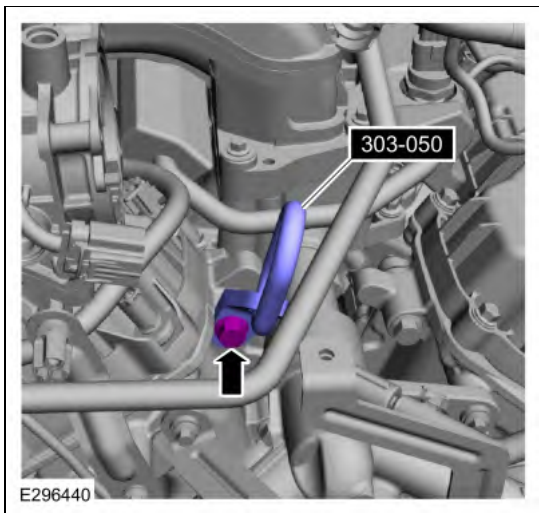
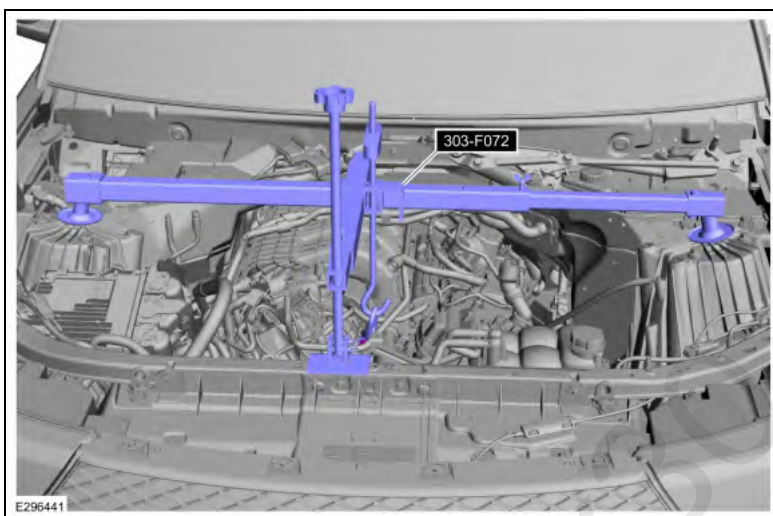


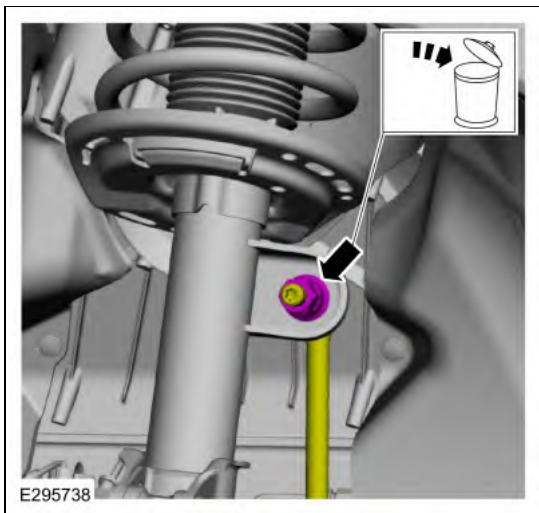


9. **NOTE:** Make sure to use the round feet on the shock towers or damage may occur.

Install Special Service Tool: 303-F072 Support Bar, Engine.

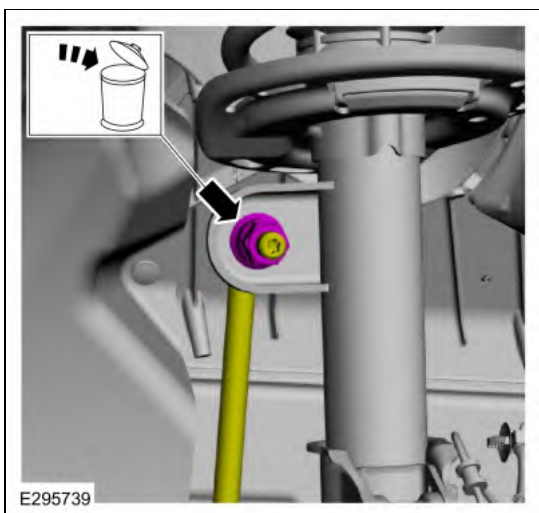


10. Remove the LH and RH front wheels and tires.
Refer to: Wheel and Tire (204-04A Wheels and Tires, Removal and Installation).
11. **NOTICE:** Use the internal or external hex-holding feature to prevent the ball and stud from turning while removing or installing the stabilizer bar link nuts. The link boot seal must not be allowed to twist while tightening the link nuts or damage to the boot seal will occur.
Remove the nut and position the LH sway bar link aside.

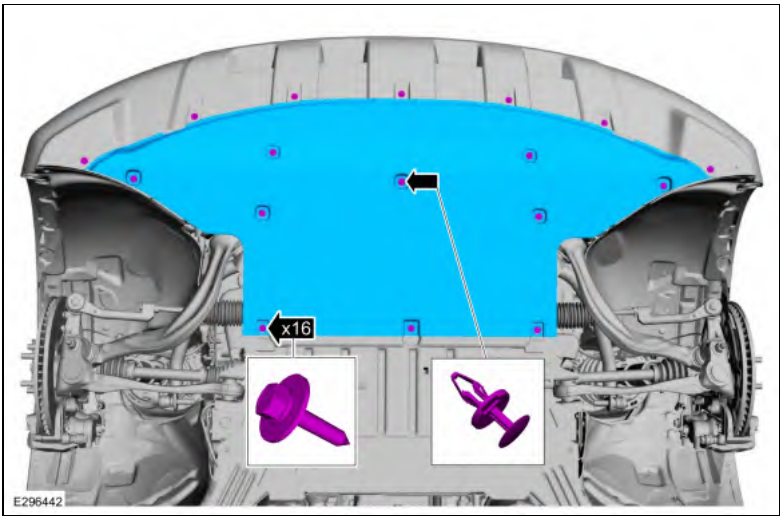


12. **NOTICE:** Use the internal or external hex-holding feature to prevent the ball and stud from turning while removing or installing the stabilizer bar link nuts. The link boot seal must not be allowed to twist while tightening the link nuts or damage to the boot seal will occur.

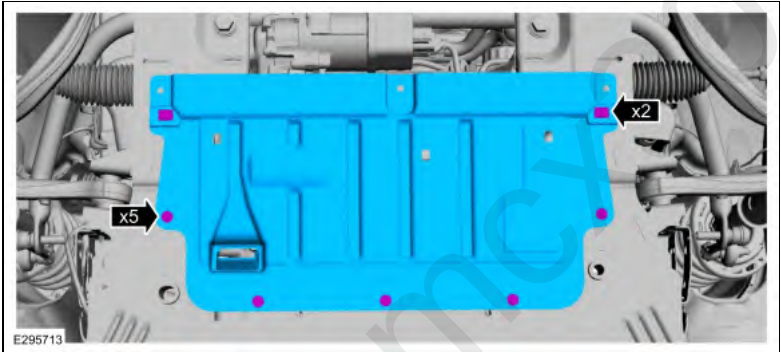
Remove the nut and position the RH sway bar link aside.



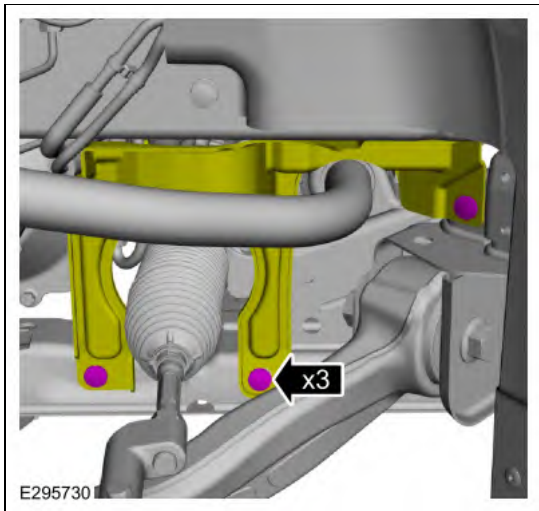
- 13.
- Remove pin-type retainer.
 - Remove the bolts and the underbody shield.



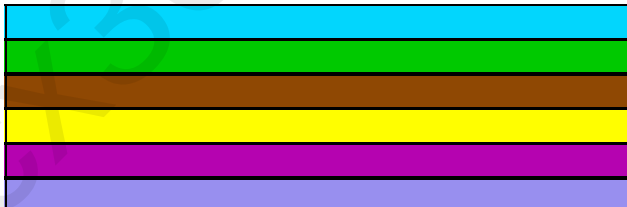
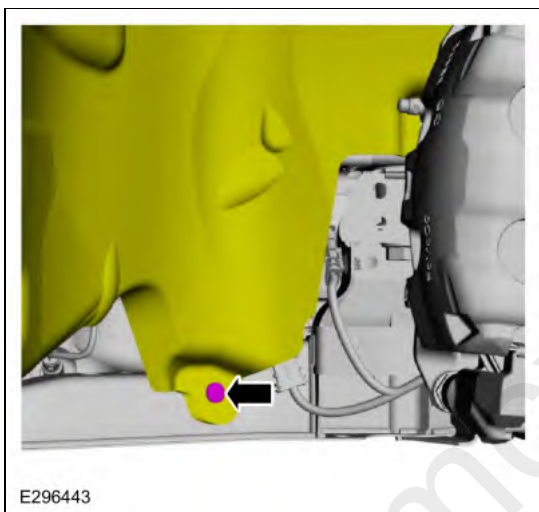
14. Remove the pin-type retainer, bolts and the rear underbody shield.



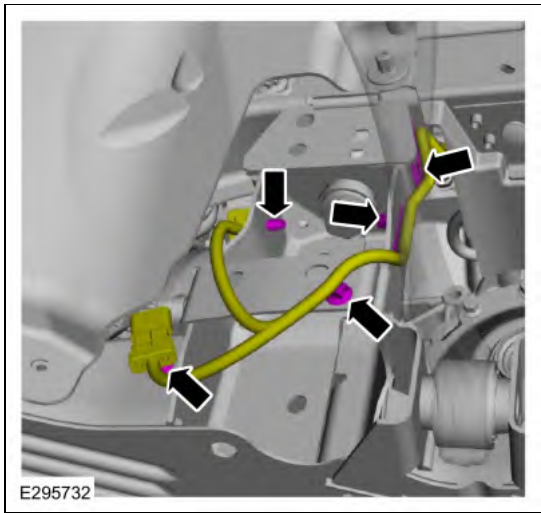
15. Remove the RH catalytic converter.
Refer to: Catalytic Converter RH (309-00D Exhaust System - 3.3L Duratec-V6 4-cylinder Hybrid (BP), Removal and Installation).
16. Remove the steering shield pin-type retainers from the RH subframe.



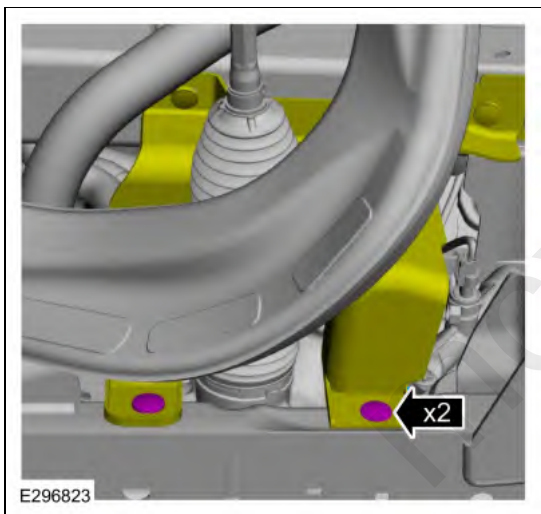
17. Remove the splash shield pin-type retainer from the RH subframe.



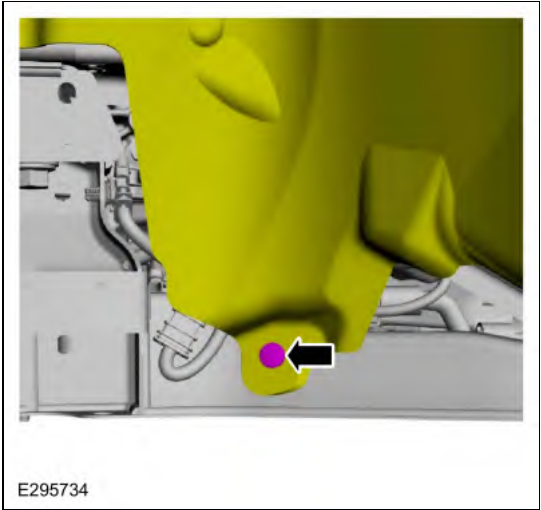
18. Detach the HO2S wiring harness retainers from the RH subframe.



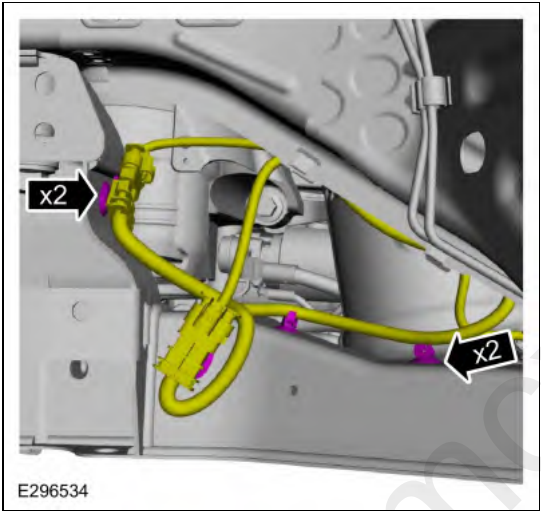
19. Remove the steering shield pin-type retainers from the LH subframe.



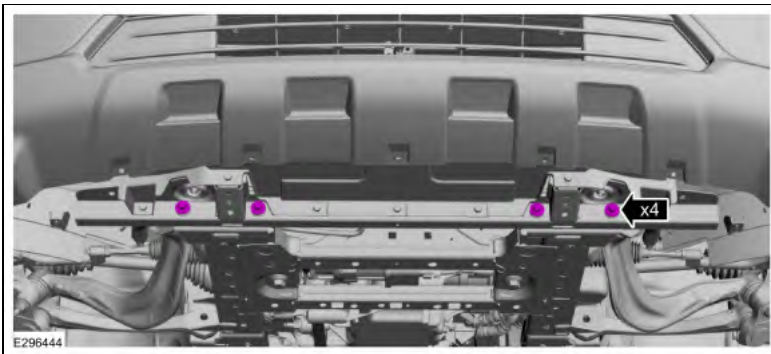
20. Remove the splash shield pin-type retainer from the LH subframe and position aside.



21. Detach the HO2S wiring harness retainers from the LH subframe.

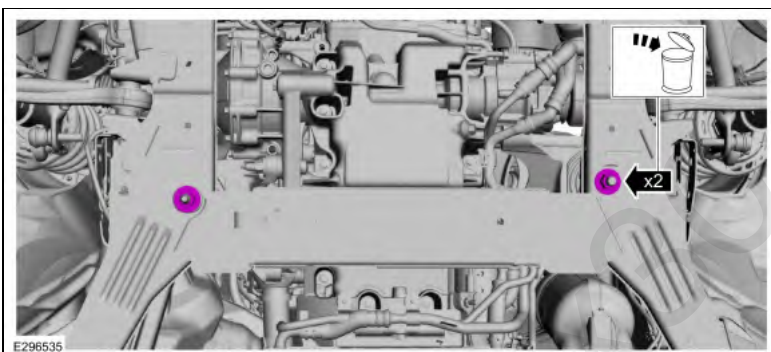


22. Remove the front radiator support bar bolts.

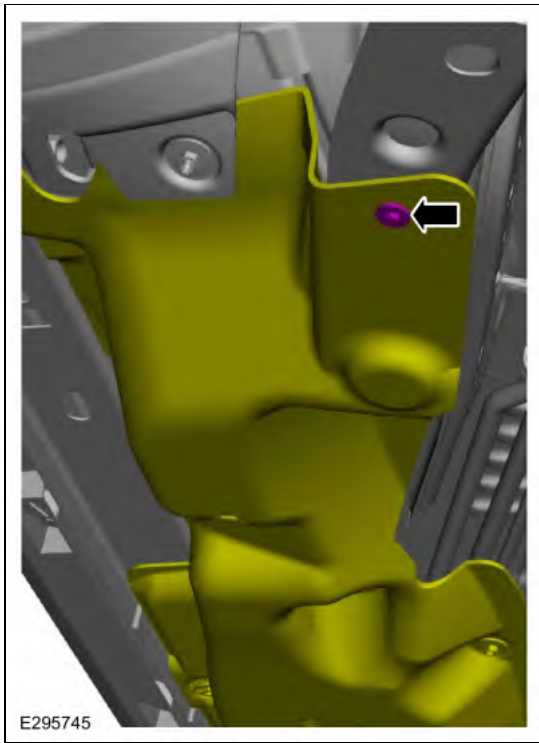


23. **NOTICE:** Only use hand tools when removing the engine mount nuts or damage to the engine mount can occur.

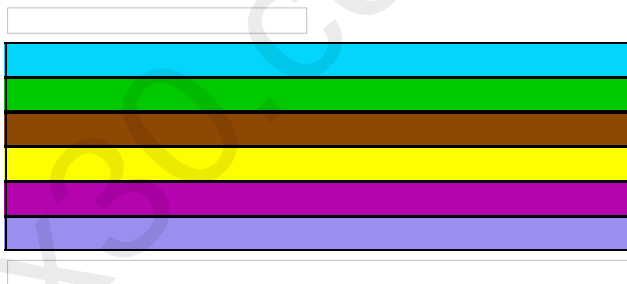
- Remove the LH and RH engine mount nuts.
- Discard the engine mount nuts.



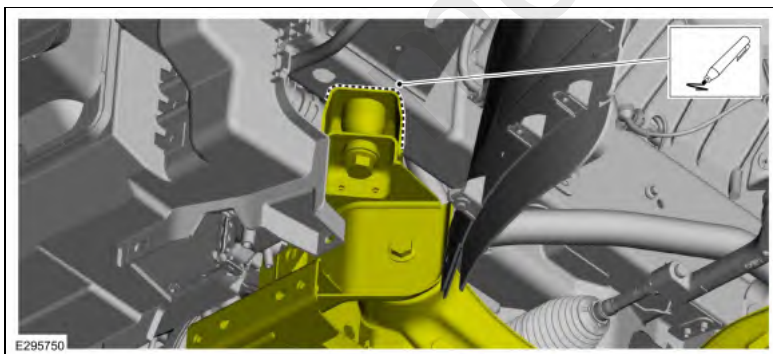
24. Remove the bolt and position the RH underbody shield aside.



25. Remove the bolt and position the LH underbody shield aside.



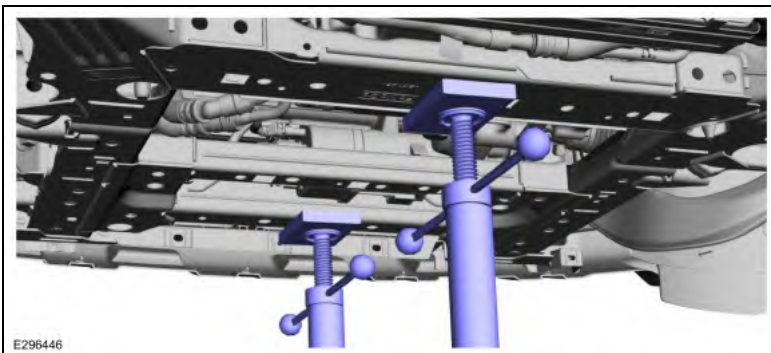
26. Mark the front subframe location.



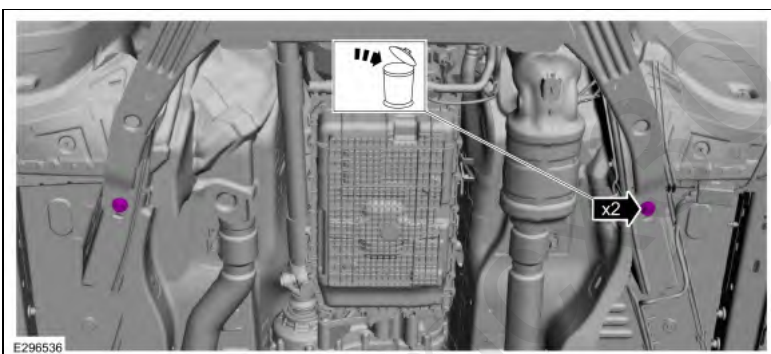
27. Mark the rear subframe location.



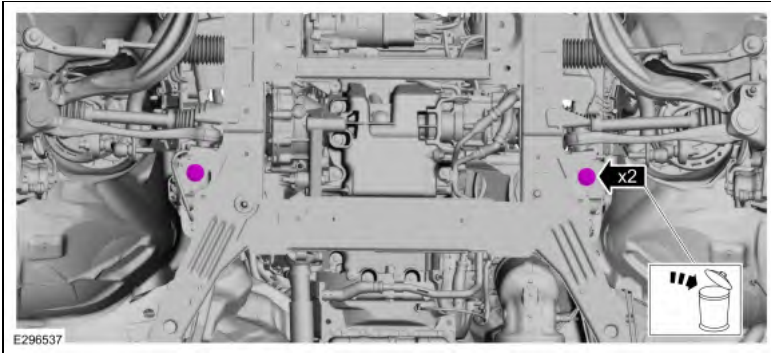
28. Support the front and rear of the subframe with adjustable jack stands.



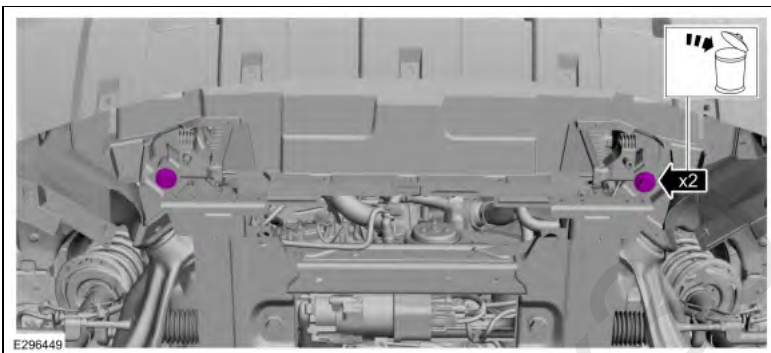
- 29.
- Remove the rear subframe bolts.
 - Discard the bolts.



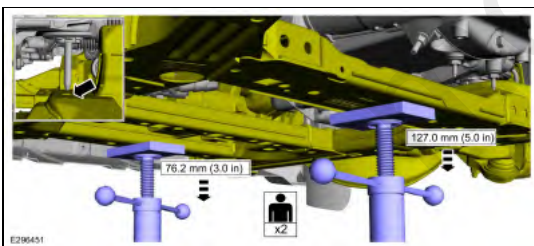
- 30.
- Remove the middle subframe bolts.
 - Discard the bolts.



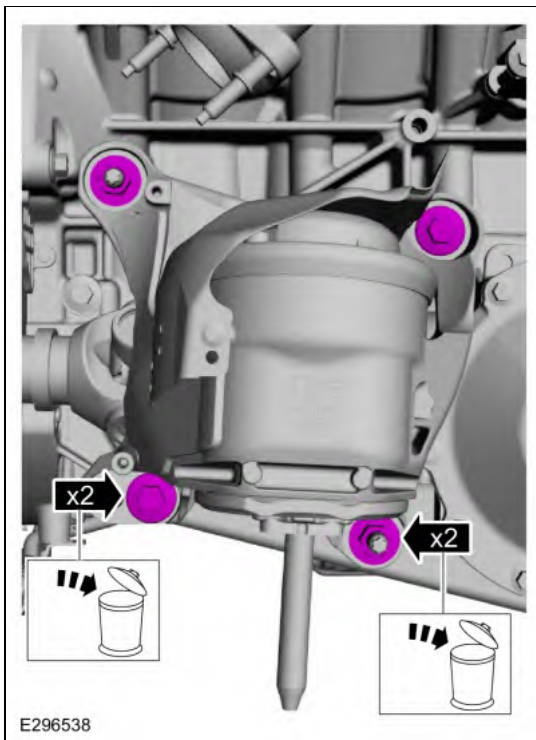
- 31.
- Remove the front subframe bolts.
 - Discard the bolts.



32. With the aid of an assistant, lower the front jack stand 76.2 mm (3.0 in) and the rear jack stand 127.0 mm (5.0 in) evenly or until engine mount stud clears the subframe.

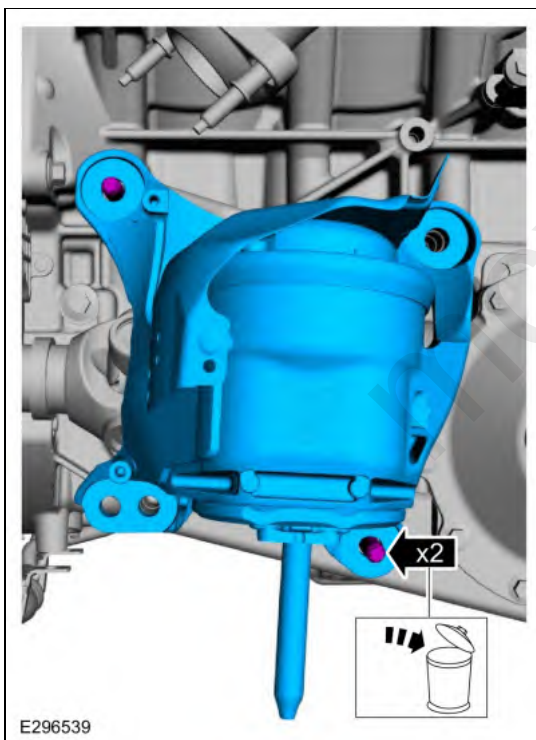


- 33.
- Remove the nuts, bolts and the RH engine mount.
 - Discard the nuts and bolts.



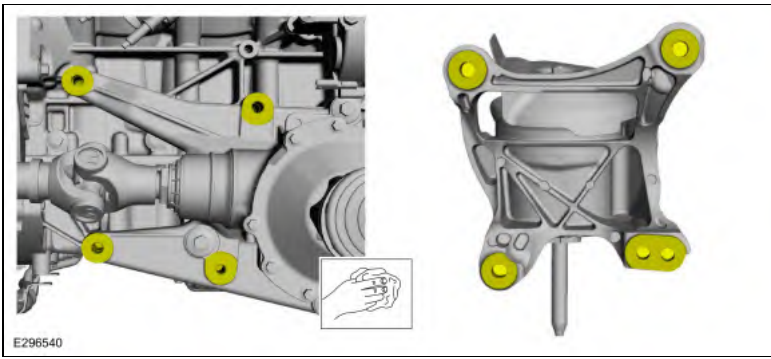
34.

- Remove the engine mount studs and the RH engine mount.
- Discard the studs.

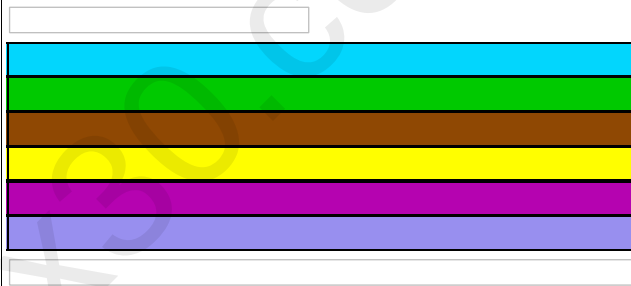
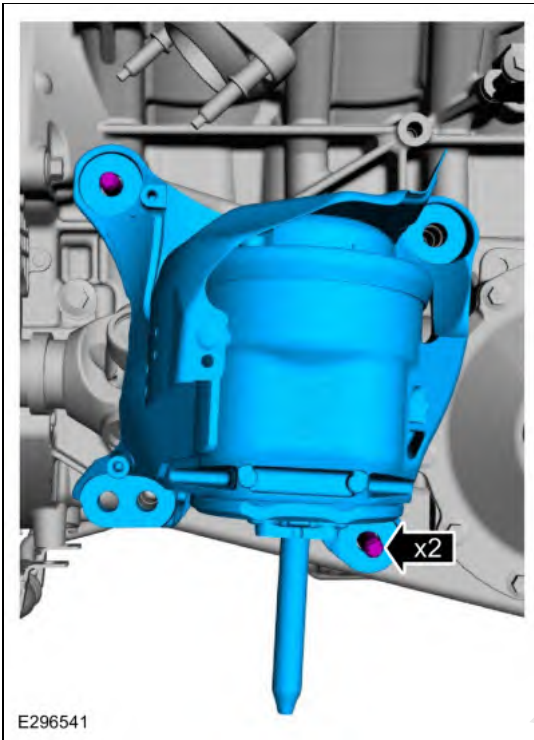


Installation

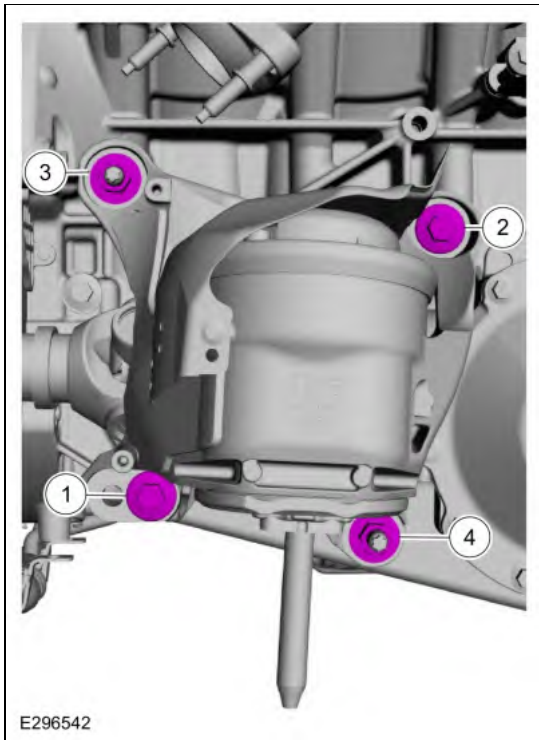
1. Clean the RH engine mount-to-front axle assembly mating surfaces of any dirt or foreign material prior to installation.



2. Install the RH engine mount and the new engine mount studs.
Torque: 35 lb.ft (48 Nm)

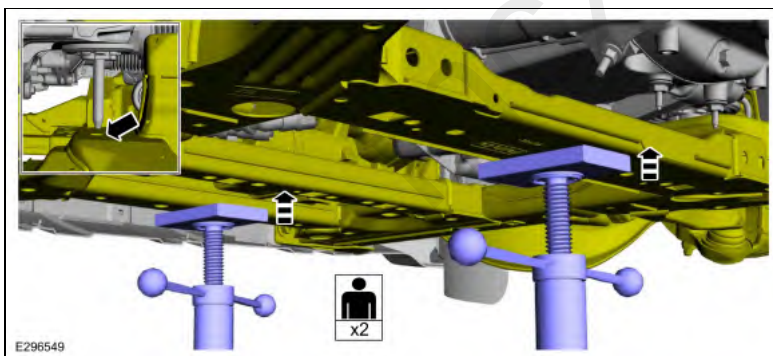


3. Install the new RH engine mount nuts and bolts.
Torque:
Stage 1: 66 lb.ft (90 Nm)
Stage 2: 90°

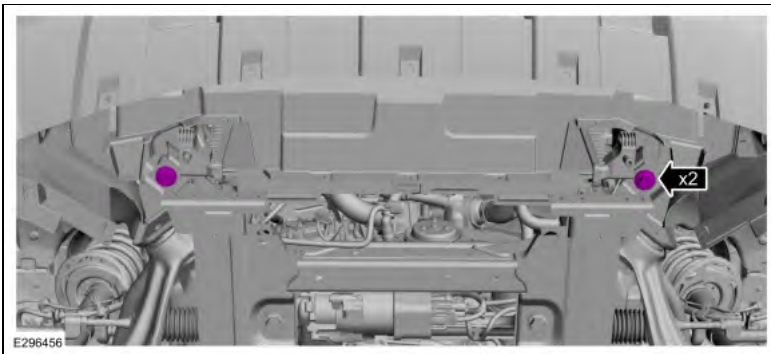


4. **NOTE:** Make sure that the LH and RH engine mount studs are in the subframe when raised.

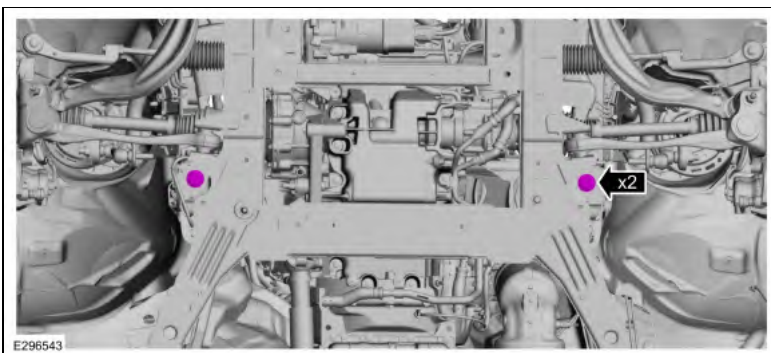
With the aid of an assistant, raise the front and rear jack stand evenly.



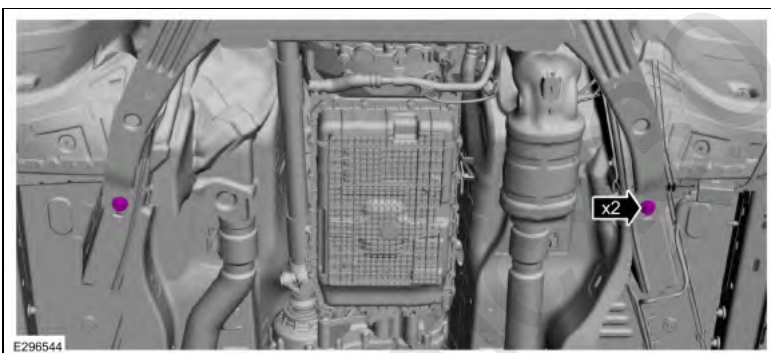
5. Install the new front subframe bolts finger tight.



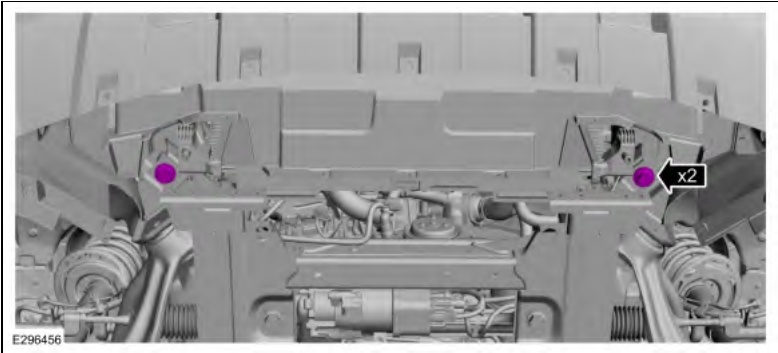
6. Install the new middle subframe bolts finger tight.



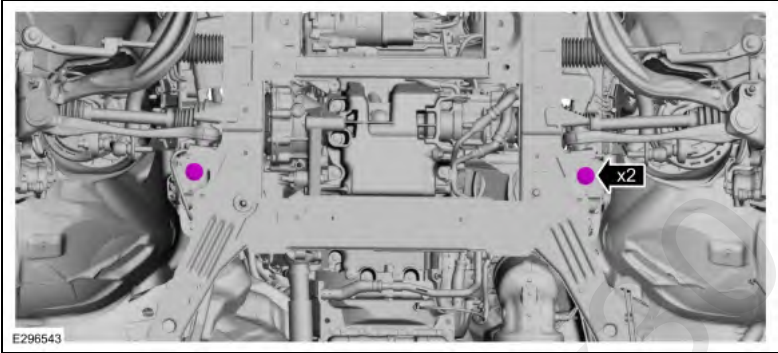
7. Install the new rear subframe bolts finger tight.



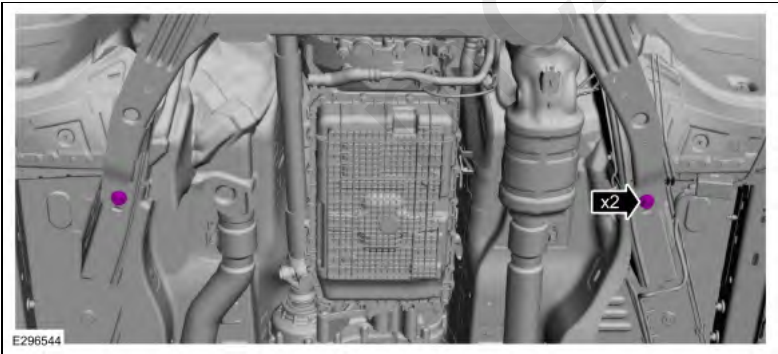
8. Tighten the front subframe bolts.
Torque: 195 lb.ft (265 Nm)



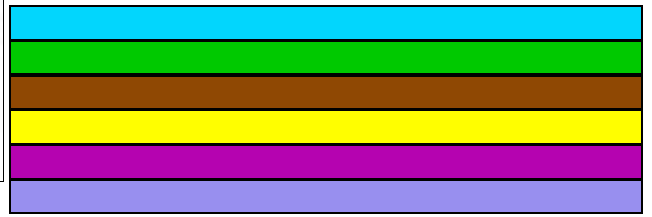
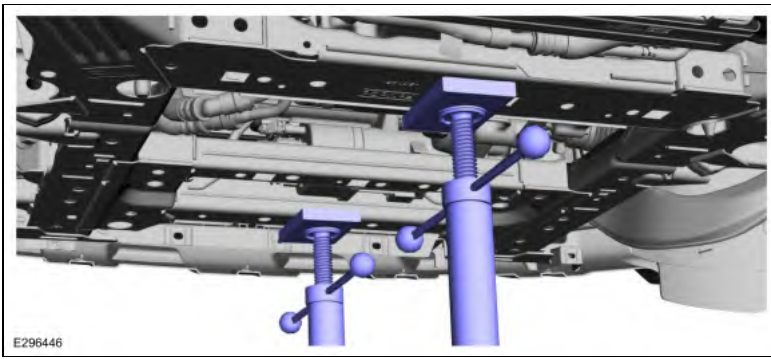
9. Tighten the middle subframe bolts.
Torque: 195 lb.ft (265 Nm)



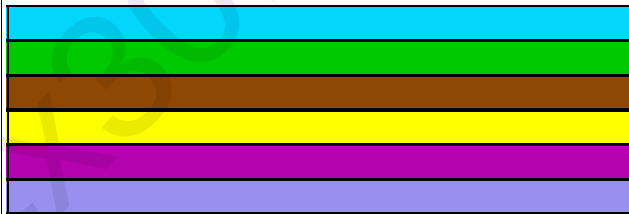
10. Tighten the rear subframe bolts.
Torque: 52 lb.ft (70 Nm)



11. Remove adjustable jack stands.



12. Position the LH underbody shield and install the bolt.
Torque: 22 lb.in (2.5 Nm)

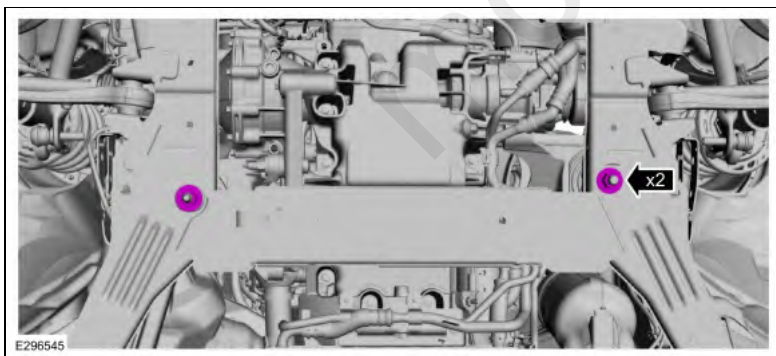


13. Position the RH underbody shield and install the bolt.
Torque: 22 lb.in (2.5 Nm)

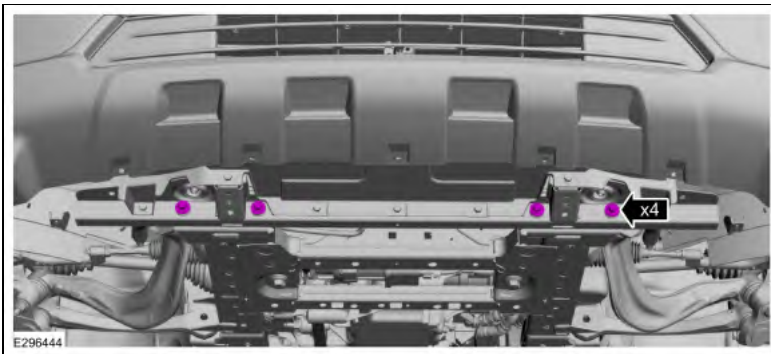


14. **NOTICE:** Only use hand tools when removing the engine mount nuts or damage to the engine mount can occur.

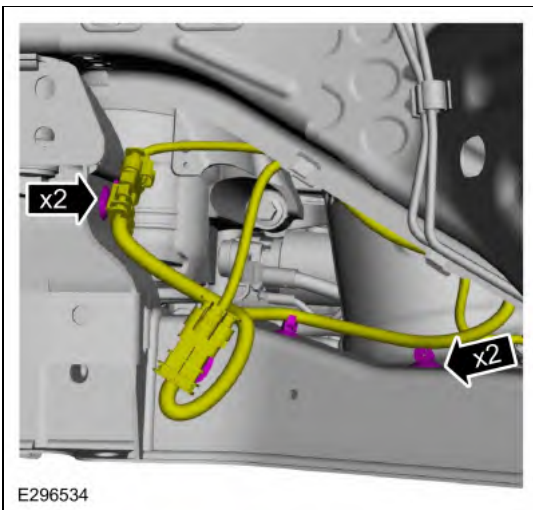
Install the new LH and RH engine mount nuts.
Torque: 184 lb.ft (250 Nm)



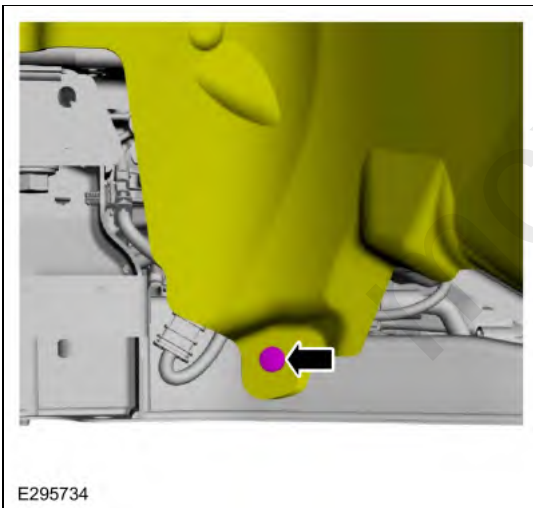
15. Install the front radiator support bar bolts.
Torque: 46 lb.ft (63 Nm)



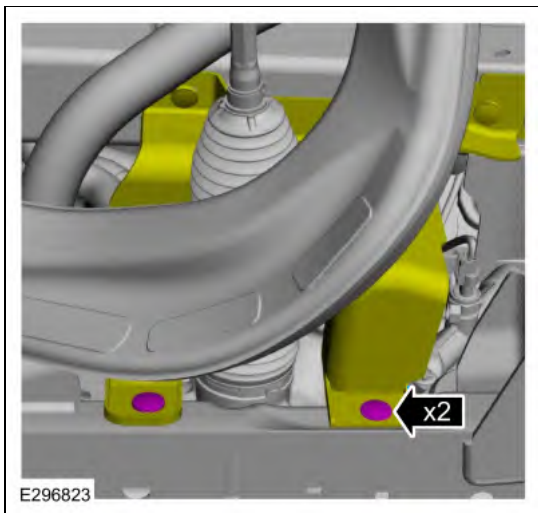
16. Attach the HO2S wiring harness retainers to LH subframe.



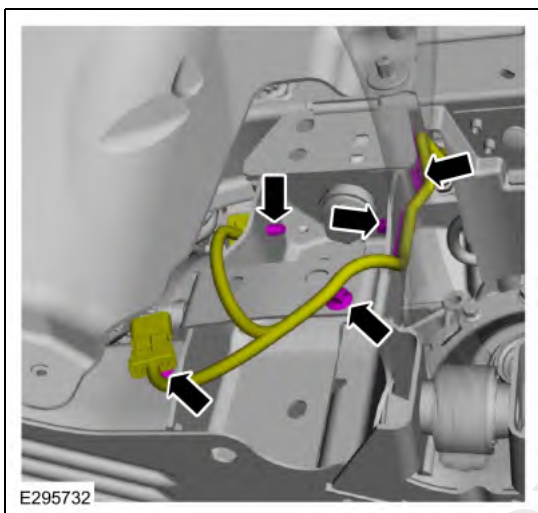
17. Position the splash shield and install the pin-type retainer to the LH subframe.



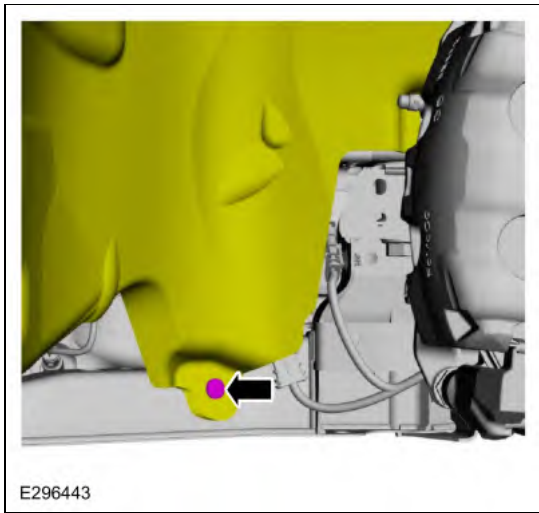
18. Install the steering shield pin-type retainers to the LH subframe.



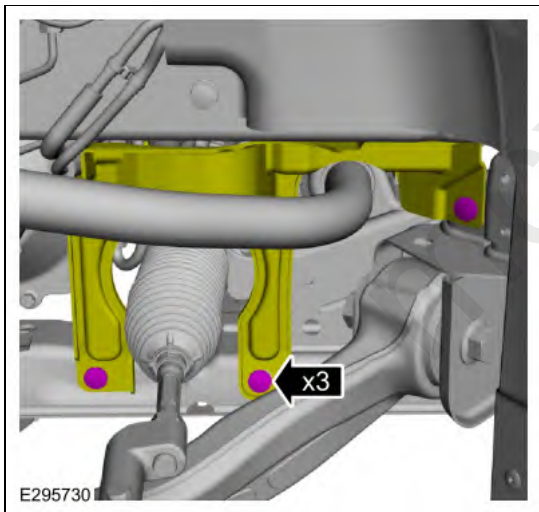
19. Attach the HO2S wiring harness retainers to the RH subframe.



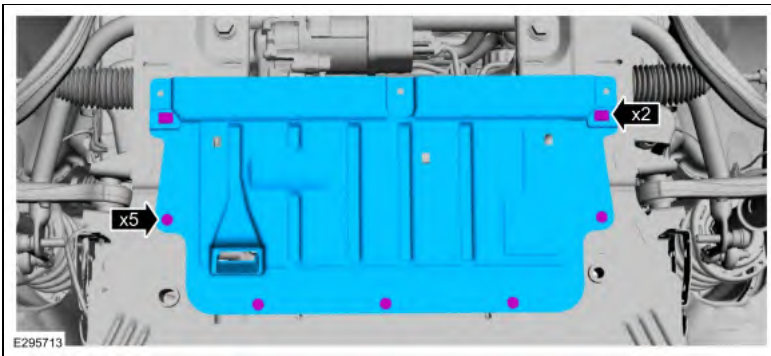
20. Install the splash shield pin-type retainer to the RH subframe.



21. Install the steering shield pin-type retainers to the RH subframe.

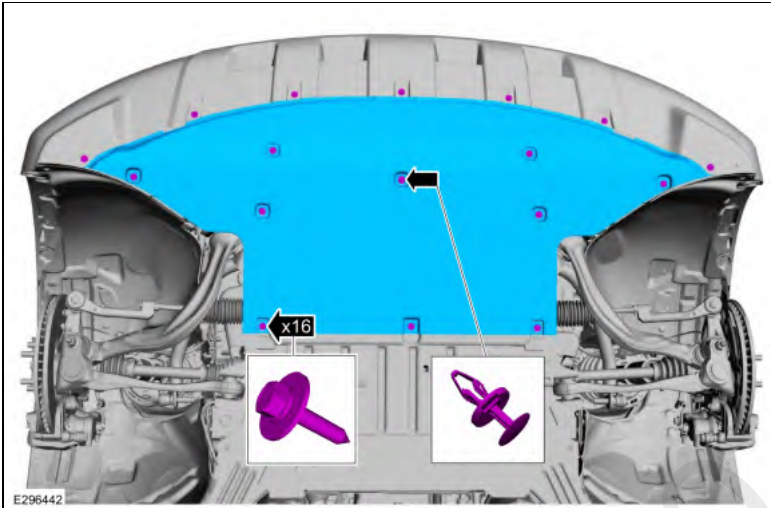


22. Install the RH catalytic converter.
Refer to: Catalytic Converter RH (309-00D Exhaust System - 3.3L Duratec-V6 Hybrid (BP), Removal and Installation).
23. Install the rear underbody shield, bolts and the pin-type retainers.
Torque: 22 lb.in (2.5 Nm)



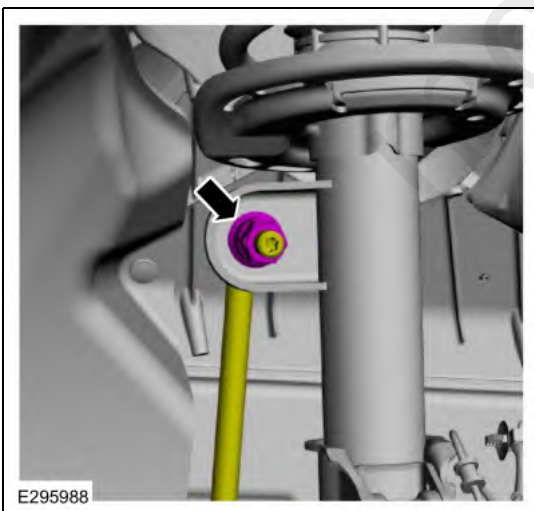
24.

- Install the underbody shield and the bolts.
Torque: 22 lb.in (2.5 Nm)
- Install pin-type retainer.



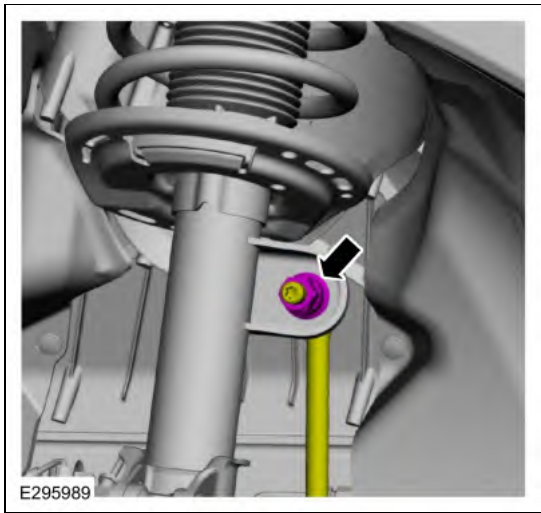
25. **NOTICE:** Use the internal or external hex-holding feature to prevent the ball and stud from turning while removing or installing the stabilizer bar link nuts. The link boot seal must not be allowed to twist while tightening the link nuts or damage to the boot seal will occur.

Position the RH sway bar link and install the new nut.
Torque: 129 lb.ft (175 Nm)

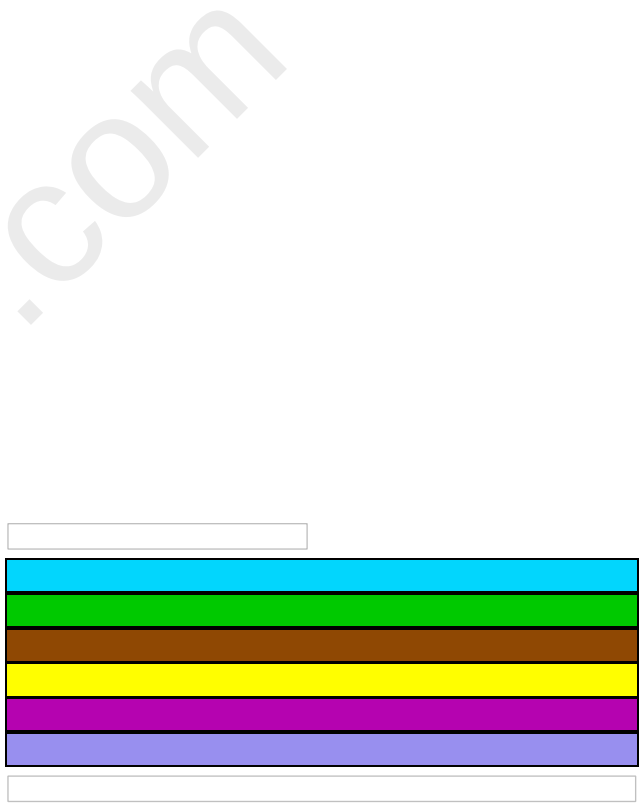
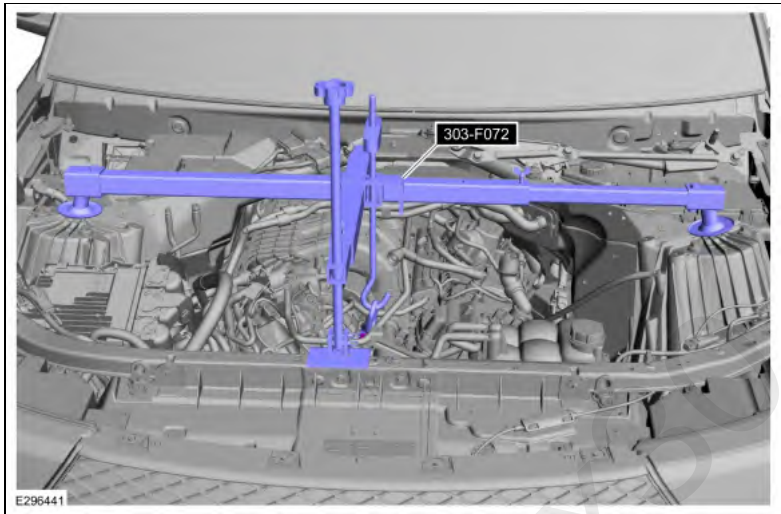


26. **NOTICE:** Use the internal or external hex-holding feature to prevent the ball and stud from turning while removing or installing the stabilizer bar link nuts. The link boot seal must not be allowed to twist while tightening the link nuts or damage to the boot seal will occur.

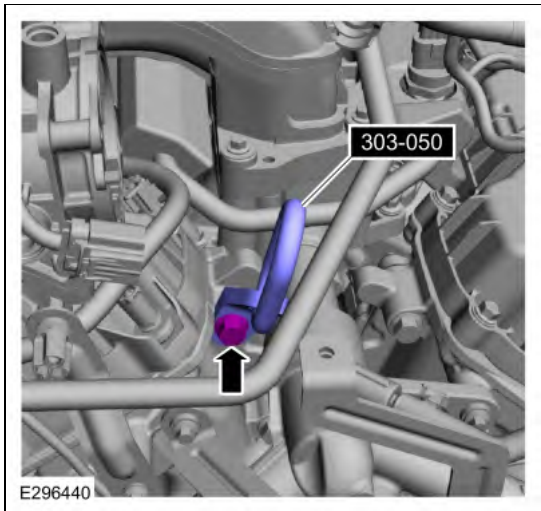
Position the LH sway bar link and install the new nut.
Torque: 129 lb.ft (175 Nm)



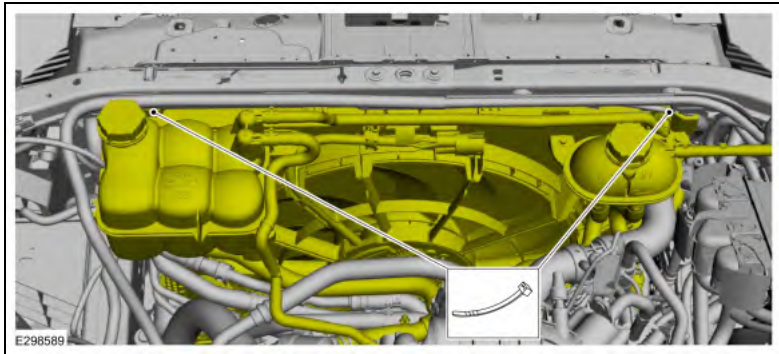
- 27. Install the LH and RH front wheels and tires.
Refer to: Wheel and Tire (204-04A Wheels and Tires, Removal and Installation).
- 28. Remove Special Service Tool: 303-F072 Support Bar, Engine.



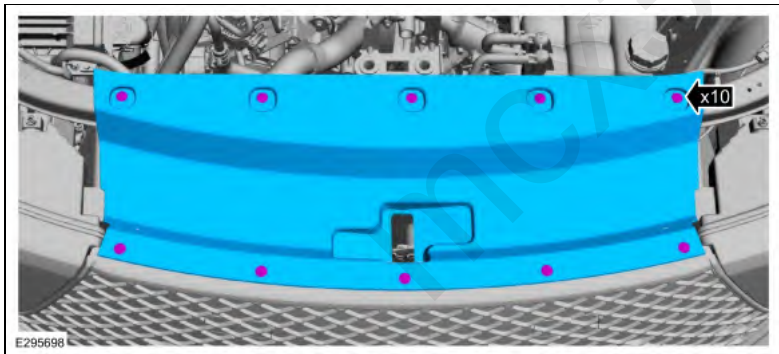
- 29. Remove the special tool and install the engine front cover bolt.
Remove Special Service Tool: 303-050 (T70P-6000) Lifting Bracket, Engine.
Torque:
Stage 1: 177 lb.in (20 Nm)
Stage 2: 45°



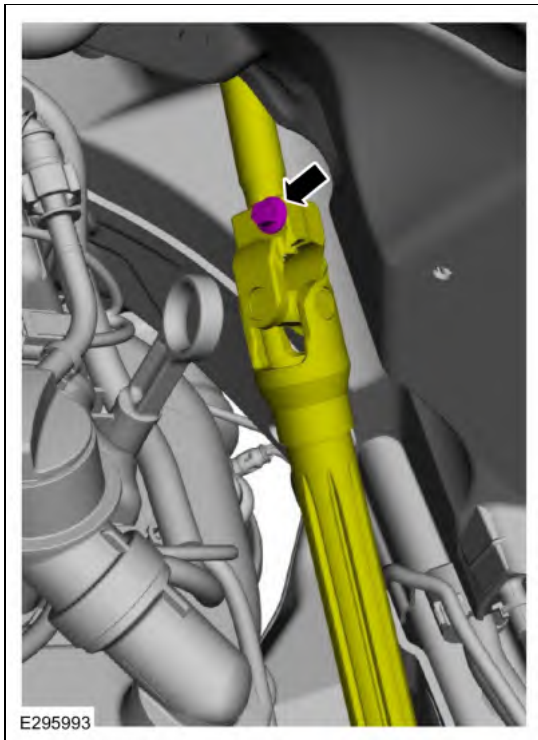
30. Remove the radiator support cable ties or mechanics wire.



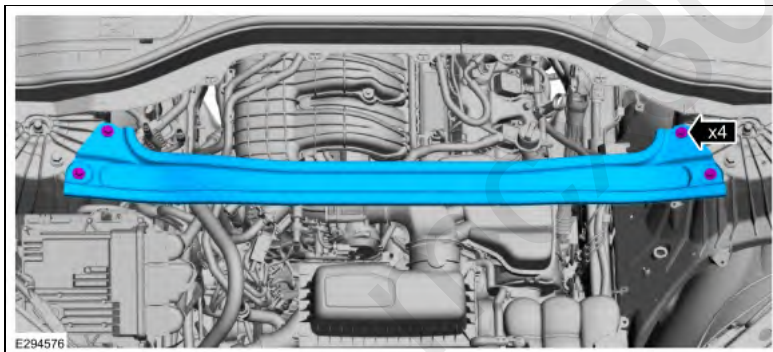
31. Install the upper radiator panel and the retainers.



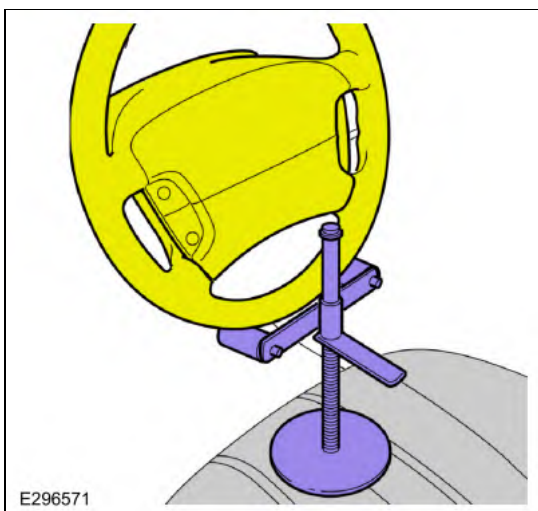
32. Install the new steering shaft bolt.
Torque: 22 lb.ft (30 Nm)



33. Install the following items:
1. Install the cowl panel.
Refer to: Cowl Panel (501-02 Front End Body Panels, Removal and Installation).
 2. Install the air cleaner.
Refer to: Air Cleaner (303-12D Intake Air Distribution and Filtering - 3.3L Duratec-V6 â€ Hybrid (BP), Removal and Installation).
 3. Install the throttle body.
Refer to: Throttle Body (303-04C Fuel Charging and Controls - 3.3L Duratec-V6/3.3L Duratec-V6 â€ Hybrid (BP), Removal and Installation).
34. Install the suspension support bar and the bolts.
Torque: 22 lb.ft (30 Nm)



35. Remove the holding device.

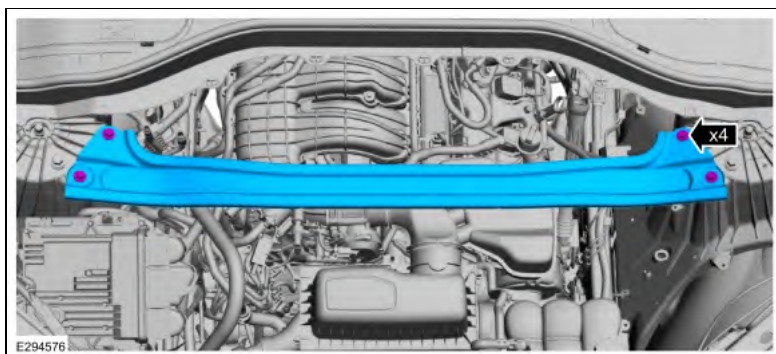


36. Start and check the exhaust system for leaks.

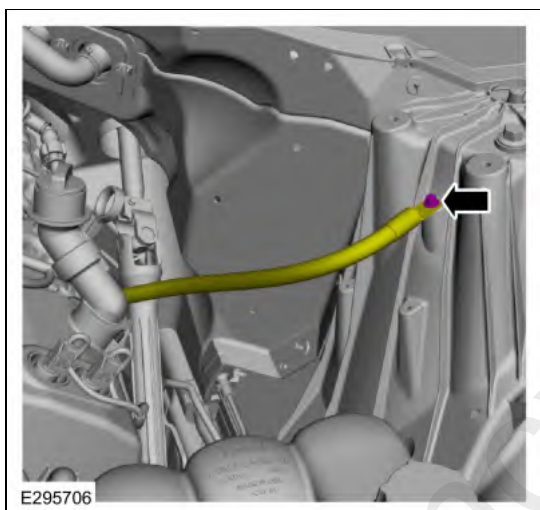
Exhaust Manifold LH

Removal

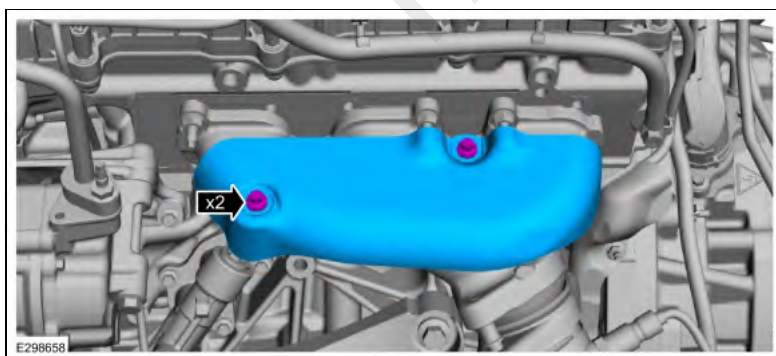
1. With the vehicle in NEUTRAL, position it on a hoist.
Refer to: Jacking and Lifting - Overview (100-02 Jacking and Lifting, Description and Operation).
2. Remove the bolts and the suspension support bar.



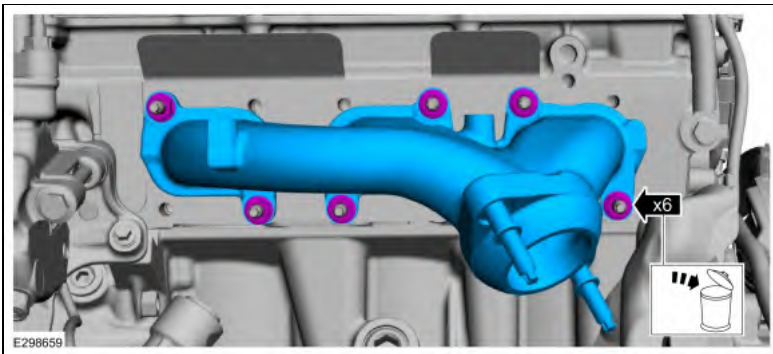
3. Remove the bolt from the LH shock tower and position the ground aside.



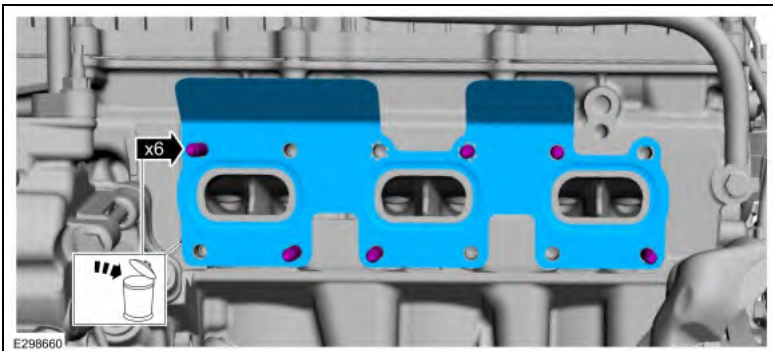
4. Remove the bolts and the LH exhaust manifold heat shield.



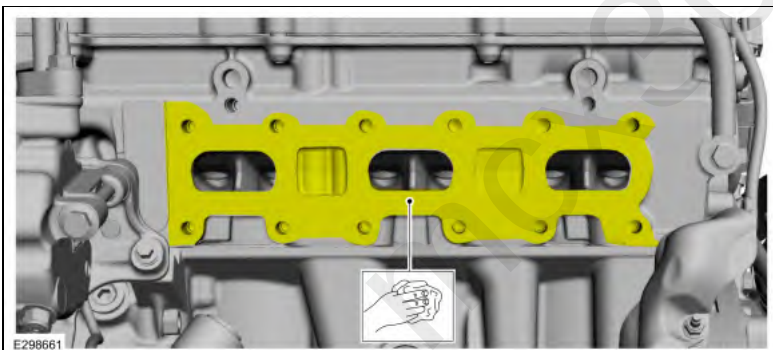
5. Remove the LH catalytic converter.
Refer to: Catalytic Converter LH (309-00D Exhaust System - 3.3L Duratec-V6 â€“ Hybrid (BP), Removal and Installation).
6.
 - Remove the nuts and the LH exhaust manifold.
 - Discard the nuts.



7.
 - Remove and discard the exhaust manifold studs.
 - Remove and discard the exhaust manifold gasket.

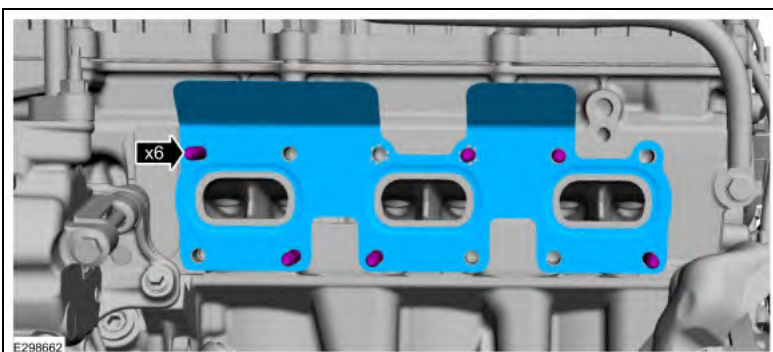


8. Clean and inspect the LH exhaust manifold.
Refer to: Exhaust Manifold Cleaning and Inspection (303-00 Engine System - General Information, General Procedures).
9. **NOTICE: Do not use metal scrapers, wire brushes, power abrasive discs or other abrasive means to clean the sealing surfaces. These may cause scratches and gouges resulting in leak paths. Use a plastic scraper to clean the sealing surfaces.**
Clean the exhaust manifold mating surface of the cylinder head.



Installation

1.
 - Install the new exhaust manifold studs.
Torque: 106 lb.in (12 Nm)
 - Install the new exhaust manifold gasket.



2. **NOTICE: Failure to tighten the exhaust manifold nuts to specification a second time will cause the exhaust manifold to develop an exhaust leak.**
Install the exhaust manifold and the new nuts.