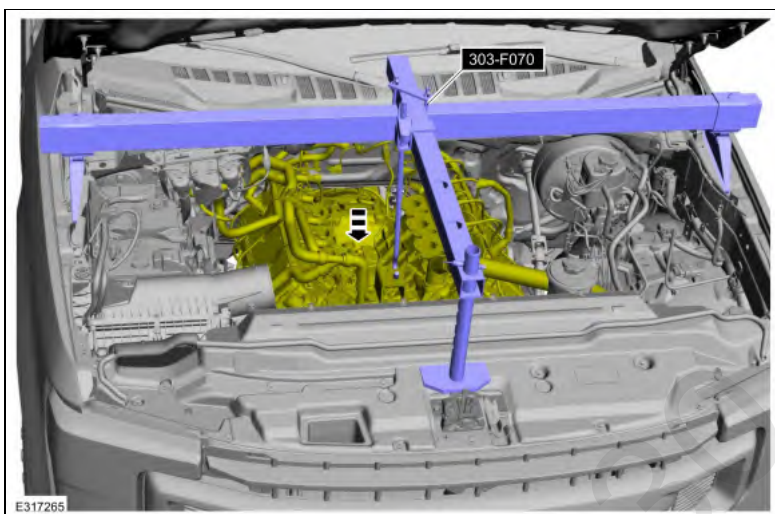
Stage 2: 60Â°



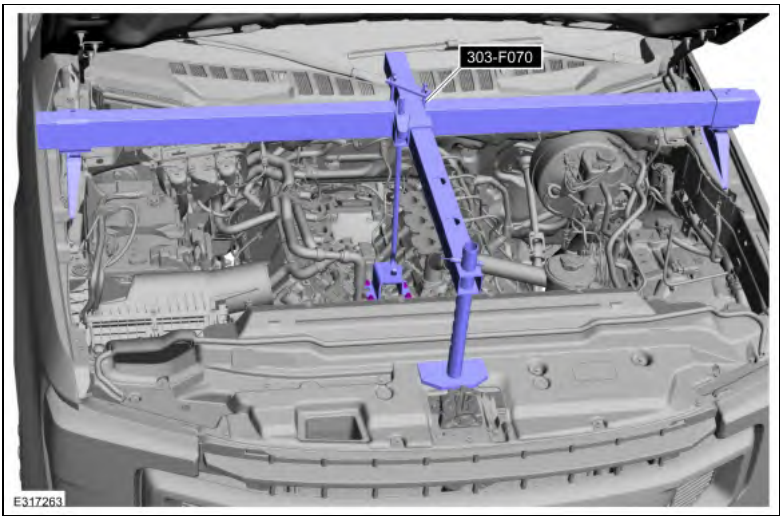
3. Install the LH engine support insulator.



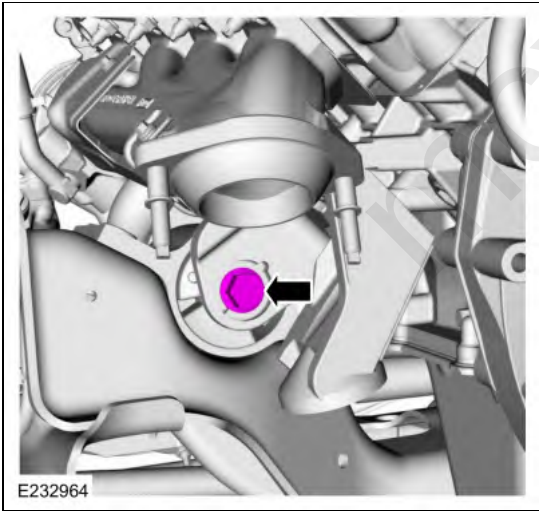
4. Using the engine support bar, lower the engine.
Use Special Service Tool: 303-F070 Support Bar, Engine.



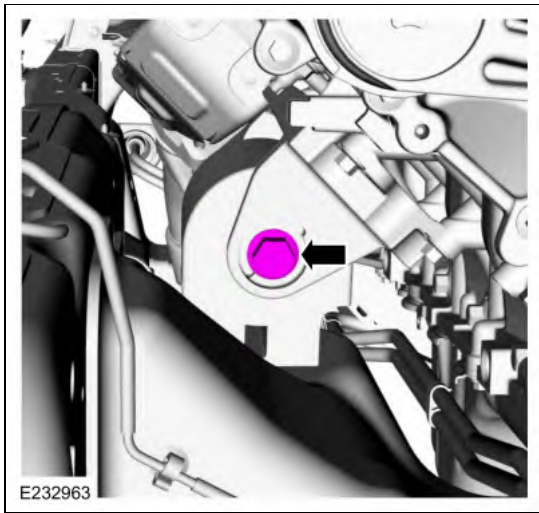
5. Remove Special Service Tool: 303-F070 Support Bar, Engine.



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

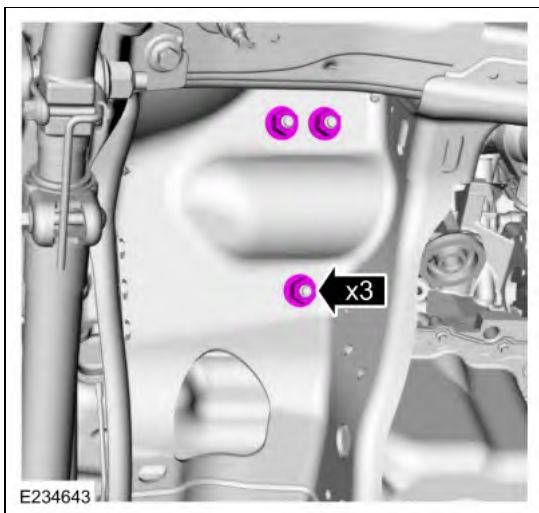


7. **NOTE:** Do not tighten the fasteners at this time.
Install the new RH mount through bolt.



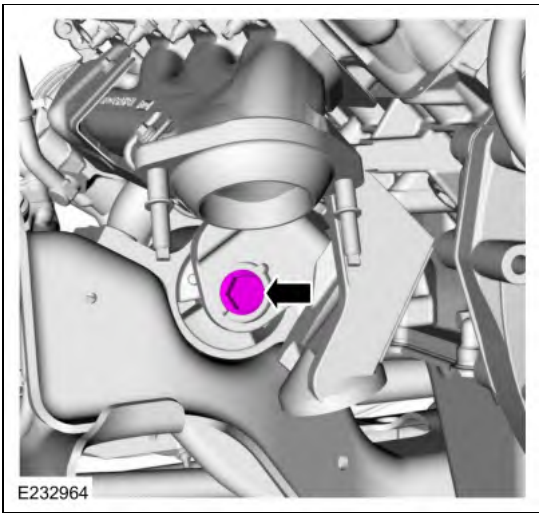
8. **NOTICE:** Only use hand tools when tightening the engine mount bolts or damage to the engine mount may occur.

Install the new LH engine support insulator bracket nuts.
Torque: 111 lb.ft (150 Nm)



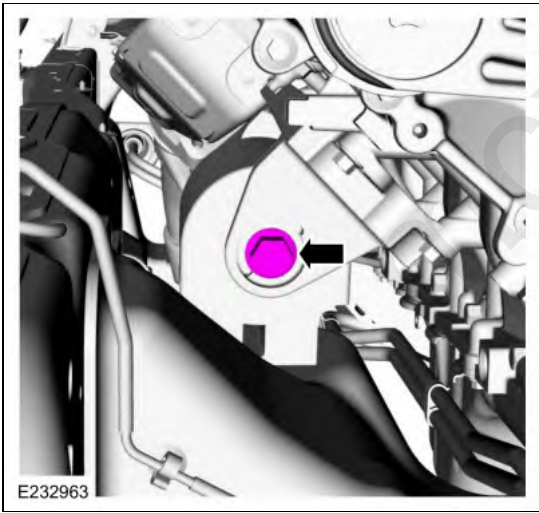
9. **NOTICE:** Only use hand tools when tightening the engine mount nuts or damage to the engine mount may occur.

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

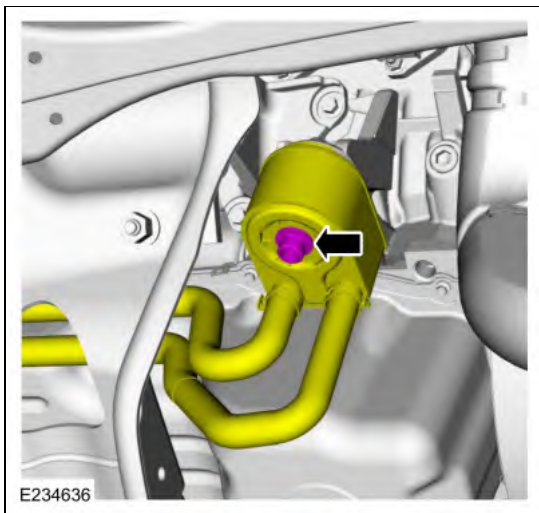


10. **NOTICE:** Only use hand tools when tightening the engine mount nuts or damage to the engine mount may occur.

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



11. Position the engine oil cooler and install the retainer.
Torque: 43 lb.ft (58 Nm)

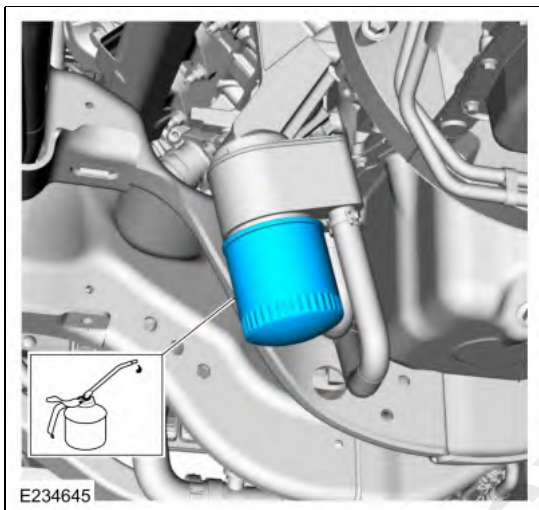


12. Lubricate the oil filter gasket with clean engine oil and install a new engine oil filter.

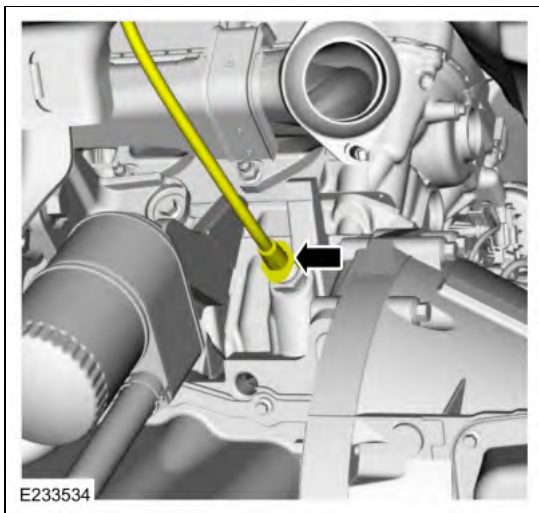
Torque:

Stage 1: 44 lb.in (5 Nm)

Stage 2: 180°

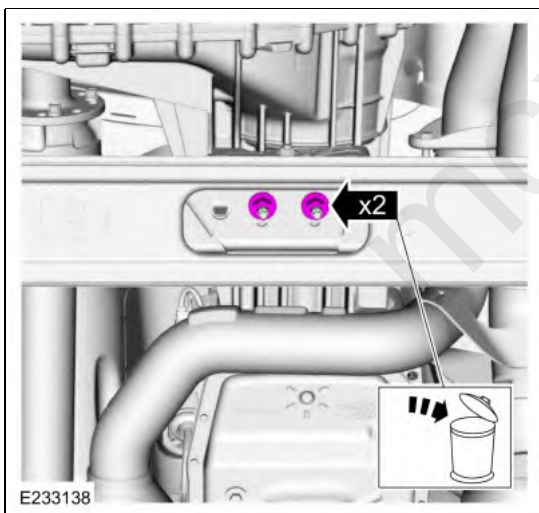


13. If equipped with an engine block heater, connect the engine block heater electrical connector.



14. **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.



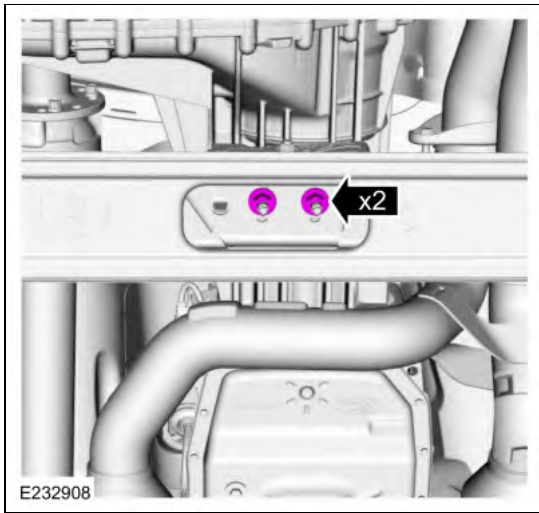
15.

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

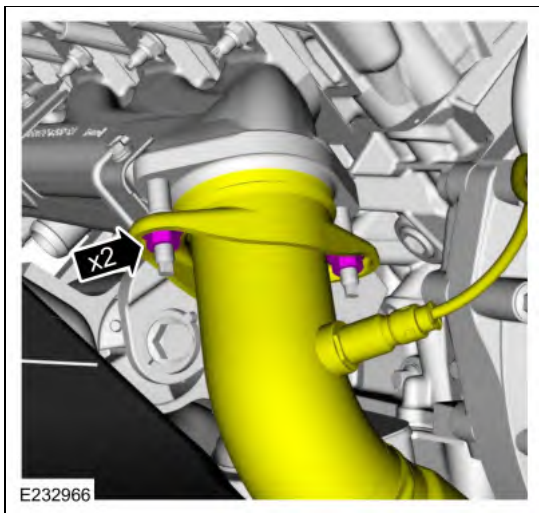
If required, tighten transmission support insulator studs.

Torque: 55 lb.ft (75 Nm)

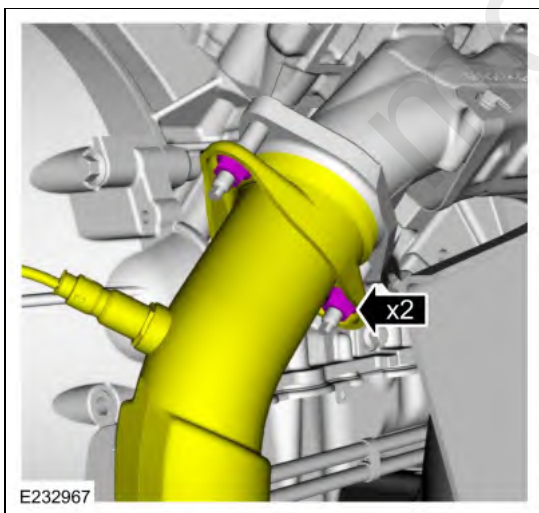
- If the transmission support insulator studs can not be tightened, the transmission support insulator must be replaced.
Refer to: Transmission Support Insulator (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission â€“ 6R100, Removal and Installation).
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)



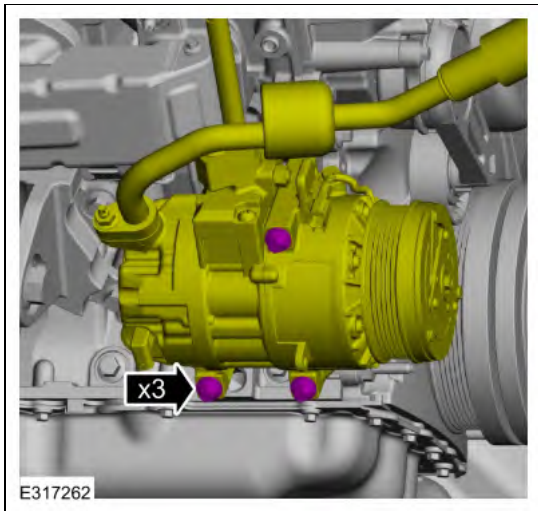
16. Install the new LH catalytic converter pipe-to-manifold nuts.
Torque: 30 lb.ft (40 Nm)



17. Install the new RH catalytic converter pipe-to-manifold nuts.
Torque: 30 lb.ft (40 Nm)

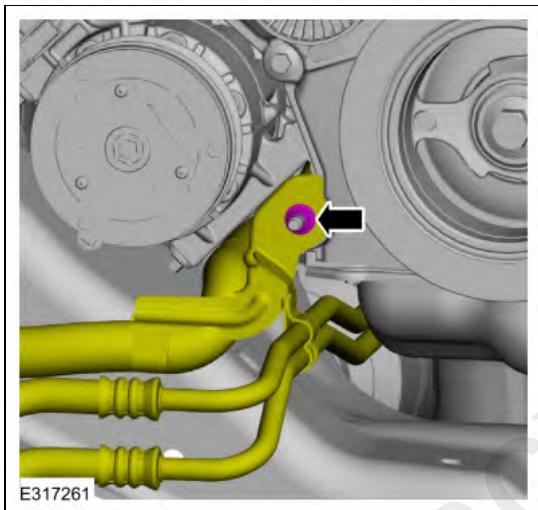


18. Position the A/C compressor and install the bolts.
Torque: 18 lb.ft (25 Nm)

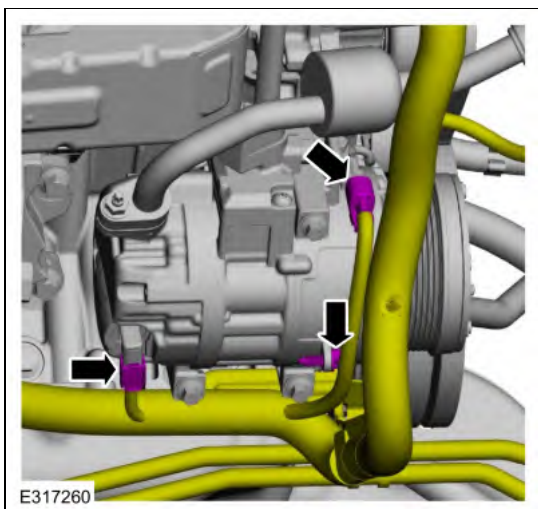


19.

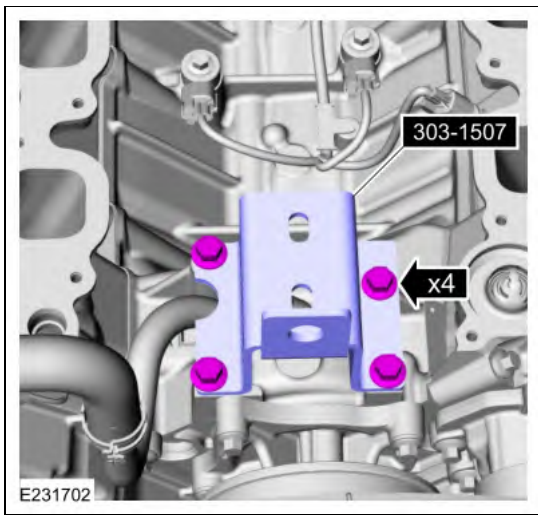
- Install the starter motor wiring harness bracket.
 - **NOTE:** 6R100 transmission lines shown, 10R140 similar.
 - If equipped with automatic transmission, install the transmission cooler lines bracket.
 - Install the nut.
- Torque: 18 lb.ft (25 Nm)*



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



21. Remove Special Service Tool: 303-1507 Brackets, Support.

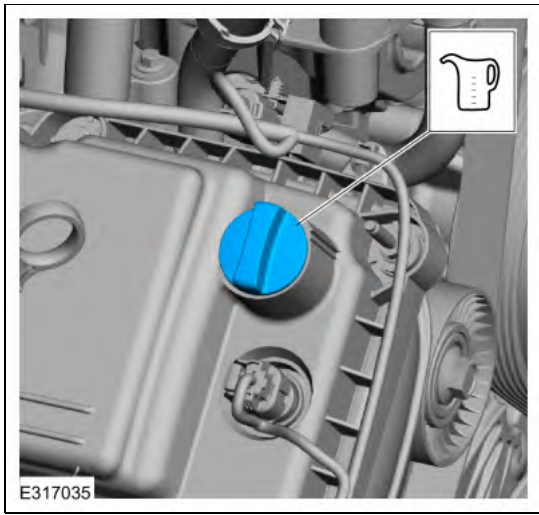


22. Install the following items:

1. Install the accessory drive belt.
Refer to: Accessory Drive Belt (303-05A Accessory Drive - 6.2L V8, Removal and Installation).
2. Install the cooling fan shroud.
Refer to: Cooling Fan Shroud (303-03A Engine Cooling - 6.2L V8, Removal and Installation).
3. Install the intake manifold.
Refer to: Intake Manifold (303-01A Engine - 6.2L V8, Removal and Installation).

23. Fill the engine with clean engine oil.

Refer to: Specifications (303-01A Engine - 6.2L V8, Specifications).



24. Fill and bleed the cooling system.
Refer to: Engine Cooling System Draining, Vacuum Filling and Bleeding (303-03A Engine Cooling - 6.2L V8, General Procedures).