

Crankcase Vent Oil Separator

Special Tool(s) / General Equipment

Knife

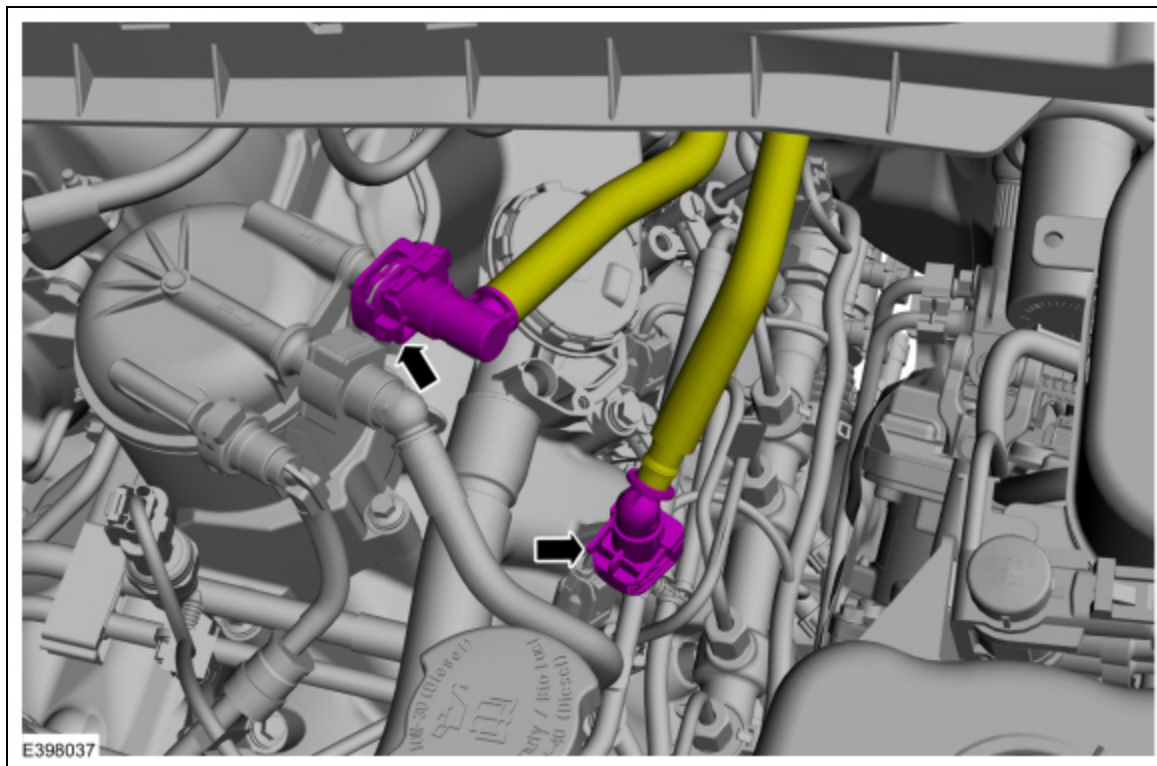
Removal

All vehicles

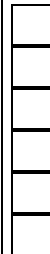
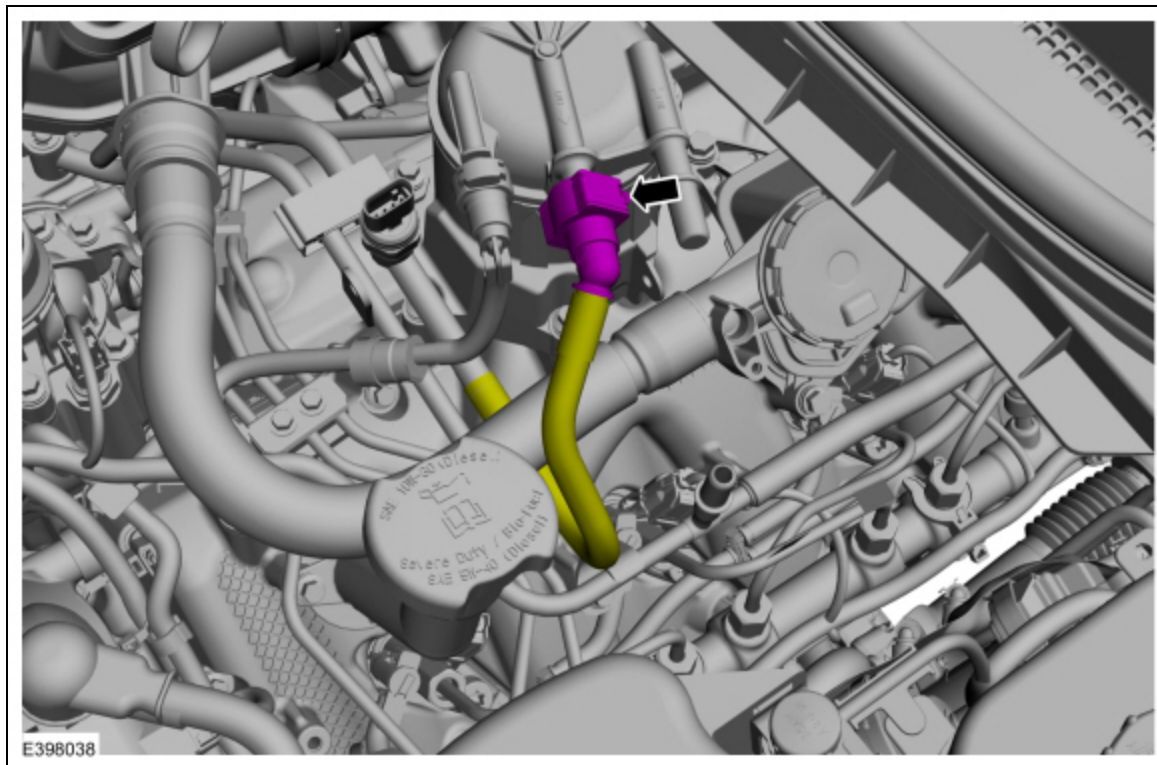
1. Release the fuel system pressure.
Refer to: [Fuel System Pressure Release](#) (310-00A Fuel System - General Information - 6.7L Power Stroke Diesel, General Procedures).
2. Disconnect the battery.
Refer to: [Battery Disconnect and Connect](#) (414-01 Battery, Mounting and Cables, General Procedures).
3. Remove the Charge Air Cooler (CAC) intake pipe.
Refer to: [Charge Air Cooler \(CAC\) Intake Pipe](#) (303-12A Intake Air Distribution and Filtering - 6.7L Power Stroke Diesel, Removal and Installation).

Crankcase Vent Oil Separator - Type 1

4. Disconnect the tubes.
Refer to: [Quick Release Coupling](#) (310-00A Fuel System - General Information - 6.7L Power Stroke Diesel, General Procedures).



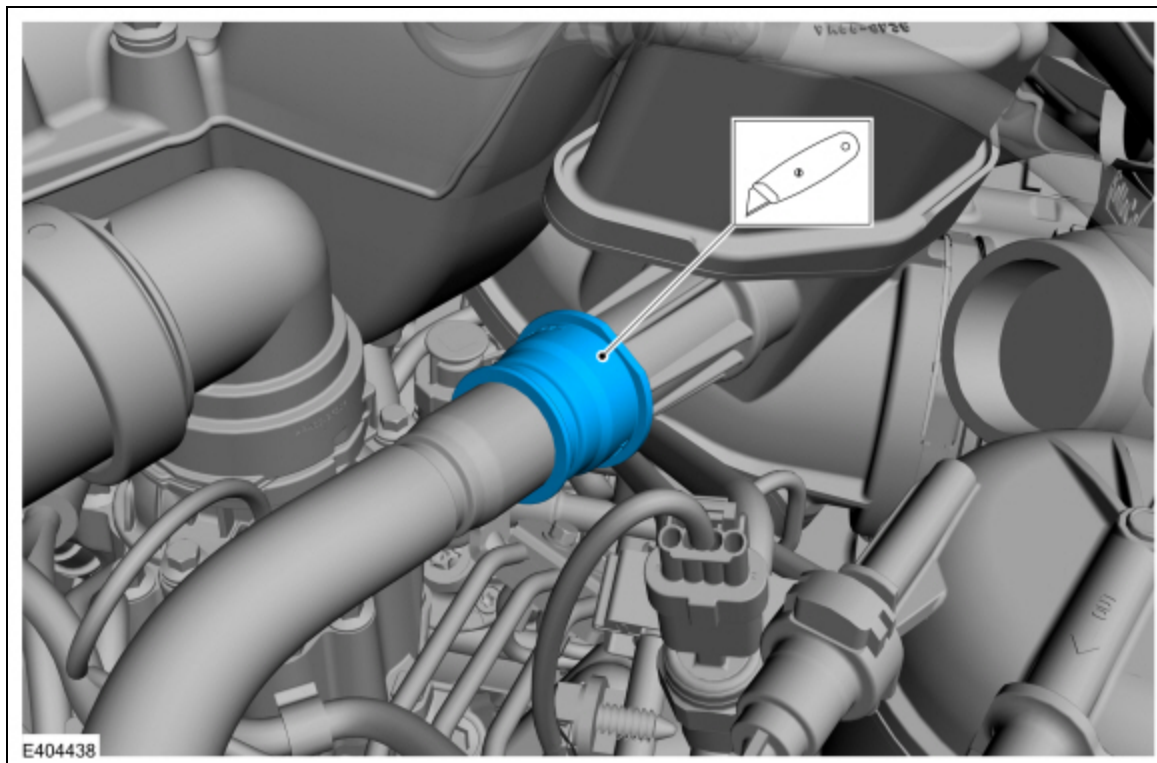
5. Disconnect the tube.
Refer to: [Quick Release Coupling](#) (310-00A Fuel System - General Information - 6.7L Power Stroke Diesel, General Procedures).



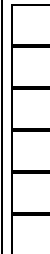
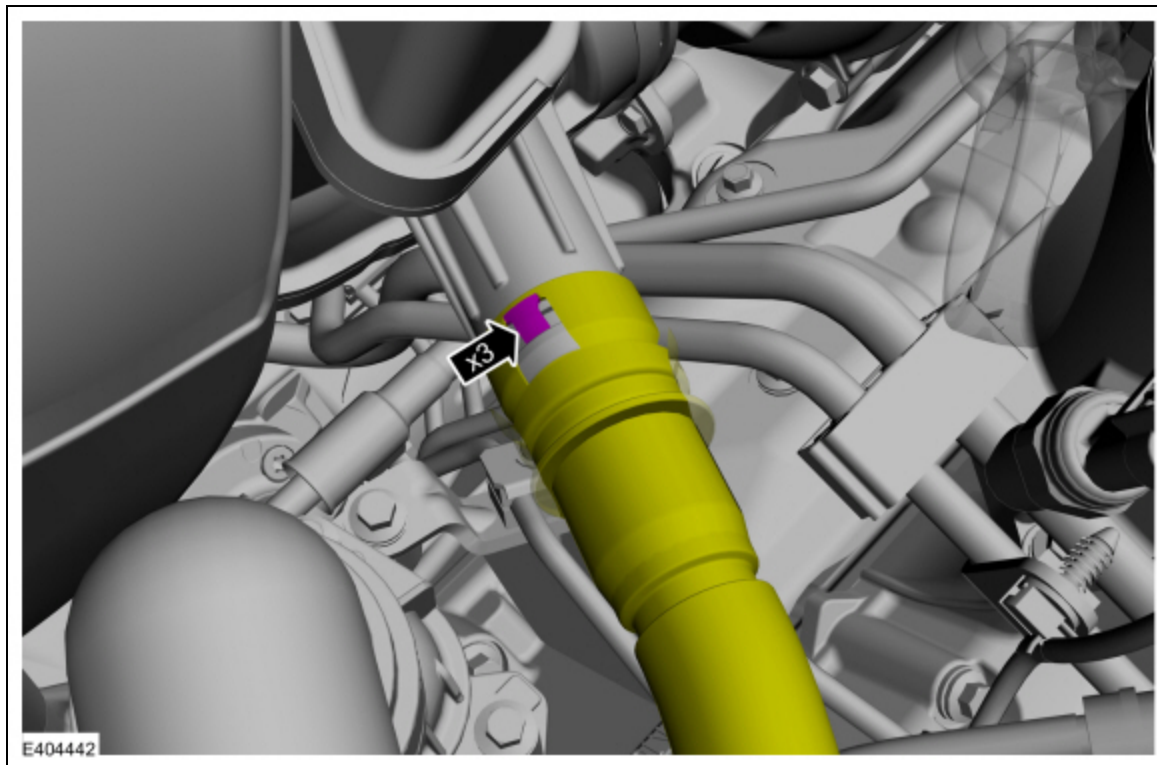
6. **NOTICE:** Take extra care when cut and remove the oil separator cover, to avoid damaging the lower intake manifold assembly.

NOTE: The crankcase vent oil separator must be replaced whenever the crankcase vent oil separator outlet hose is disconnected from the lower intake manifold.

Cut and remove the cover carefully.
Use the General Equipment: Knife

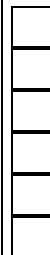
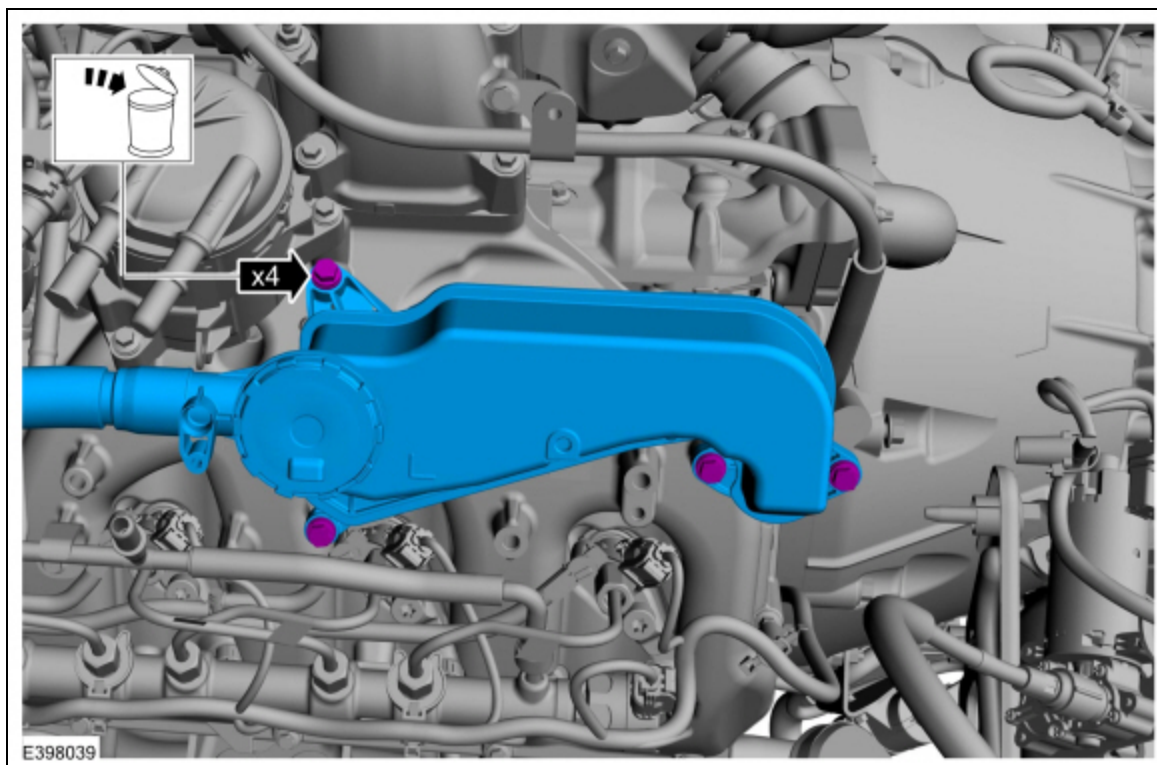


- 7.
- Release the crankcase vent oil separator outlet hose retainer tabs, break the retaining tabs as needed.
 - Disconnect the crankcase vent oil separator outlet hose from the lower intake manifold.



8. **NOTE:** Place a shop towel under the oil separator to catch any oil that may leak from the oil separator when removed.

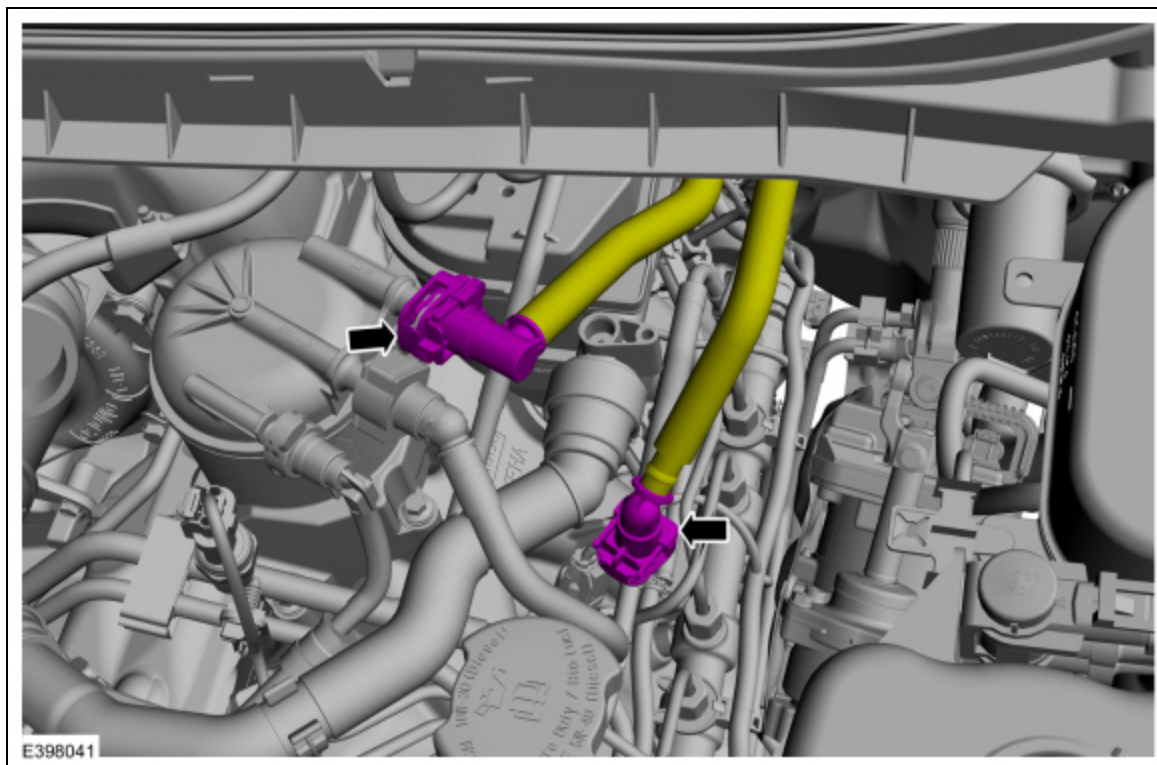
- Remove and discard the bolts.
- Remove the crankcase vent oil separator.



Crankcase Vent Oil Separator - Type 2

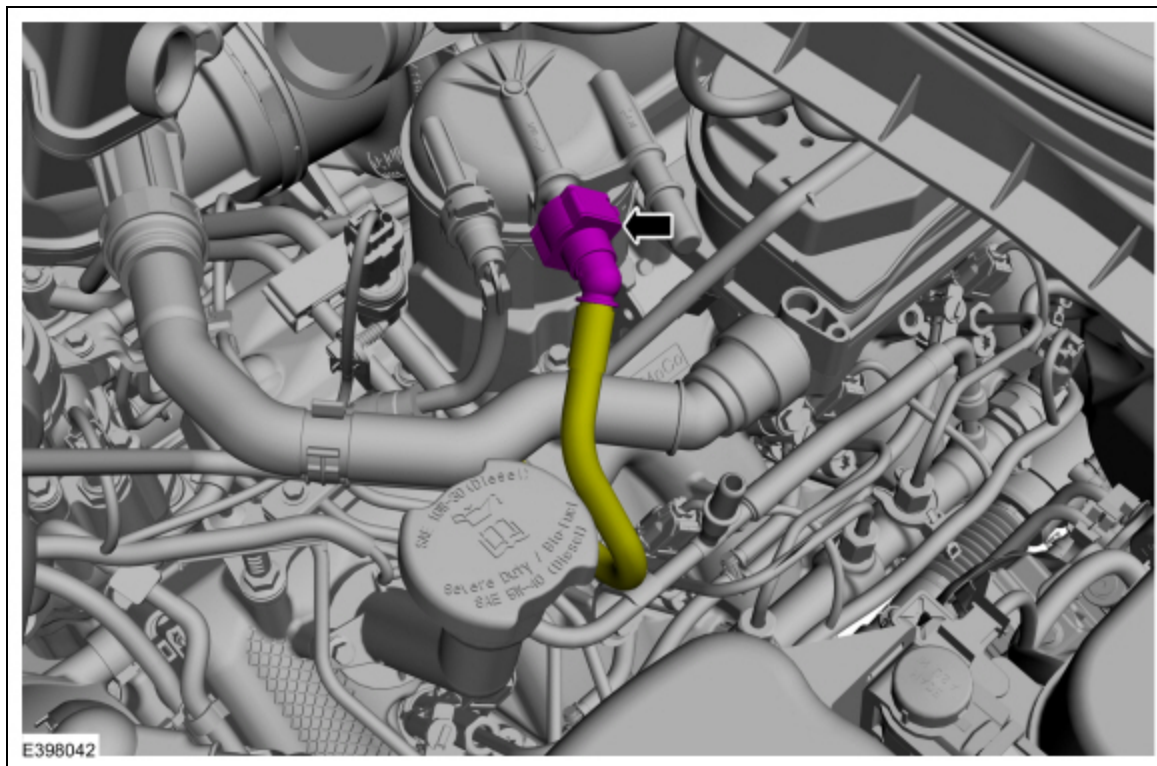
9. Disconnect the tubes.

Refer to: [Quick Release Coupling](#) (310-00A Fuel System - General Information - 6.7L Power Stroke Diesel, General Procedures).

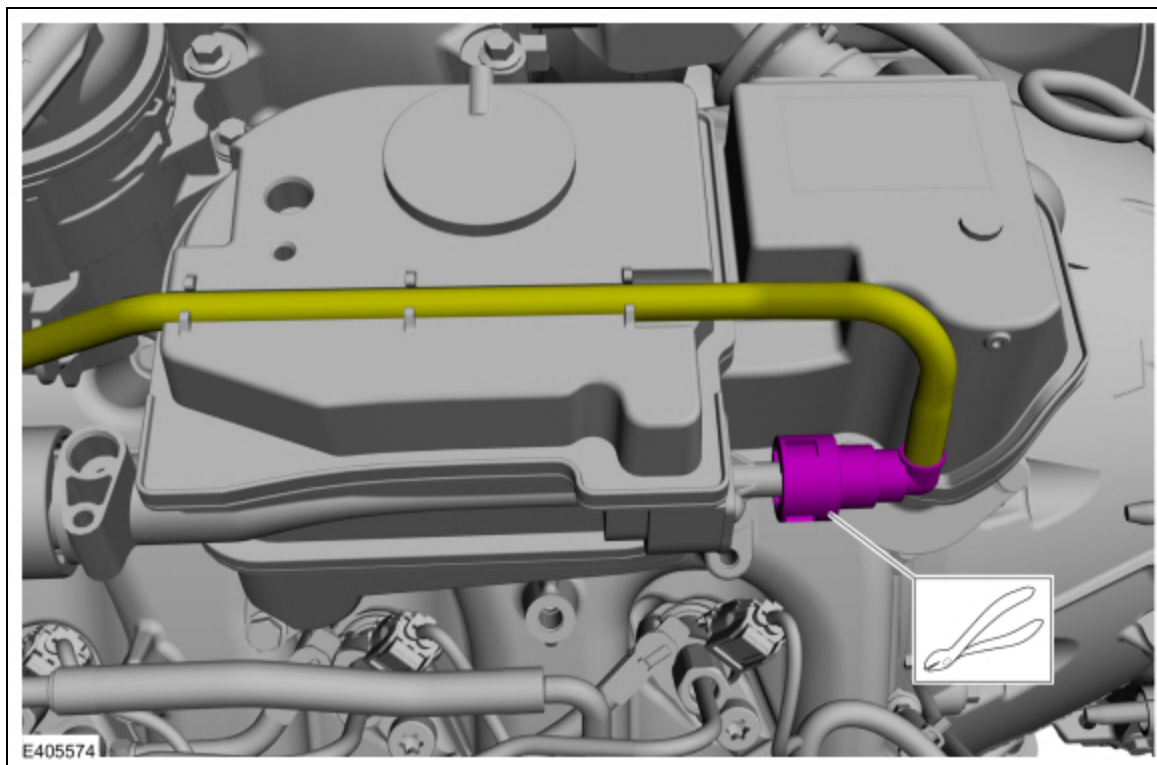


10. Disconnect the tube.

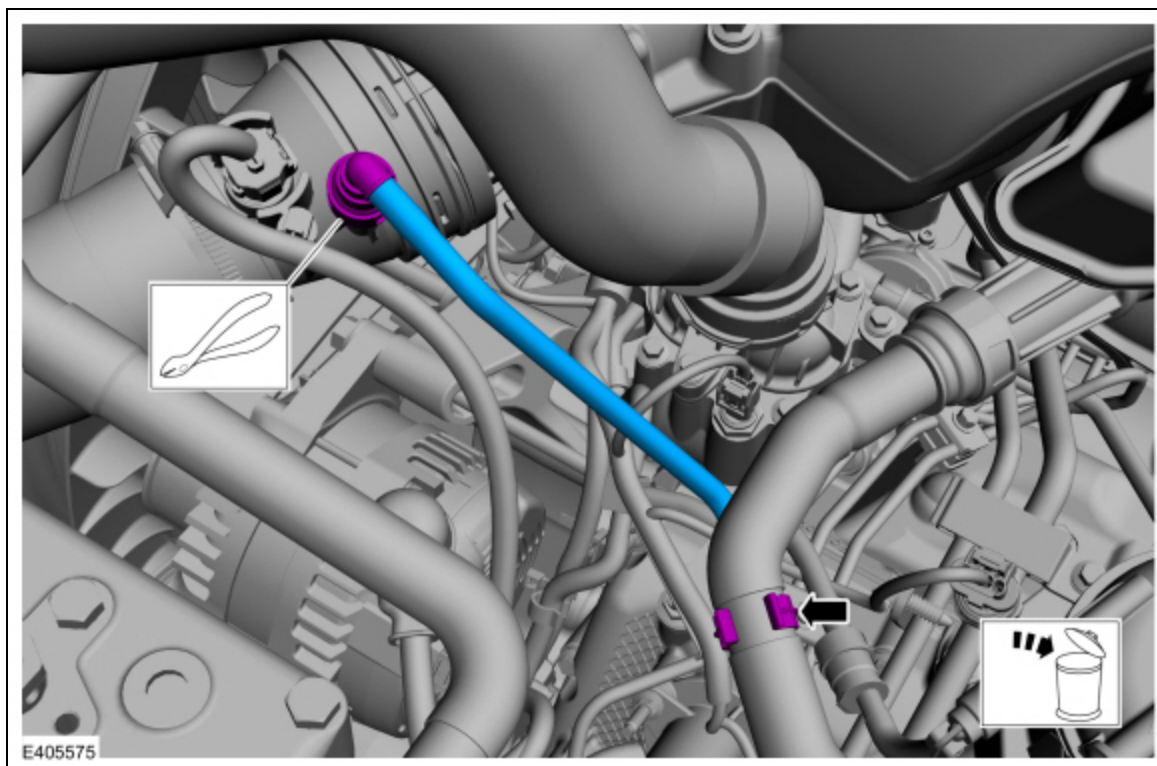
Refer to: [Quick Release Coupling](#) (310-00A Fuel System - General Information - 6.7L Power Stroke Diesel, General Procedures).



11. Cut housing lock tabs.

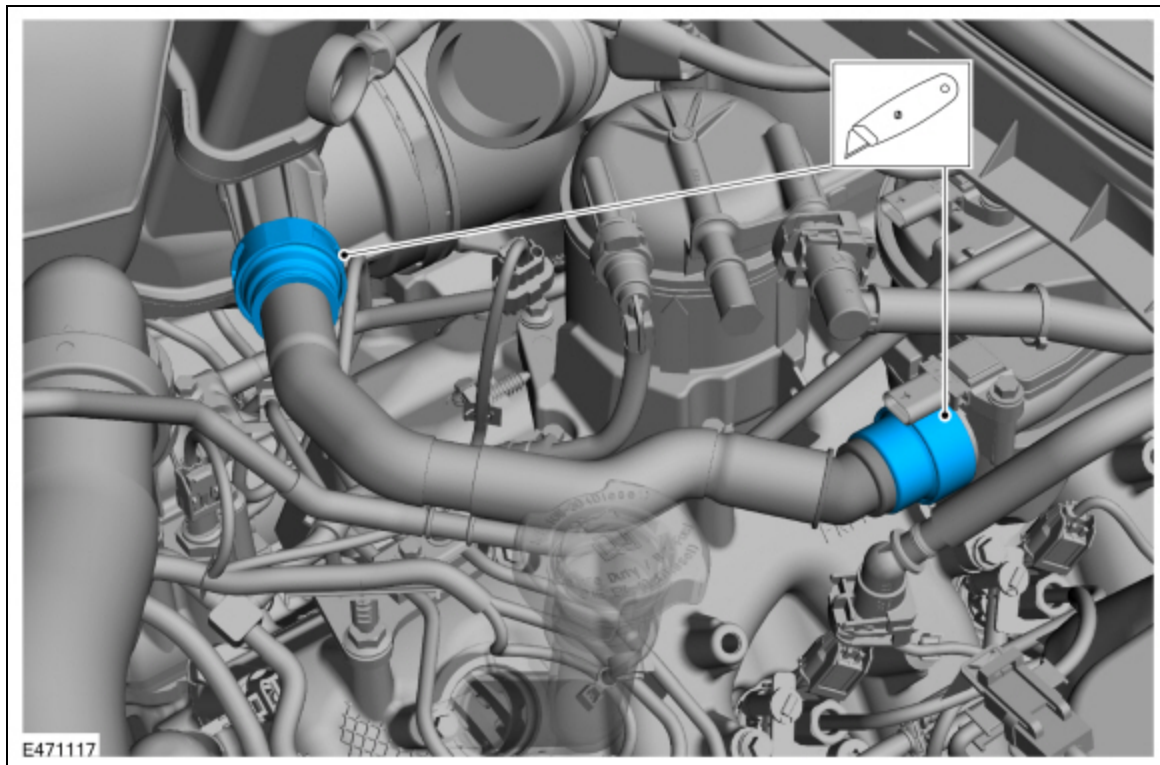


- 12.
- Release the clip.
 - Cut housing lock tabs.
 - Remove and discard the crankcase ventilation hose.

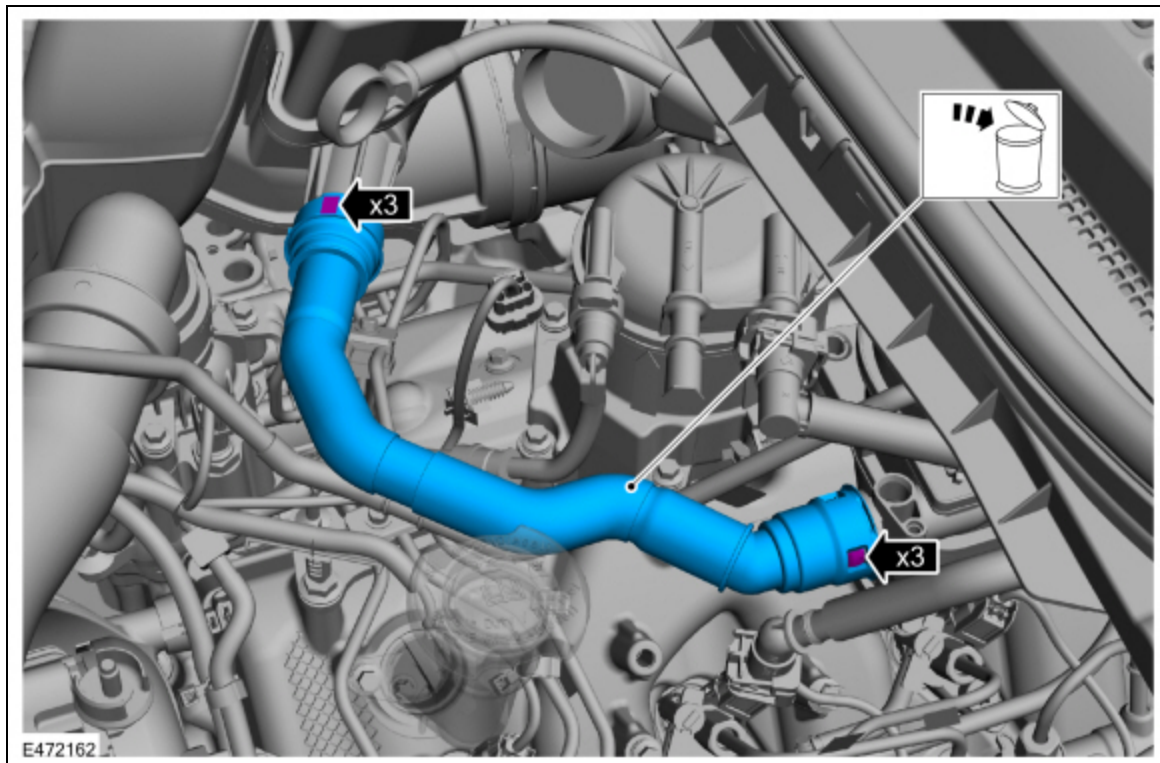


13. **NOTICE:** Carefully remove the crankcase ventilation tube cover to avoid damaging the lower intake manifold assembly.

Cut and remove the cover carefully.
Use the General Equipment: Knife

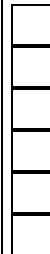
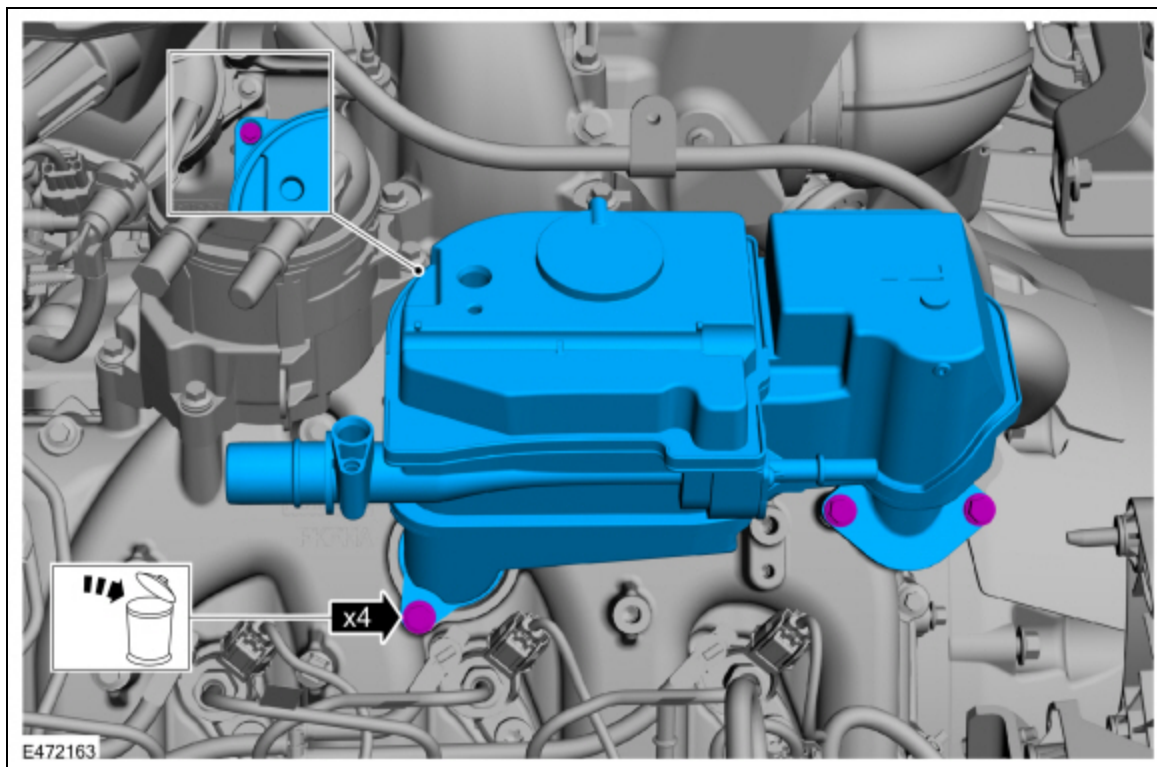


- 14.
- Release the crankcase ventilation tube and the retainer tabs, break the retaining tabs as needed.
 - Disconnect and discard the crankcase ventilation tube.



15. **NOTE:** Place a shop towel under the oil separator to catch any oil that may leak from the oil separator when removed.

- Remove and discard the bolts.
- Remove the crankcase vent oil separator.



Installation

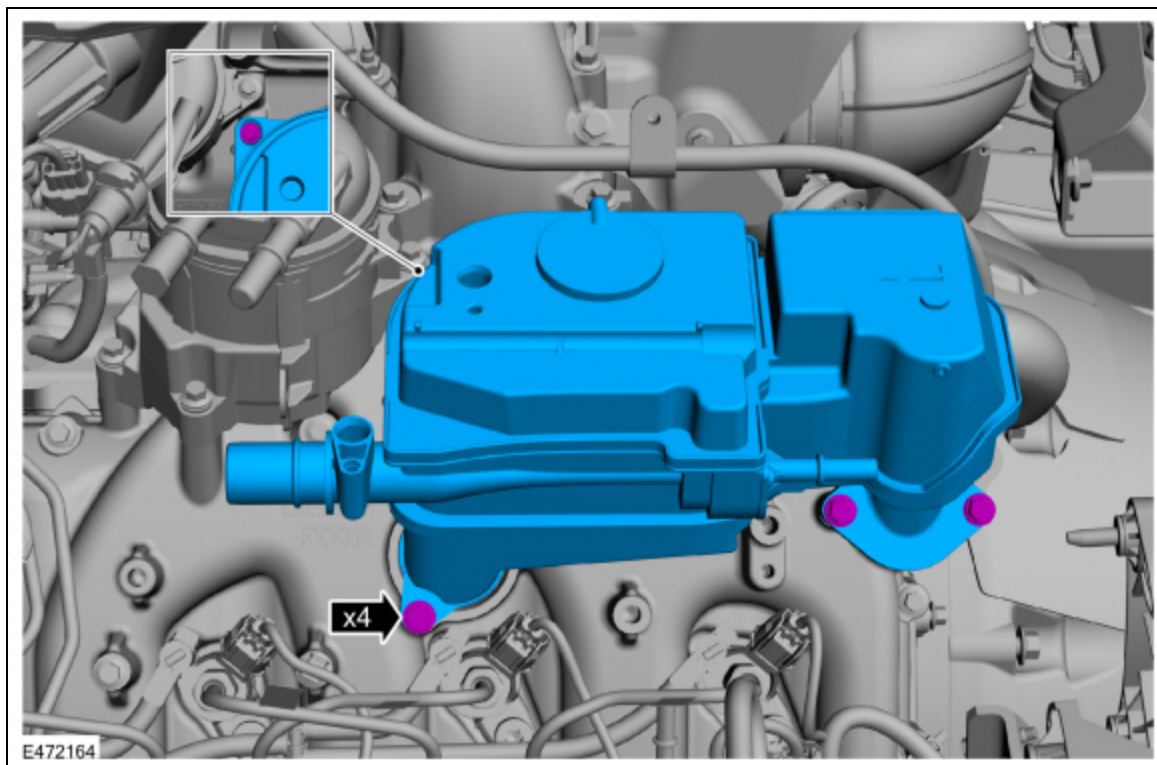
NOTICE: Do not lubricate the O-ring seal or gasket prior to installation.

Crankcase Vent Oil Separator - Type 2

1. **NOTE:** Make sure that new bolts are installed.

NOTE: Only tighten the bolts finger tight at this stage.

Install the crankcase vent oil separator and bolts.

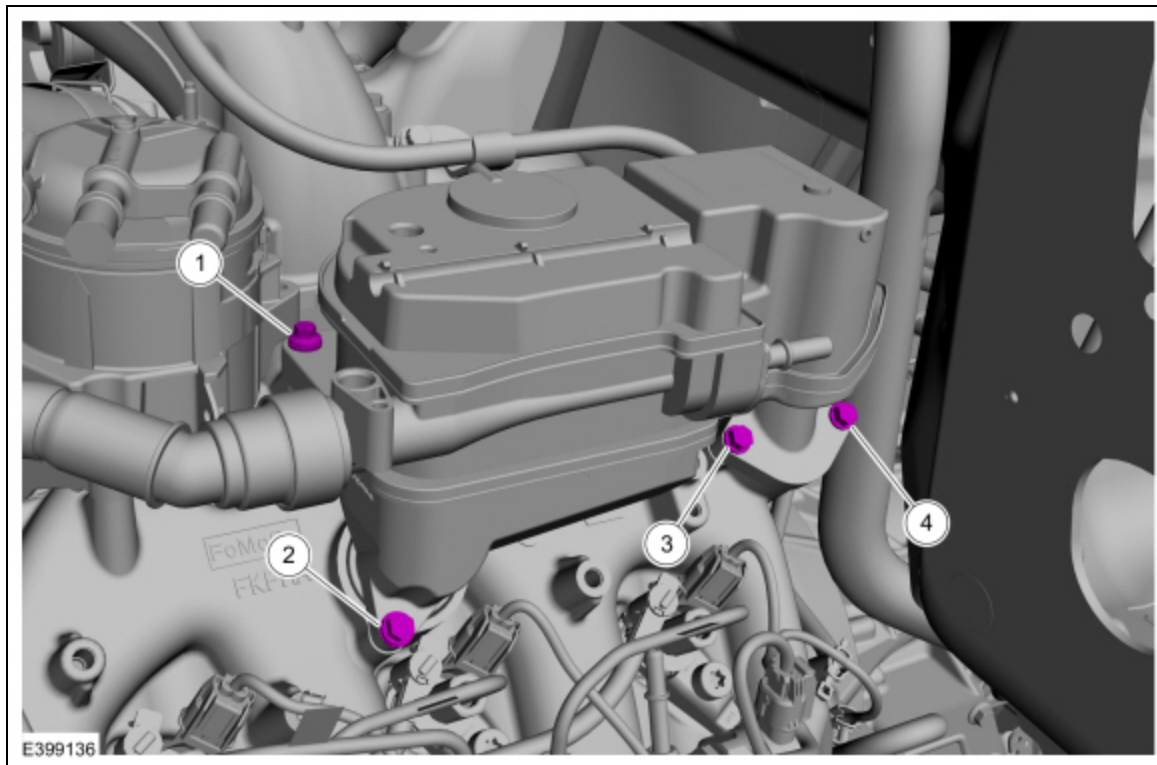


2. Tighten the crankcase vent oil separator bolts in the sequence shown.

Torque:

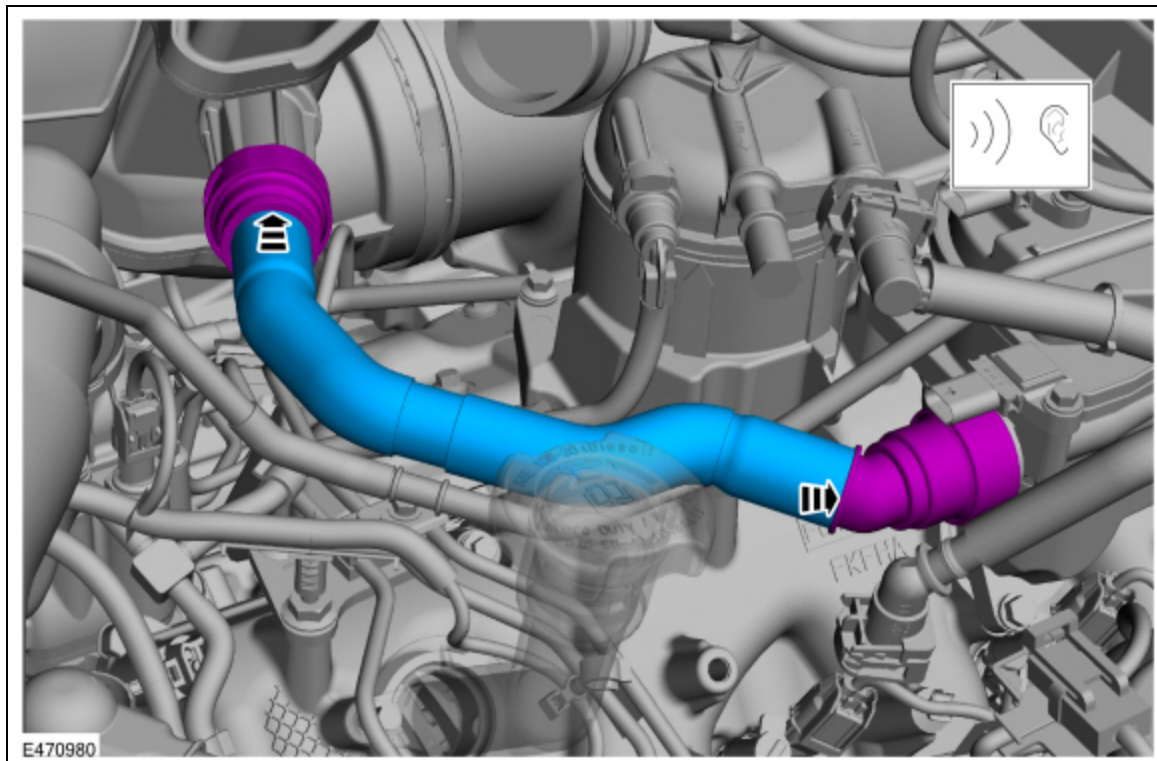
Stage 1: 89 lb.in (10 Nm)

Stage 2: 45°



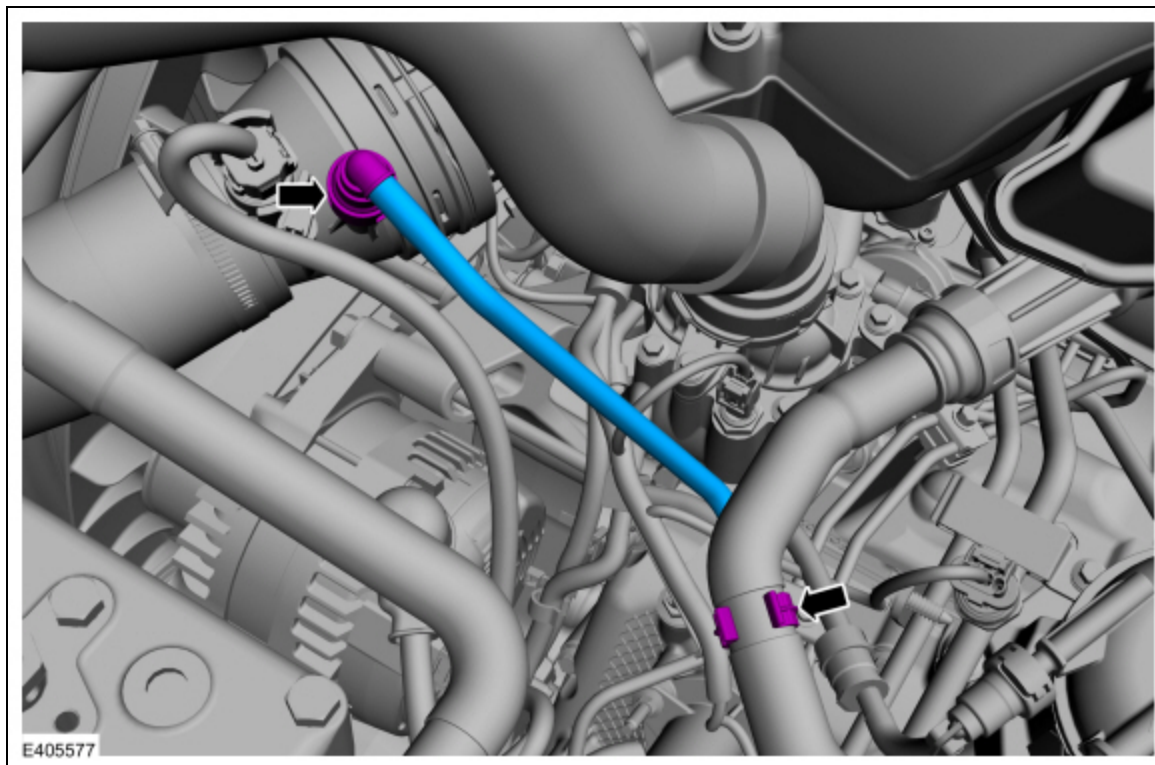
3. **NOTE:** The quick connections must be installed onto the tube end along the centerline. The assembly is complete when the tube end bottoms out on the connector with an audible click-snap feel. Correct assembly should be verified by pulling back on the quick connection end.

Connect the crankcase ventilation tube.

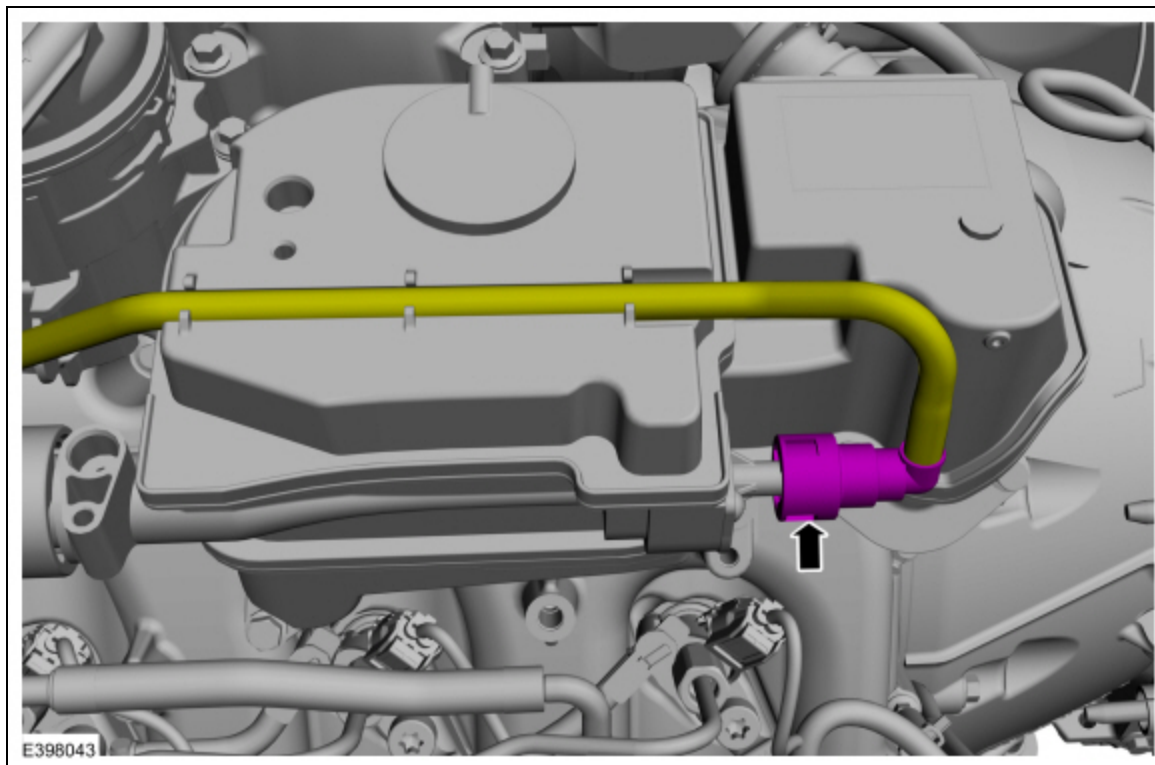


4. **NOTE:** Make sure that the new crankcase ventilation hose is installed.

Connect the new crankcase ventilation tube and the clip.

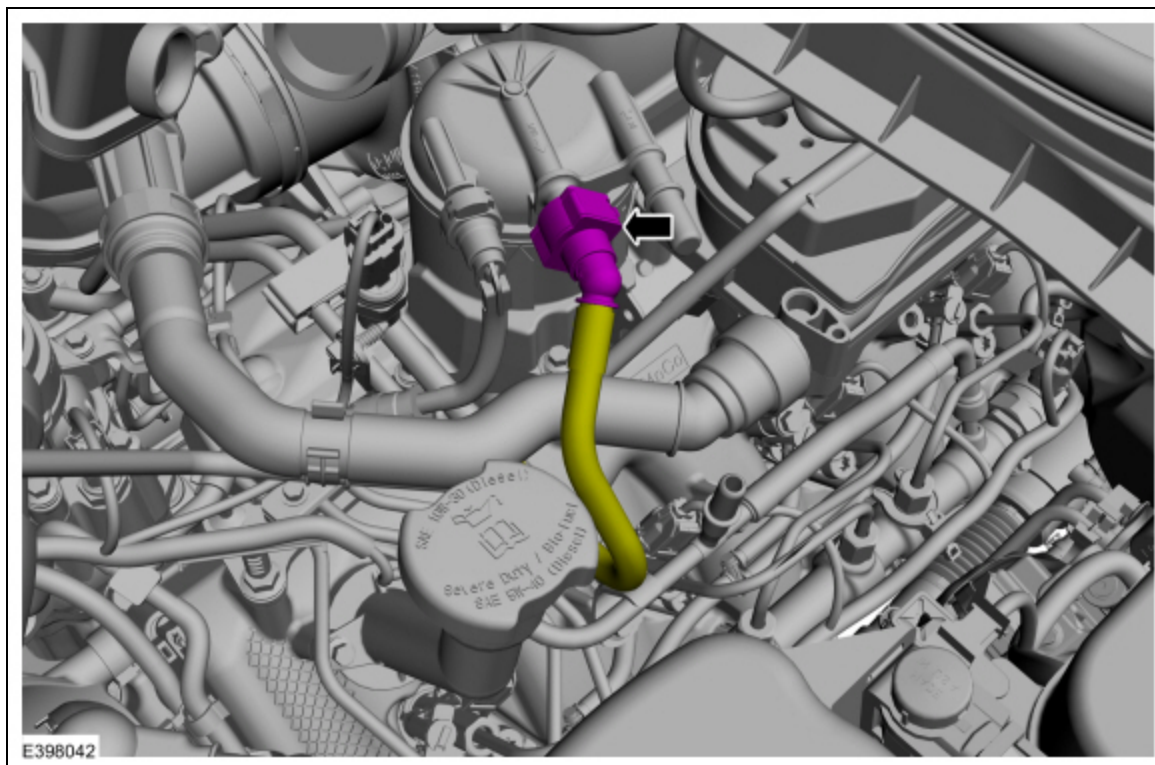


5. Connect the tube.



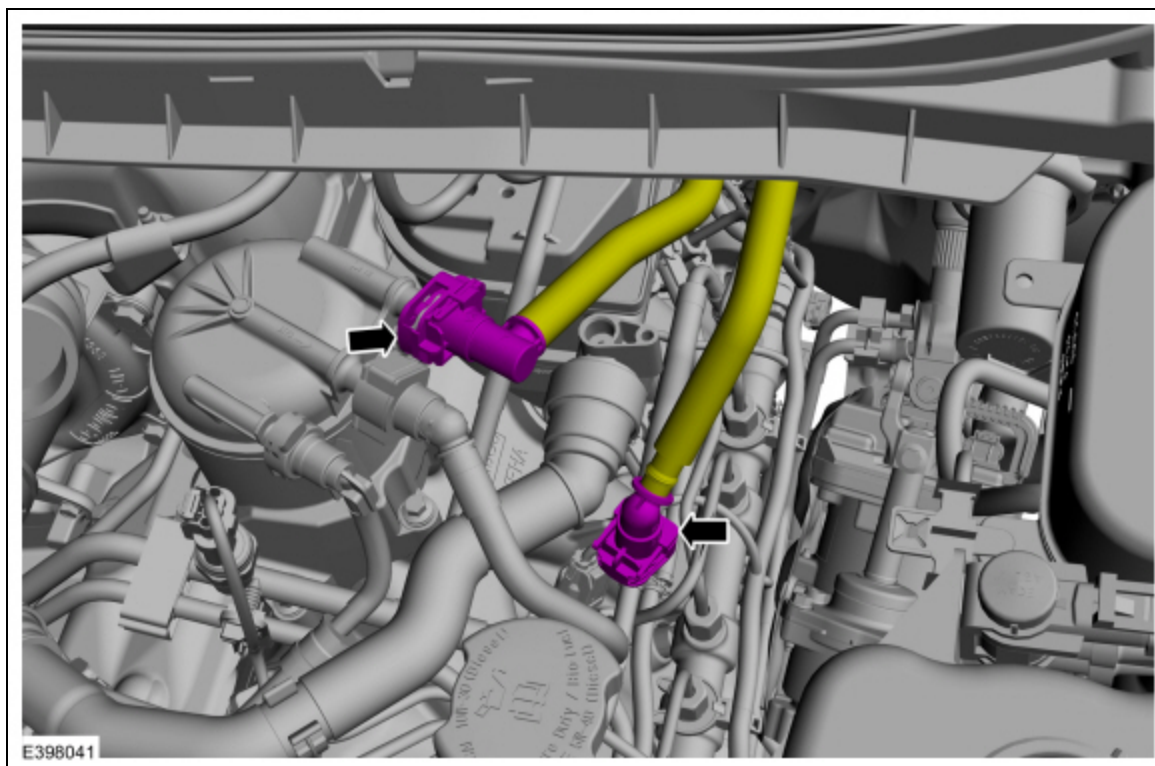
6. Connect the tube.

Refer to: [Quick Release Coupling](#) (310-00A Fuel System - General Information - 6.7L Power Stroke Diesel, General Procedures).



7. Connect the tubes.

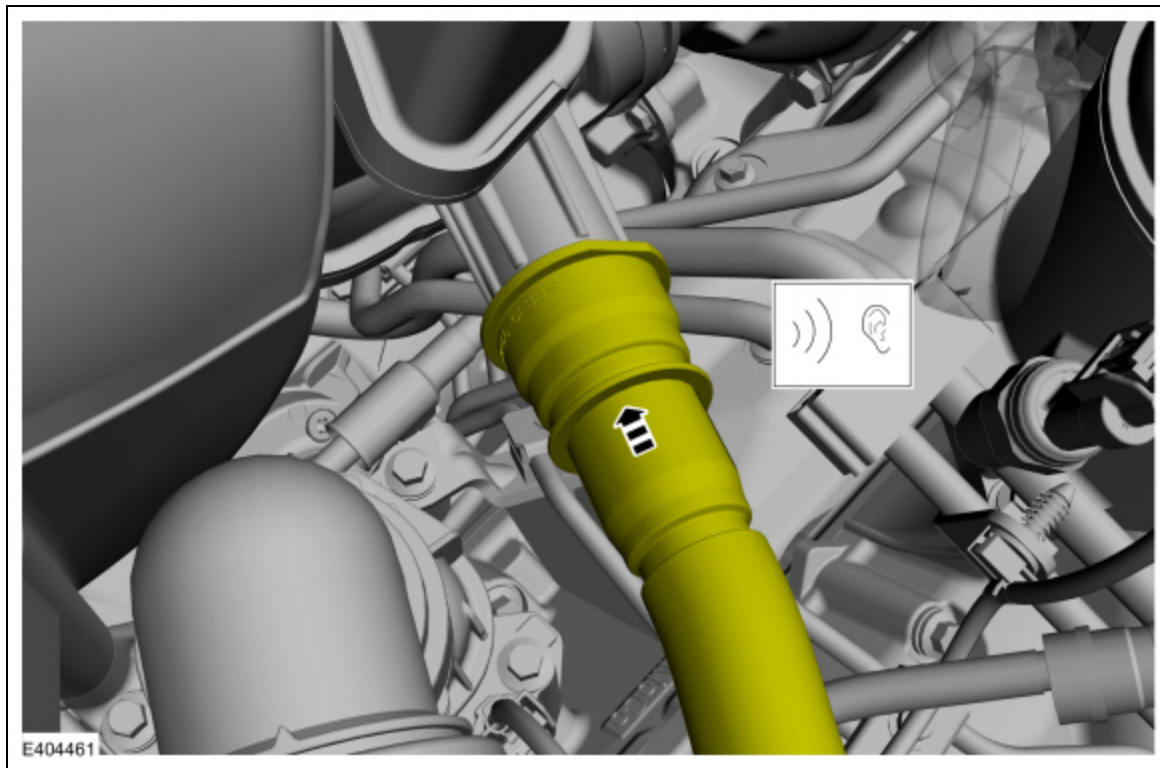
Refer to: [Quick Release Coupling](#) (310-00A Fuel System - General Information - 6.7L Power Stroke Diesel, General Procedures).



Crankcase Vent Oil Separator - Type 1

8. **NOTE:** The quick connections must be installed onto the tube end along the centerline. The assembly is complete when the tube end bottoms out on the connector with an audible click-snap feel. Correct assembly should be verified by pulling back on the quick connection end.

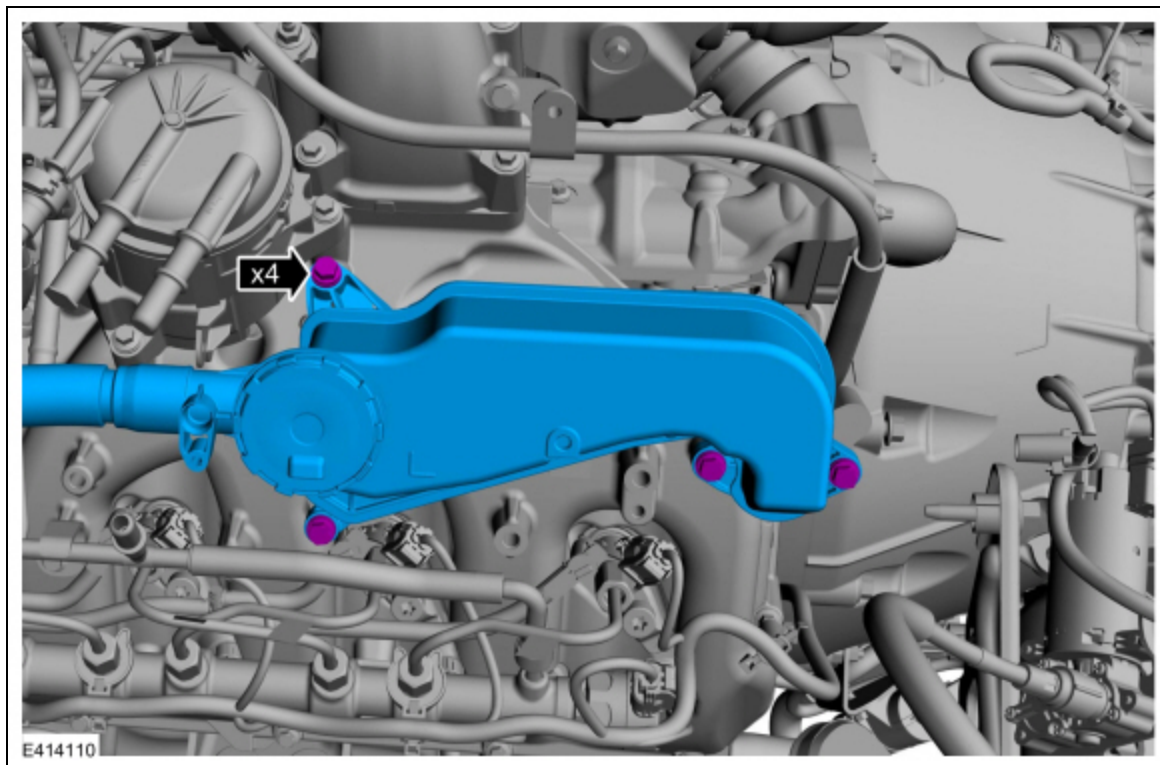
Connect the crankcase vent oil separator outlet hose to the intake manifold.



9. **NOTE:** Make sure that new bolts are installed.

NOTE: Only tighten the bolts finger tight at this stage.

Install the crankcase vent oil separator and bolts.

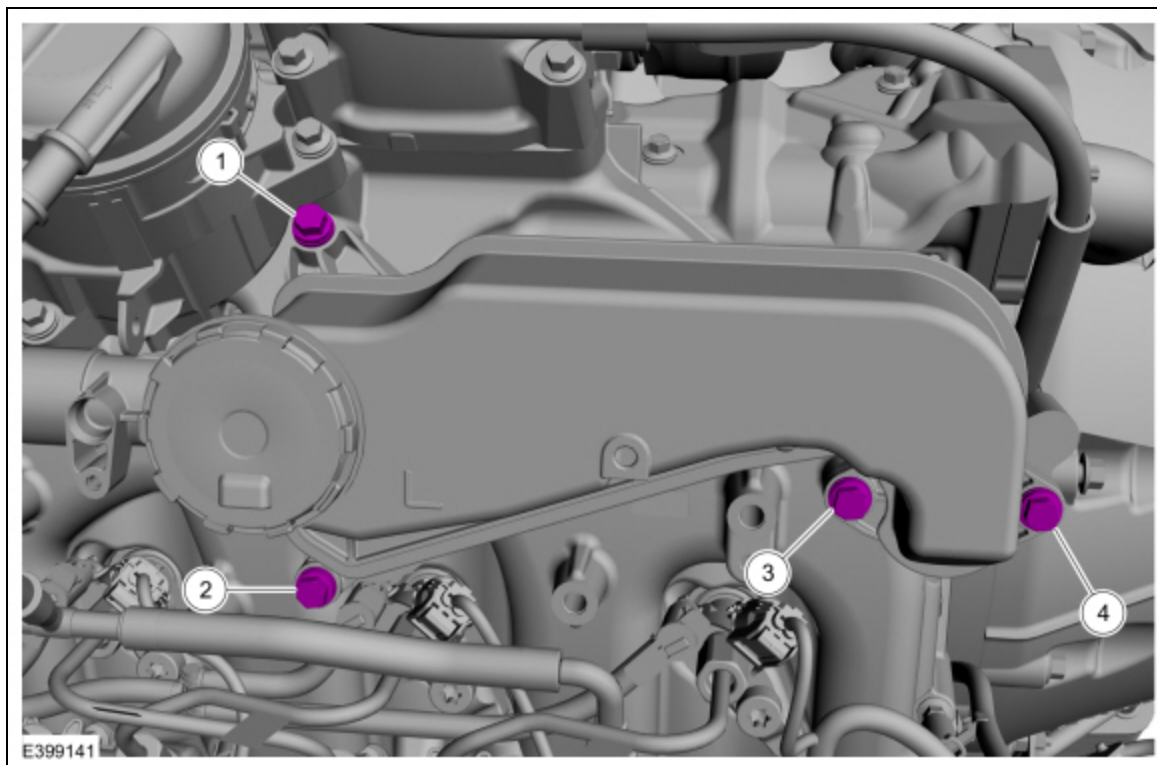


10. Tighten the crankcase vent oil separator bolts in the sequence shown.

Torque:

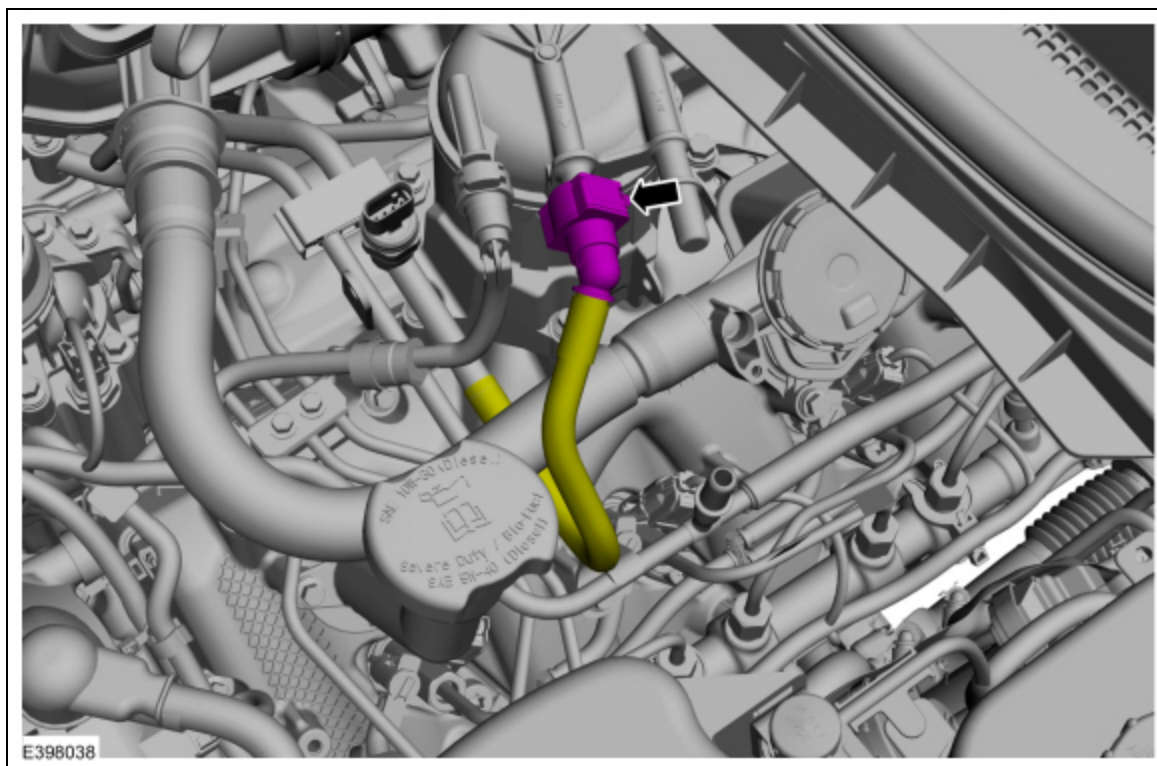
Stage 1: 89 lb.in (10 Nm)

Stage 2: 45°



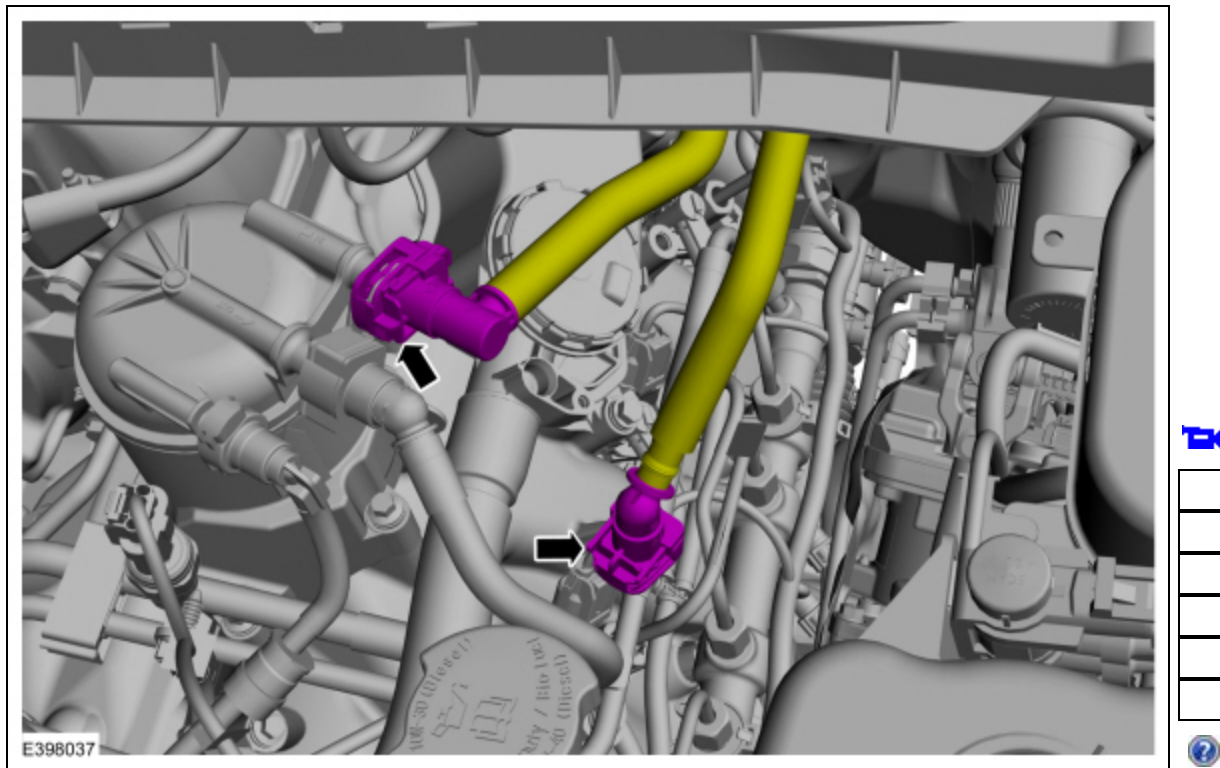
11. Connect the tube.

Refer to: [Quick Release Coupling](#) (310-00A Fuel System - General Information - 6.7L Power Stroke Diesel, General Procedures).



12. Connect the tubes.

Refer to: [Quick Release Coupling](#) (310-00A Fuel System - General Information - 6.7L Power Stroke Diesel, General Procedures).



All vehicles

13. Install the Charge Air Cooler (CAC) intake pipe.
Refer to: [Charge Air Cooler \(CAC\) Intake Pipe](#) (303-12A Intake Air Distribution and Filtering - 6.7L Power Stroke Diesel, Removal and Installation).
14. Connect the battery.
Refer to: [Battery Disconnect and Connect](#) (414-01 Battery, Mounting and Cables, General Procedures).
15. Bleed the fuel system.
Refer to: [Fuel System Bleeding](#) (310-00A Fuel System - General Information - 6.7L Power Stroke Diesel, General Procedures).