

Exhaust Manifold RH (30.15.11)

Removal

- 1 . Disconnect the battery ground cable.

- 2 .



WARNING : Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Raise and support the vehicle.

- 3 . Drain the cooling system.

For additional information, refer to : Engine Cooling-2.7L, 303-03C.

- 4 . Remove the auxiliary battery tray.

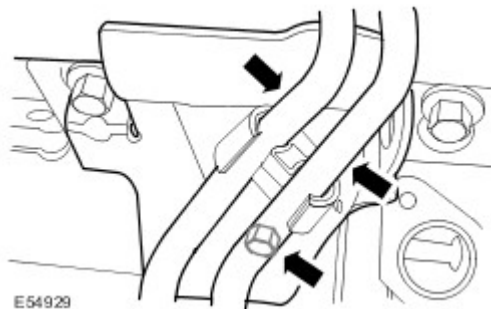
- 5 . Remove the RH exhaust gas recirculation (EGR) valve outlet tube.

For additional information, refer to : Engine Emission Control - 2.7L, 303-08C

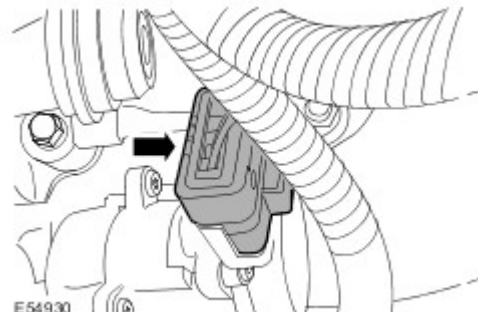
- 6 . Remove the fuel line bracket.

▶ Release the fuel lines.

▶ Remove the bolt.

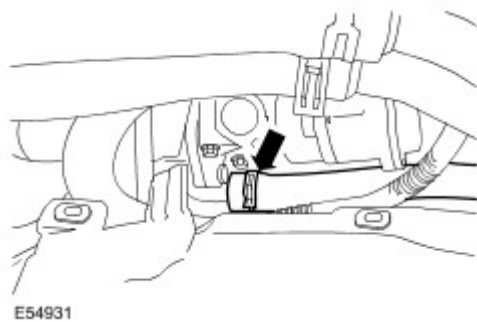


- 7 . Disconnect the EGR valve electrical connector.



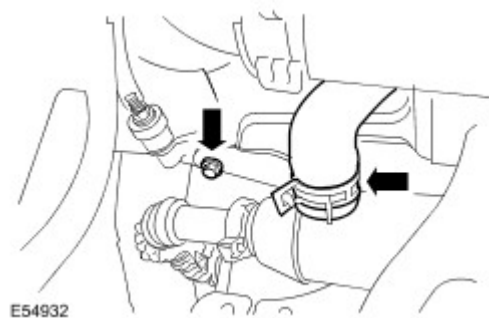
- 8 . Disconnect the coolant inlet hose from the EGR valve.

▶ Release the clip.



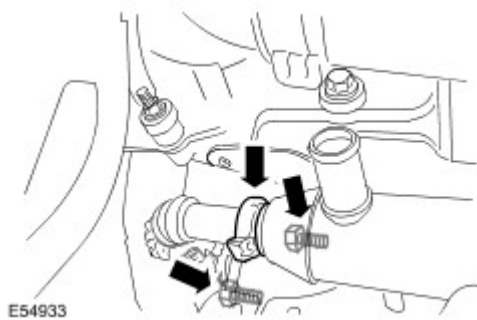
9 . Disconnect the coolant outlet hose from the EGR valve.

- ▶ Remove the bolt.
- ▶ Release the clip.



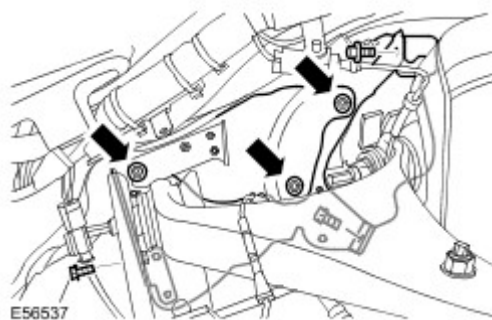
10 . Remove the EGR valve inlet tube.

- ▶ Release the clip.
- ▶ Remove the 2 bolts.
- ▶ Remove and discard the gasket.
- ▶ Remove and discard the clip.



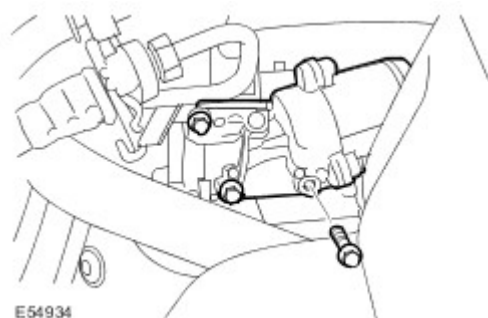
11 . Remove the RH front wheel and tire.

12 . Remove the upper suspension arm and brake line heat shields for access.



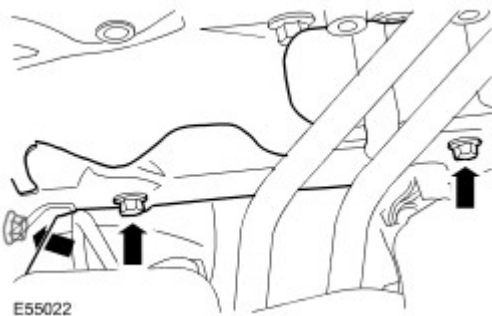
13 . Remove the RH EGR valve and cooler assembly.

▶ Remove the 3 bolts.

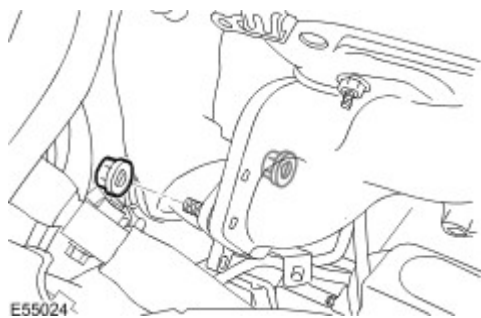


14 . Remove the RH exhaust manifold heat shield.

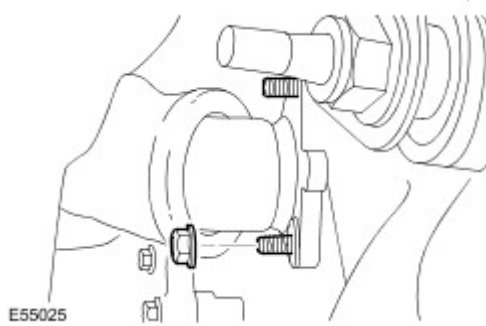
▶ Remove the 3 bolts.



15 . Remove the 2 exhaust cross-over pipe nuts.

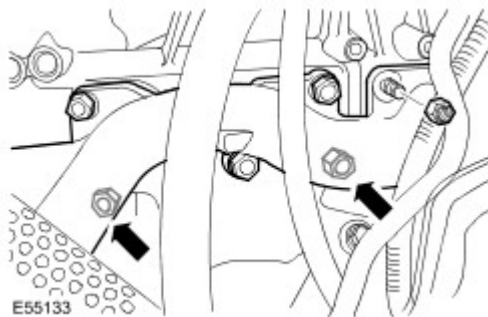


16 . Remove the remaining exhaust cross-over pipe nut.



17 . Remove the RH exhaust manifold.

- ▶ Remove the 6 nuts.
- ▶ Remove and discard the gasket.
- ▶ Remove and discard the studs.



Installation

1 . Tighten the exhaust manifold studs to 13 Nm (10 lb.ft).

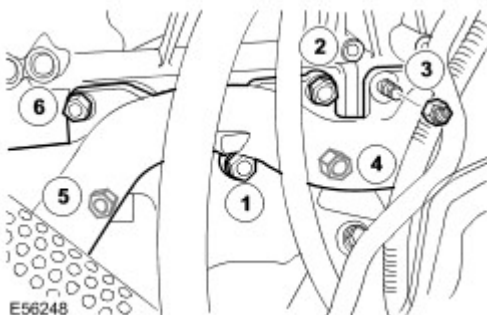
- ▶ Install a new gasket.

2 . **NOTE :**

Tighten the retaining nuts in the sequence shown.

Install the RH exhaust manifold.

- ▶ Tighten the nuts to 24 Nm (18 lb.ft).



3 . Tighten the exhaust cross-over pipe nut to 24 Nm (18 lb.ft).

4 . Tighten the 2 exhaust cross-over pipe nuts to 24 Nm (18 lb.ft).

5 . Install the RH exhaust manifold heat shield.

▶ Install the bolts and tighten to 10 Nm (7 lb.ft).

6 . Install the RH EGR valve and cooler assembly.

▶ Install the EGR valve bolts, but do not fully tighten at this stage.

7 . **NOTE :**

Do not fully close the retaining clip at this stage.

Install the EGR valve inlet tube.

▶ Install a new gasket.

▶ Install a new clip.

▶ Loosely install the 2 EGR valve inlet tube bolts.

8 . Fully close the clip.

9 . Tighten the two EGR valve inlet tube bolts to 10 Nm (7 lb.ft).

10 . Tighten the three EGR valve bolts to 10 Nm (7 lb.ft).

11 . Install the upper suspension arm and brake line heat shields.

12 . Install the wheel and tire.

13 . Tighten the EGR valve bolt to 10 Nm (7 lb.ft).

14 . Connect the coolant outlet hose to the EGR valve.

15 . Connect the coolant inlet hose to the EGR valve.

16 . Connect the EGR valve electrical connector.

17 . Install the fuel line bracket.

▶ Install the fuel line retaining bracket bolt and tighten to 10 Nm (7 lb.ft).

▶ Secure the fuel lines.

18 . Install the RH EGR valve outlet tube.

For additional information, refer to : Engine Emission Control - 2.7L, 303-08C

19 . Install the auxiliary battery tray.

20 . Connect the battery ground cable.

21 . Fill and bleed the cooling system.

For additional information, refer to: Engine Cooling-2.7L, 303-03C.