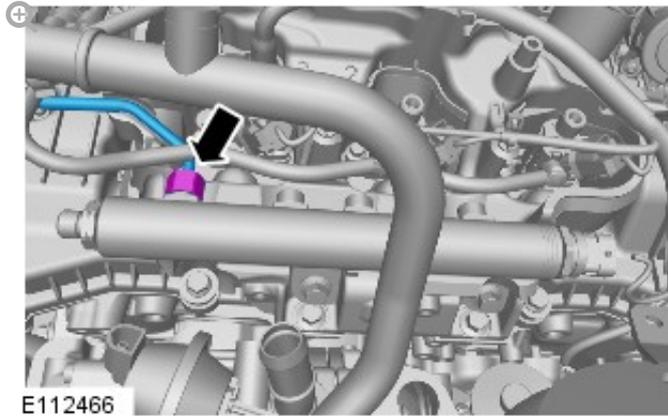
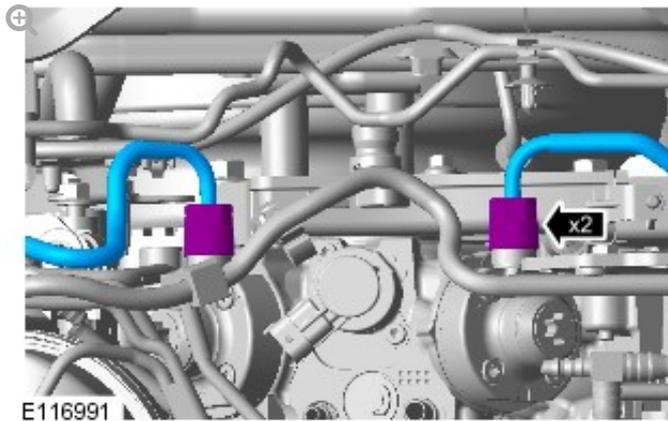


Some variation in the illustrations may occur, but the essential information is always correct.



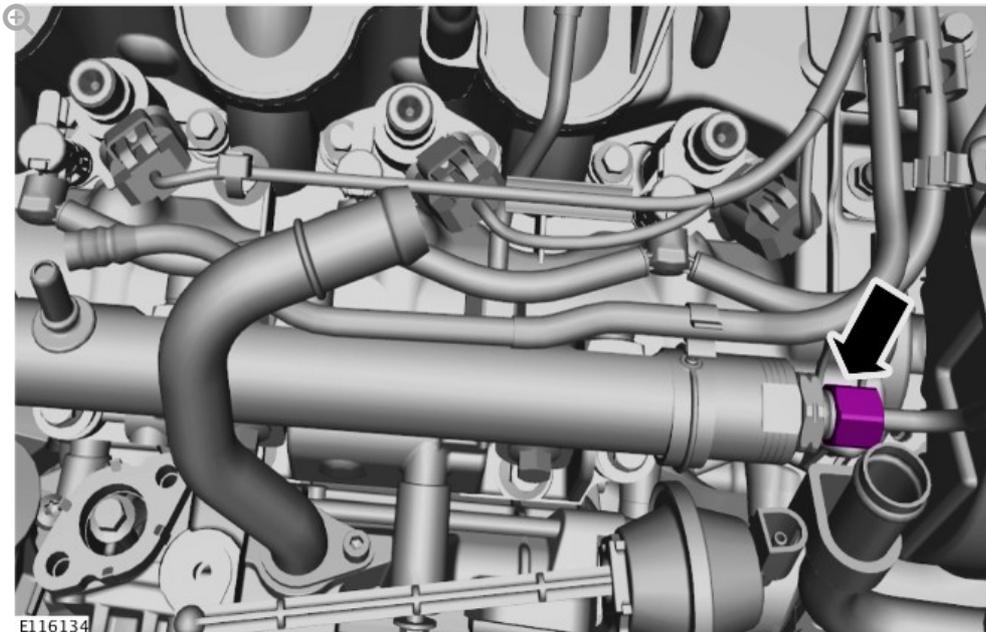
21.



Tighten the high-pressure fuel lines union to 15Nm.

22.

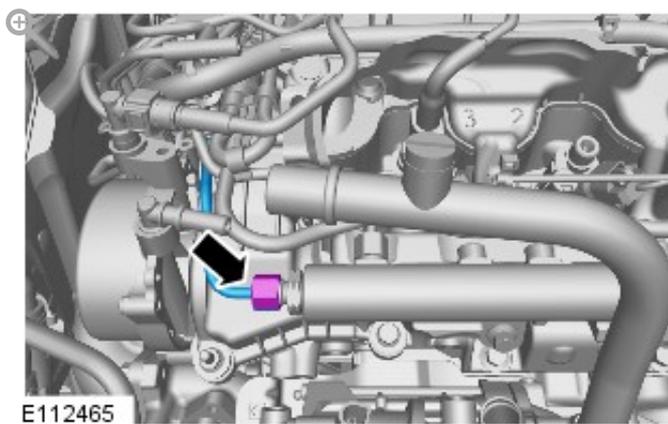
Some variation in the illustrations may occur, but the essential information is always correct.



Tighten the high-pressure fuel lines union to 15Nm.

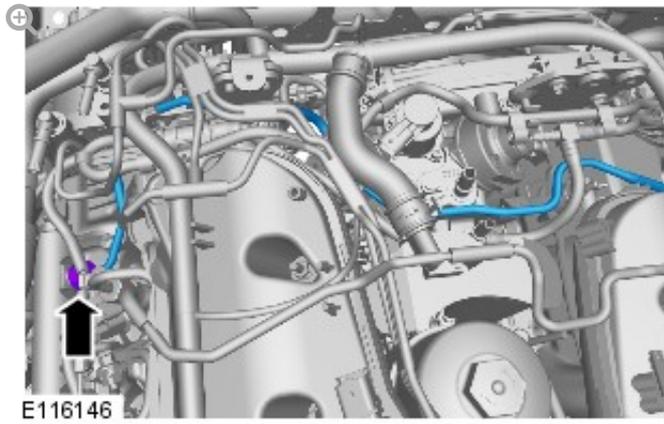
23.

Some variation in the illustrations may occur, but the essential information is always correct.



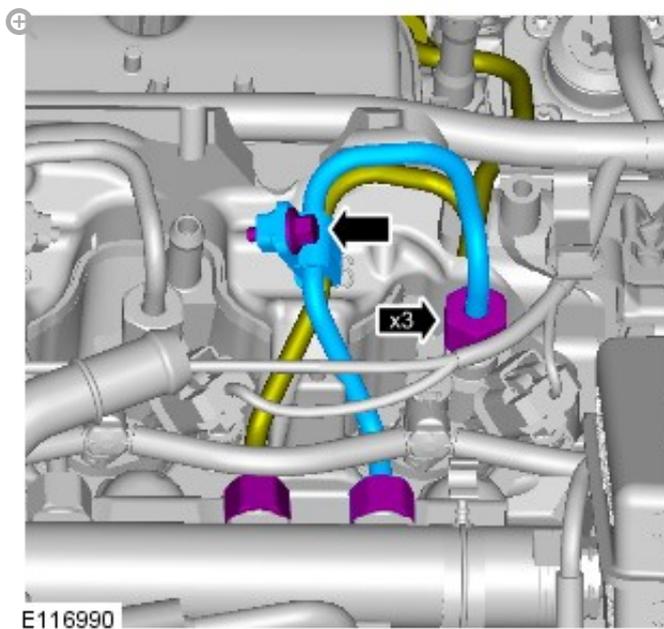
Tighten the high-pressure fuel lines union to 15Nm.

24.



Tighten the high-pressure fuel lines union to 15Nm.

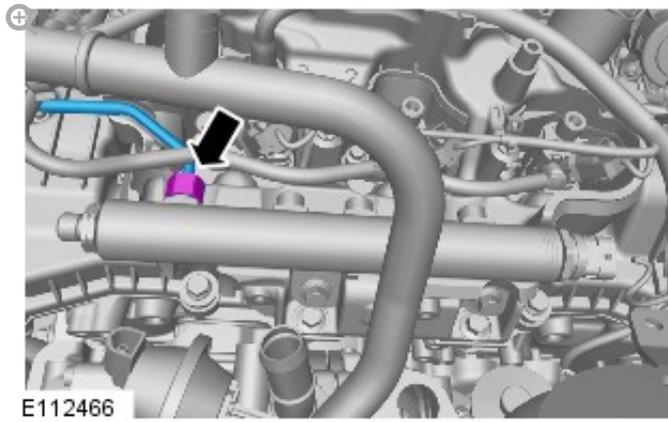
25.



Tighten the high-pressure fuel lines union to 15Nm.

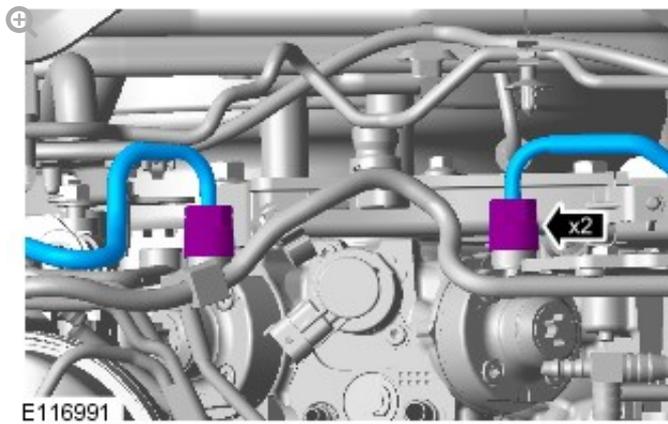
26.

Some variation in the illustrations may occur, but the essential information is always correct.



Tighten the high-pressure fuel lines union to 15Nm.

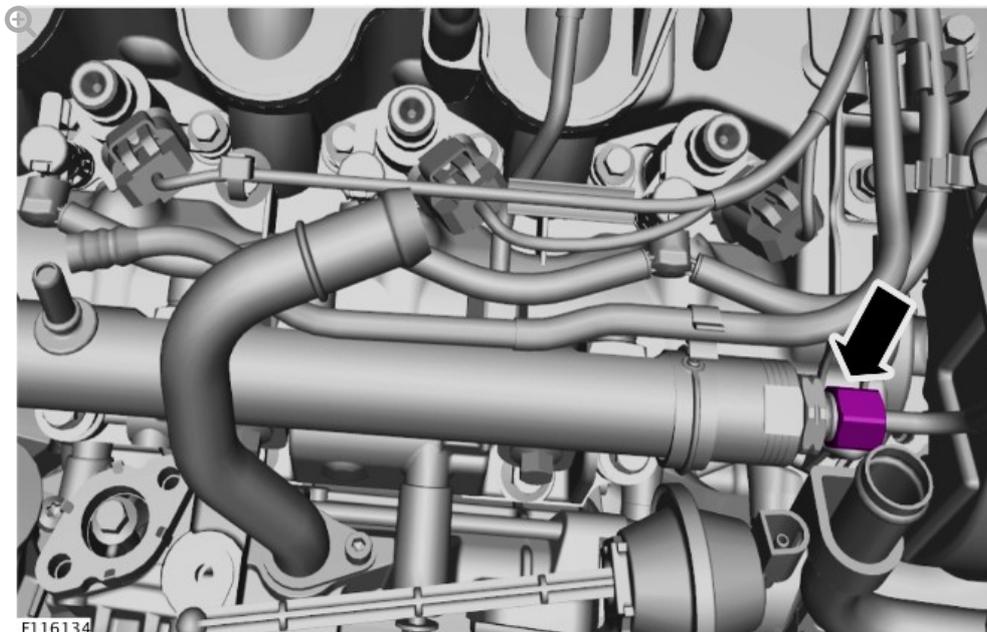
27.



Tighten the high-pressure fuel line union to 30Nm.

28.

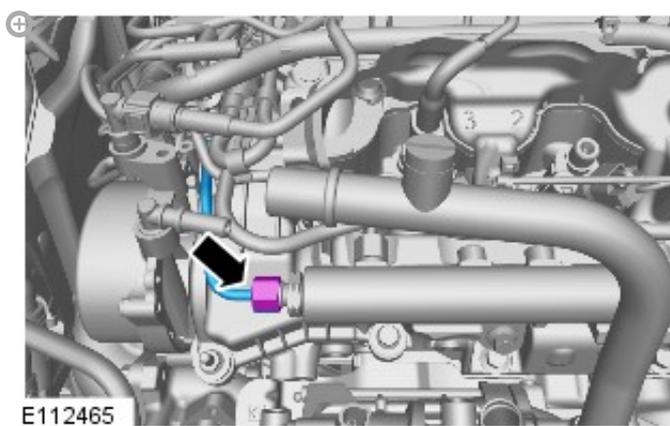
Some variation in the illustrations may occur, but the essential information is always correct.



Tighten the high-pressure fuel line union to 30Nm.

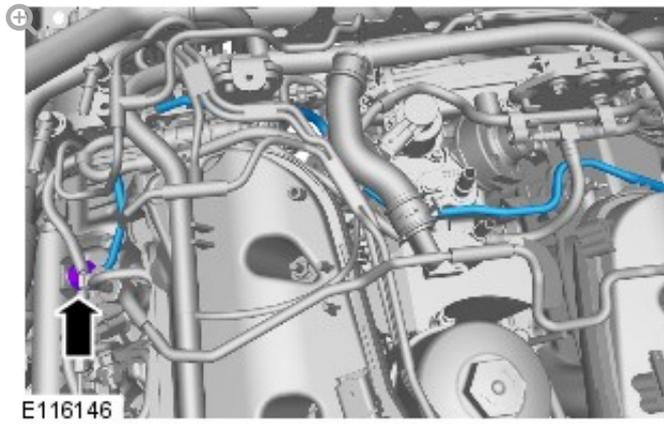
29.

Some variation in the illustrations may occur, but the essential information is always correct.



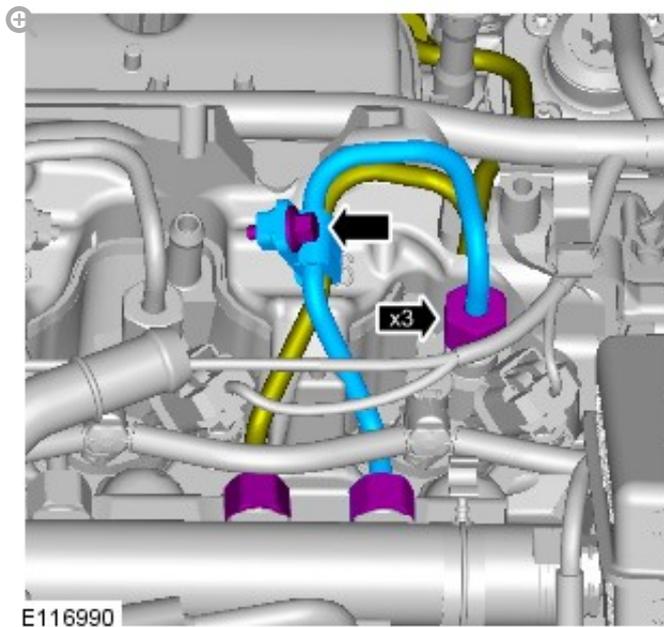
Tighten the high-pressure fuel line union to 30Nm.

30.



Tighten the high-pressure fuel line union to 30Nm.

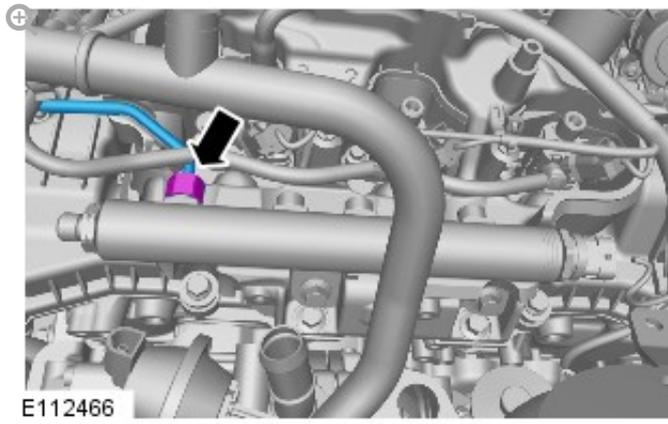
31.



Tighten the high-pressure fuel line union to 30Nm.

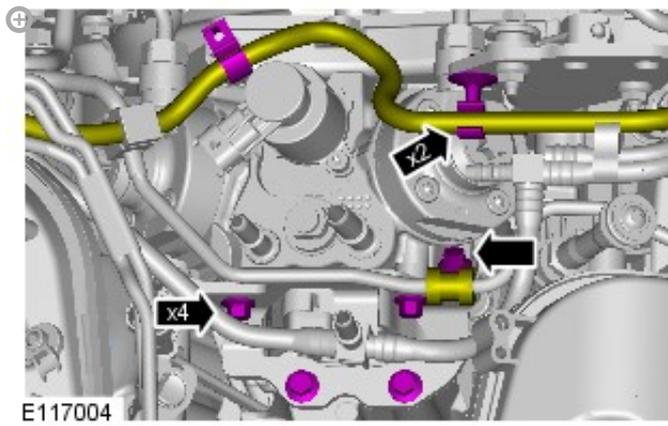
32.

Some variation in the illustrations may occur, but the essential information is always correct.



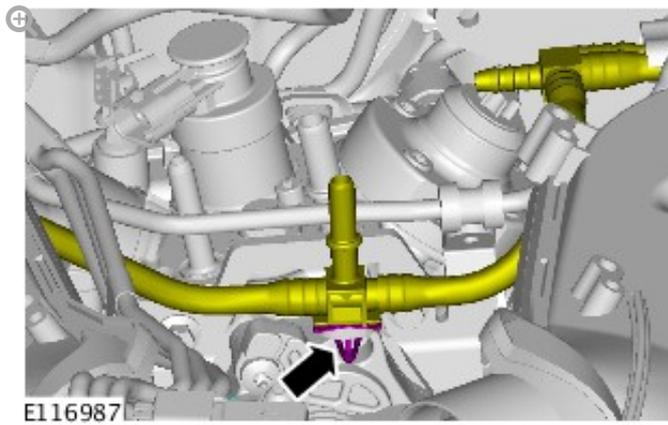
Tighten the high-pressure fuel line union to 30Nm.

33.

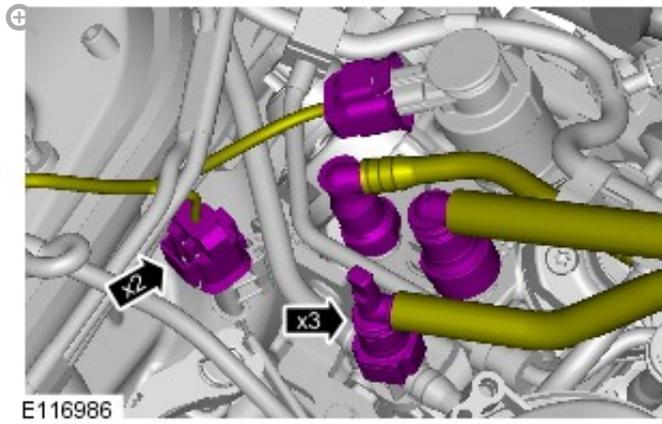


Torque: 10 Nm

34.



35.

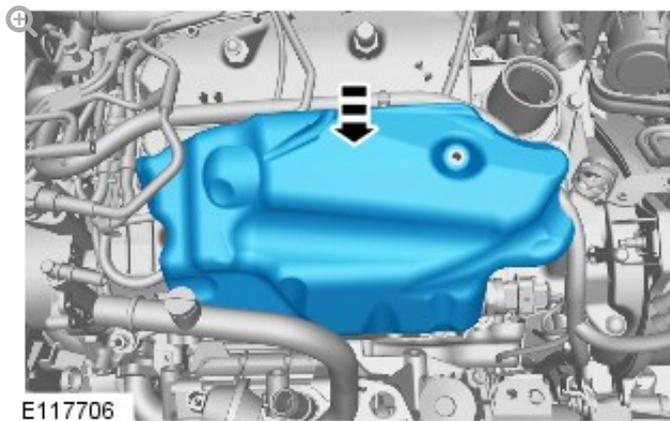


36. Refer to: [Crankcase Vent Oil Separator](#) (303-08A Engine Emission Control - TDV6 3.0L Diesel, Removal and Installation).

37. Refer to: [Fuel Injection Pump Pulley](#) (303-05A Accessory Drive - TDV6 3.0L Diesel, Removal and Installation).

38.

Left-hand shown, right-hand similar.



39. Refer to: [Engine Cover - TDV6 3.0L Diesel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

40. Refer to: [Battery Disconnect and Connect](#) (414-01 Battery, Mounting

and Cables, General Procedures).

4.1.

A minimum of 12 litres of fuel in the fuel tank is required for the following Steps.

Make sure the fuel tank has a sufficient amount of fuel to carry out the following Steps.

- Do not start the vehicle.
- Allow 15 seconds between **each** ignition cycle (between each ignition **ON** and ignition **OFF**) to allow the fuel tank pump to pump fuel to the fuel injection pump correctly.

Turn the ignition on and off four times.

Crank the engine until it starts.

Road test the vehicle for at least 10 miles (16 Km).

Check the diagnostic trouble codes (DTC)s using the approved diagnostic tool. Clear or repair as necessary.

FUEL CHARGING AND CONTROLS - TDV6 3.0L DIESEL

FUEL INJECTOR [G1272058]

SPECIAL TOOL(S)



100-012

Slide Hammer



310-213

Fuel Injector
Removal Adapter

REMOVAL

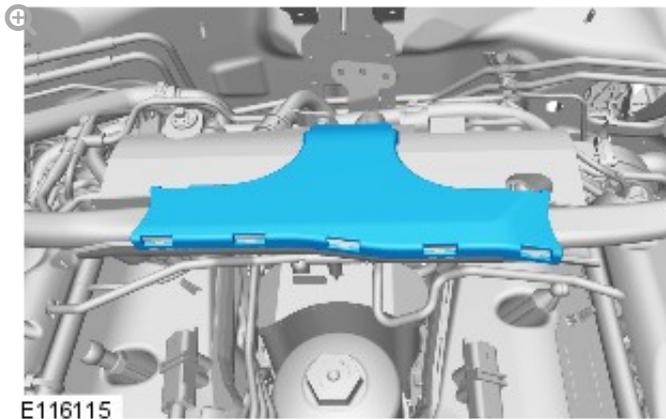
Some variation in the illustrations may occur, but the essential information is always correct.



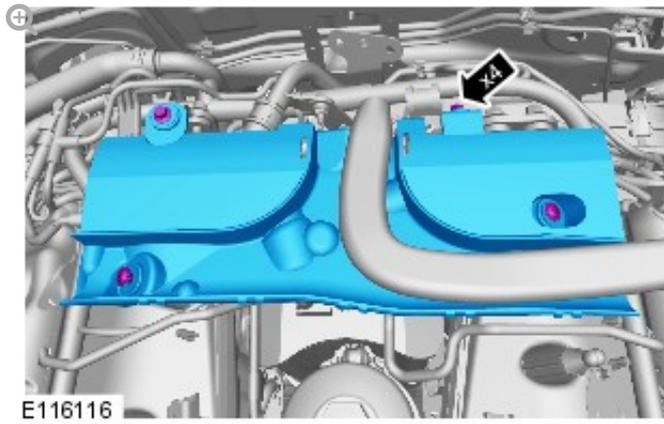
All vehicles

1. Refer to: [Battery Disconnect and Connect](#) (414-01 Battery, Mounting and Cables, General Procedures).
2. Refer to: [Engine Cover - TDV6 3.0L Diesel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

3.

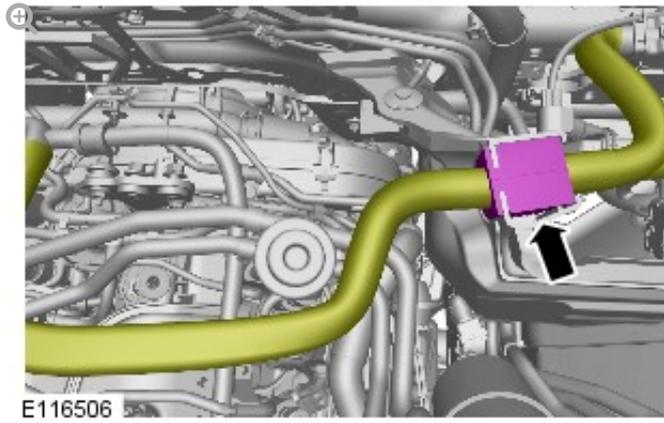


4.



Right-hand drive vehicles

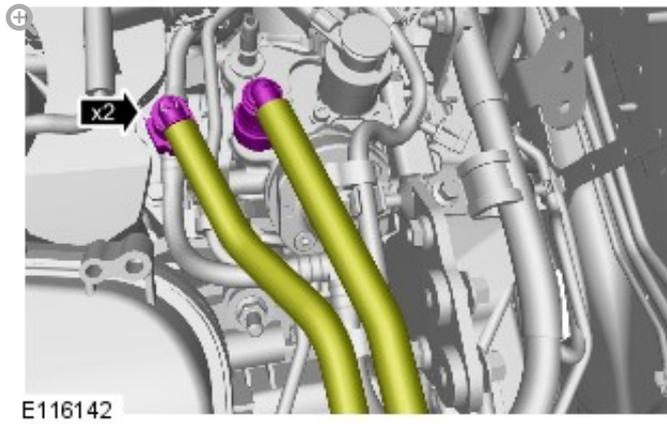
5.



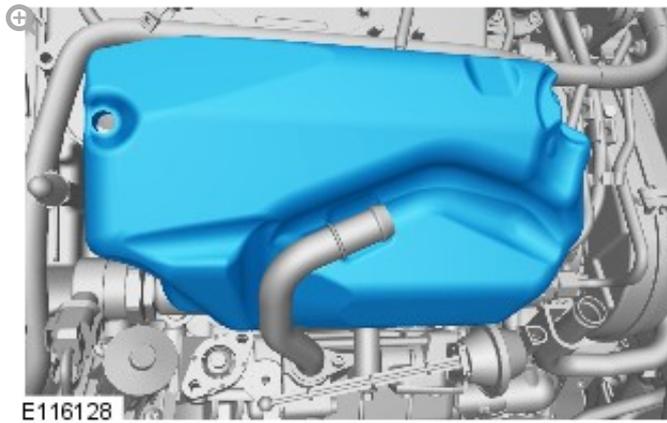
All vehicles

6.

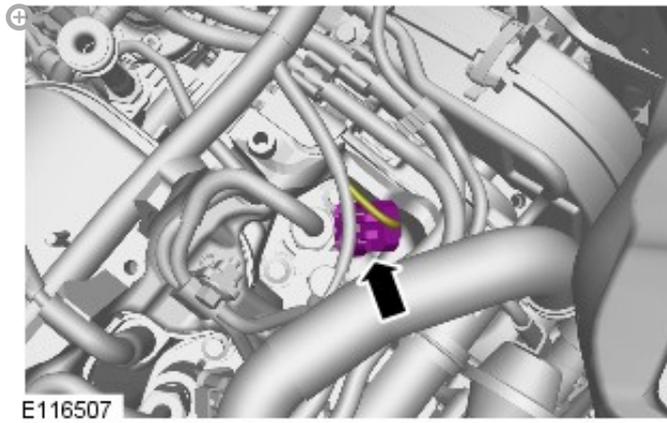
Be prepared to collect escaping fuel.



7.

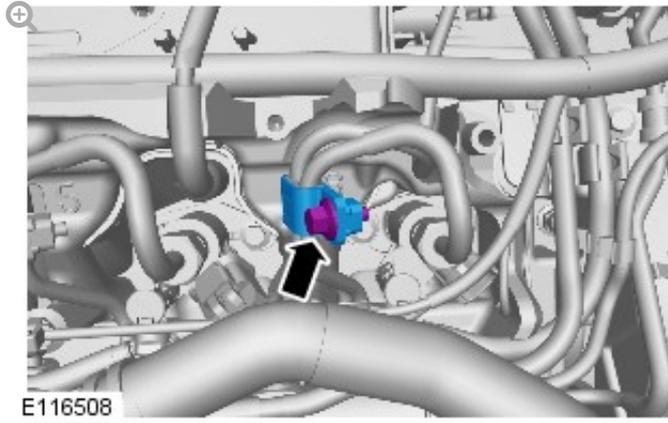


8.



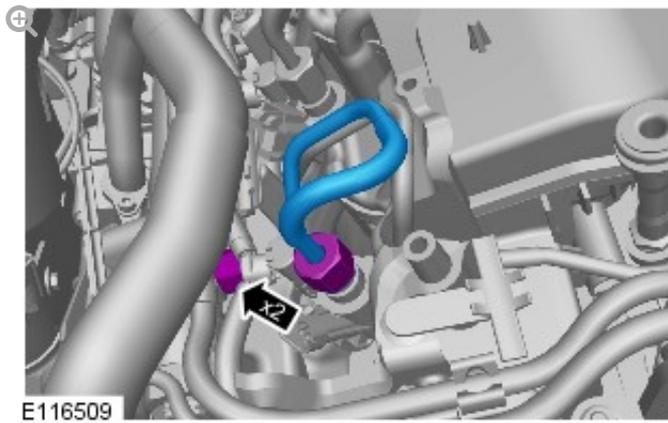
- 9. Refer to: [Fuel Injection Component Cleaning](#) (303-04A Fuel Charging and Controls - TDV6 3.0L Diesel, General Procedures).

10.



11.

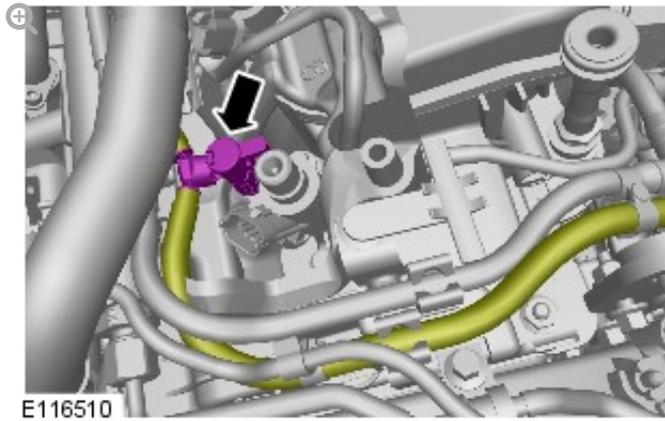
- Be prepared to collect escaping fuel.
- Remove and discard the high-pressure fuel supply lines.



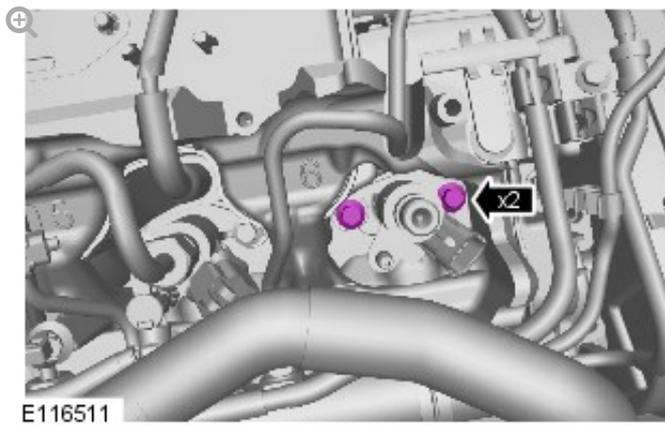
12.

Be prepared to collect escaping fuel.

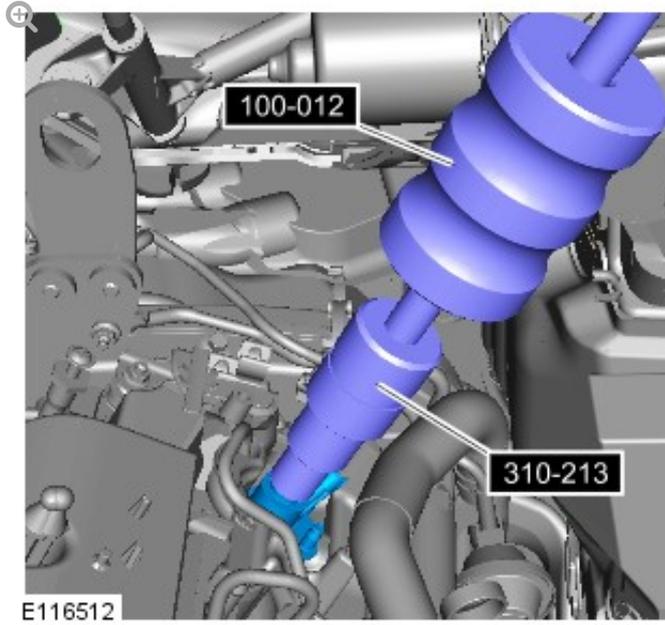
Make sure that the fuel injector return line has a maximum of 8 uses.



13.

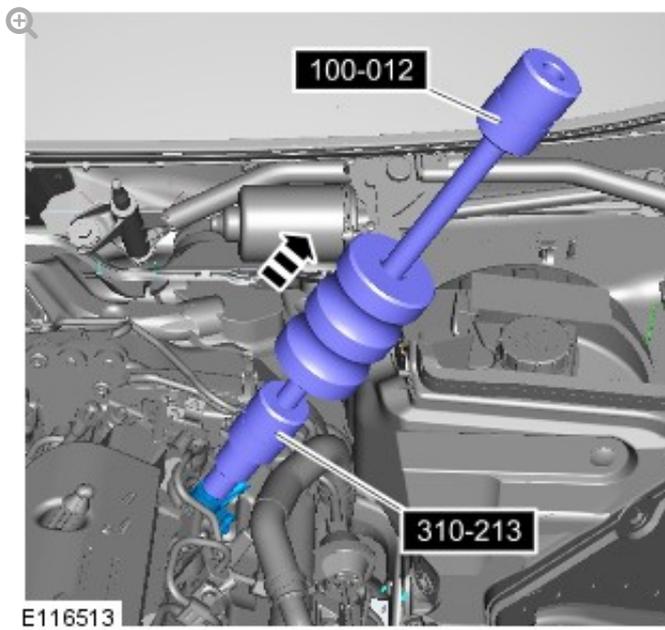


14.

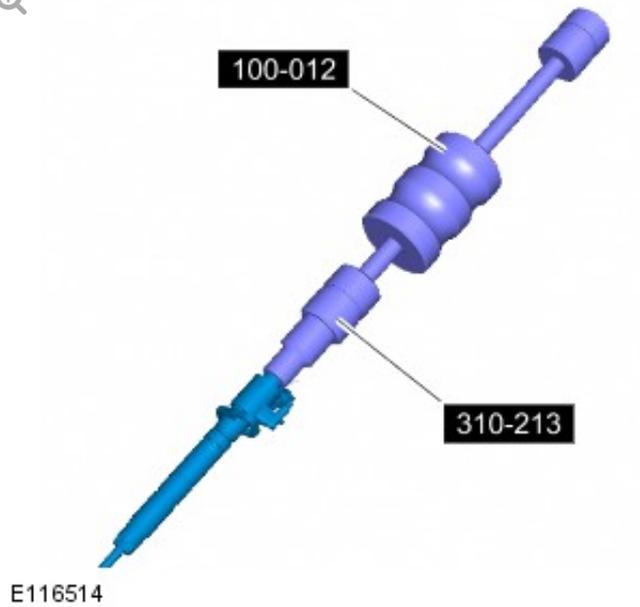


- Install the special tool.
- *Special Tool(s):* [310-213](#)
- *Special Tool(s):* [100-012](#)

15.



16.



Remove the special tool.

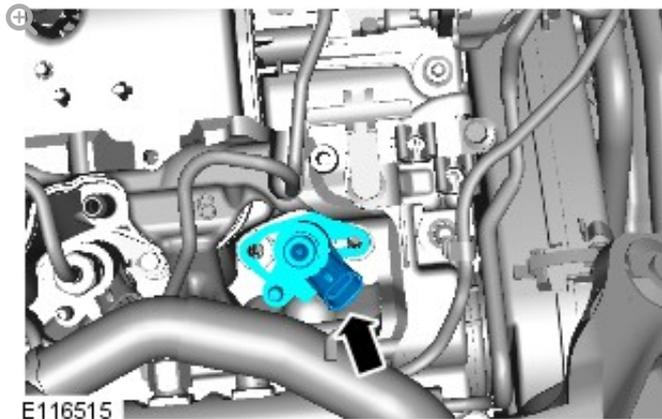
INSTALLATION



All vehicles

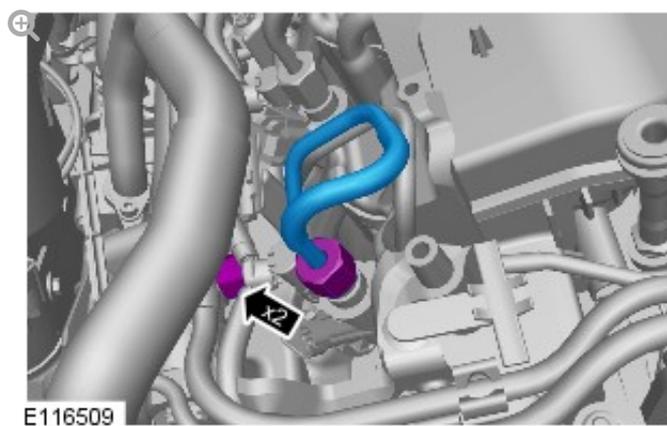
1.

Make sure that the area around the open fuel injector ports are clean and free of foreign material and lubricant prior to installing the fuel injector.



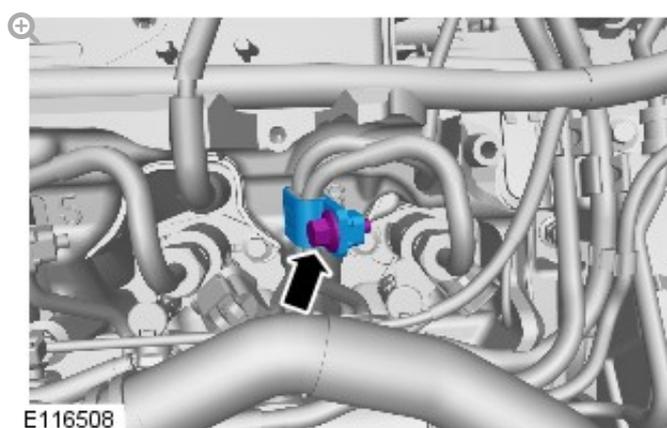
2.

- Make sure that a new component is installed.
- Only tighten the unions finger-tight at this stage.



3.

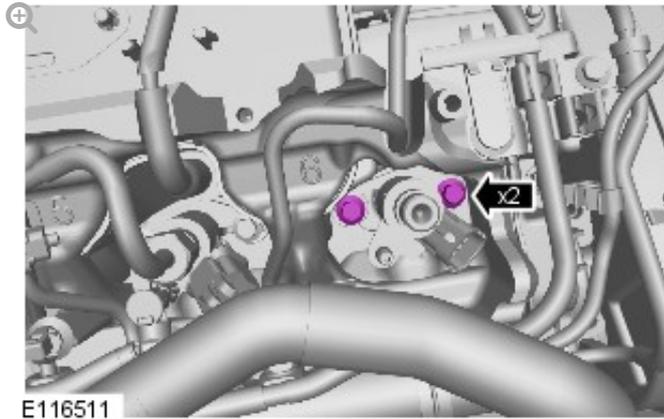
Make sure that a new component is installed.



Torque: **10 Nm**

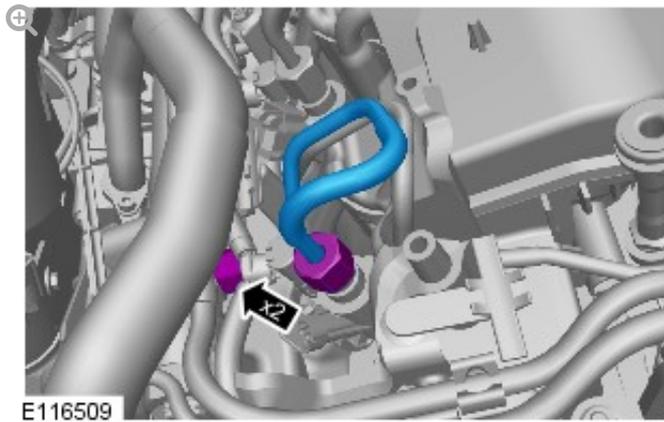
4.

Tighten the retaining bolts evenly and progressively.



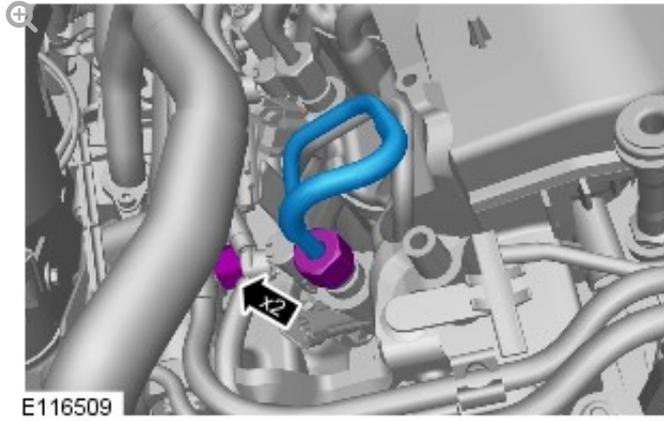
Torque: 9 Nm

5.



- Stage 1: Tighten the high-pressure fuel supply line unions at the fuel rail to 15Nm.
- Stage 2: Tighten the high-pressure fuel supply line unions at the injector to 15Nm.

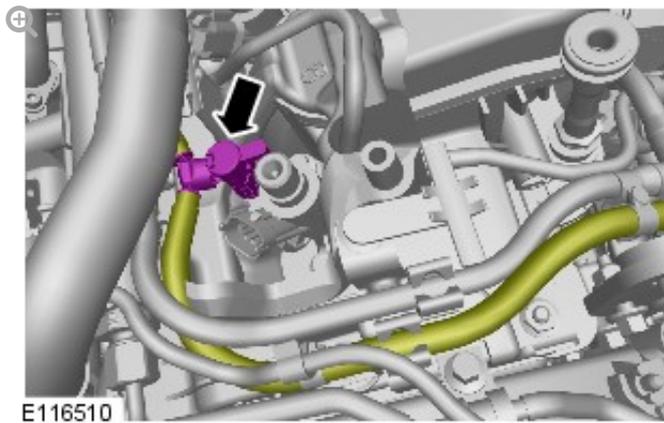
6.



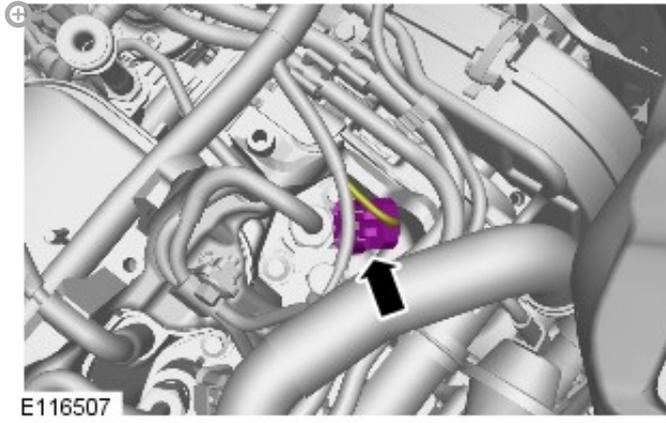
- Stage 1: Tighten the high-pressure fuel supply line unions at the fuel rail to 30Nm.
- Stage 2: Tighten the high-pressure fuel supply line unions at the injector to 30Nm.

7.

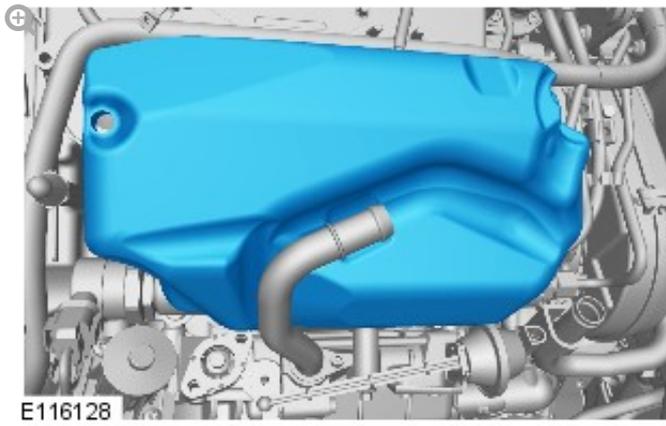
Make sure that the fuel injector return line has a maximum of 8 uses.



8.

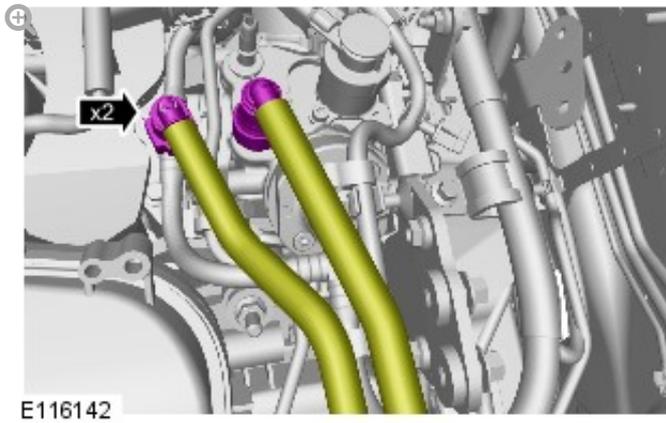


9.



10.

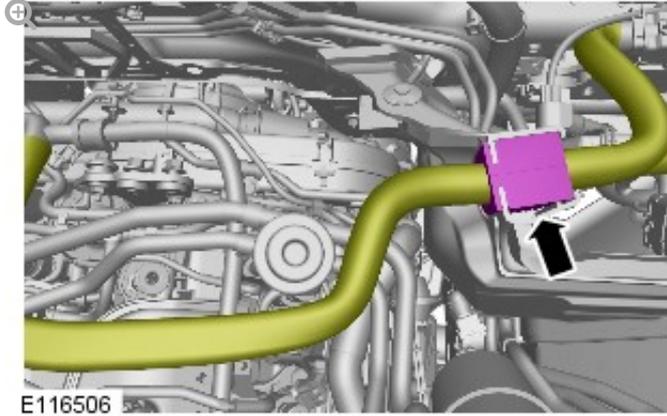
Be prepared to collect escaping fuel.





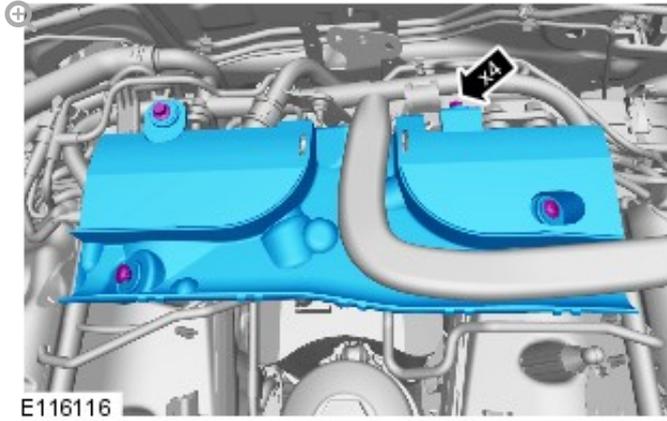
Right-hand drive vehicles

11.



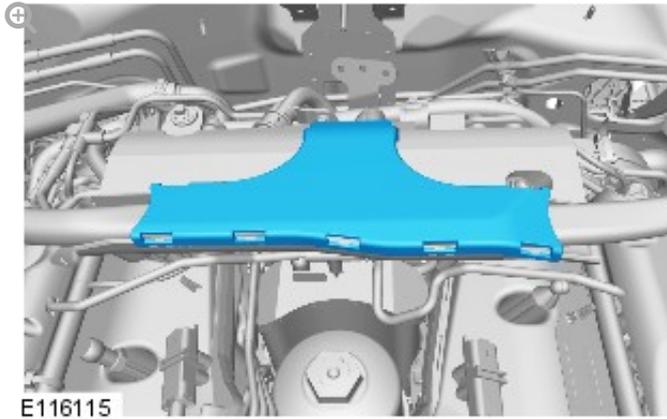
All vehicles

12.



Torque: 10 Nm

13.



14. Refer to: [Engine Cover - TDV6 3.0L Diesel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

15. Refer to: [Battery Disconnect and Connect](#) (414-01 Battery, Mounting and Cables, General Procedures).

FUEL CHARGING AND CONTROLS - TDV6 3.0L DIESEL

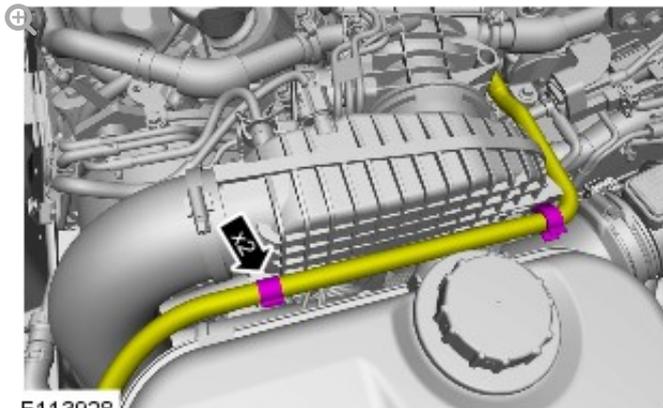
INTAKE AIR SHUTOFF THROTTLE [G1272061]

REMOVAL

- Removal steps in this procedure may contain installation details.
- Some variation in the illustrations may occur, but the essential information is always correct.

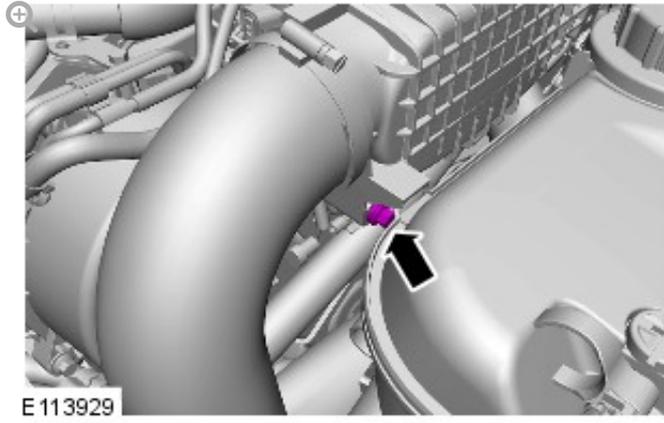
1. Refer to: [Engine Cover - TDV6 3.0L Diesel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

2.



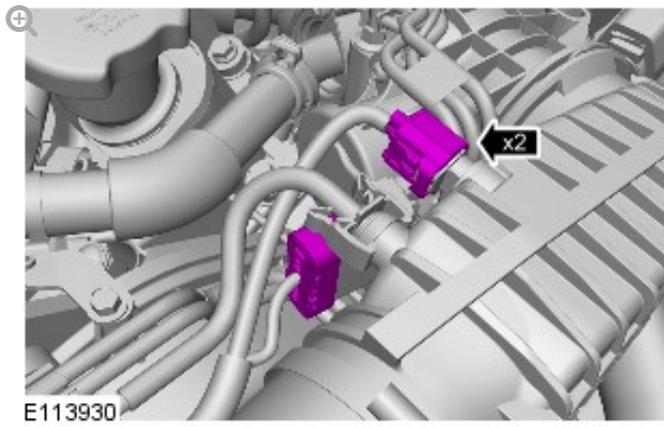
E113928

3.

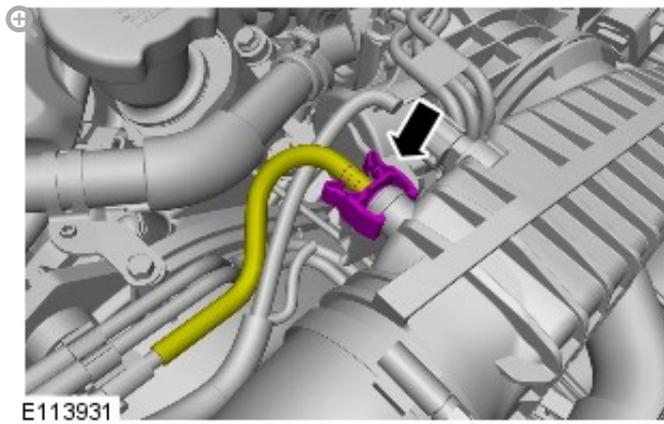


Torque: 10 Nm

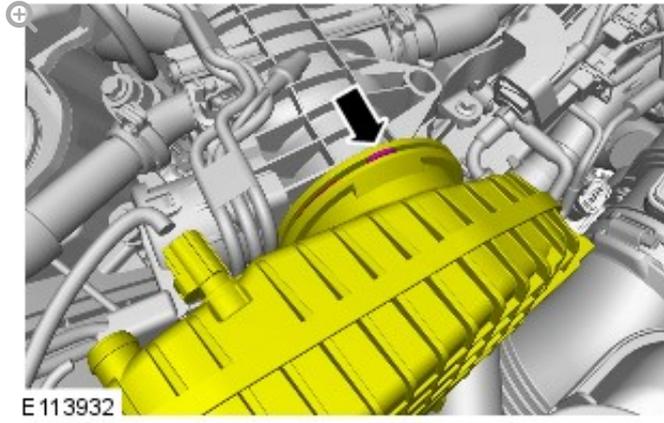
4.



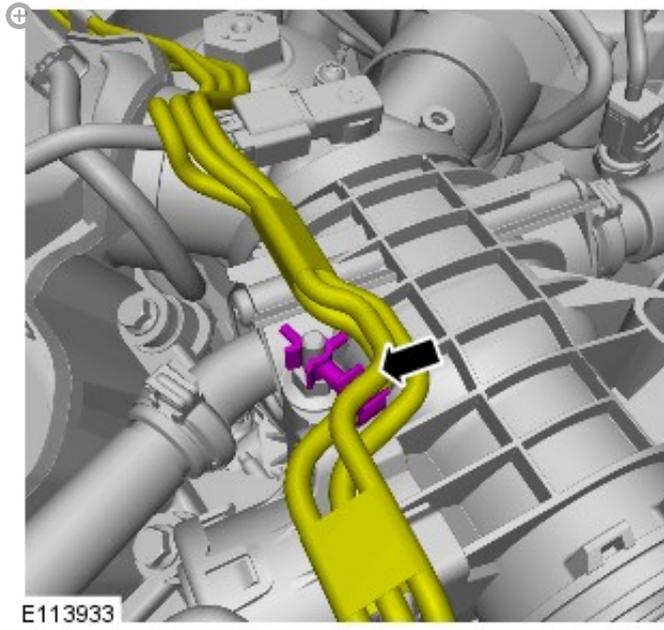
5.



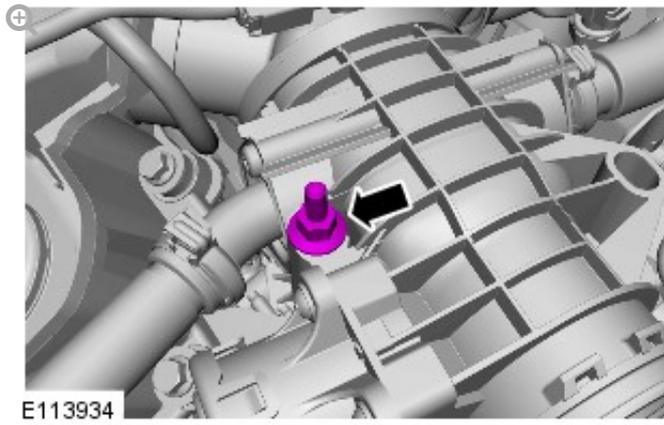
6.



7.



8.



Torque: 10 Nm

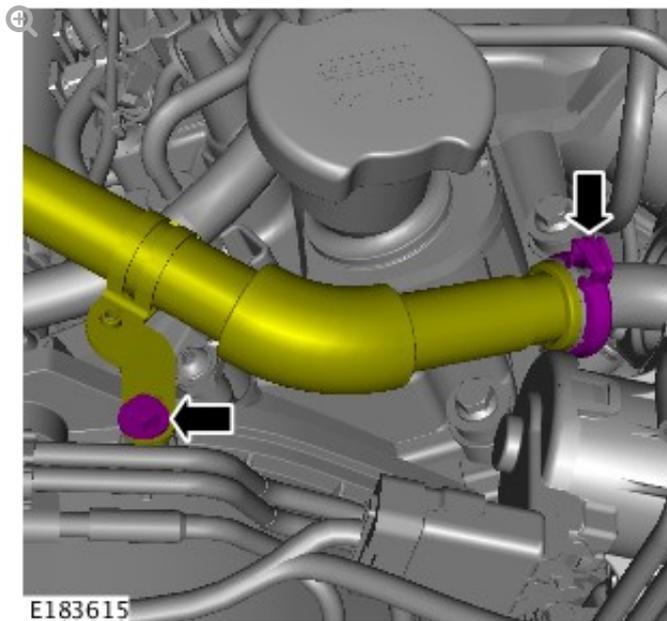
9.

If equipped.

Refer to: [Left Exhaust Gas Recirculation Valve Outlet Tube \(303-08A Engine Emission Control - TDV6 3.0L Diesel, Removal and Installation\)](#).

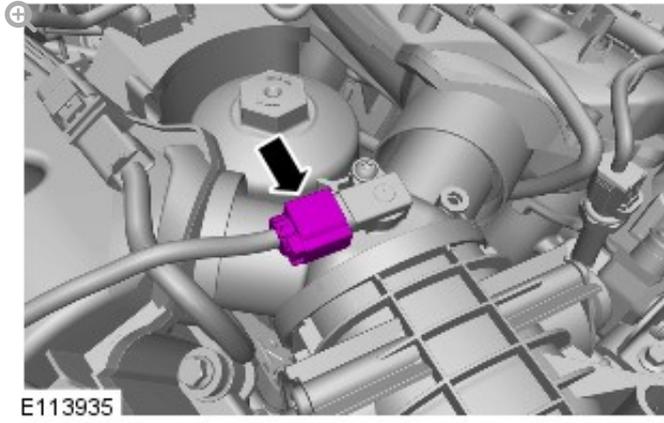
10.

Install a new clamp. Close the clamp to the first audible click by hand. Making sure that the clamp is in a central position to the joint, close to the second audible click using a suitable tool.

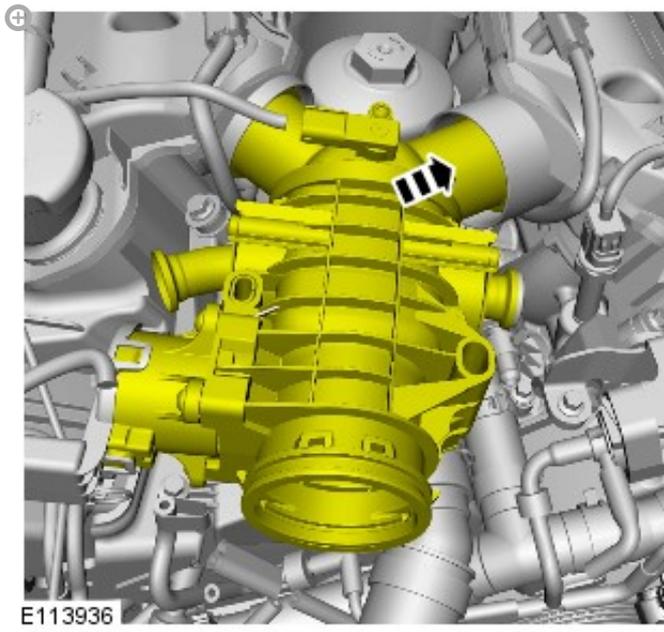


Torque: **5 Nm**

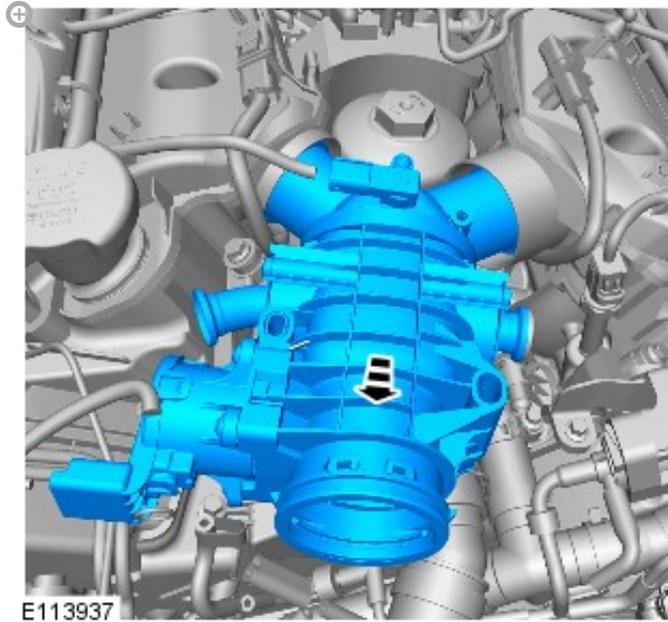
11.



12.



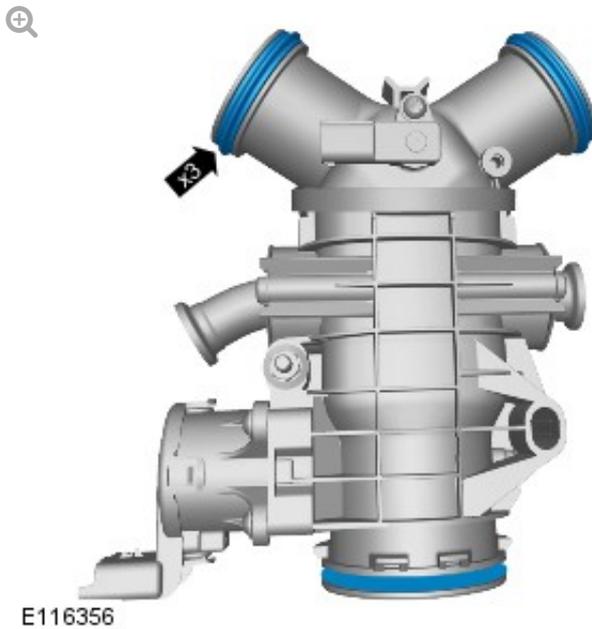
13.



E113937

14.

Install the new seals.



E116356

INSTALLATION

1. To install, reverse the removal procedure.

FUEL CHARGING AND CONTROLS - TDV6 3.0L DIESEL

LEFT FUEL RAIL [G1272059]



REMOVAL

1.

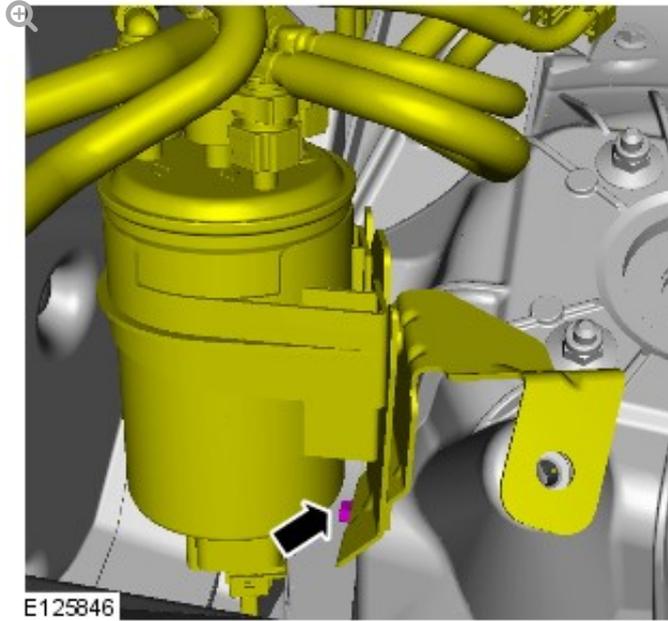
Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

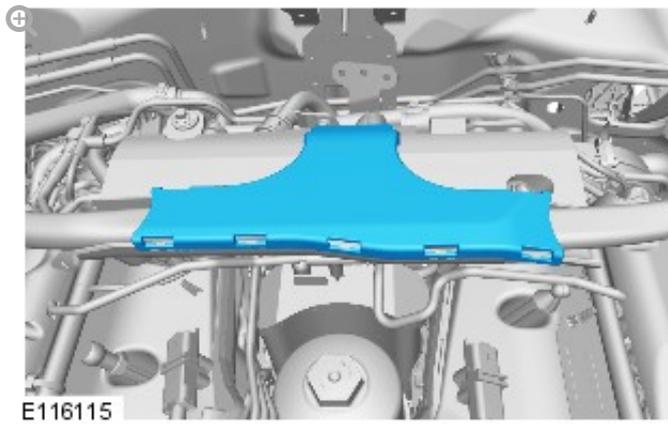
2. Refer to: [Battery Disconnect and Connect](#) (414-01 Battery, Mounting and Cables, General Procedures).
3. Refer to: [Air Deflector](#) (501-02 Front End Body Panels, Removal and Installation).
4. Refer to: [Air Cleaner](#) (303-12A Intake Air Distribution and Filtering - TDV6 3.0L Diesel, Removal and Installation).
5. Refer to: [Secondary Bulkhead Left Panel](#) (501-02 Front End Body Panels, Removal and Installation).

6. Refer to: [Left Exhaust Gas Recirculation Valve Outlet Tube \(303-08A Engine Emission Control - TDV6 3.0L Diesel, Removal and Installation\)](#).

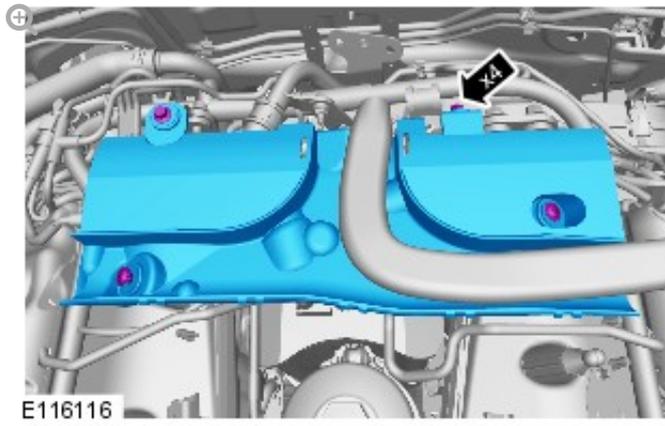
7.



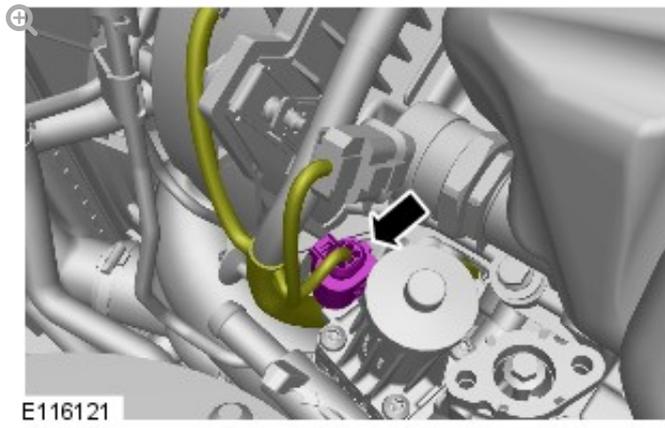
8.



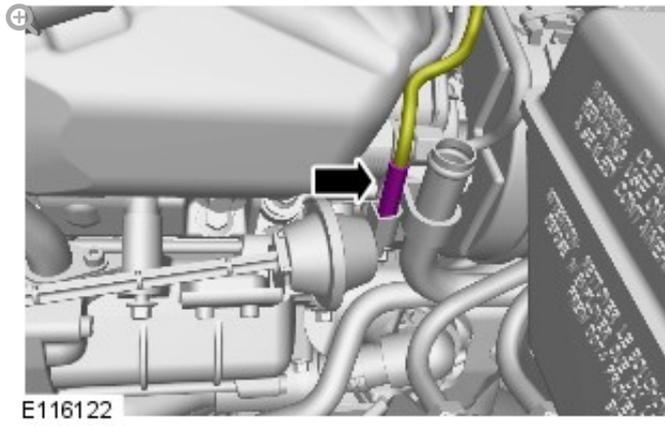
9.



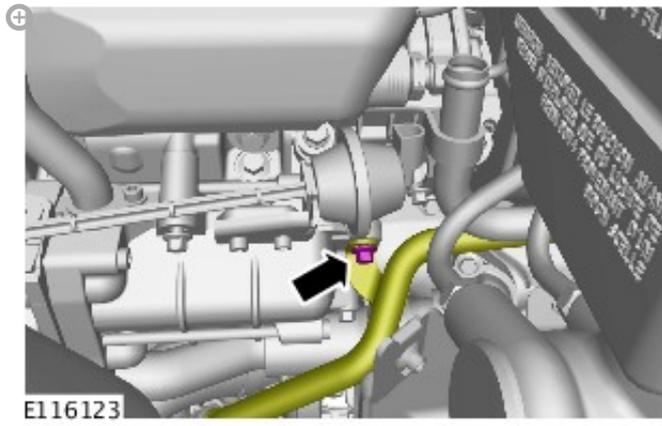
10.



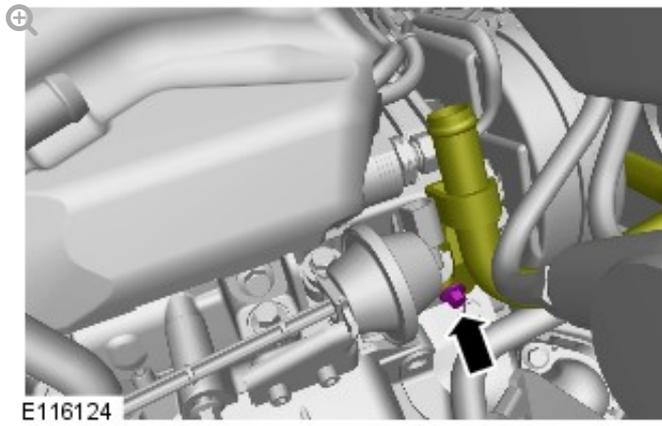
11.



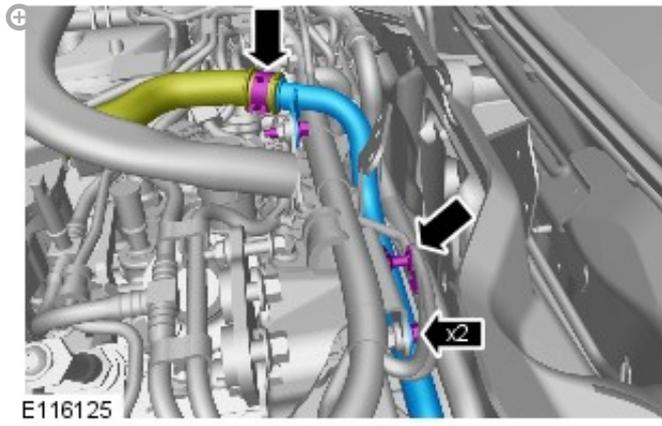
12.



13.

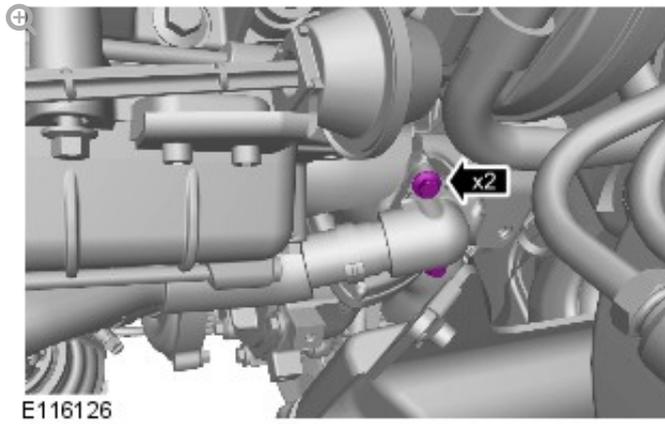


14.



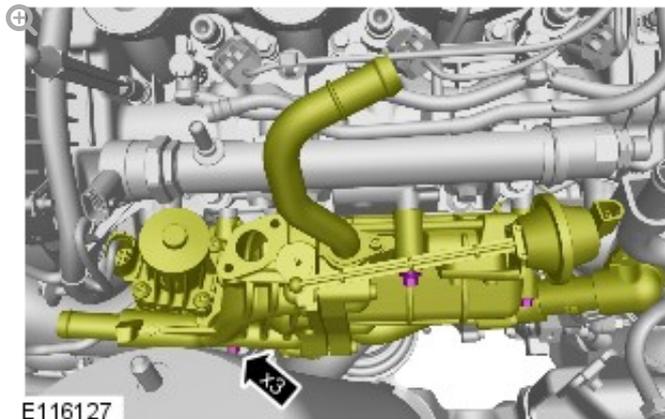
15.

Discard the gasket.



E116126

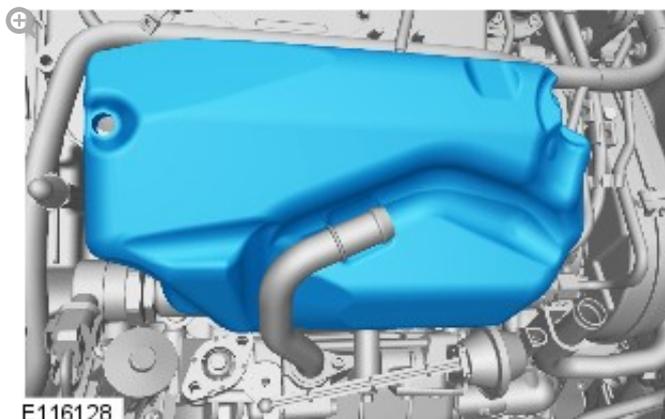
16.



E116127

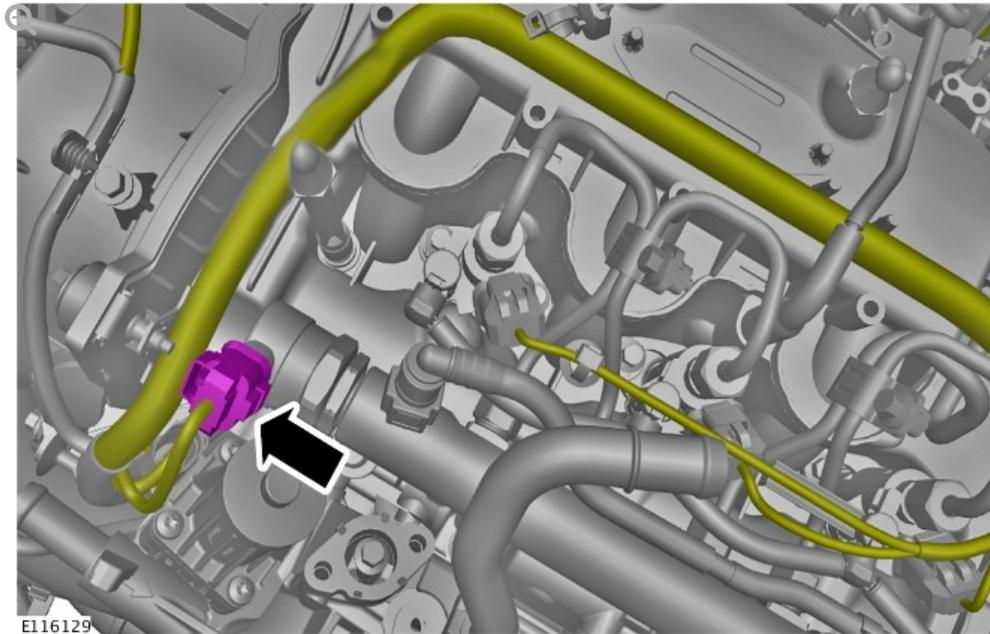
17.

Left-hand shown, right-hand similar.

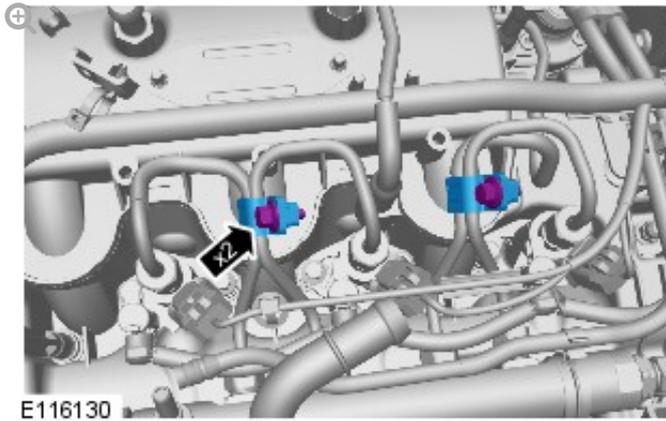


E116128

18.



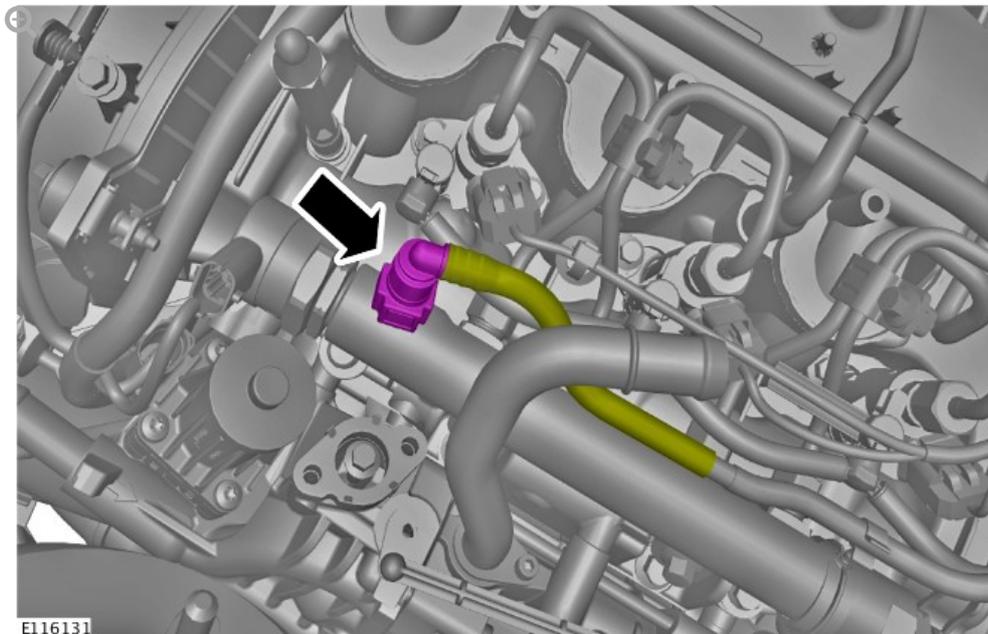
19.



20. Refer to: [Fuel Injection Component Cleaning](#) (303-04A Fuel Charging and Controls - TDV6 3.0L Diesel, General Procedures).

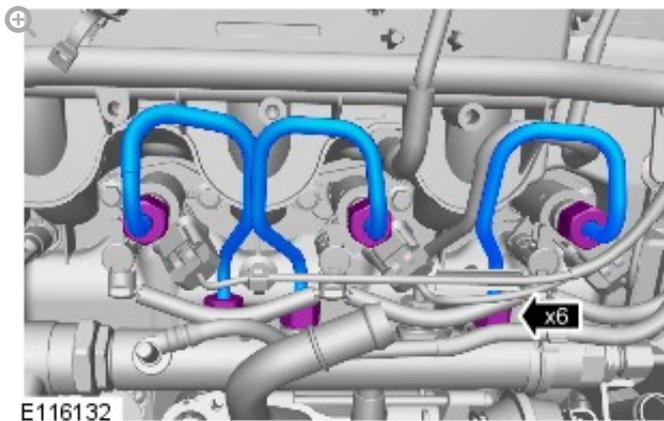
21.

Be prepared to collect escaping fuel.



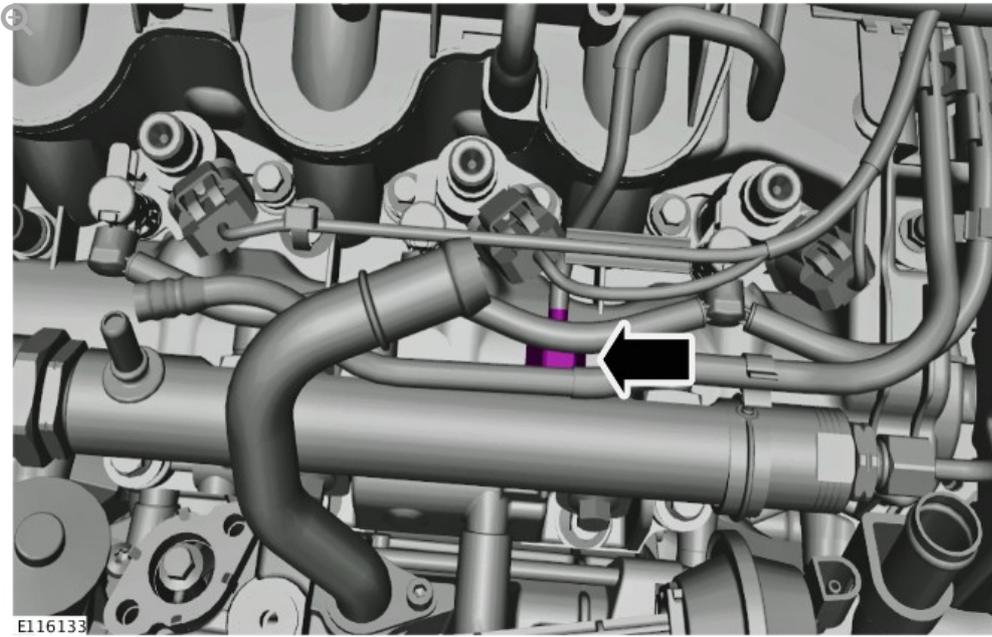
22.

Be prepared to collect escaping fuel.



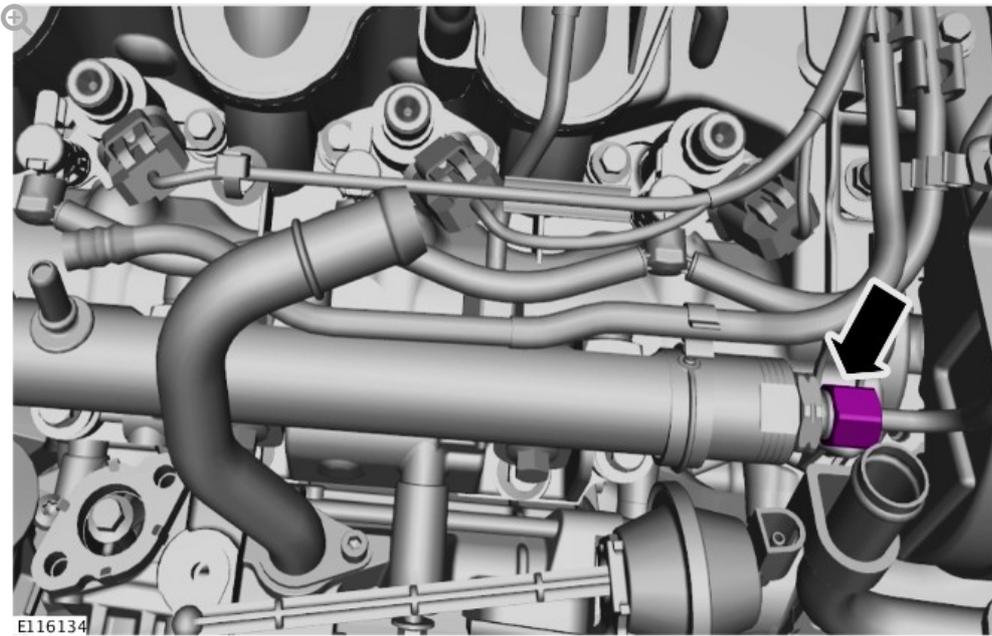
23.

Be prepared to collect escaping fuel.



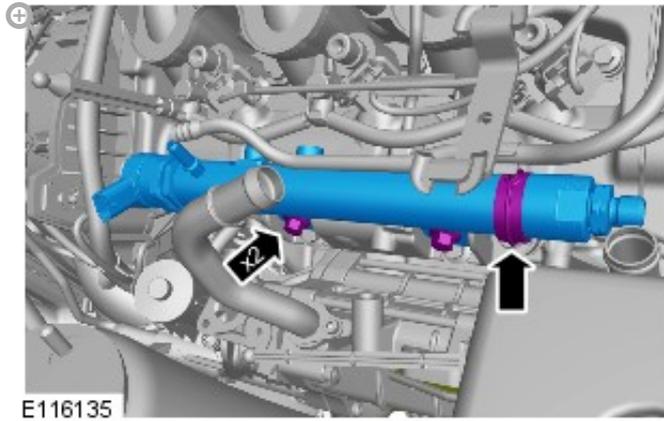
24.

Be prepared to collect escaping fuel.

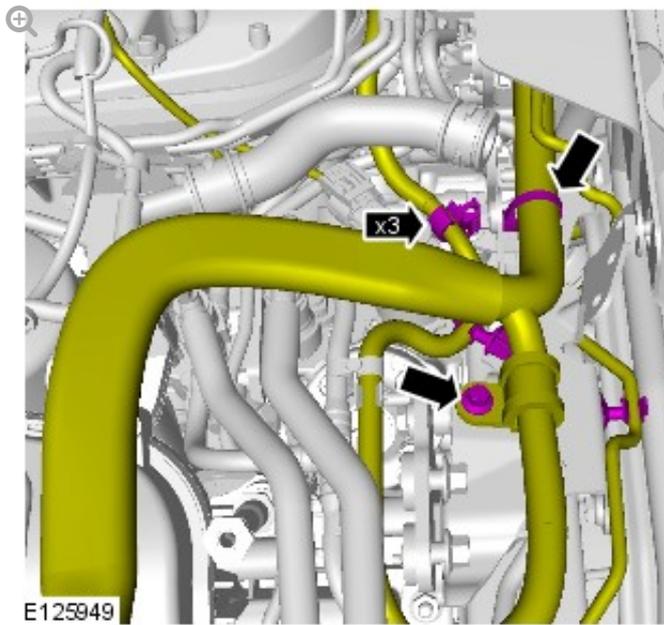


25.

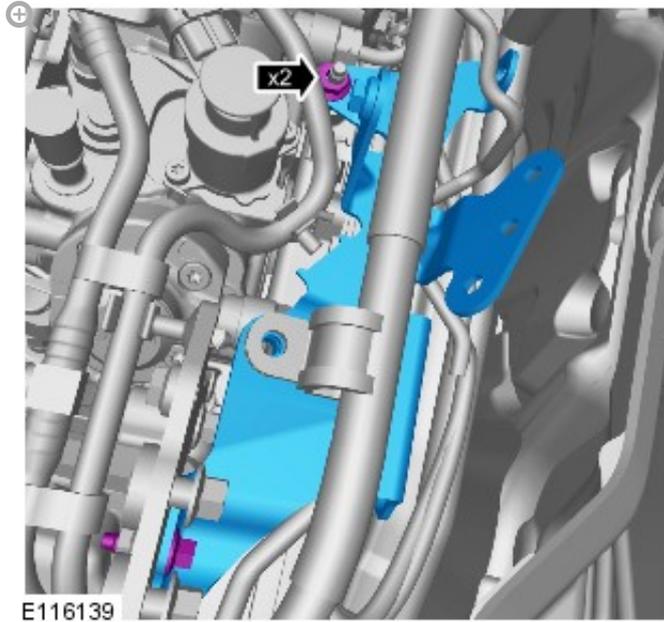
Be prepared to collect escaping fuel.



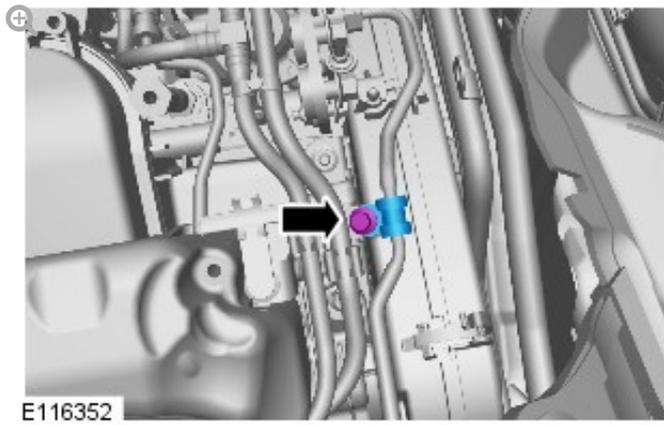
26.



27.

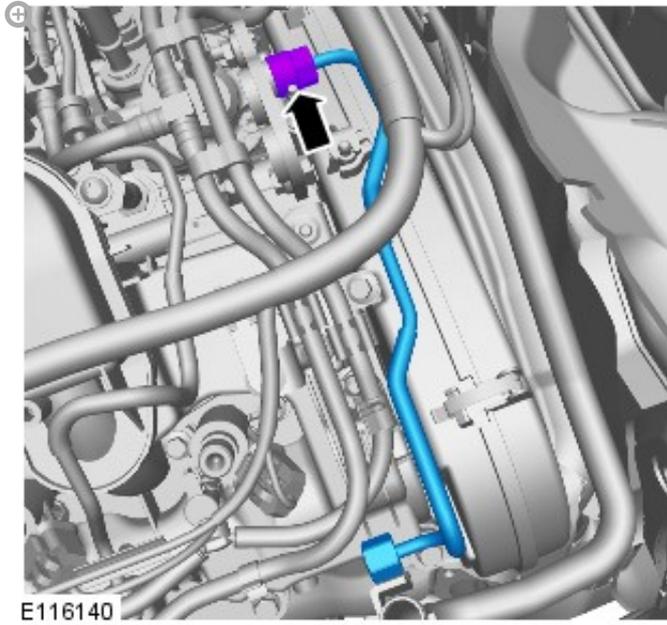


28.



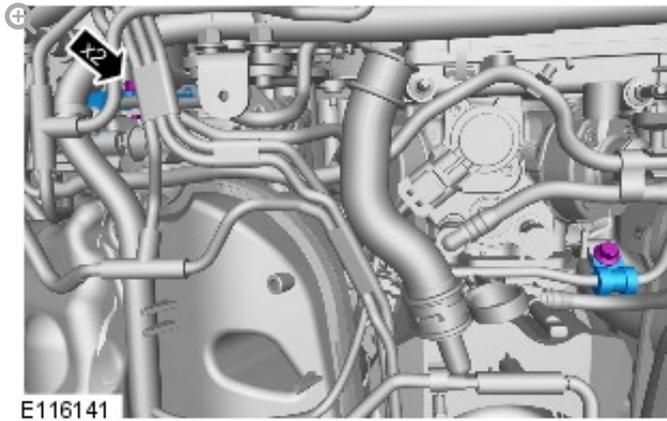
29.

Be prepared to collect escaping fuel.



E116140

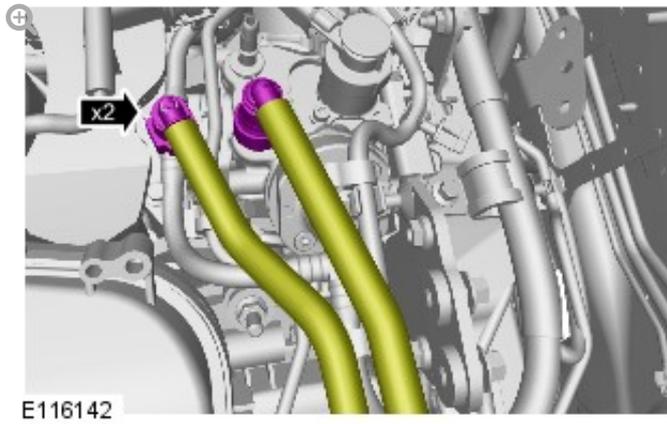
30.



E116141

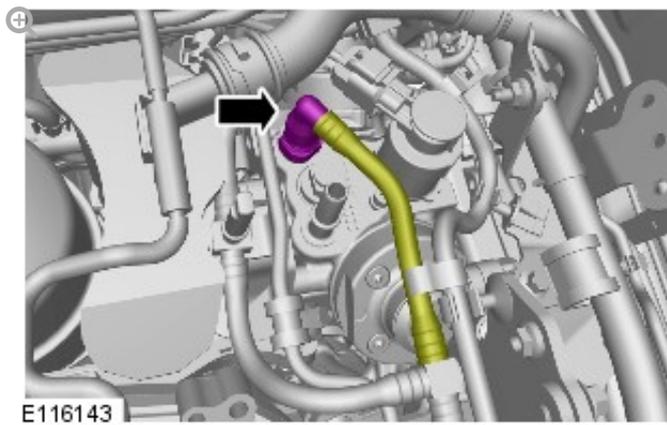
31.

Be prepared to collect escaping fuel.

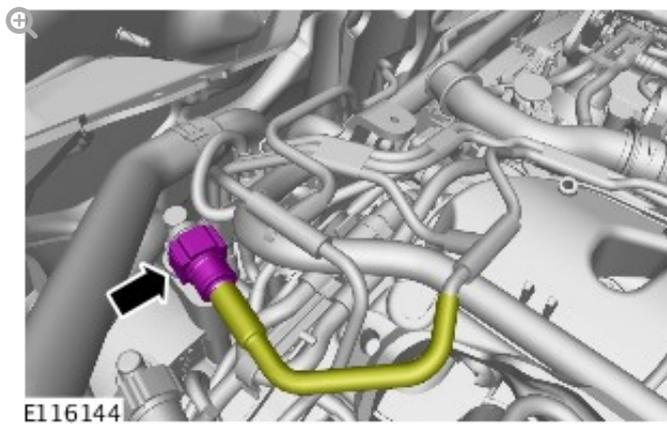


32.

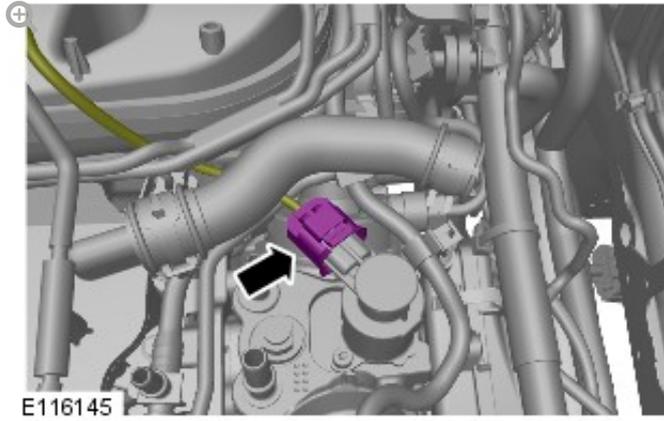
Be prepared to collect escaping fuel.



33.

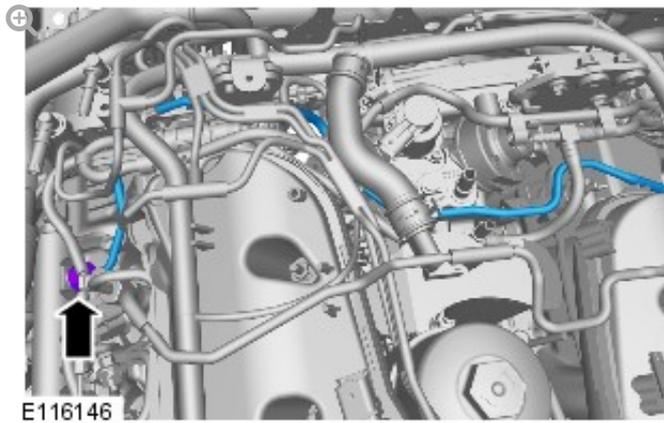


34.



35.

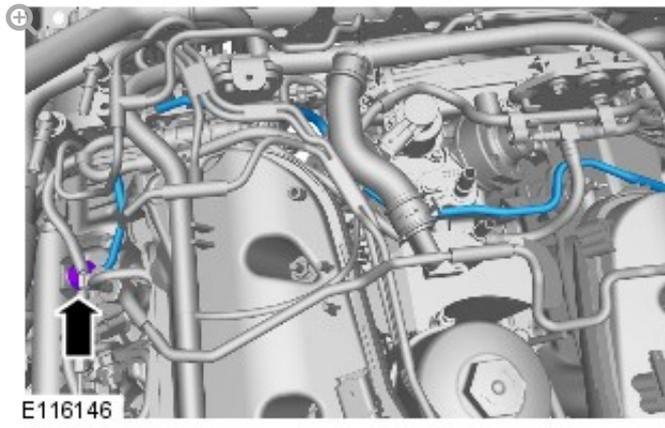
Be prepared to collect escaping fuel.



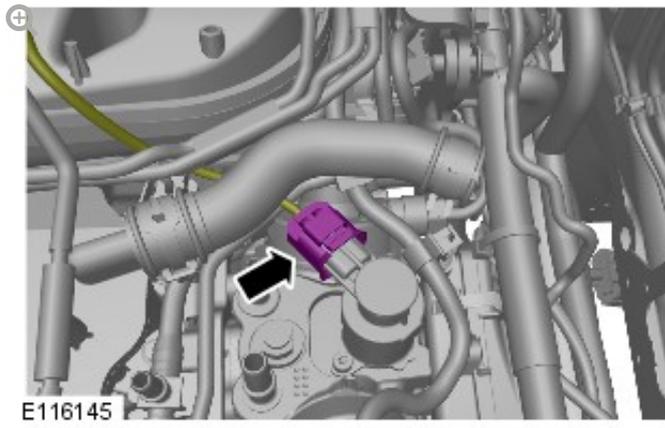
INSTALLATION

1.

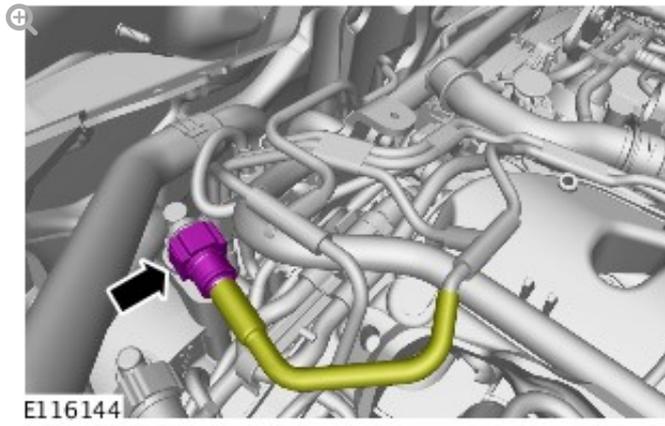
- Make sure that a new component is installed.
- Tighten the fuel supply line unions finger tight.



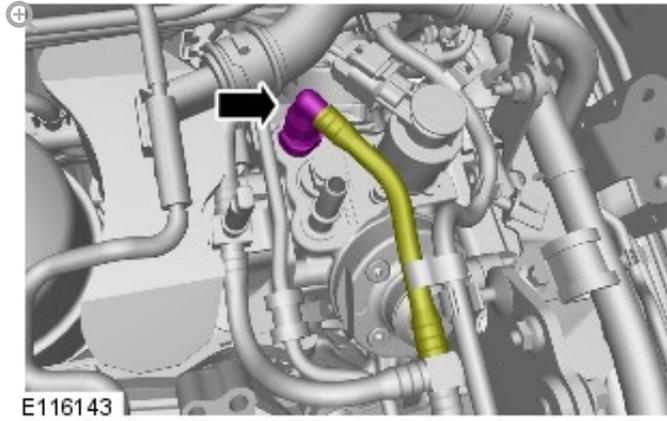
2.



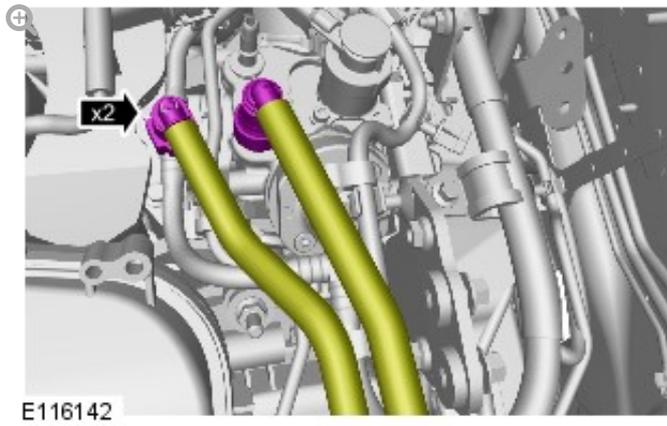
3.



4.

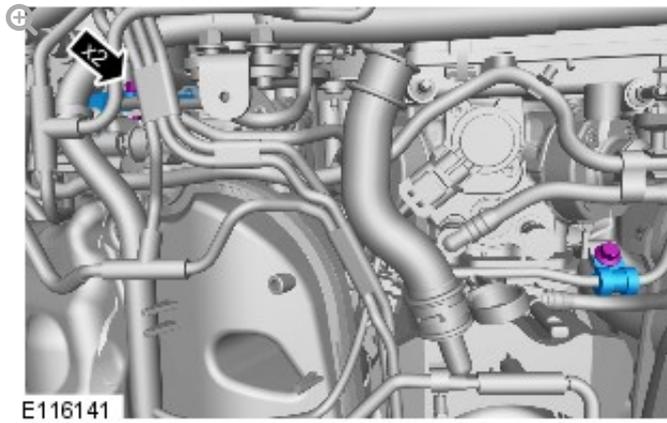


5.



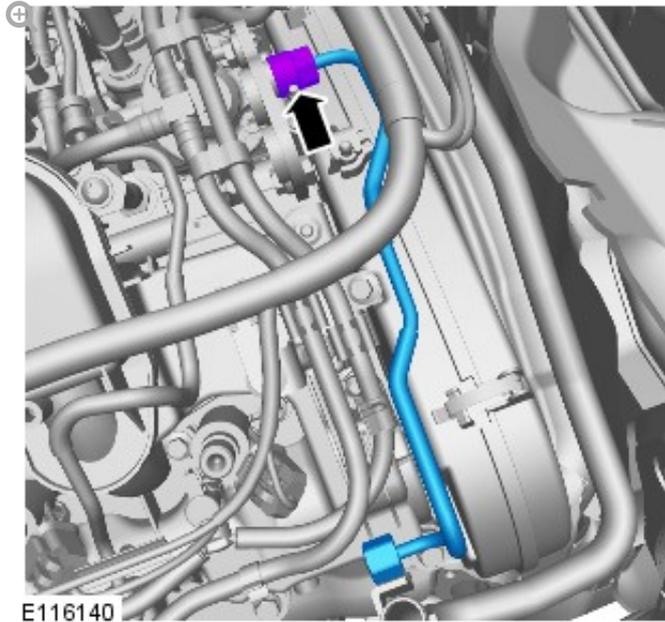
6.

Only tighten the bolts finger-tight at this stage.



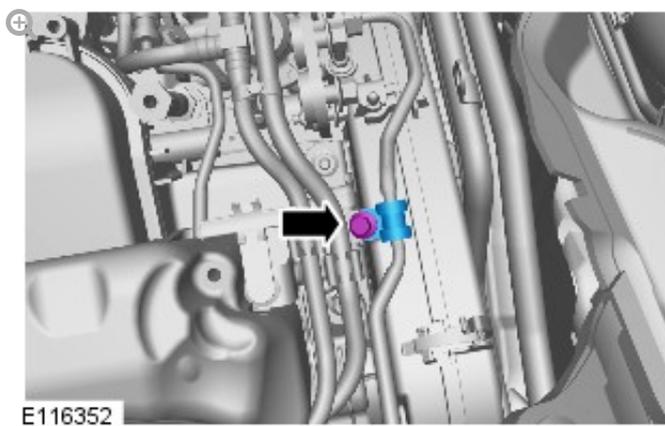
7.

- Make sure that a new component is installed.
- Tighten the fuel supply line unions finger tight.

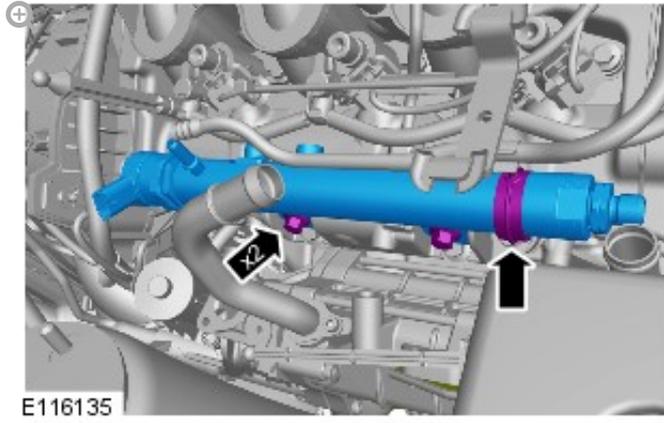


8.

Only tighten the bolts finger-tight at this stage.



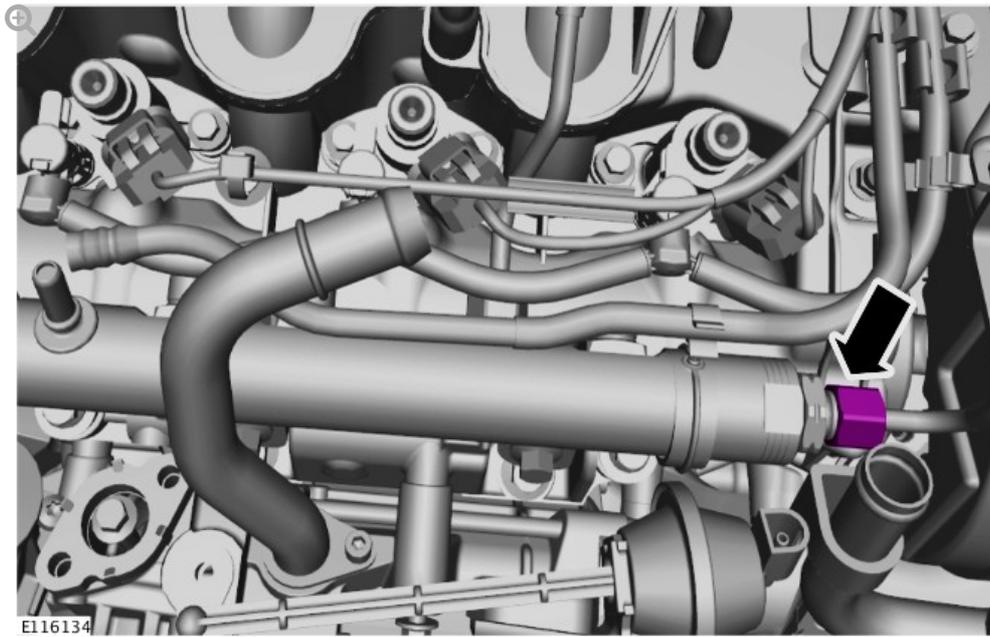
9.



Torque: 24 Nm

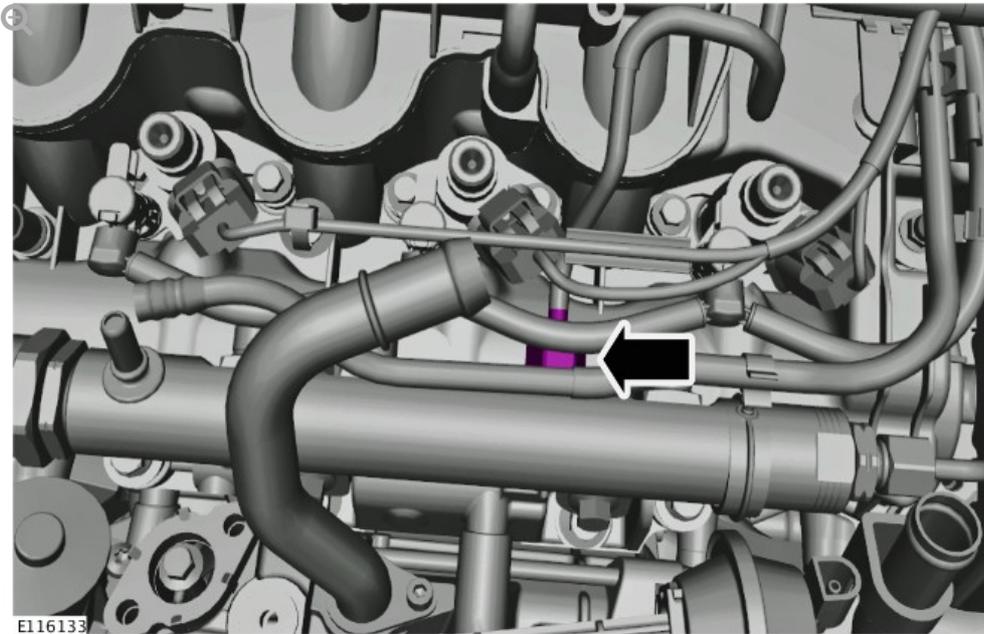
10.

Tighten the fuel supply line unions finger tight.



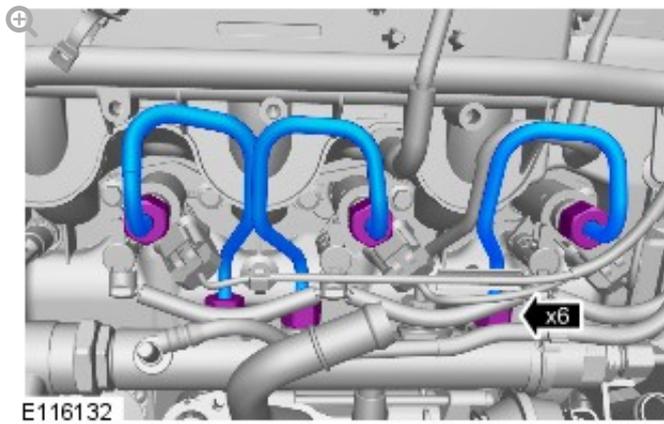
11.

Tighten the fuel supply line unions finger tight.

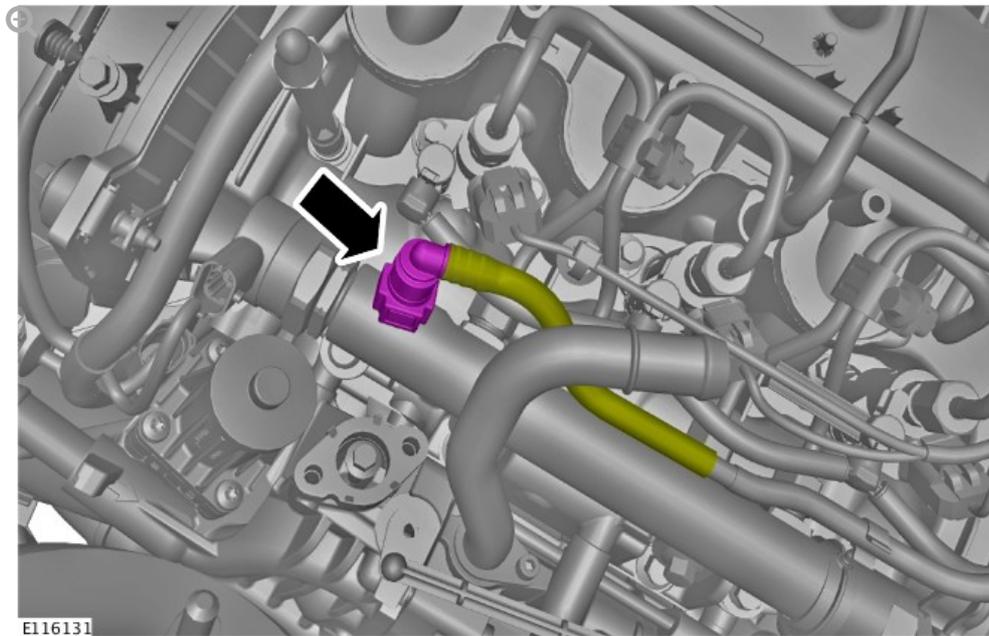


12.

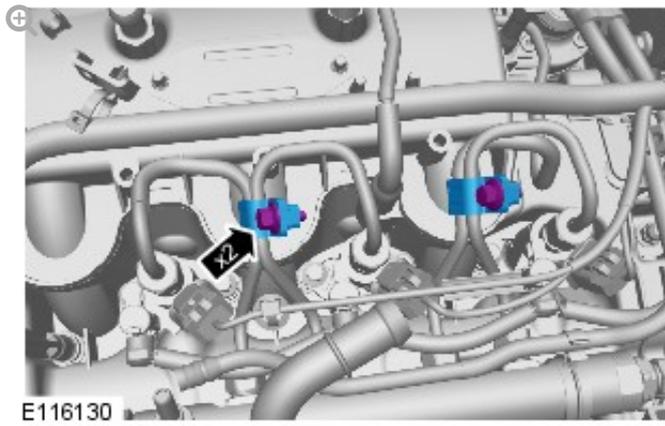
- Make sure that a new component is installed.
- Tighten the fuel supply line unions finger tight.



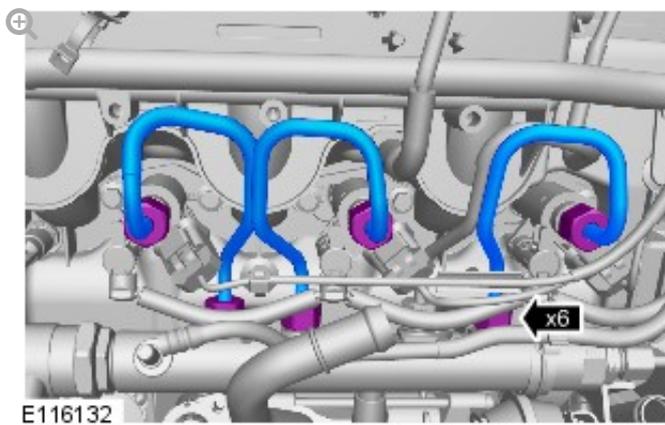
13.



14.



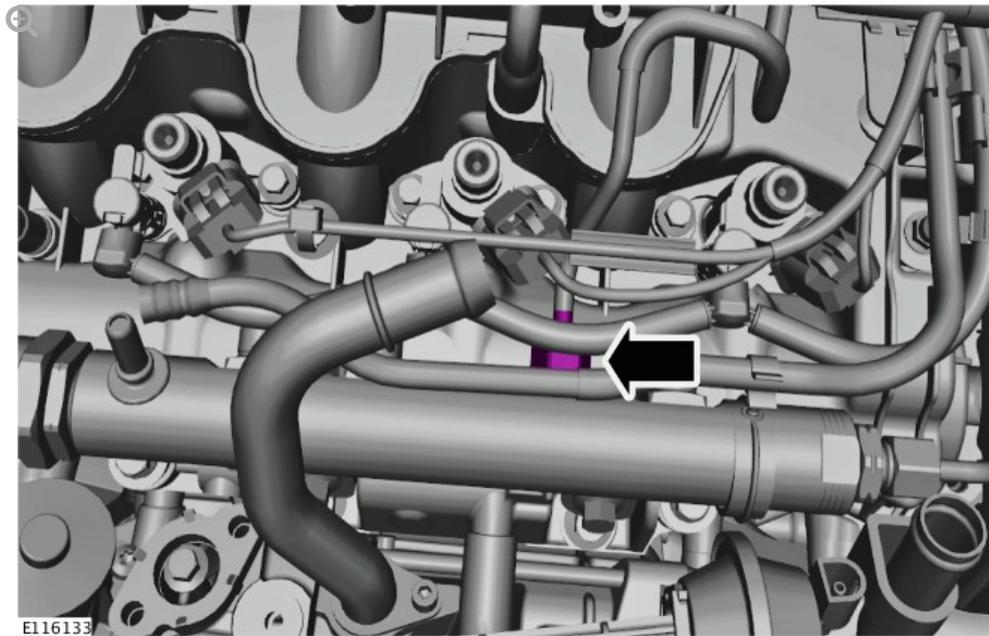
15.



- Stage 1: Tighten the high-pressure fuel supply line unions at the fuel rail to 15Nm.

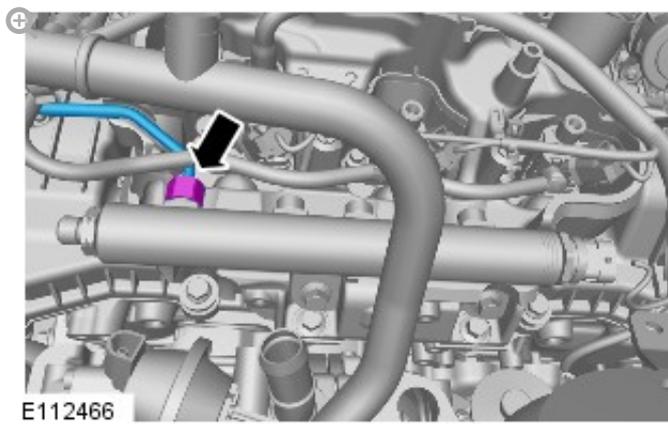
- Stage 2: Tighten the high-pressure fuel supply line unions at the injector to 15Nm.

16.



Tighten the high-pressure fuel lines union to 15Nm.

17.



Tighten the high-pressure fuel lines union to 15Nm.