

Engine Mount LH

Base Part Number: Base Part Number: 6038

Special Tool(s) / General Equipment

	303-050 (T70P-6000) Lifting Bracket, Engine
	303-F070 Support Bar, Engine TKIT-1999A-F/LT TKIT-1999A-FM/FLM
Vehicle/Axle Stands	

Removal

4x2/4x4

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:

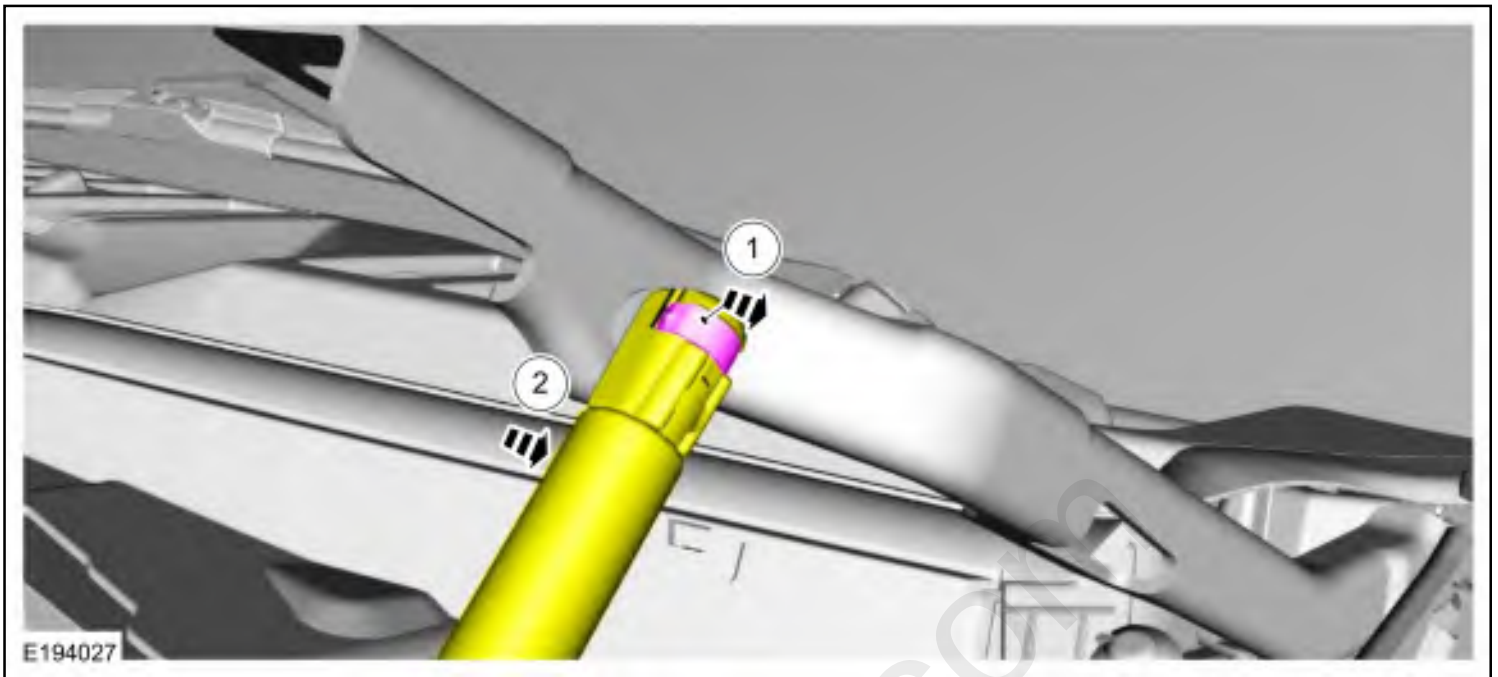
1. Refer to: [Hood](#) (501-02 Front End Body Panels, Removal and Installation).
2. **NOTE:** *It is not necessary to separate the air cleaner outlet pipe and the air cleaner, the 2 components can be removed as an assembly.*

Refer to: [Air Cleaner Outlet Pipe](#) (303-12D Intake Air Distribution and Filtering - 5.0L 32V Ti-VCT, Removal and Installation).

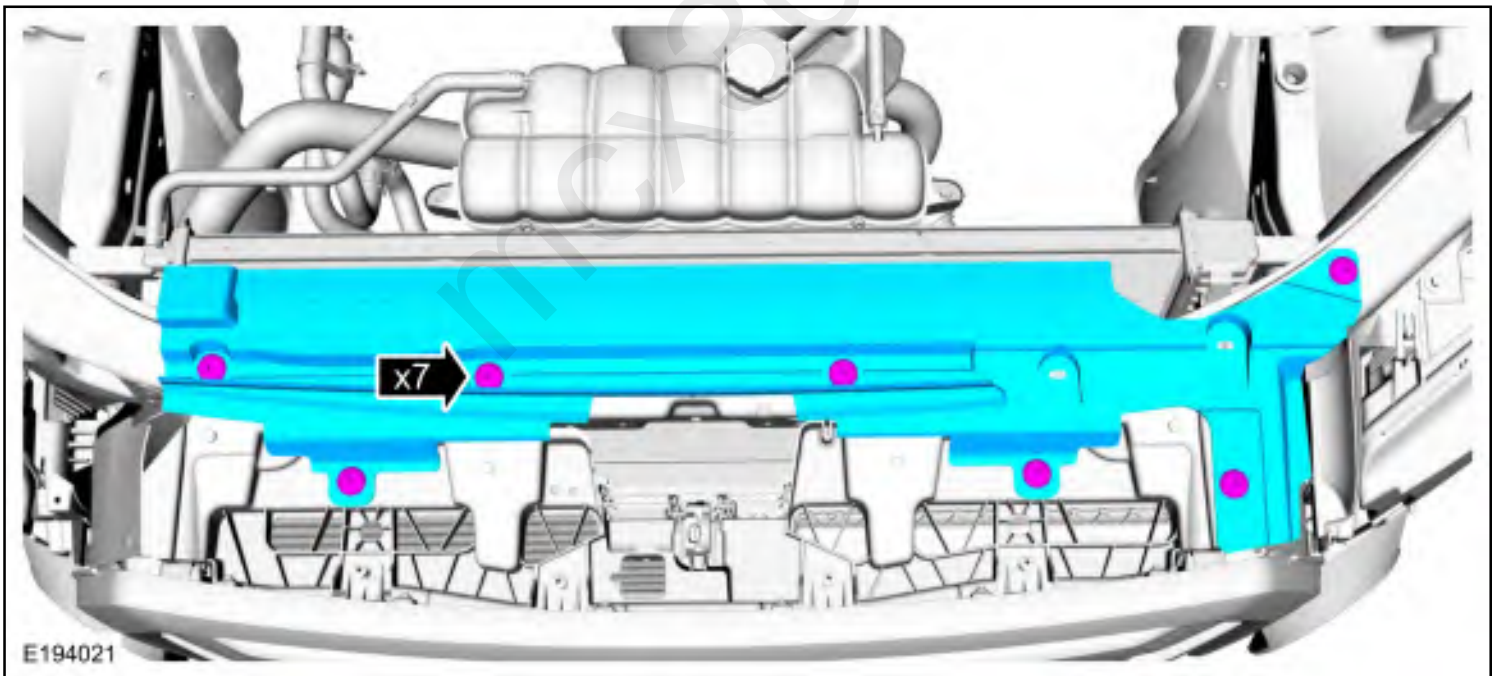
3. Refer to: [Air Cleaner](#) (303-12D Intake Air Distribution and Filtering - 5.0L 32V Ti-VCT, Removal and Installation).

3. **NOTE:** *LH shown, RH similar.*

1. Release the clip.
2. Detach and position the hood shock aside.



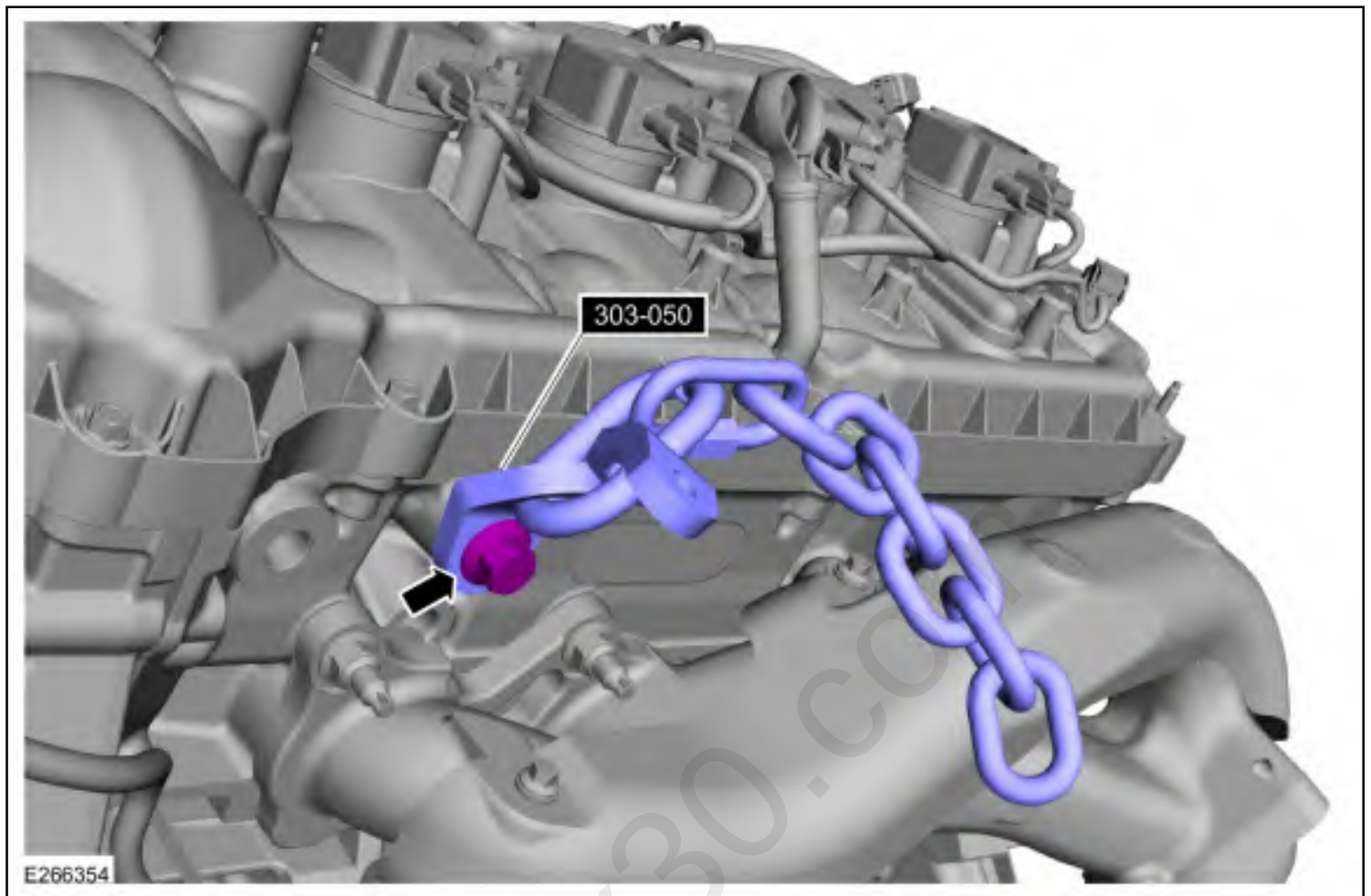
4. Remove the retainers and the radiator top shield.



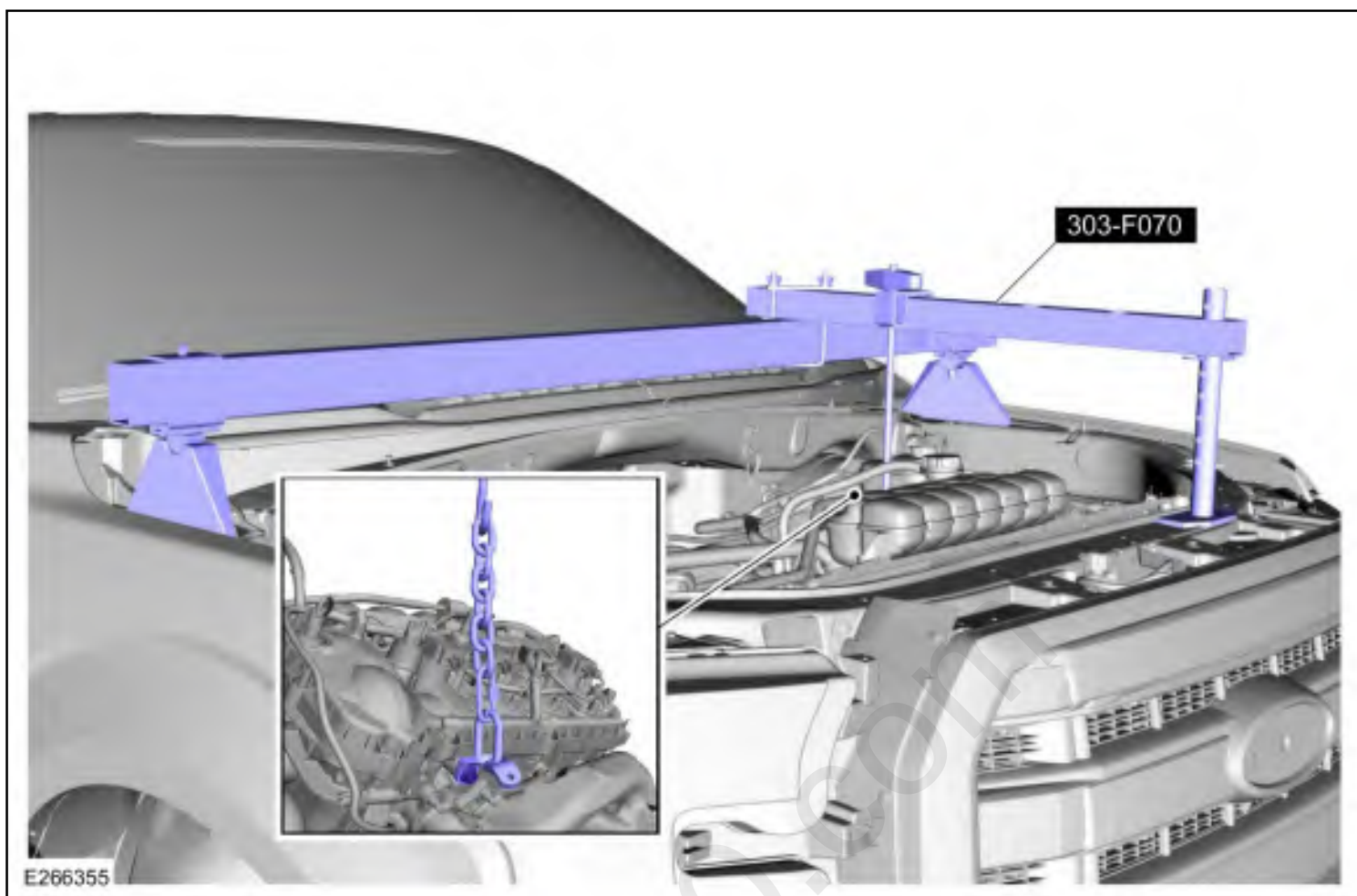
5. **NOTE:** It may be necessary to install washers between the Engine Lifting Bracket and the cylinder head to prevent the Engine Lifting Bracket from contacting the valve cover while supporting the engine.

- Install Special Service Tool: 303-050 (T70P-6000) Lifting Bracket, Engine.

- Attach a length of chain and a connecting link to the special tool.

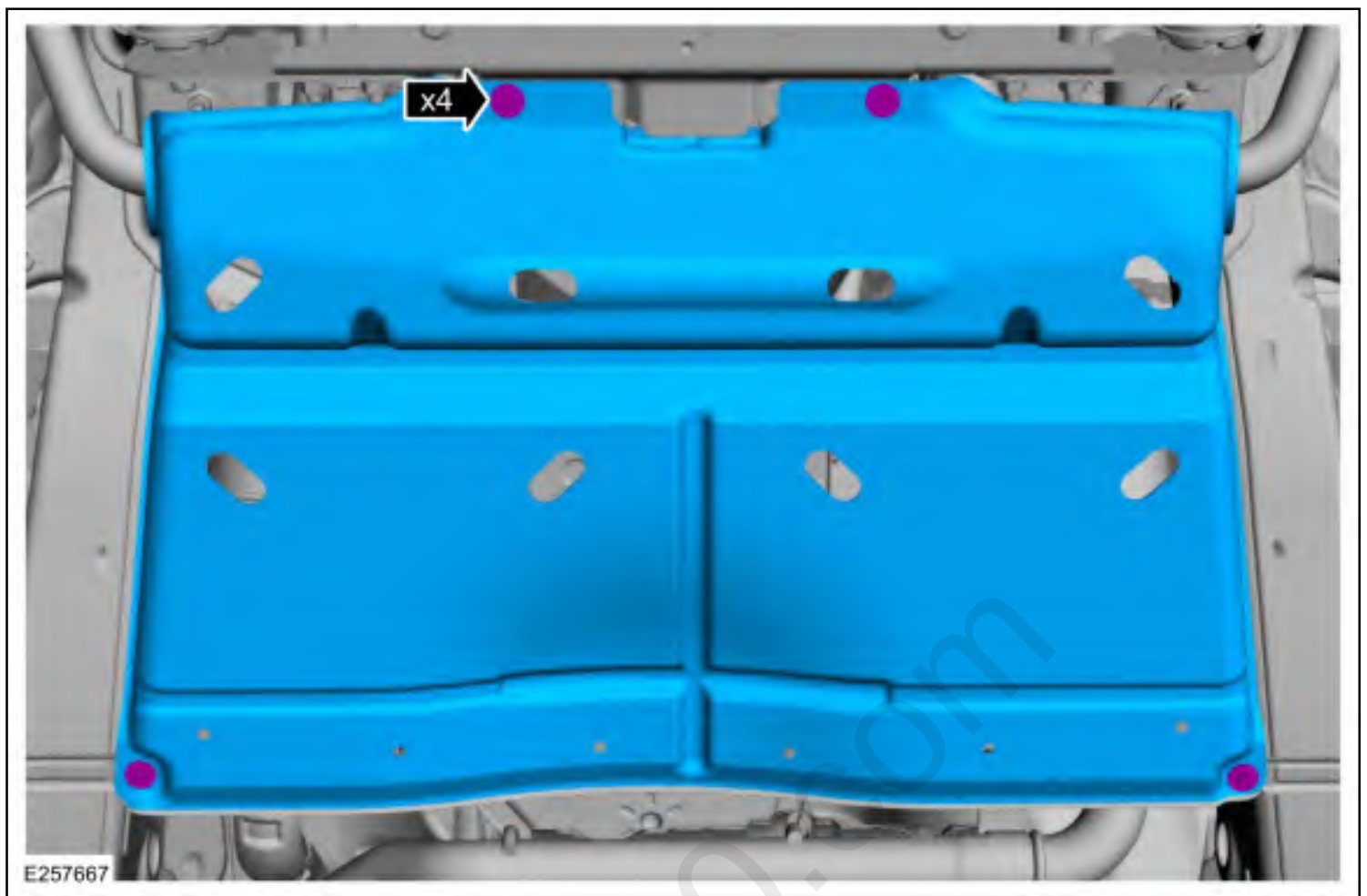


- Install Special Service Tool: 303-F070 Support Bar, Engine.
- Attach the chain installed in the previous step to the hook on the special tool.



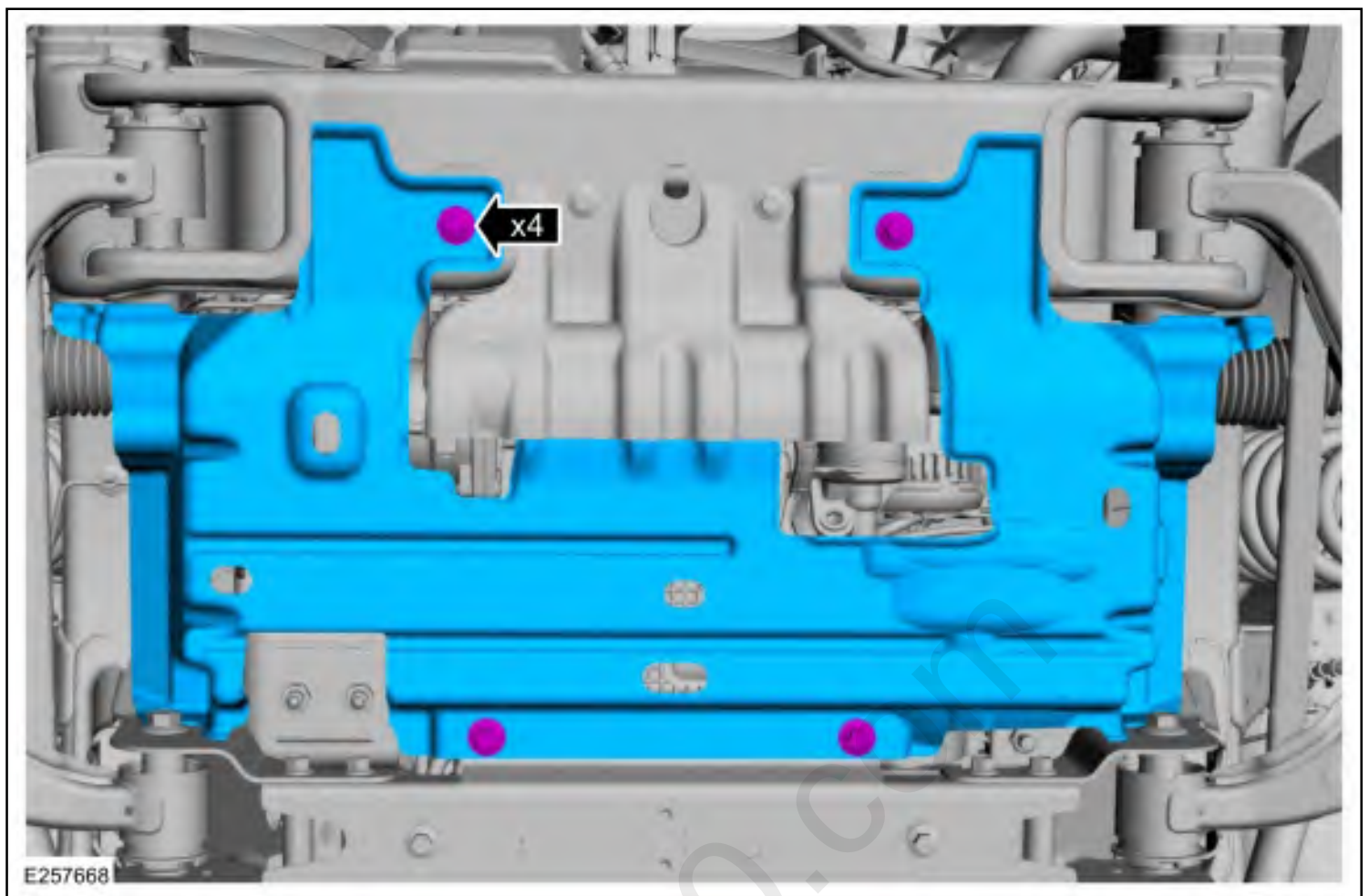
7. **NOTE:** *If equipped.*

Remove the bolts and the underbody shield.



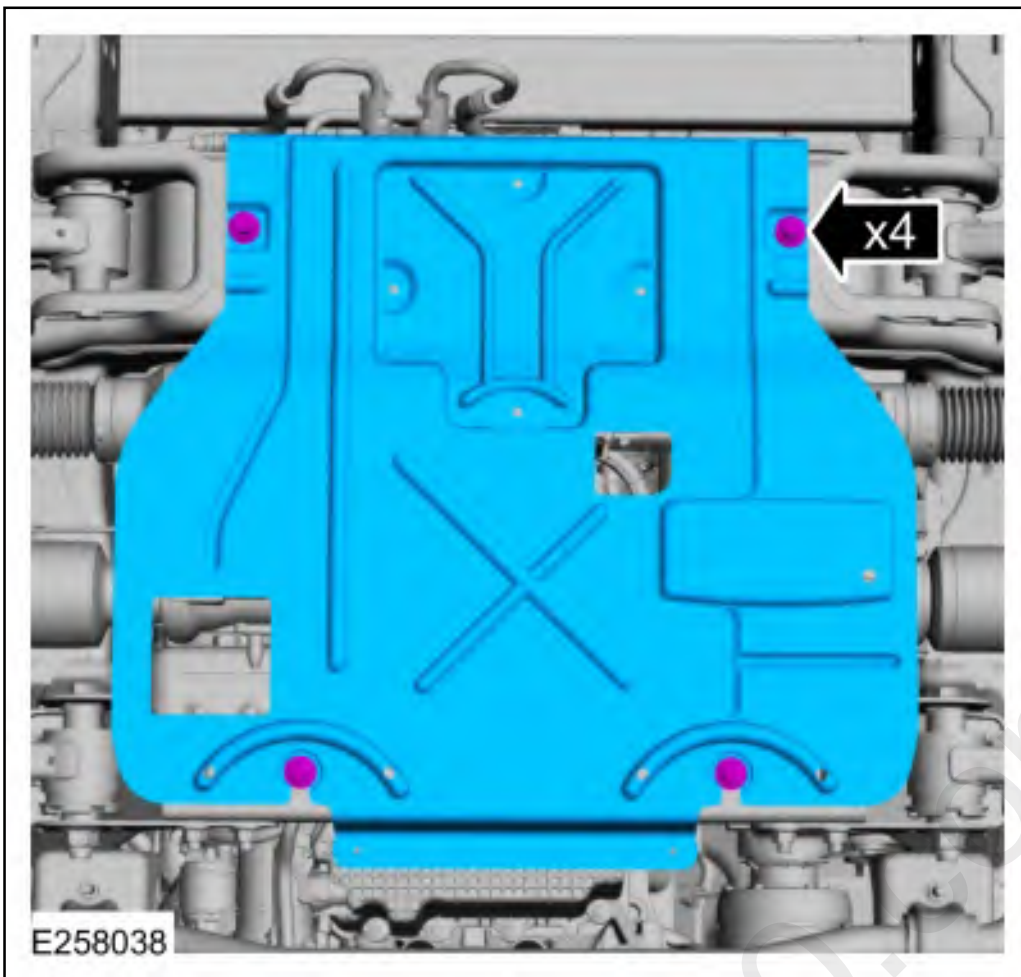
8. **NOTE:** *If equipped.*

Remove the bolts and the underbody shield.

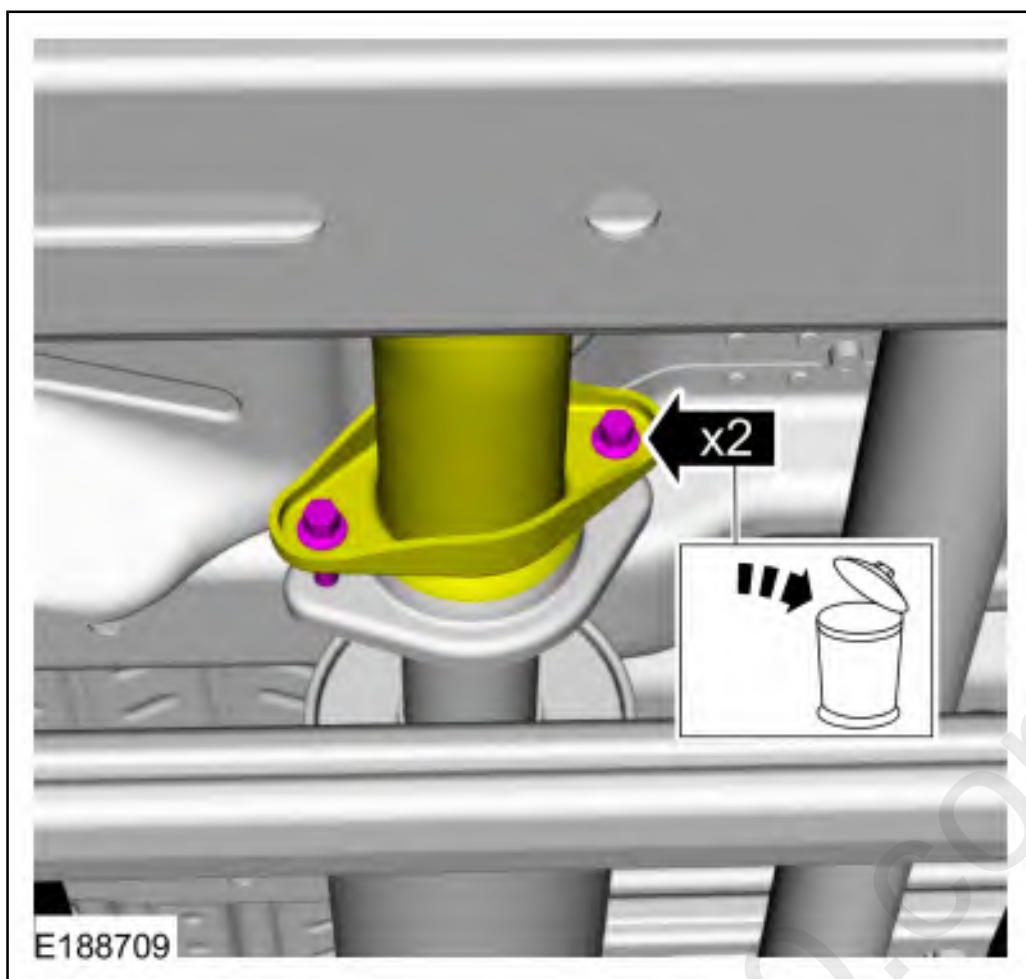


9. **NOTE:** *If equipped.*

Remove the bolts and the skid plate.

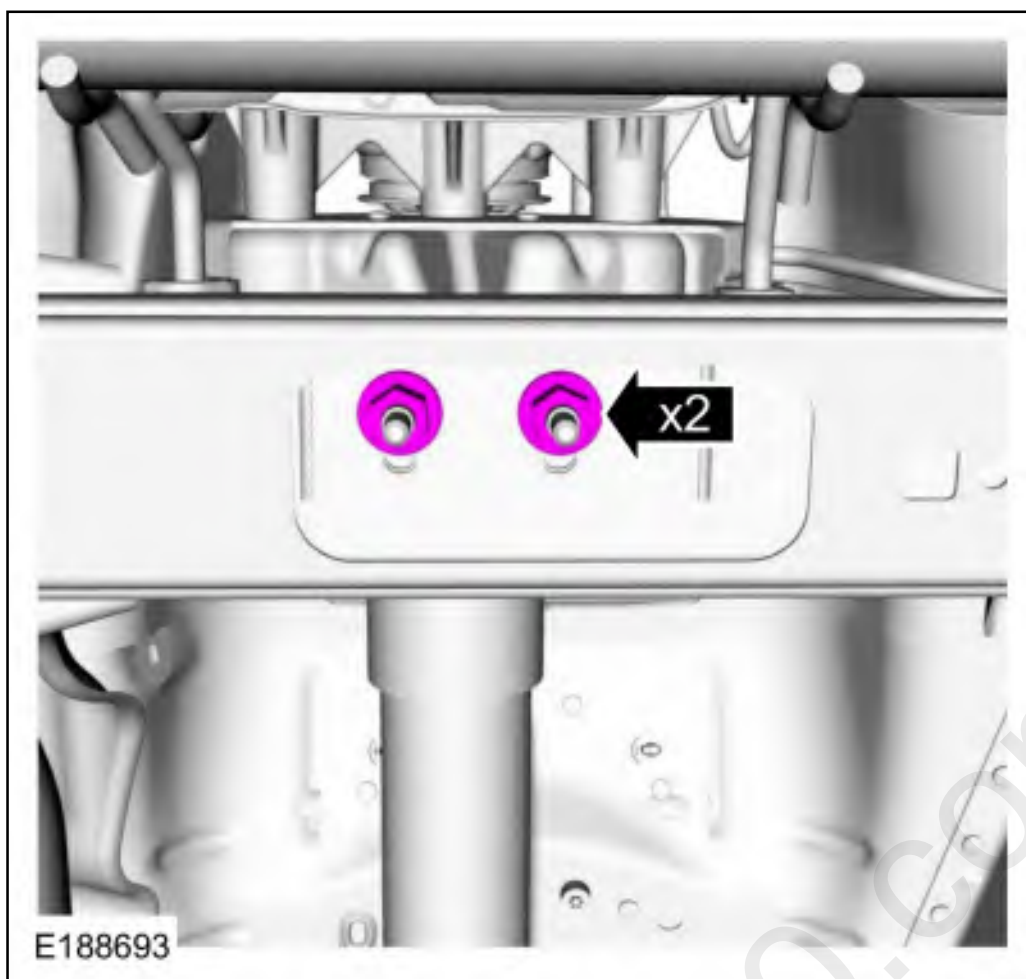


10. Remove and discard the exhaust Y-pipe dual catalytic converter-to-exhaust intermediate pipe bolts and separate.
 - Clean and inspect the mating surfaces.



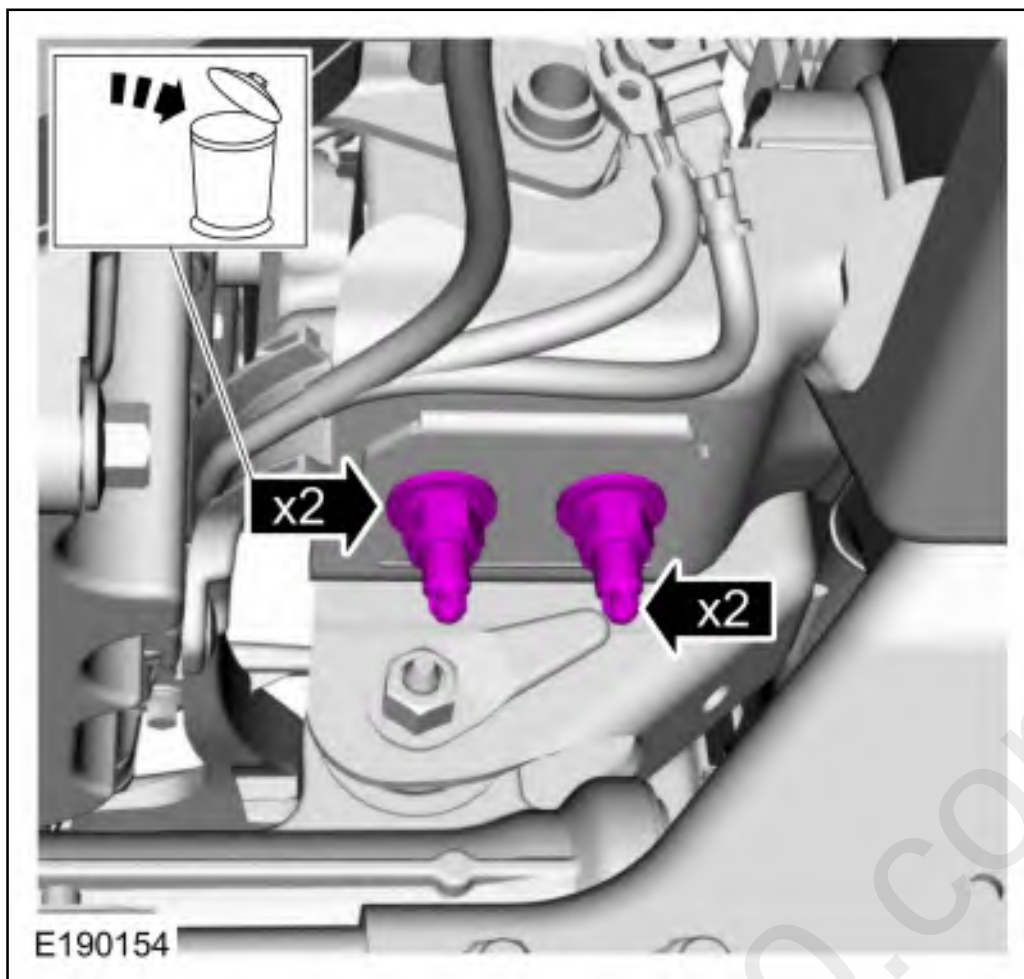
11. **NOTICE:** Only use hand tools when removing the transmission mount-to-crossmember nuts or damage to the transmission mount can occur.

Loosen the transmission mount-to-crossmember nuts.



12. **NOTICE:** Only use hand tools when removing the engine mount nuts, stud bolts or damage to the engine mount can occur.

Remove and discard the RH engine mount nuts and stud bolts.



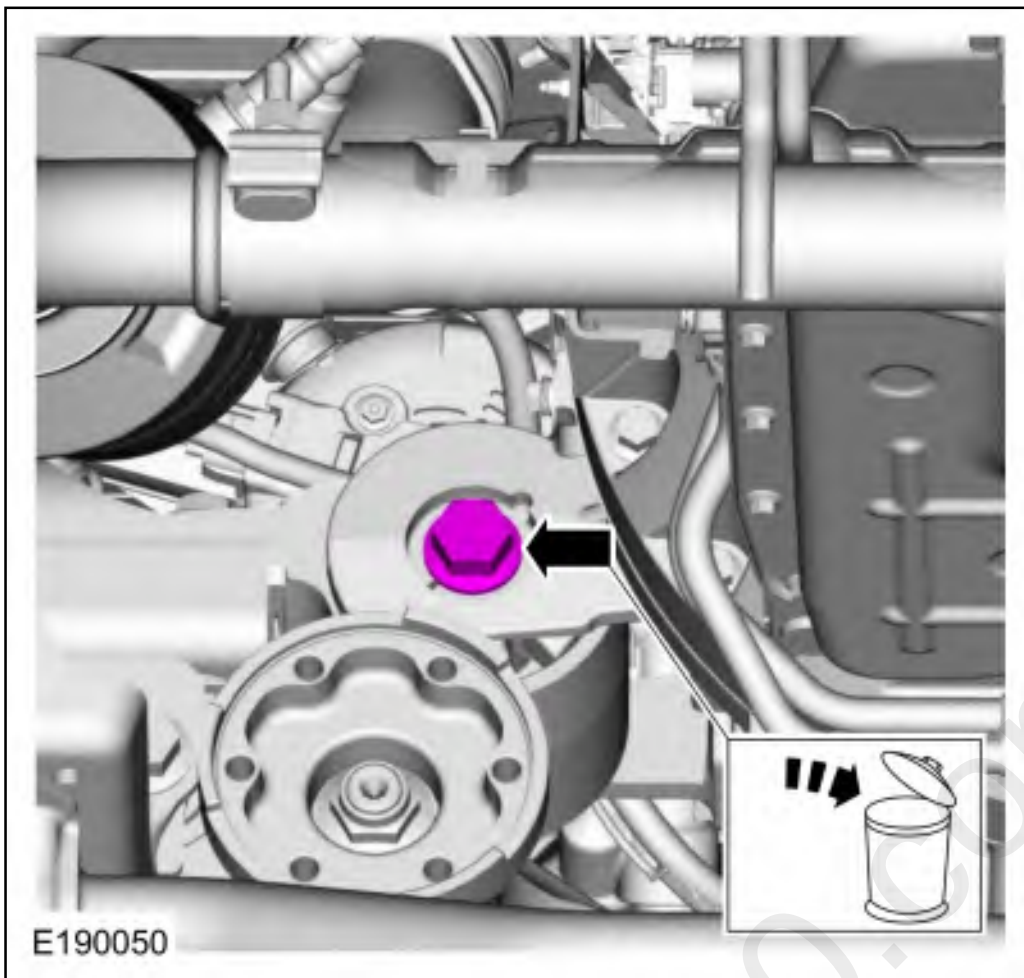
4x4

13. Remove the front drive shaft.
Refer to: [Front Driveshaft](#) (205-01 Driveshaft, Removal and Installation).

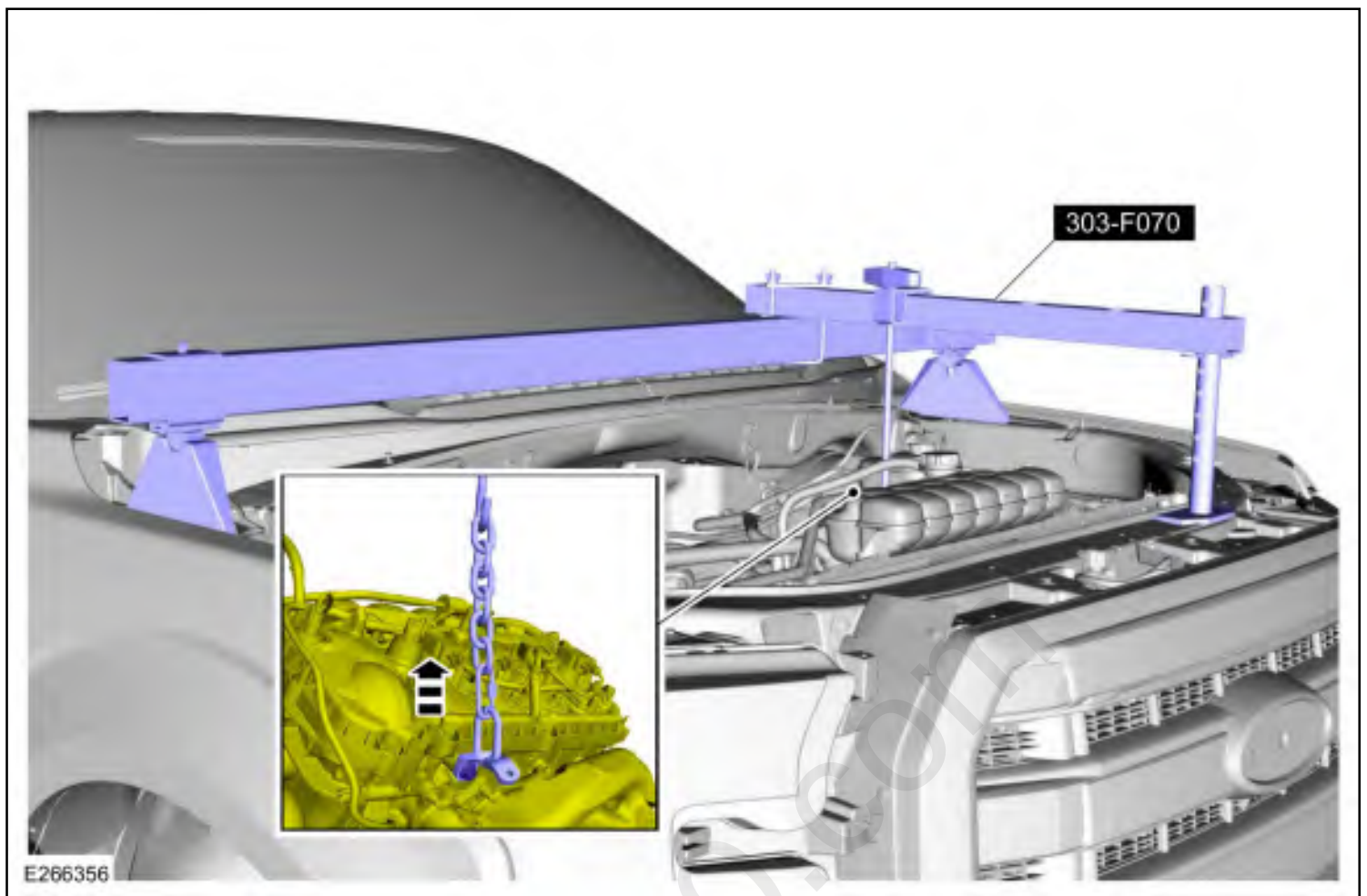
4x2/4x4

14. **NOTICE: Only use hand tools when loosening the engine mount through bolts or damage to the engine mount-to-cylinder block bracket can occur.**

Remove and discard the LH engine mount through bolt.

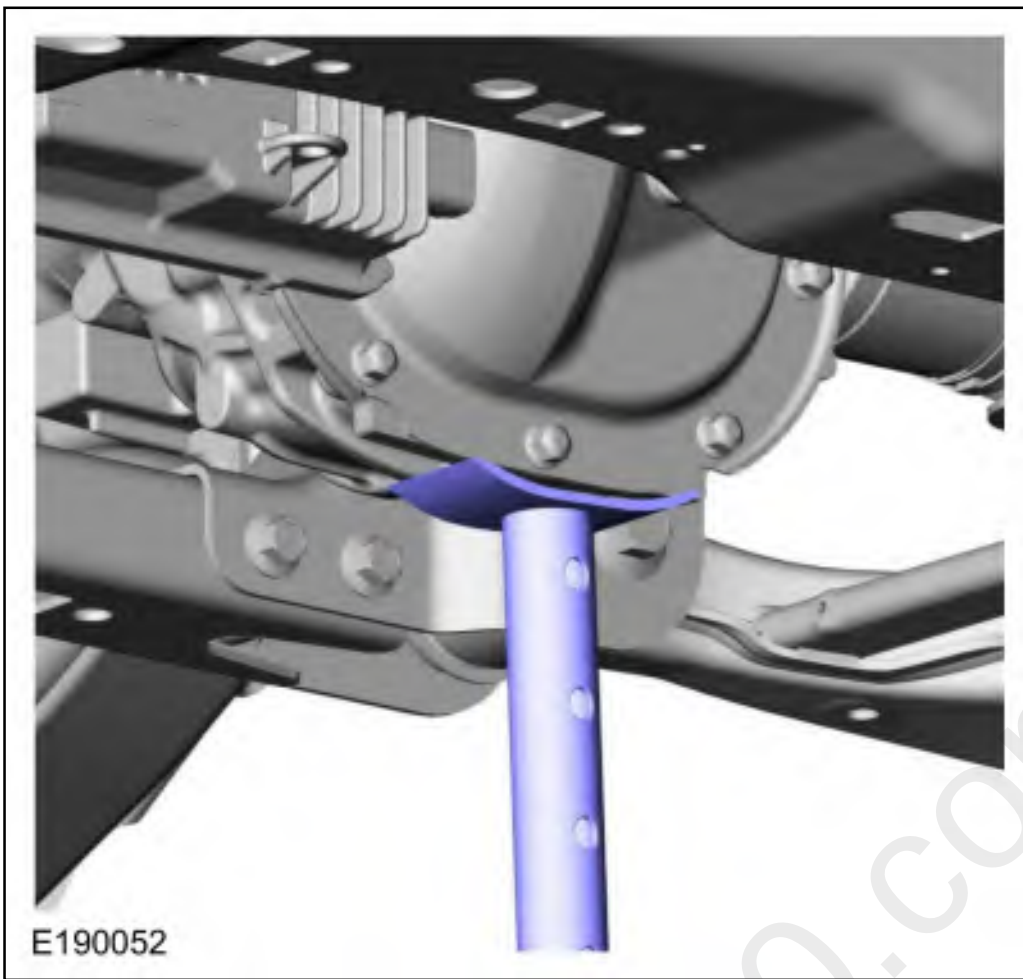


15. Using the special tool, raise the LH side of the engine 50 mm (2 in).

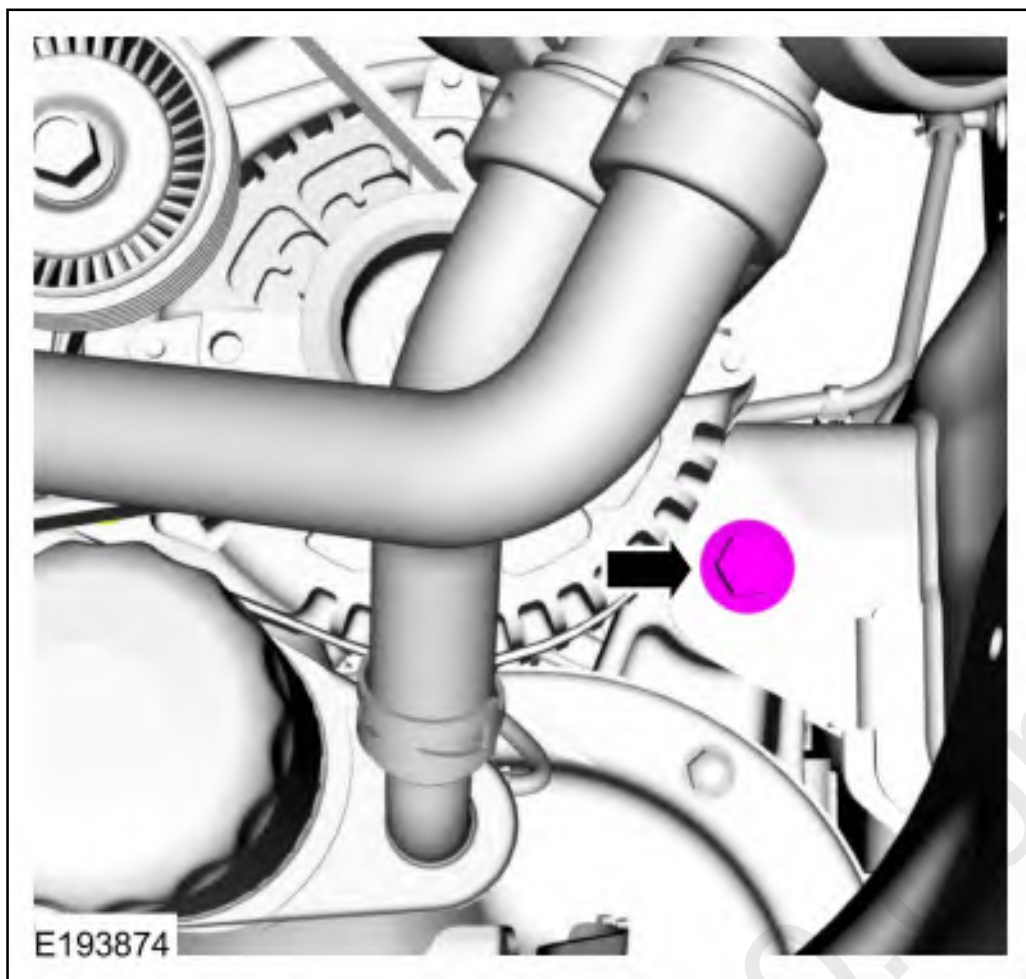


4x4

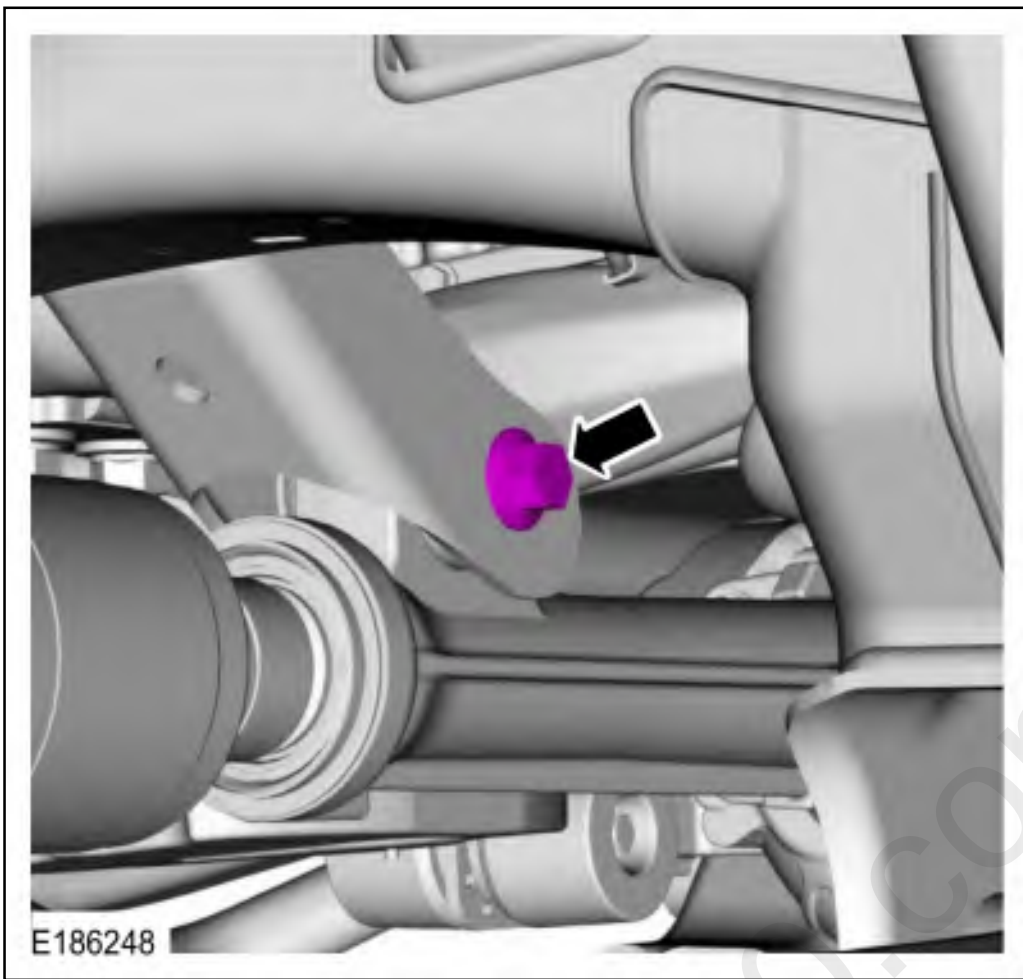
16. Using an adjustable stand, support the front axle.
Use the General Equipment: Vehicle/Axle Stands



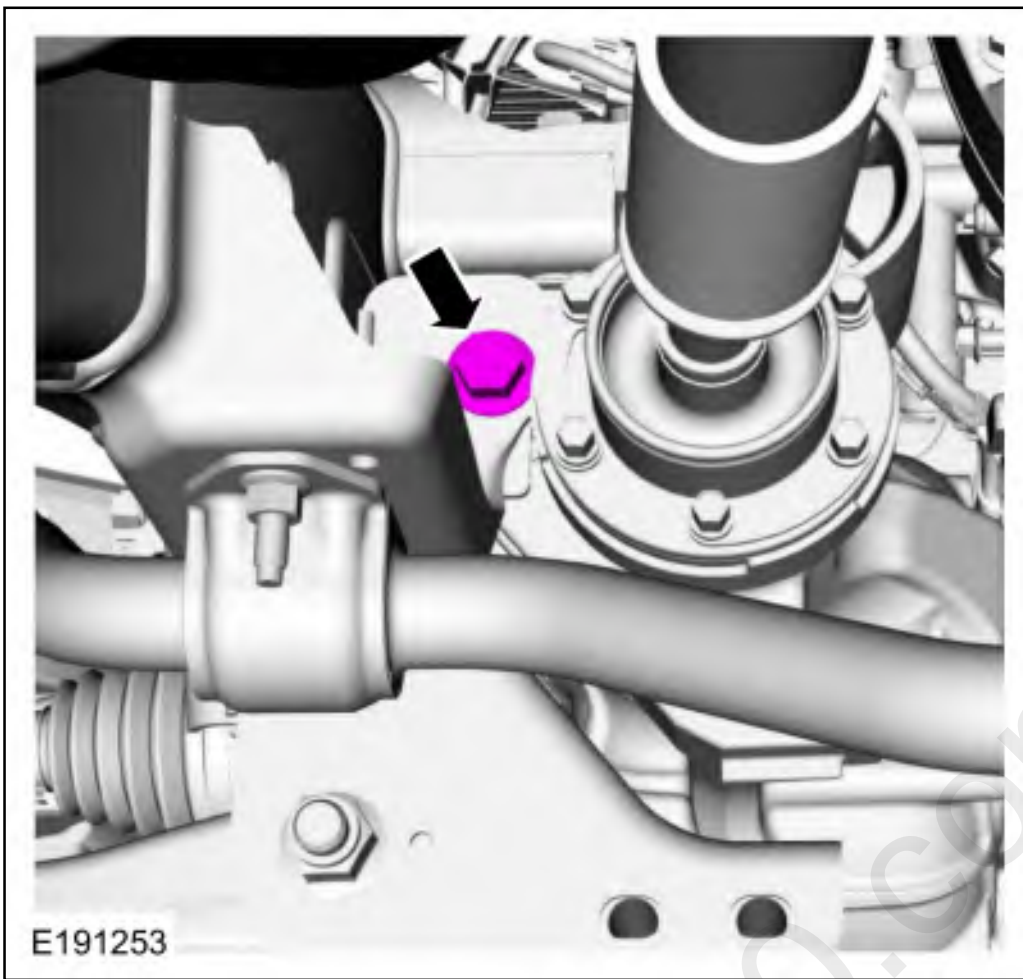
17. Remove the upper front axle carrier mounting bushing bolt.



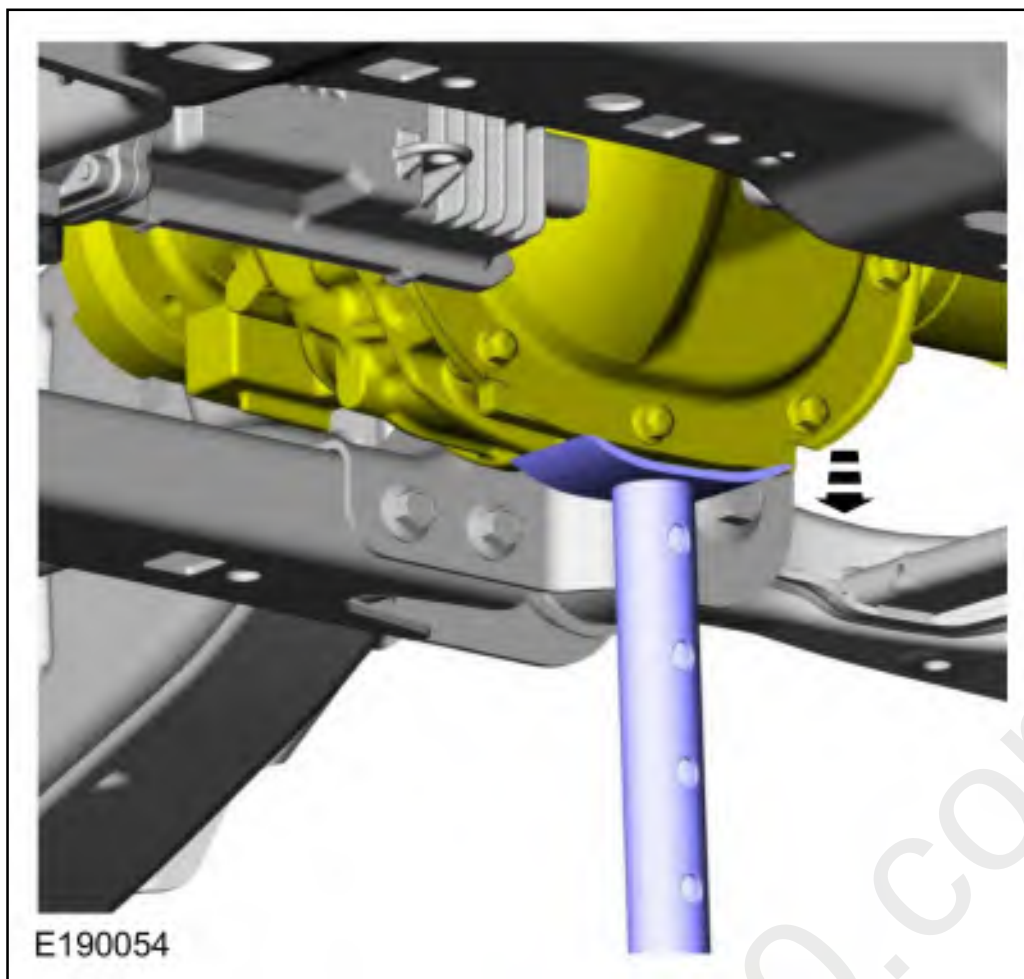
18. Remove the axle shaft housing carrier bushing bolt.



19. Remove the lower front axle carrier mounting bushing bolt.



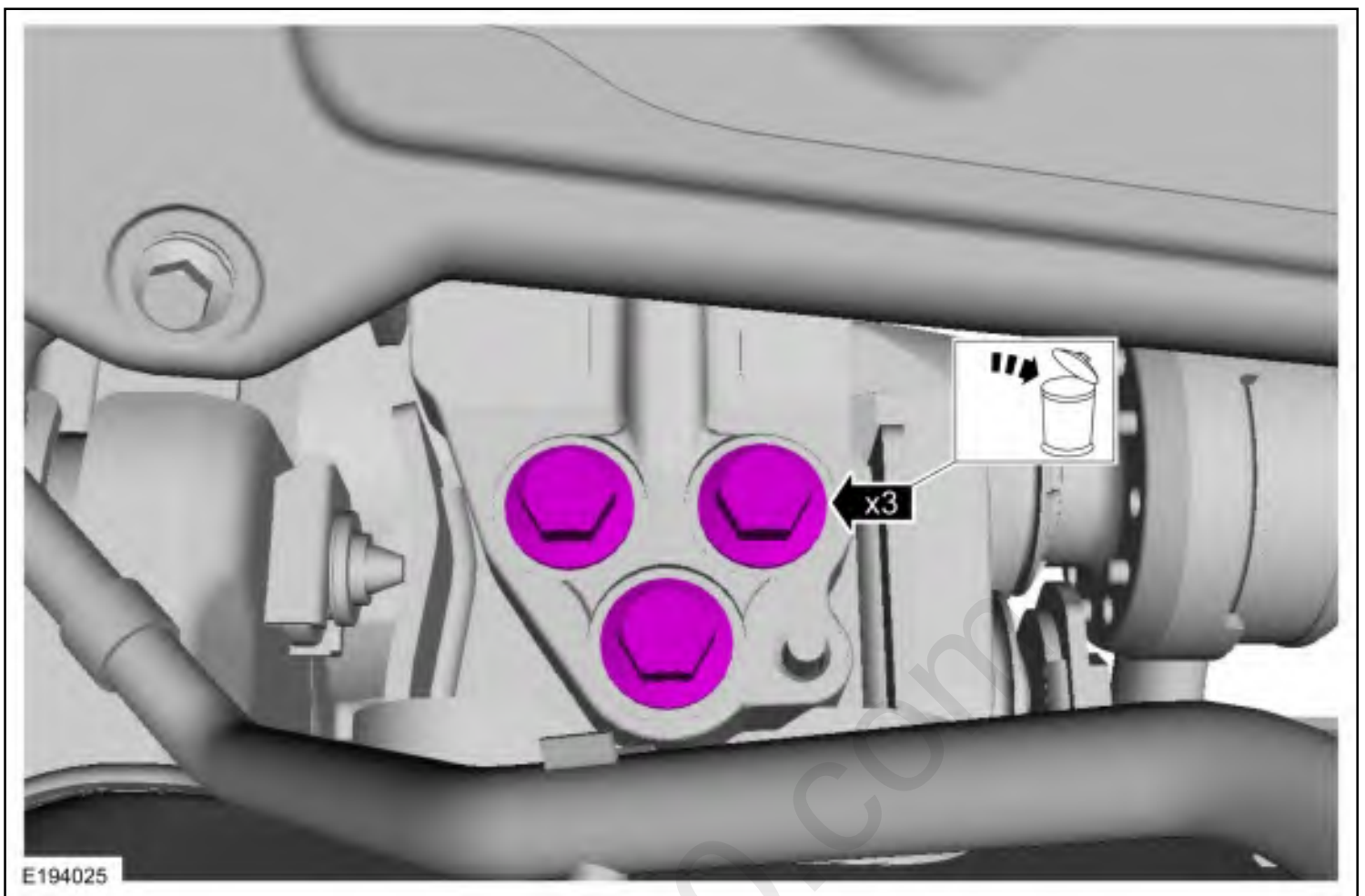
20. Using an adjustable stand, lower the axle to allow clearance for the oil pan to be removed.
Use the General Equipment: Vehicle/Axle Stands



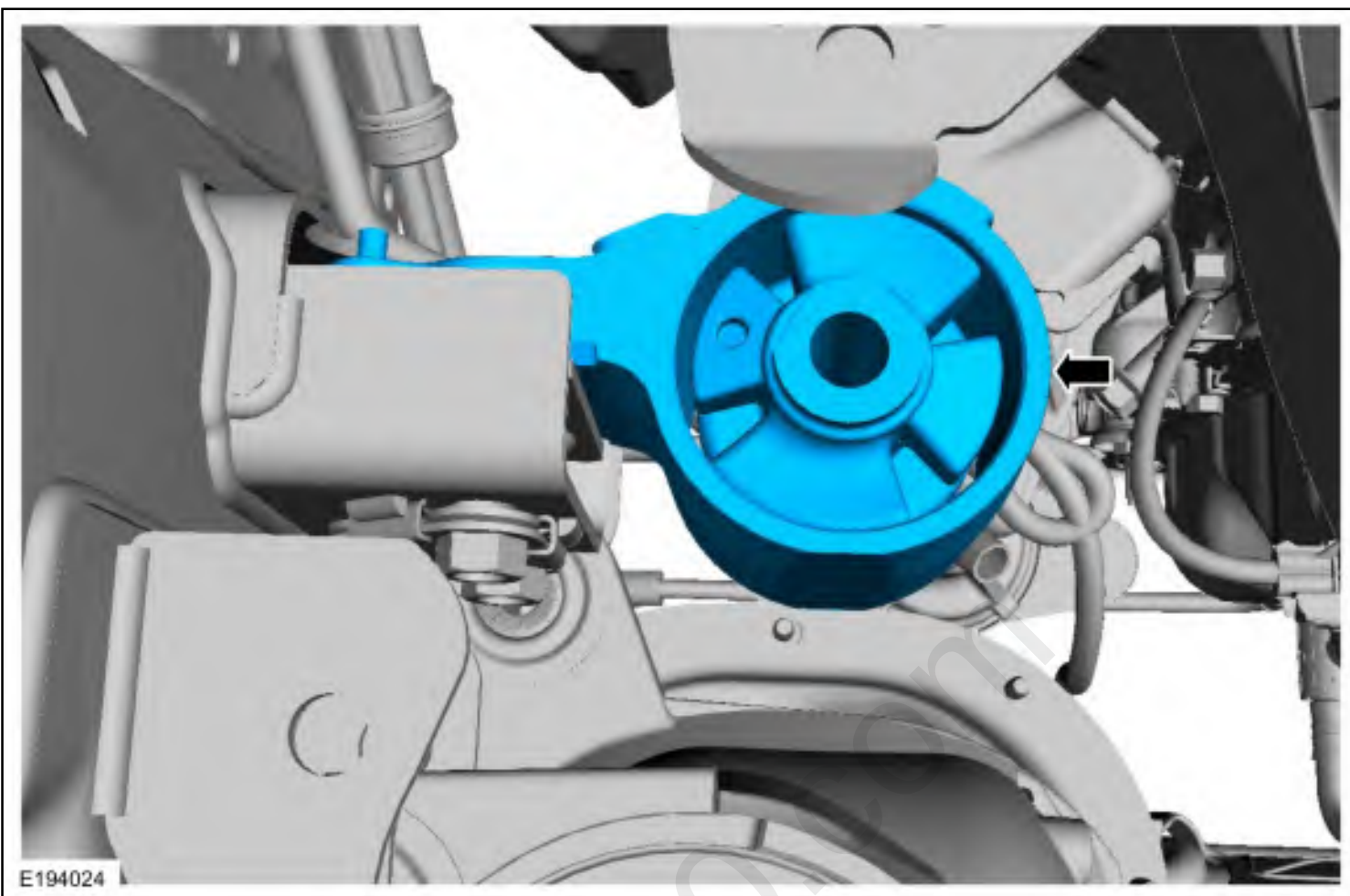
4x2/4x4

21. **NOTICE:** Only use hand tools when removing or installing the engine mount-to-frame bolts or damage to the engine mount-to-frame nut plate can occur.

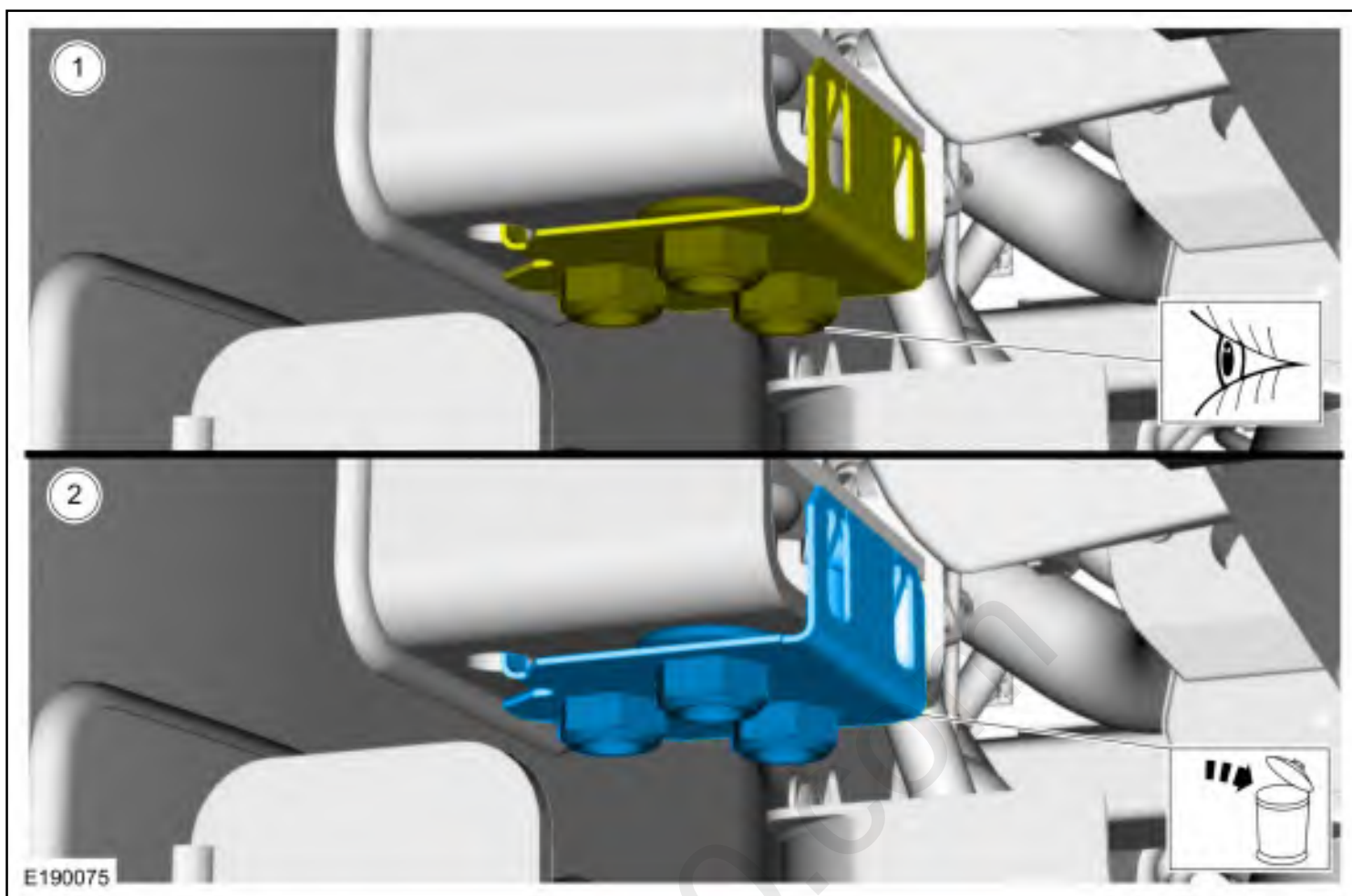
Remove and discard the LH engine mount-to-frame bolts.



22. Remove the LH engine mount.

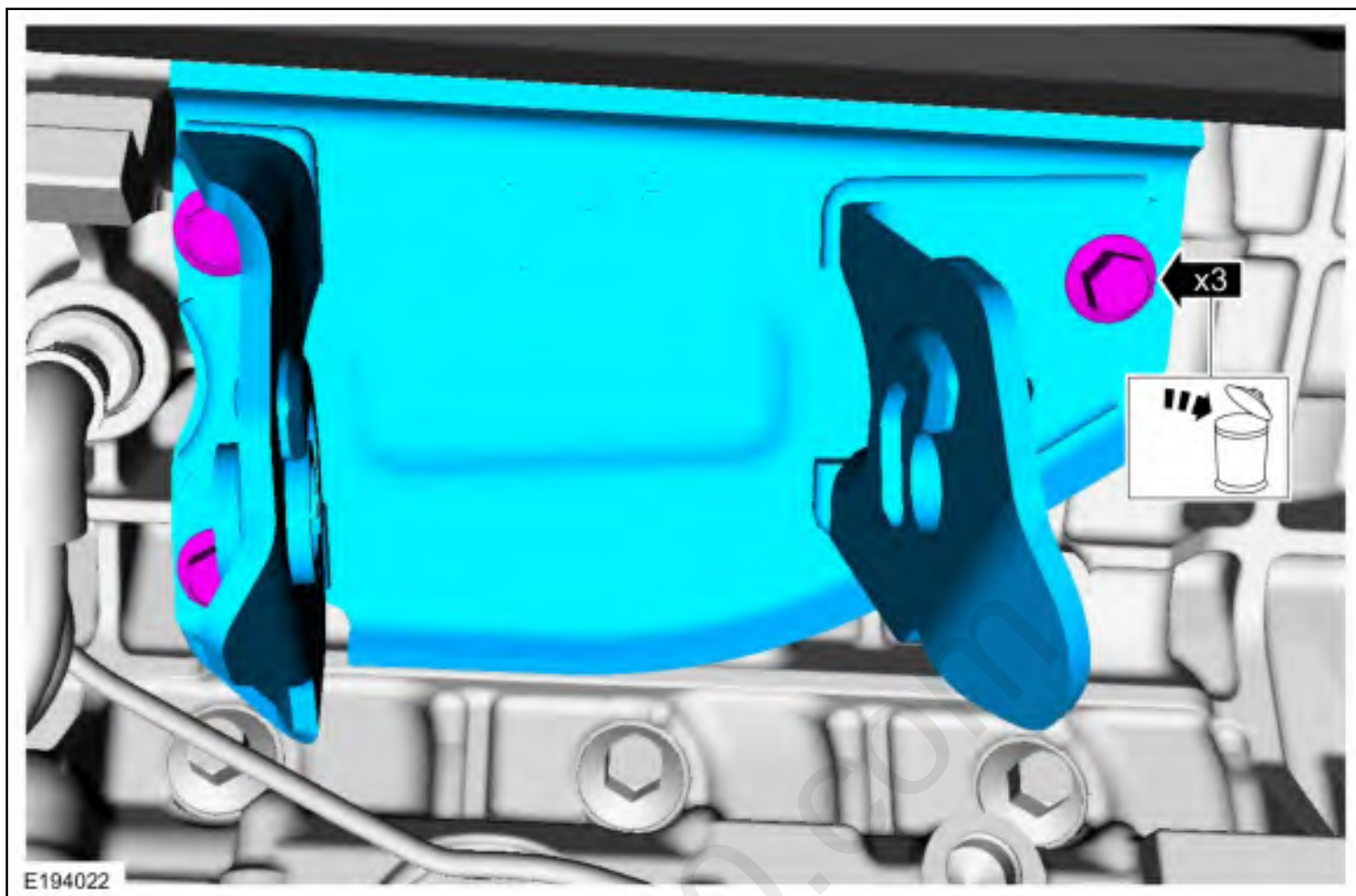


1. Inspect the engine mount-to-frame nut plate for thread damage.
2. If the nut plate is damaged, remove and discard the engine mount-to-frame nut plate.



24. Remove the bolts and the LH engine mount-to-cylinder block bracket.

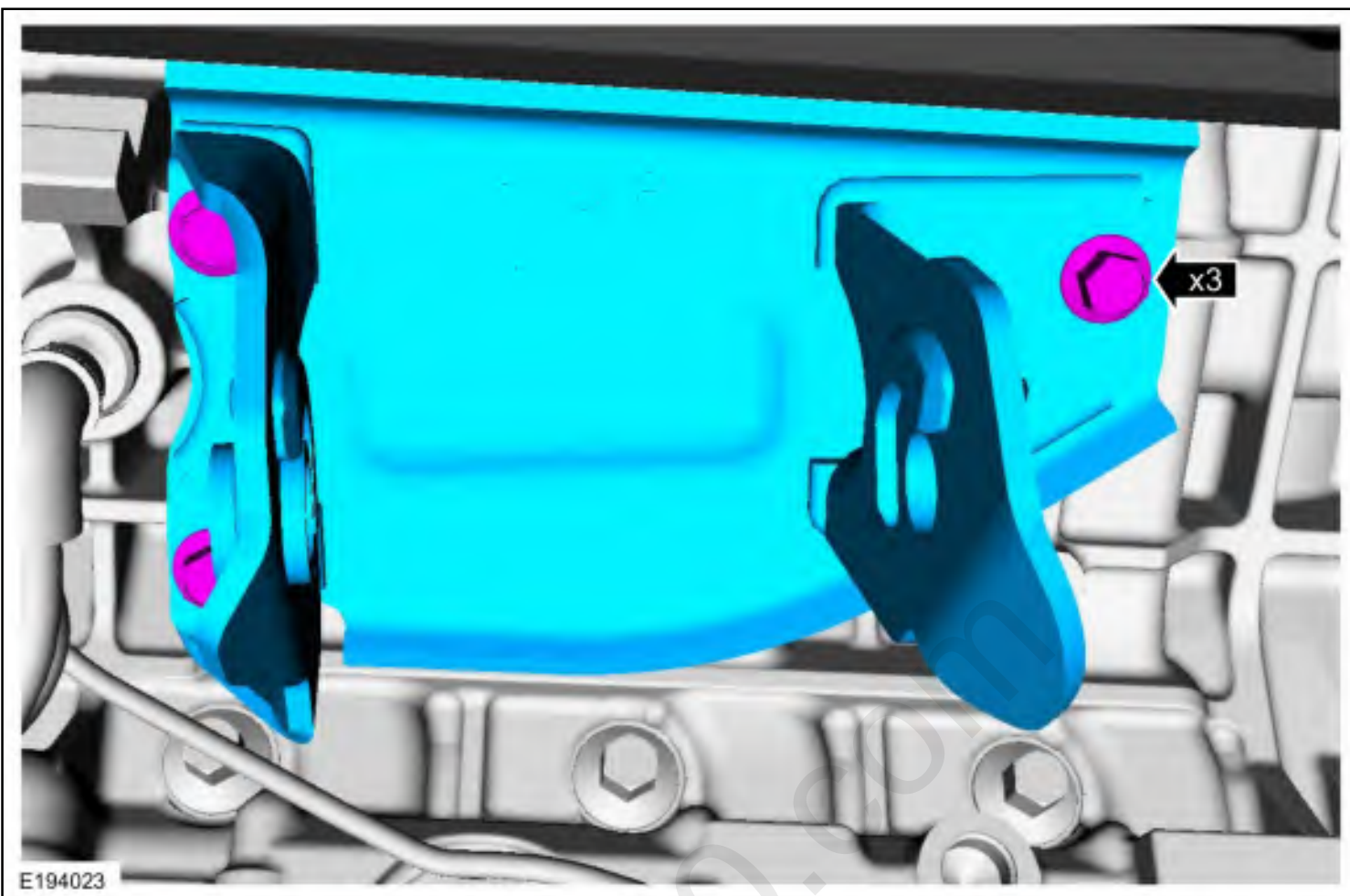
- Discard the bolts.
- Clean the engine mount-to-cylinder block and engine mount-to-frame mating surfaces of any dirt or foreign material prior to installation.



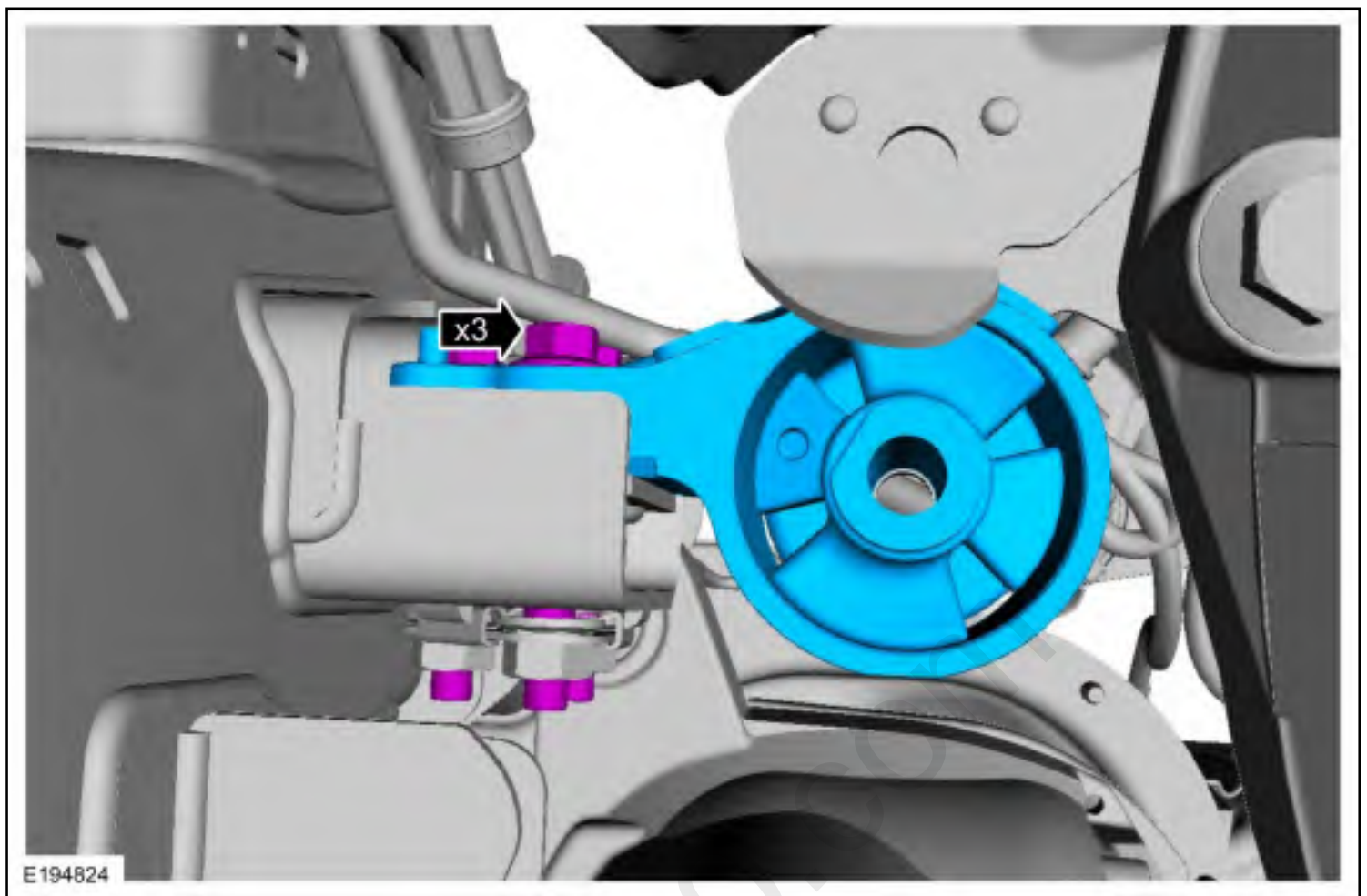
Installation

4x2/4x4

1. Install the LH engine mount-to-cylinder block bracket and the bolts.
Torque: 57 lb.ft (77 Nm)

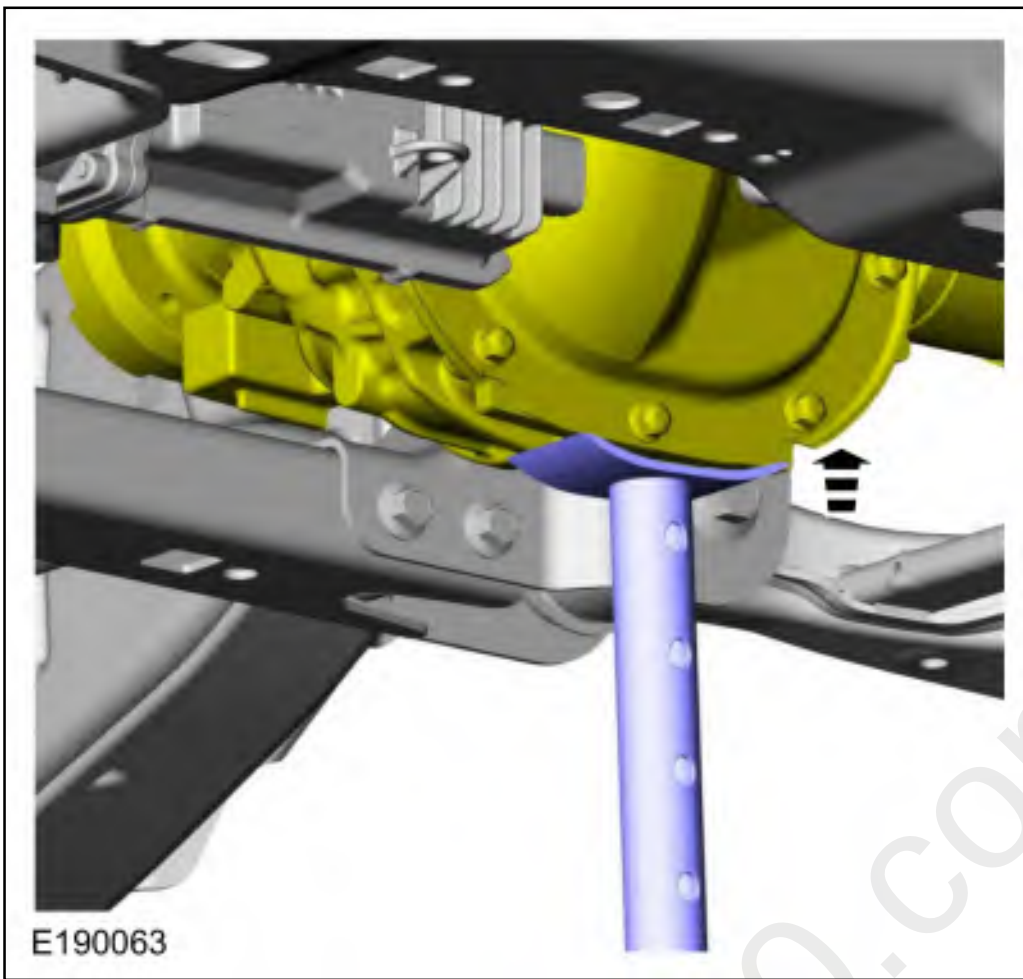


2. Position the LH engine mount and hand start the 3 new engine mount-to-frame bolts.
 - Do not tighten at this time.

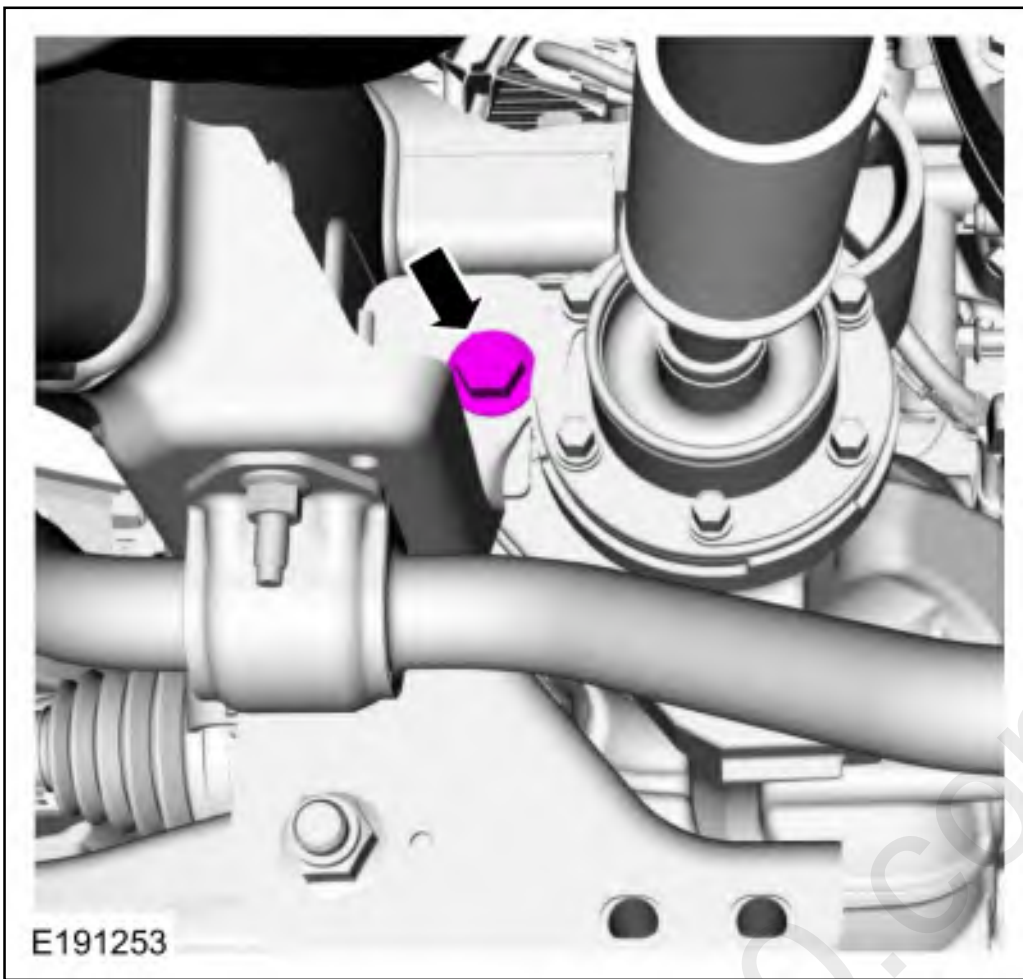


4x4

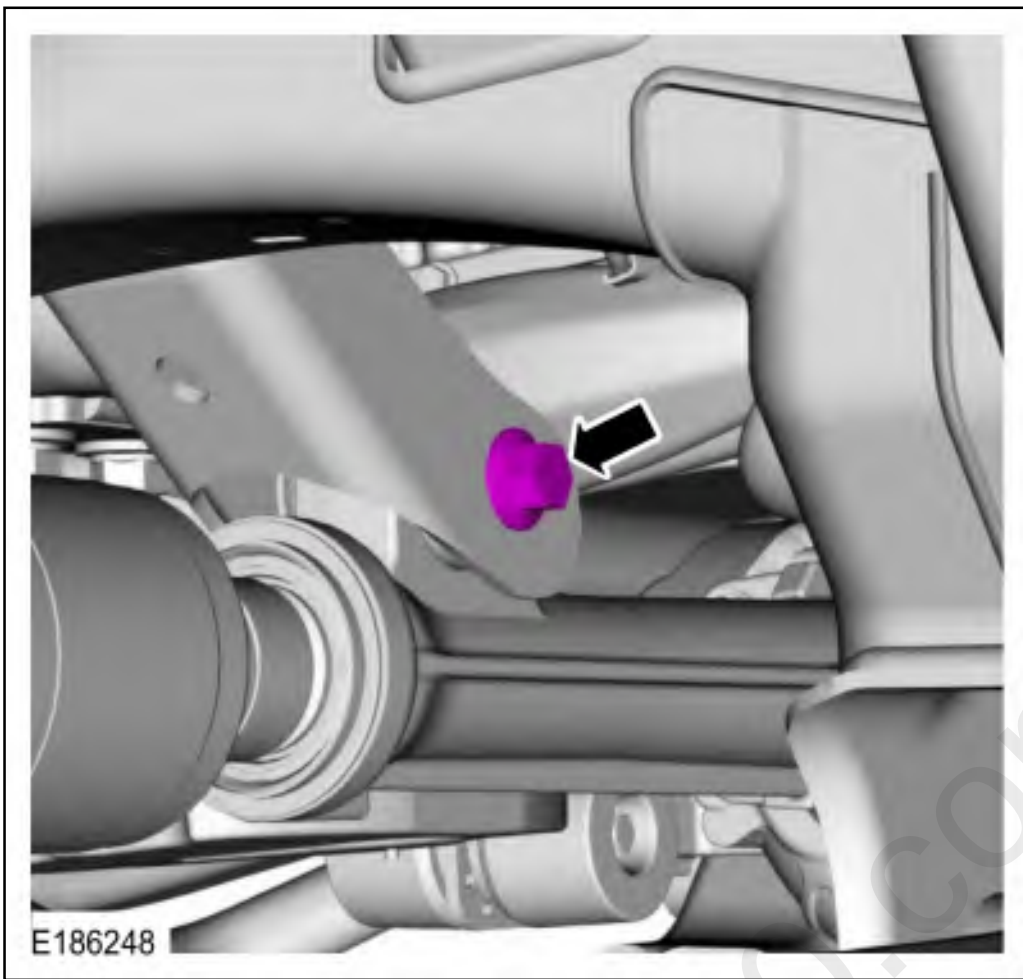
3. Using an adjustable stand, raise the front axle carrier into position.
Use the General Equipment: Vehicle/Axle Stands



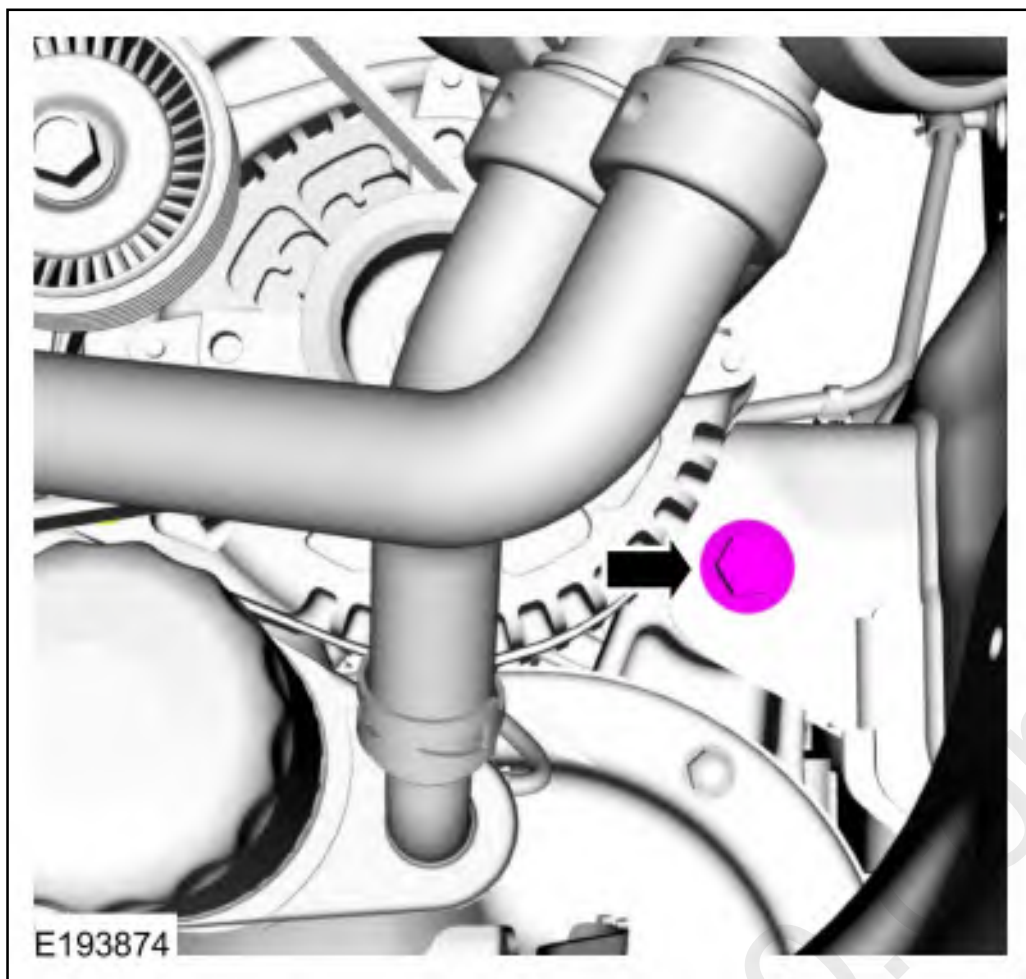
4. Install the lower front axle carrier mounting bushing bolt.
Torque: 85 lb.ft (115 Nm)



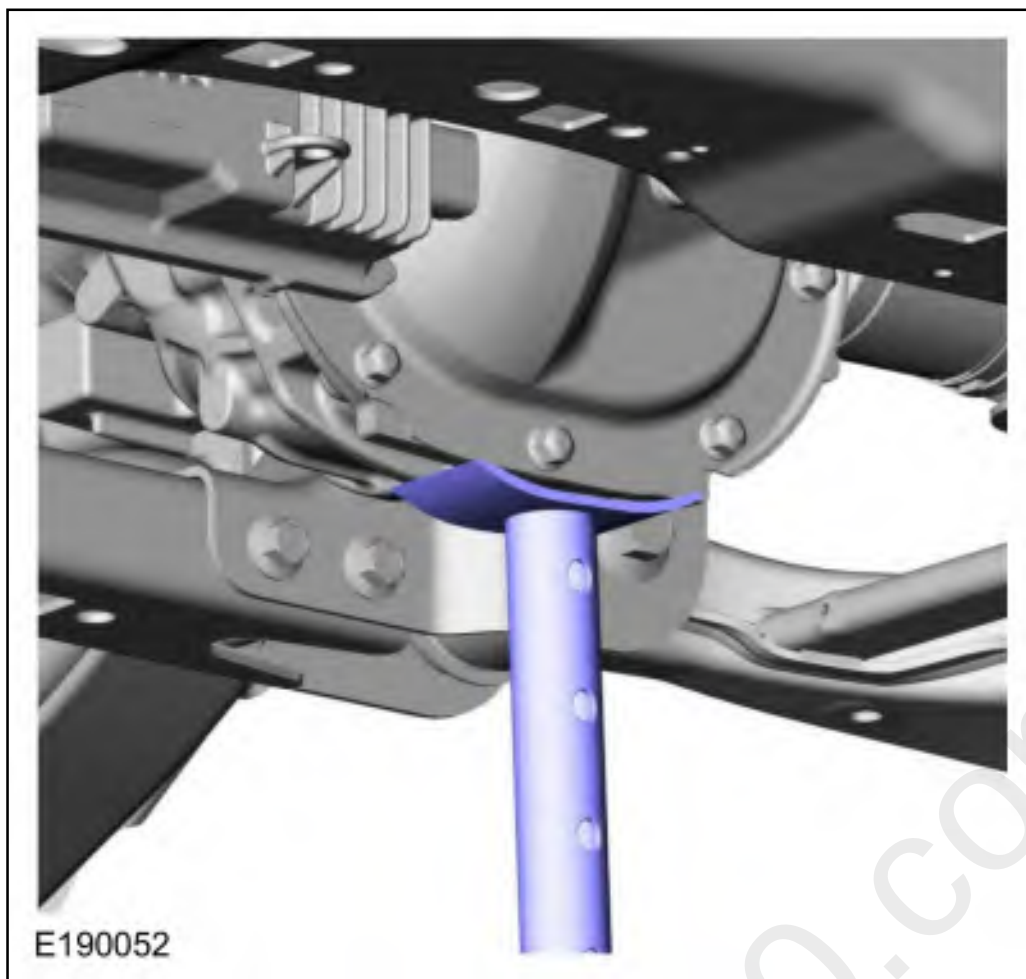
5. Install the axle shaft housing carrier bushing bolt.
Torque: 85 lb.ft (115 Nm)



6. Install the upper front axle carrier mounting bushing bolt.
Torque: 85 lb.ft (115 Nm)

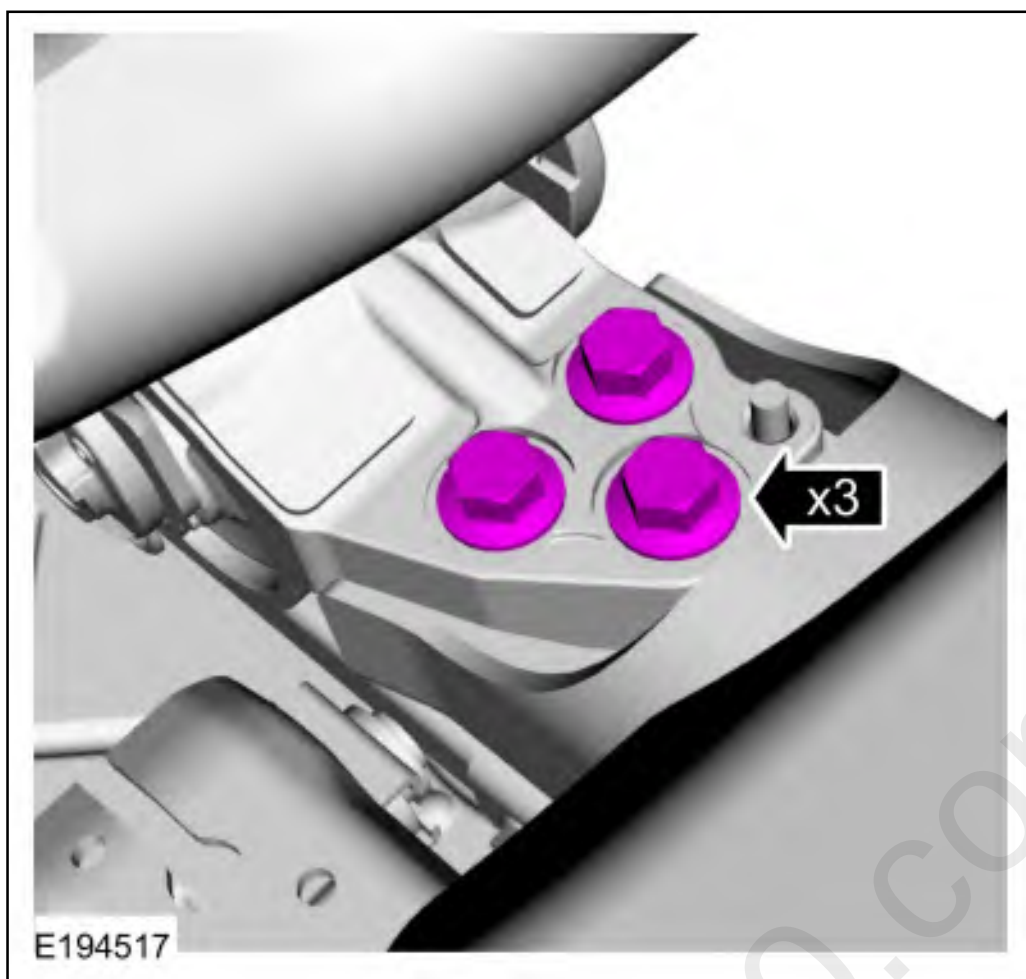


7. Remove the adjustable stand.
Use the General Equipment: Vehicle/Axle Stands

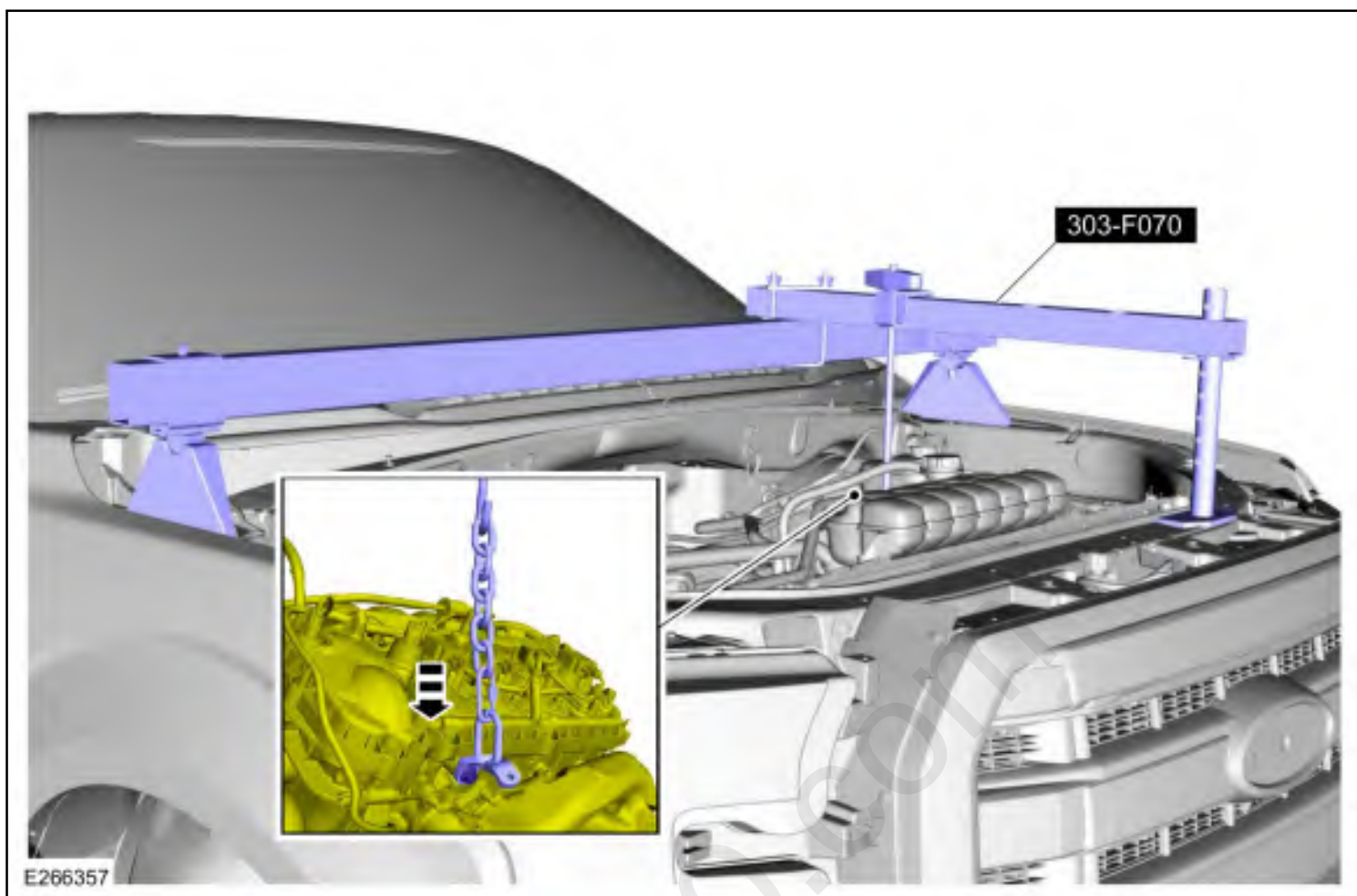


4x2/4x4

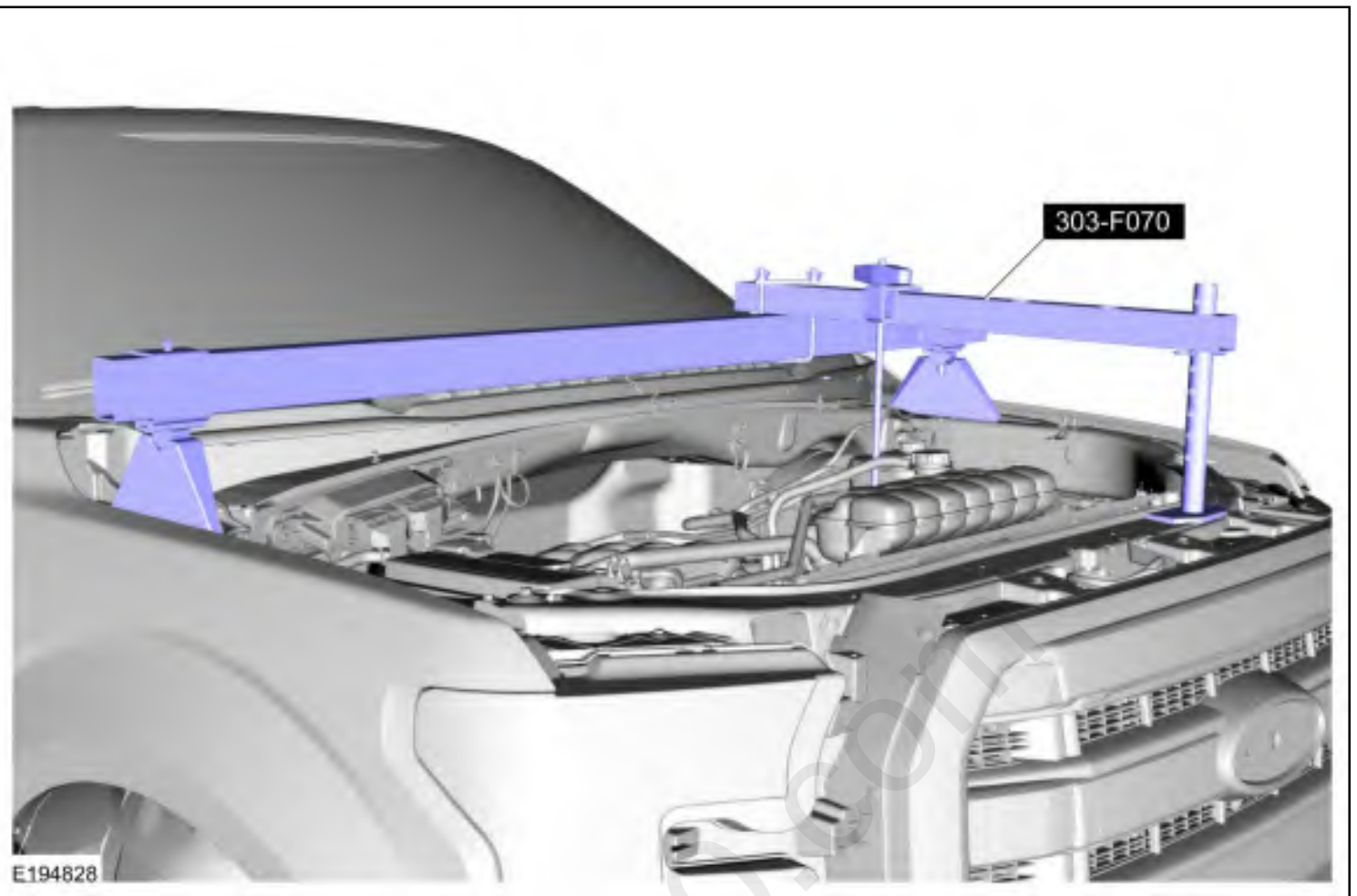
8. Tighten the LH engine mount bolts
Torque: 129 lb.ft (175 Nm)



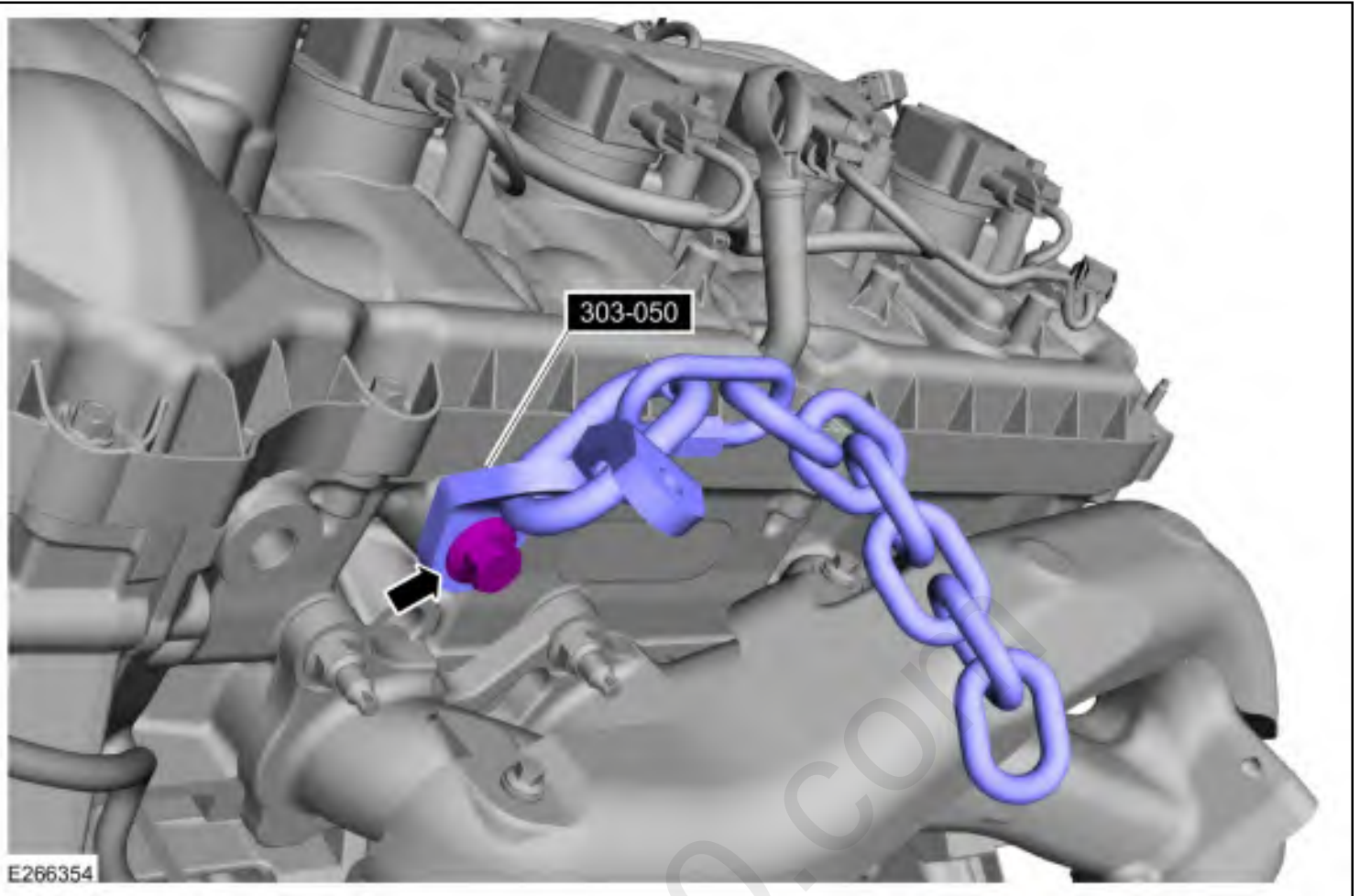
9. Using the special tool, lower the engine to the installed position.
Use Special Service Tool: 303-F070 Support Bar, Engine.



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

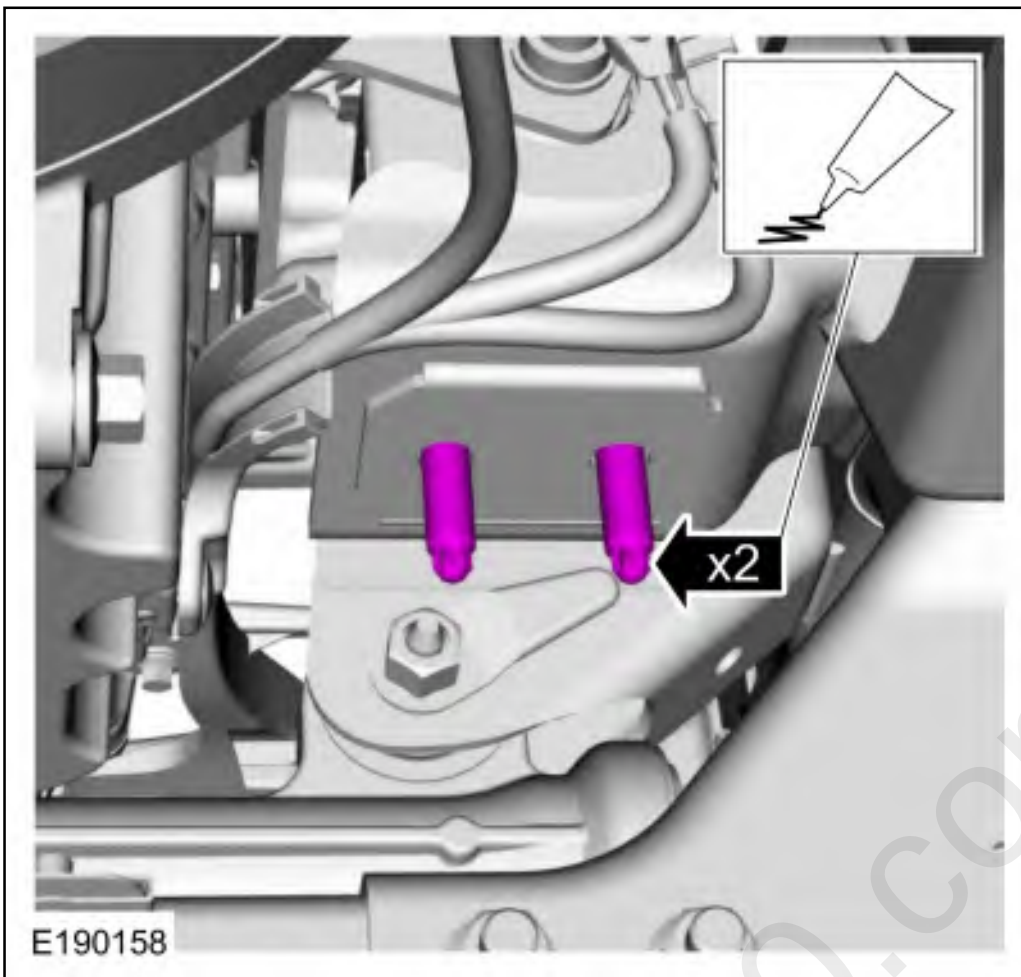


11. Remove the special tool and length of chain.
Use Special Service Tool: 303-050 (T70P-6000) Lifting Bracket, Engine.



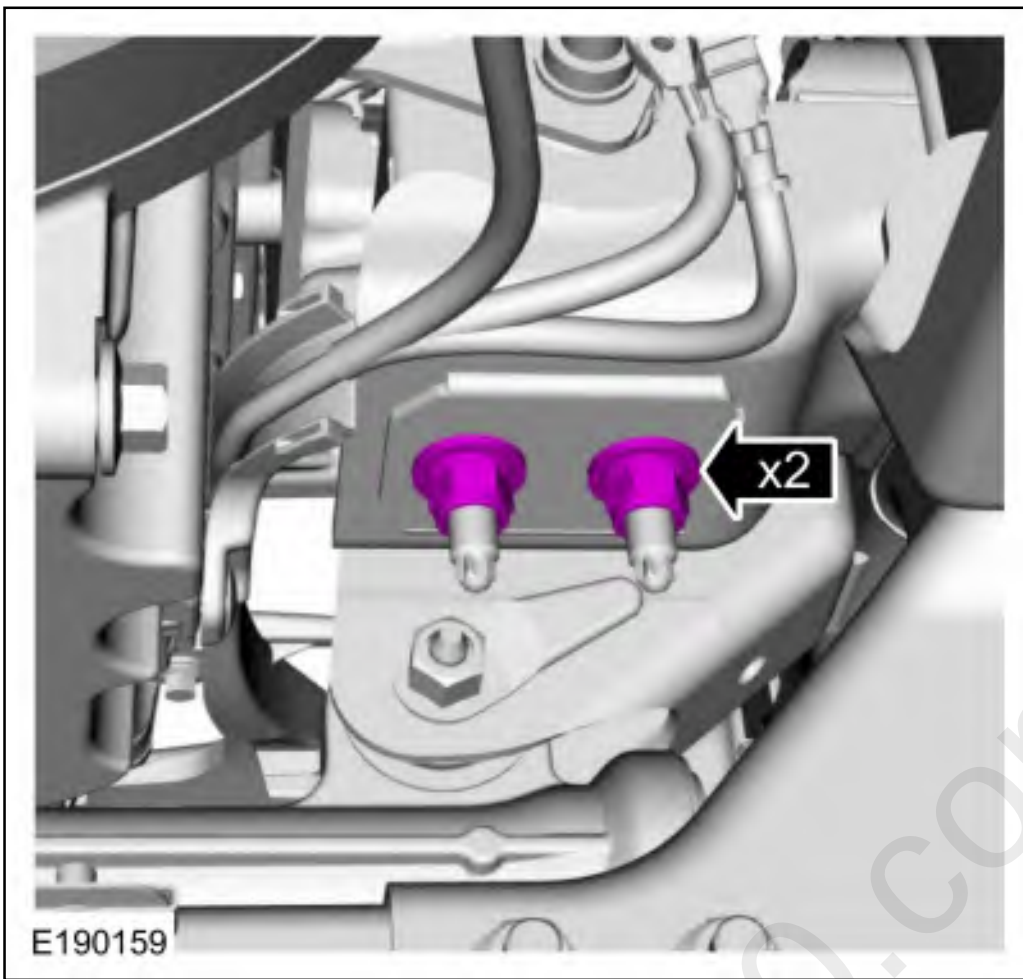
12. **NOTICE:** Only use hand tools when installing the engine mount stud bolts or damage to the engine mount can occur.

Install the new RH engine mount stud bolts.
Torque: 22 lb.ft (30 Nm)



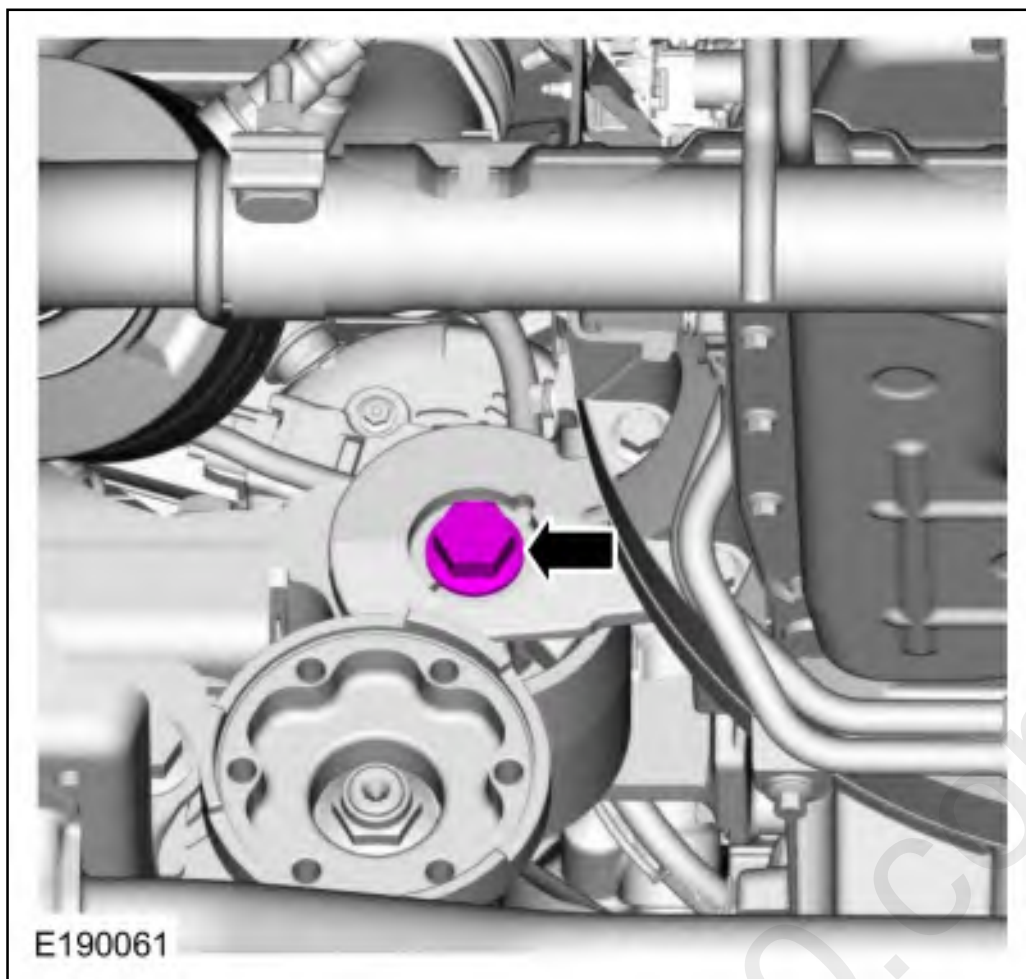
13. **NOTICE:** Only use hand tools when installing the engine mount nuts or damage to the engine mount can occur.

Install the new RH engine mount nuts.
Torque: 111 lb.ft (150 Nm)



14. **NOTICE:** Only use hand tools when tightening the engine mount through bolts or damage to the engine mount-to-cylinder block bracket can occur.

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



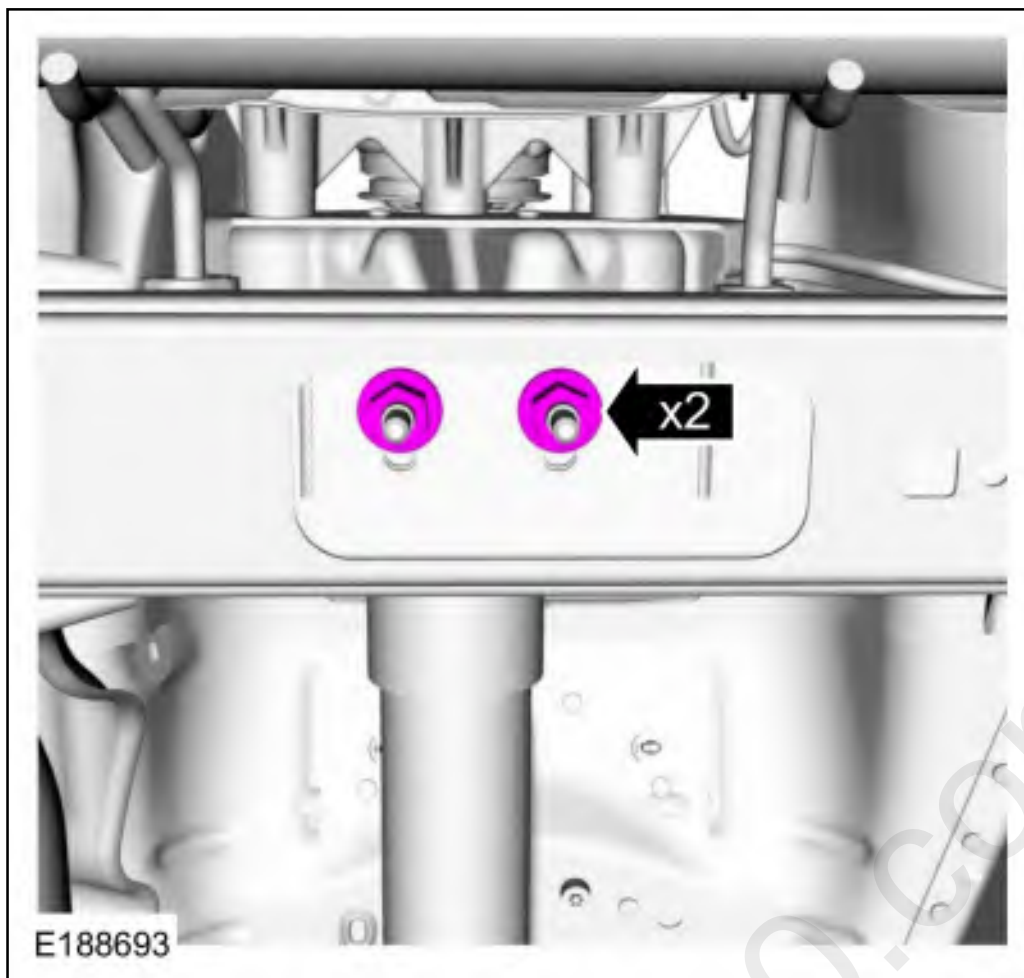
4x4

15. Install the front drive shaft.
Refer to: [Front Driveshaft](#) (205-01 Driveshaft, Removal and Installation).

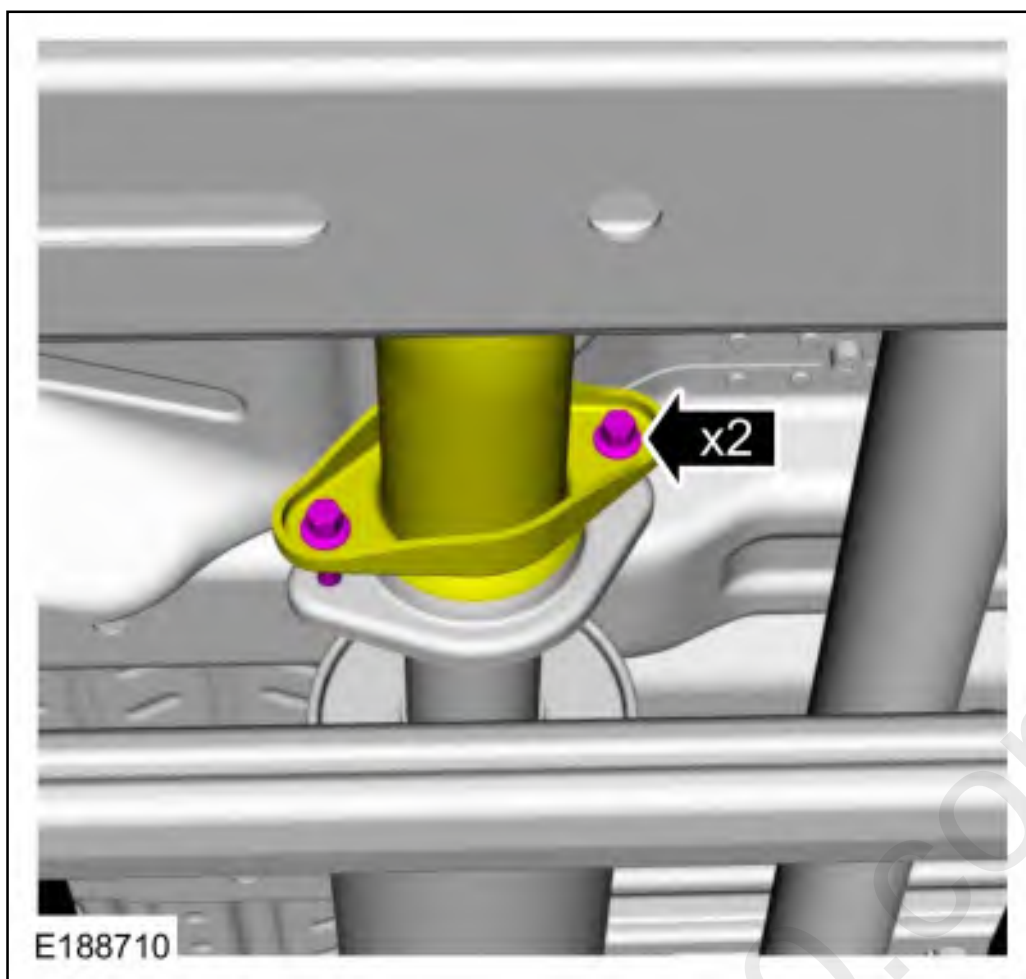
4x2/4x4

16. **NOTICE: Only use hand tools when installing the transmission mount-to-crossmember nuts or damage to the transmission mount can occur.**

Tighten the transmission mount-to-crossmember nuts.
Torque: 85 lb.ft (115 Nm)



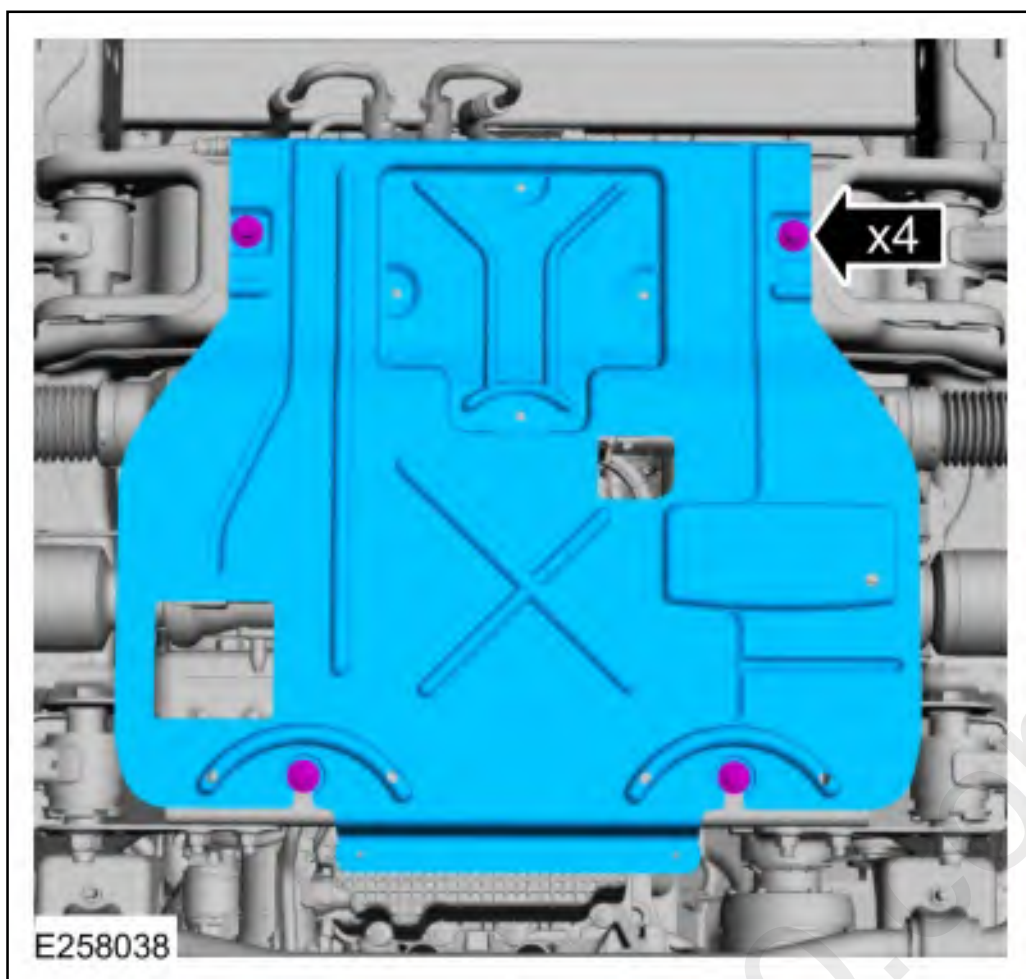
- Position the exhaust Y-pipe dual catalytic converter-to-exhaust intermediate pipe and install the new bolts.
- Tighten the inner exhaust Y-pipe dual catalytic converter-to-exhaust intermediate pipe bolt.
Torque: 46 lb.ft (63 Nm)
- Tighten the outer exhaust Y-pipe dual catalytic converter-to-exhaust intermediate pipe bolt.
Torque: 46 lb.ft (63 Nm)



18. **NOTE:** *If equipped.*

Install the skid plate and bolts.

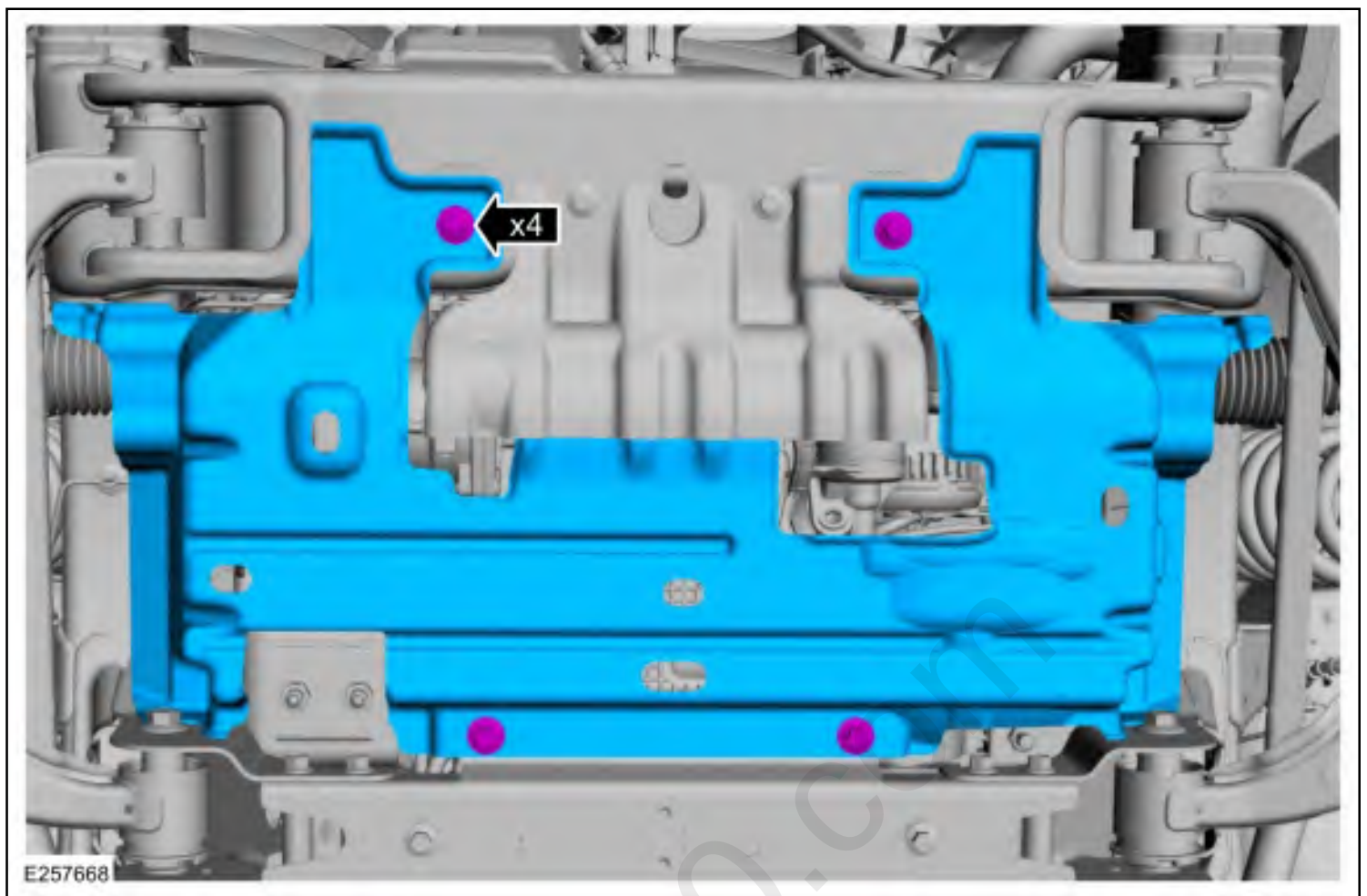
Torque: 30 lb.ft (40 Nm)



19. **NOTE:** *If equipped.*

Install the underbody shield and fasteners.

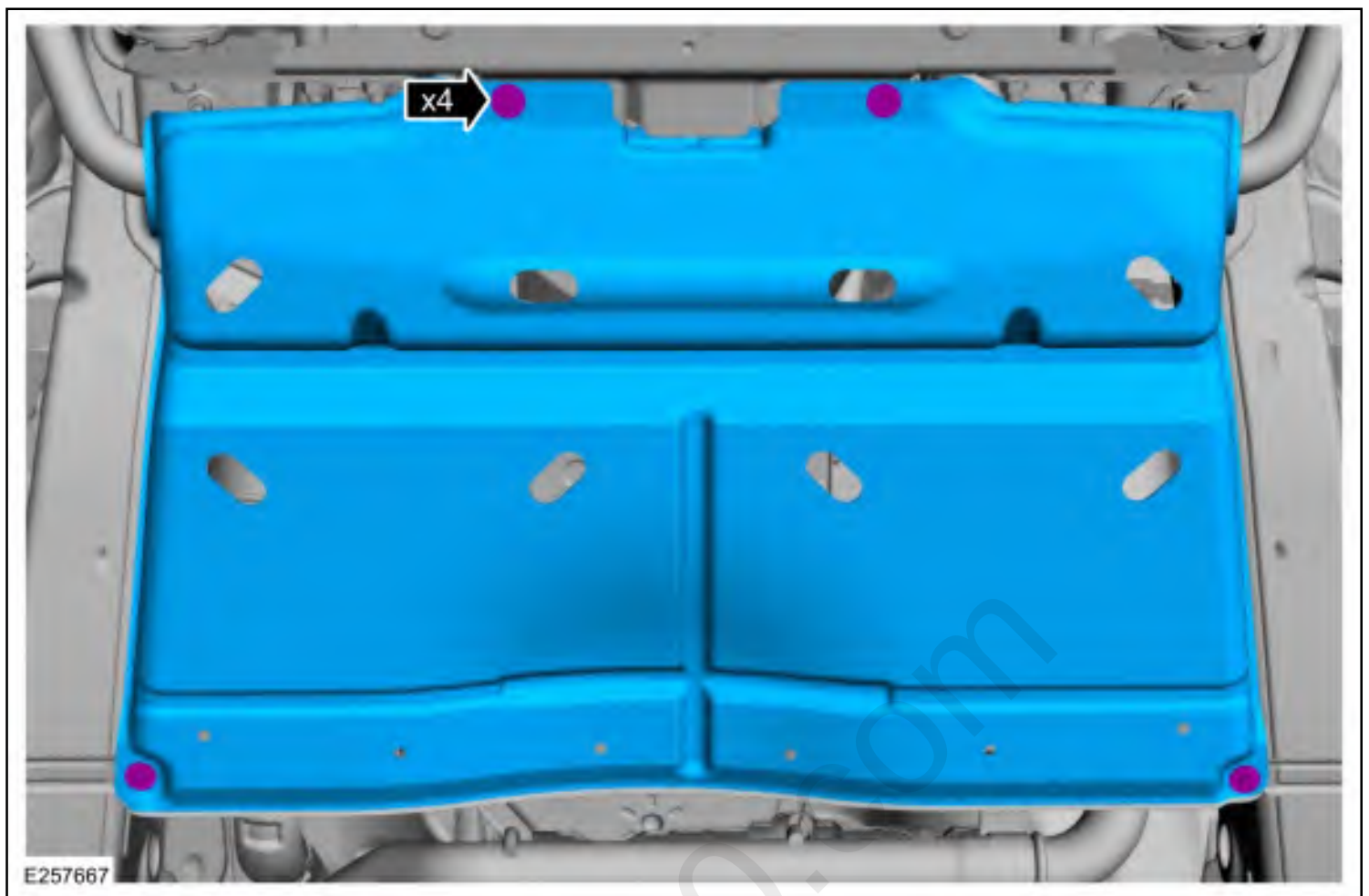
Torque: 30 lb.ft (40 Nm)



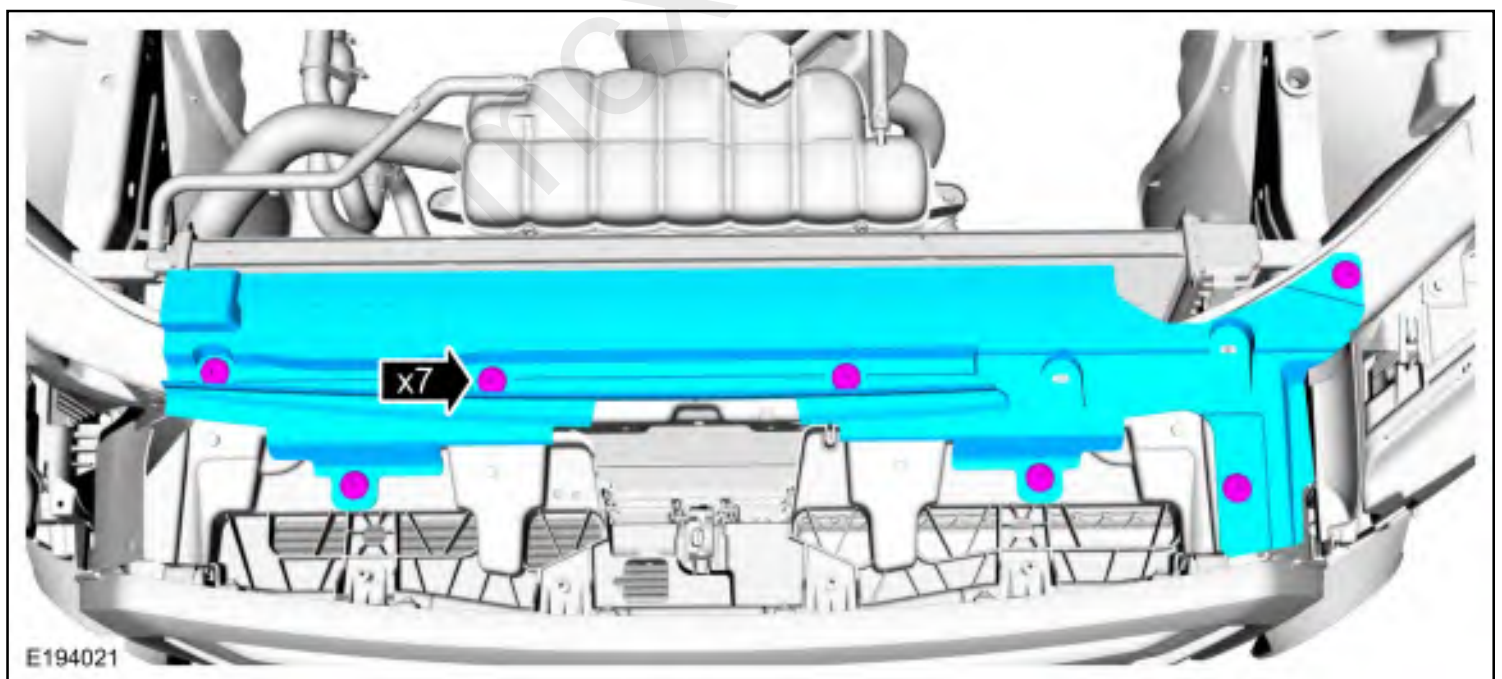
20. **NOTE:** *If equipped.*

Install the underbody shield and the bolts.

Torque: 71 lb.in (8 Nm)

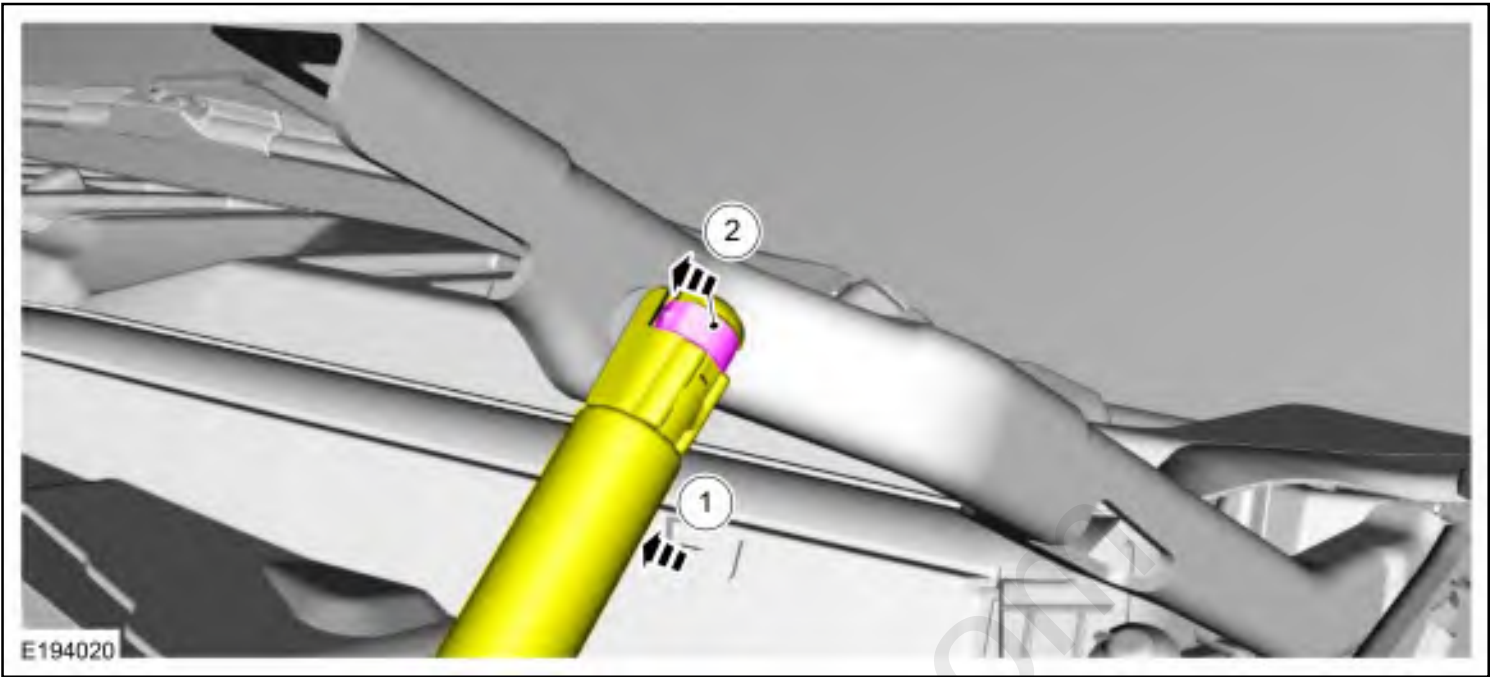


21. Install the radiator top shield and the fasteners.



22. **NOTE:** LH shown, RH similar.

1. Position the hood shock and attach.
2. Install the clip.



23. **NOTE:** *It is not necessary to separate the air cleaner outlet pipe and the air cleaner, the 2 components can be installed as an assembly.*

Install the following items:

1. Refer to: [Air Cleaner](#) (303-12D Intake Air Distribution and Filtering - 5.0L 32V Ti-VCT, Removal and Installation).
2. Refer to: [Air Cleaner Outlet Pipe](#) (303-12D Intake Air Distribution and Filtering - 5.0L 32V Ti-VCT, Removal and Installation).
3. Refer to: [Hood](#) (501-02 Front End Body Panels, Removal and Installation).

24. Start engine and check exhaust system for leaks.