

## Manual Transmission – Remove and Install (2,0 DOHC 8V Engine) (16 114 0)

### Workshop Equipment

|                   |
|-------------------|
| Transmission jack |
|-------------------|

### Materials

|                              |             |
|------------------------------|-------------|
| Brake fluid<br>(Super Dot 4) | ESD-M6C57-A |
|------------------------------|-------------|

### Remove

#### 1. Standard preparatory measures:

- Make a note of the radio keycode.
- Make a note of the preset radio stations.

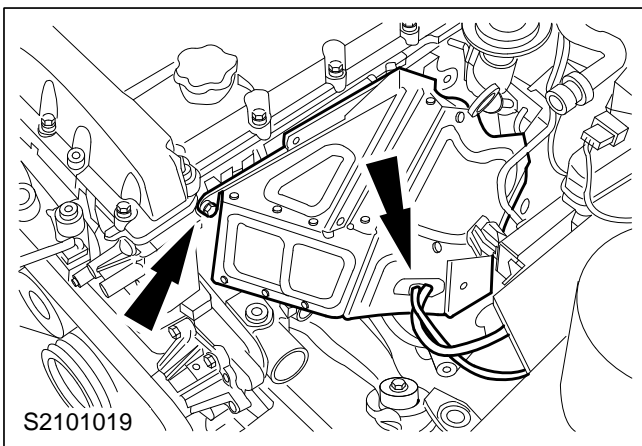


**CAUTION:** Disconnect the battery negative lead.

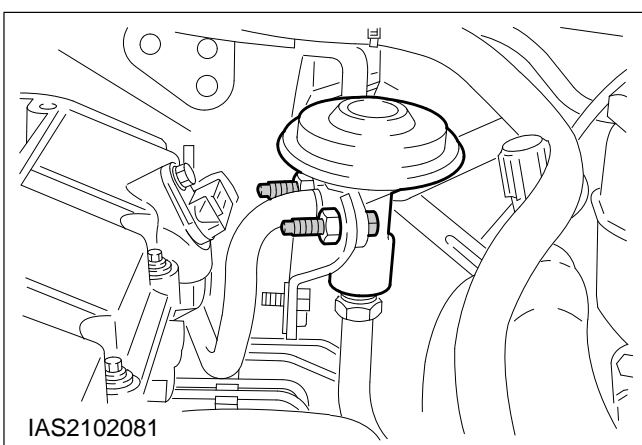
#### 2. Remove the battery cover.

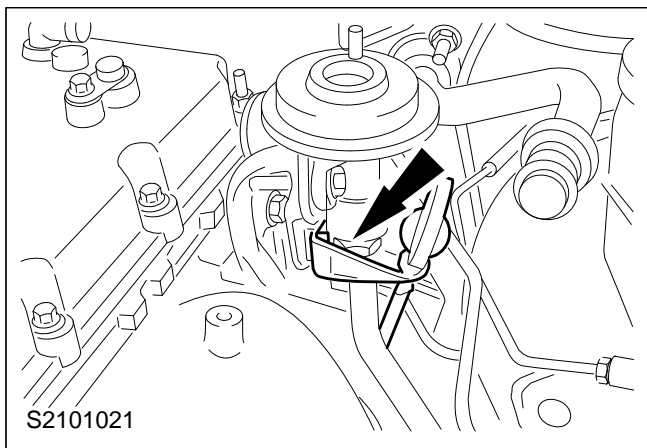
#### 3. Detach the exhaust manifold upper and lower heat shield in one piece (four bolts).

Disconnect the vacuum hoses to the DPFE sensor (electronic differential pressure feedback system).

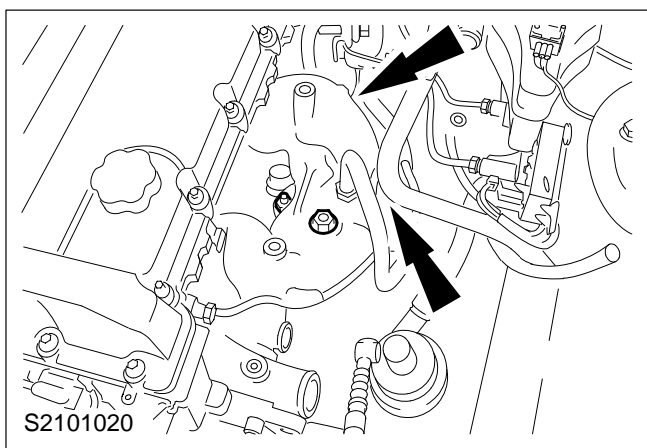


#### 4. Detach the exhaust gas recirculation (EGR) valve and pull it away from the engine.

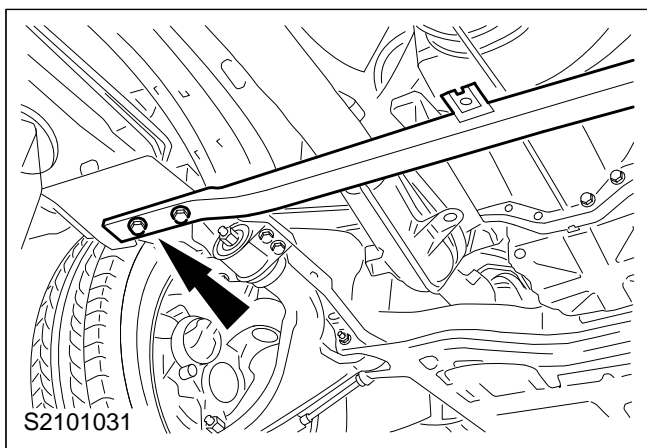




5. Remove the oil dipstick tube.

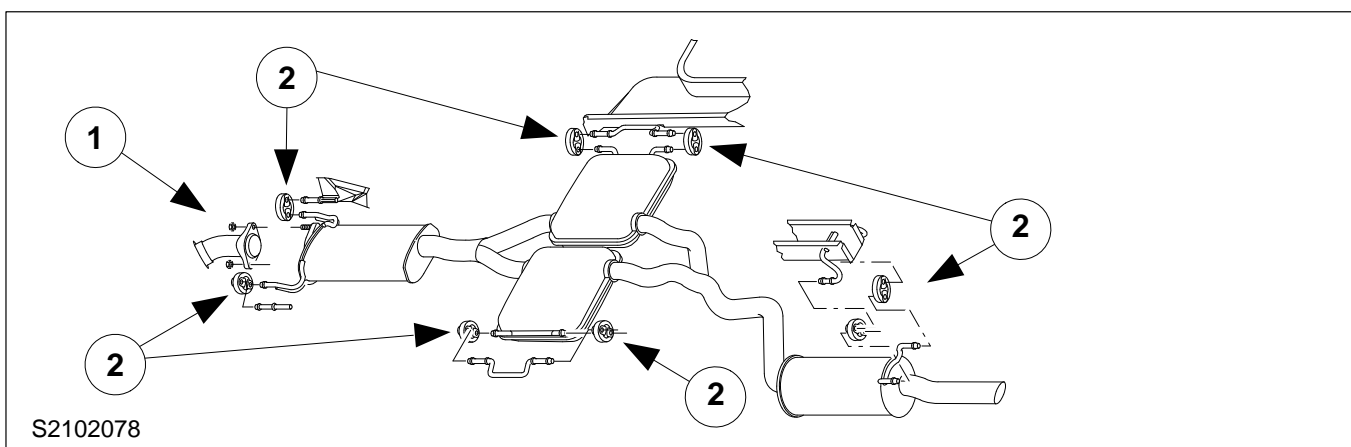


6. Detach the catalytic converter from the exhaust manifold (four nuts).



7. Detach the front axle transverse brace (left-hand side shown).

Raise the vehicle.

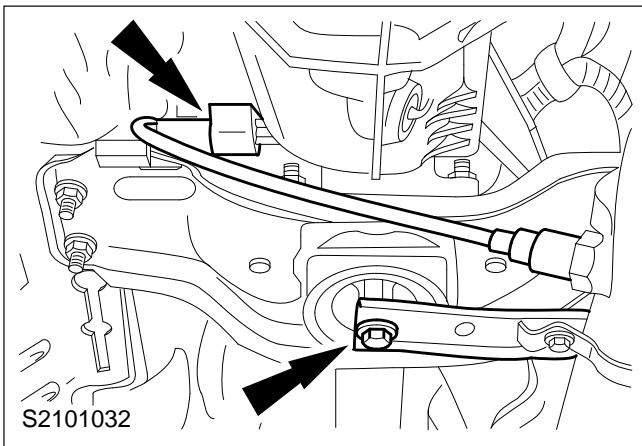


**8. Remove the rear part of the exhaust system.**

- 1 Detach the exhaust flange.
- 2 Unhook the rubber insulators.

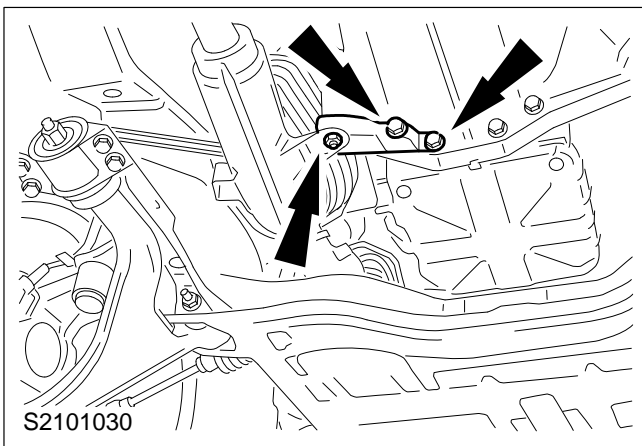
**9. Detach the exhaust mounting bracket.**

Disconnect the multiplug from the heated oxygen (HO<sub>2</sub>S) sensor.

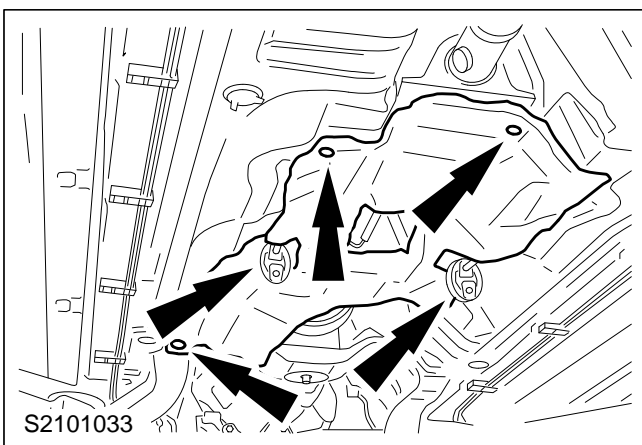


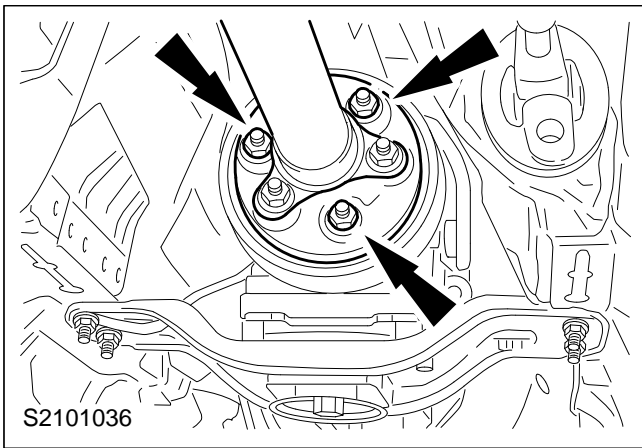
**10. Remove the front part of the exhaust system.**

- Detach the catalytic converter from the engine mounting bracket.
- Remove the catalytic converter.



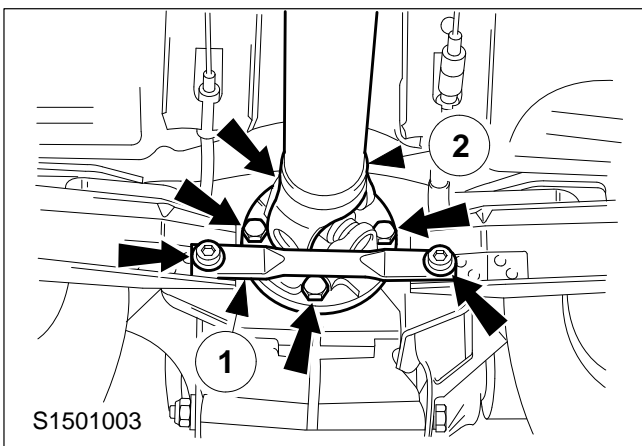
**11. Detach the exhaust system heat shield.**





**⚠ CAUTION:** Do not disconnect the driveshaft from the rubber coupling.

**12. Disconnect the driveshaft from the vibration damper.**

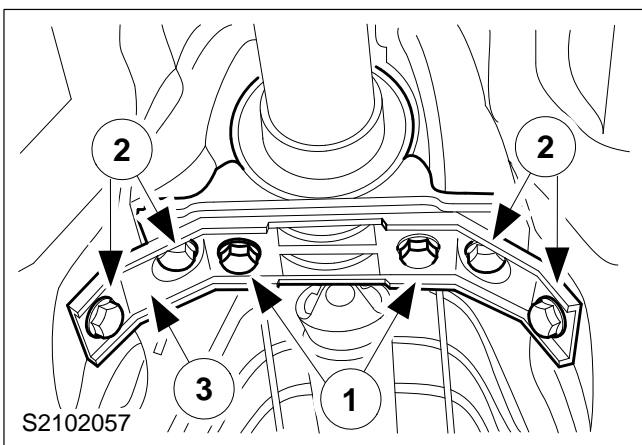


**⚠ CAUTION:** The driveshaft is precision-balanced by bolts of different lengths. Mark the position of the driveshaft and the bolts.

**13. Detach the driveshaft from the rear axle.**

**NOTE:** The transverse brace will no longer be installed in vehicles built from Jan '96 onwards.

- 1 Detach the transverse brace from the rear axle.
- 2 Detach the driveshaft.

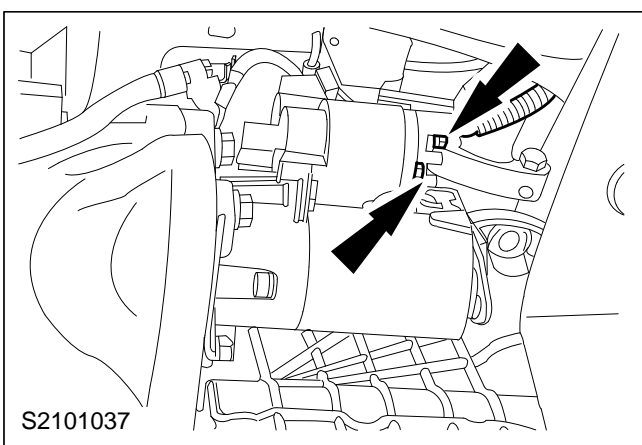


**14. Remove the driveshaft.**

- 1 Slacken the bolts.
- 2 Unscrew the bolts.

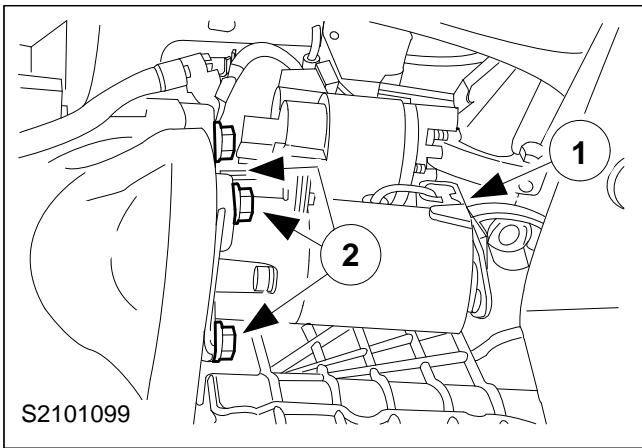
**NOTE:** There are spacer washers between the floor assembly and the centre bearing.

- 3 Turn both brackets through 90° and remove the driveshaft.



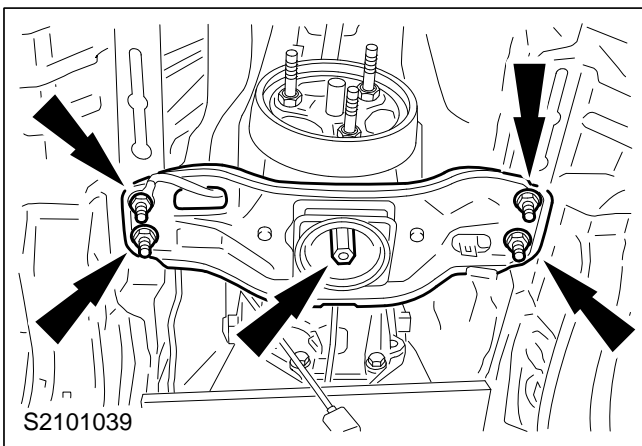
**15. Disconnect the starter motor.**

Disconnect the wiring from the solenoid.



**16. Remove the starter motor.**

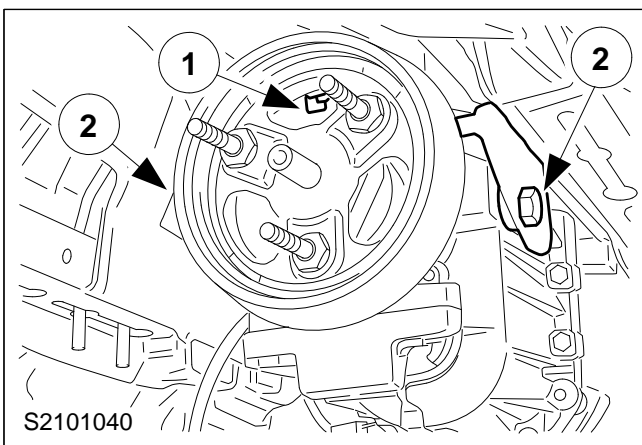
- 1 Detach the bracket from the cylinder block.
- 2 Unscrew the bolts.



**17. Support the transmission on a transmission jack.**

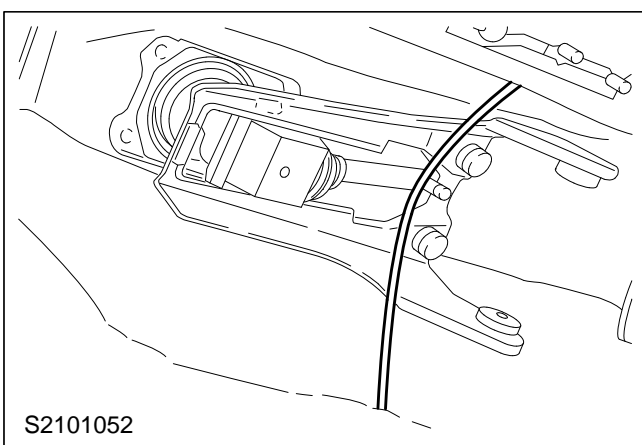
**18. Detach the transmission crossmember.**

Lower the transmission assembly.

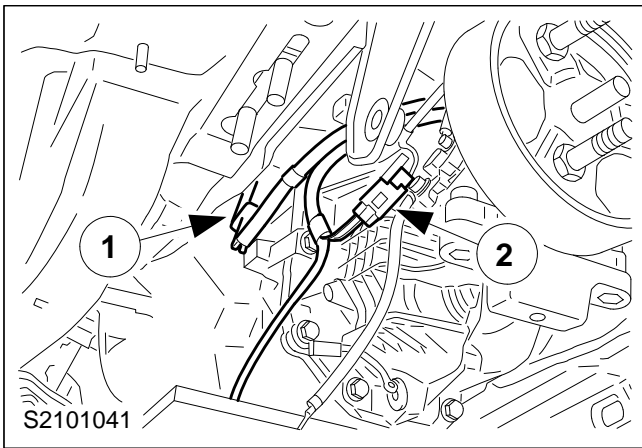


**19. Detach the gearshift support bracket from the transmission.**

- 1 Disconnect the gearshift linkage from the coupling.
- 2 Detach the gearshift support bracket (two bolts).

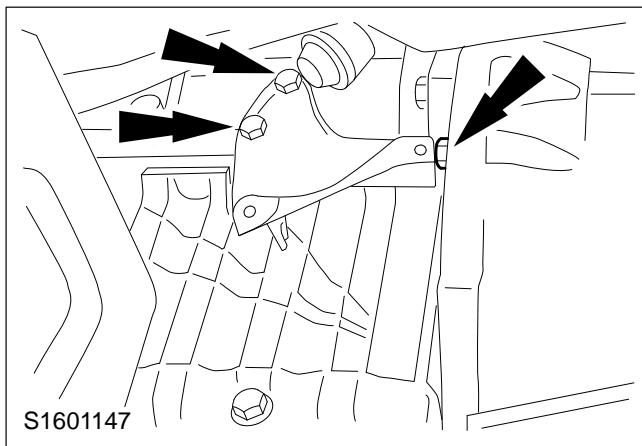


**20. Hold the gearshift support bracket in position and support it with a length of round steel rod.**



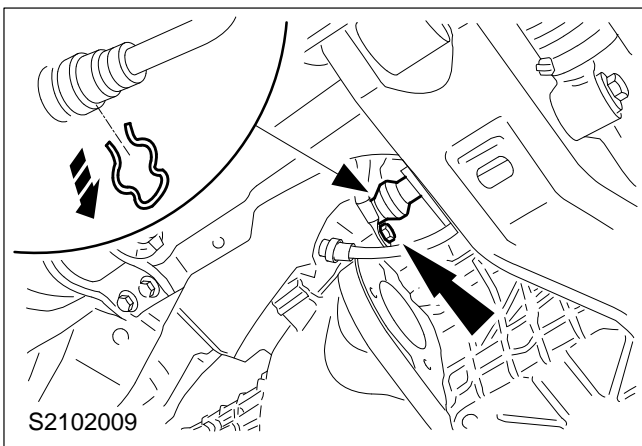
**21. Disconnect the multiplug.**

- 1 Reversing light switch.
- 2 Vehicle speed sensor (VSS).
- Disconnect the wiring loom completely from the transmission.



**22. Detach the bracket from the cylinder block.**

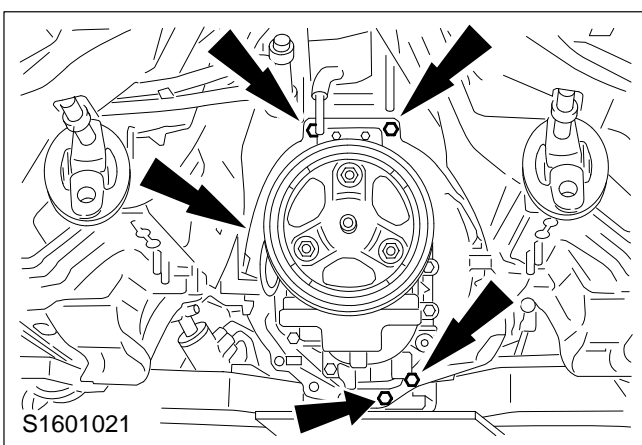
**23. Release the adaptor plate.**



**WARNING:** Seal the line ends with suitable plugs.

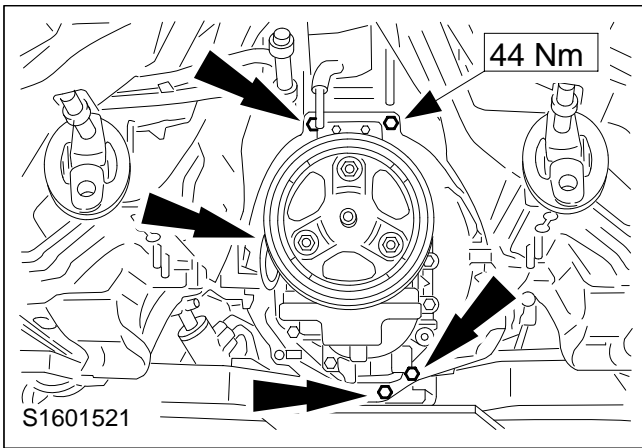
**24. Disconnect the hydraulic line from the clutch.**

**25. Disconnect the ground lead.**



**26. Remove the transmission assembly.**

- Unscrew the remaining flange bolts.
- Detach the transmission from the engine and lower it.

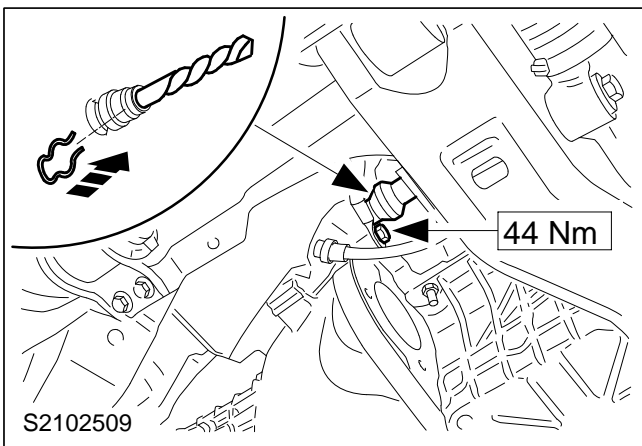


## Install

**NOTE:** Make sure the adaptor plate is positioned correctly.

### 27. Position the transmission on the engine.

Tighten the flange bolts.



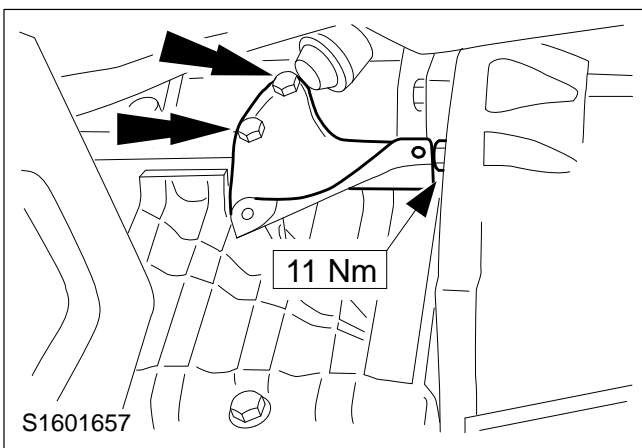
### 28. Connect the transmission ground lead.

Tighten the flange bolts.

**NOTE:** Make sure that the quick-release coupling locks securely.

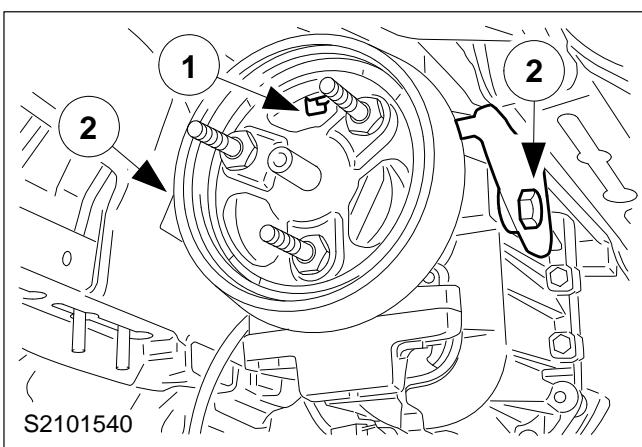
### 29. Connect the hydraulic line to the clutch.

- Insert a clean, burr-free drill bit ( $\varnothing$  9,5 mm) in the quick-release coupling as a guide for the spring clip.
- Fit the spring clip, remove the drill and compress the quick-release coupling.



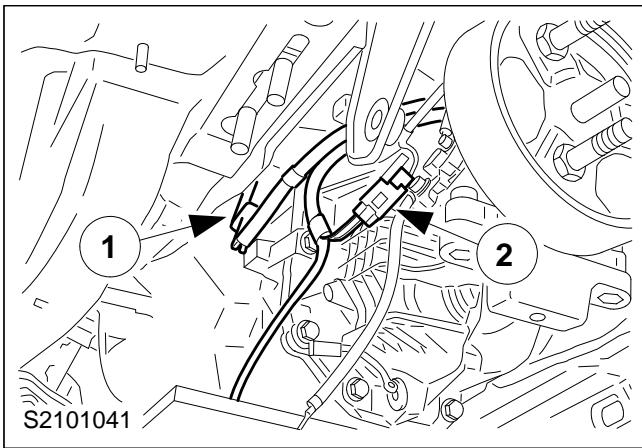
### 30. Secure the adaptor plate.

### 31. Attach the bracket to the cylinder block.



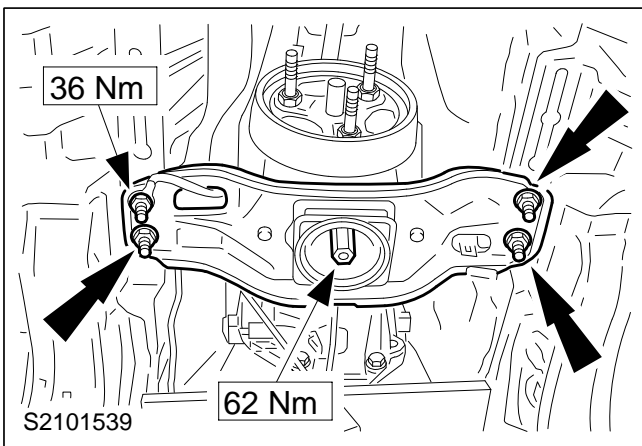
### 32. Attach the gearshift support bracket to the transmission.

- 1 Locate the gearshift linkage in position and attach it to the coupling.
  - 2 Tighten the two bolts to 11 Nm.
- Remove the length of round steel rod used to support the gearshift support bracket.



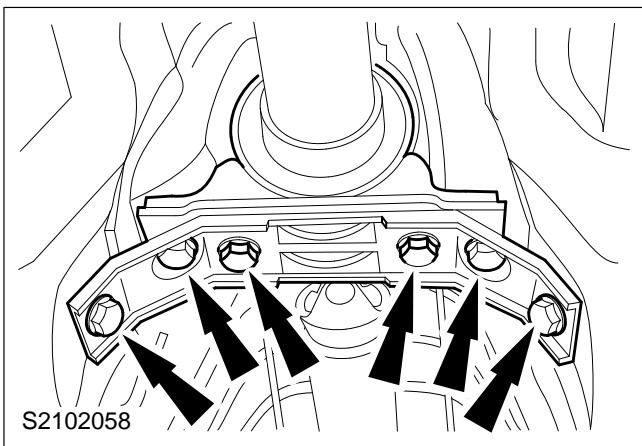
**33. Connect the plugs.**

- 1 Reversing light switch.
  - 2 Vehicle speed sensor (VSS).
- Lay the wiring loom in position.

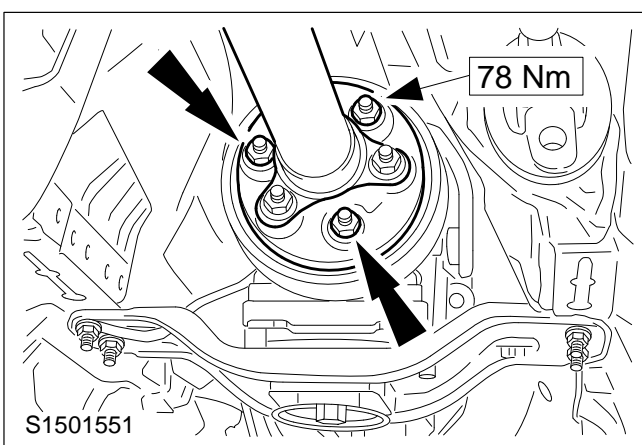


**34. Attach the transmission crossmember to the transmission and floor assembly.**

Remove the transmission jack.

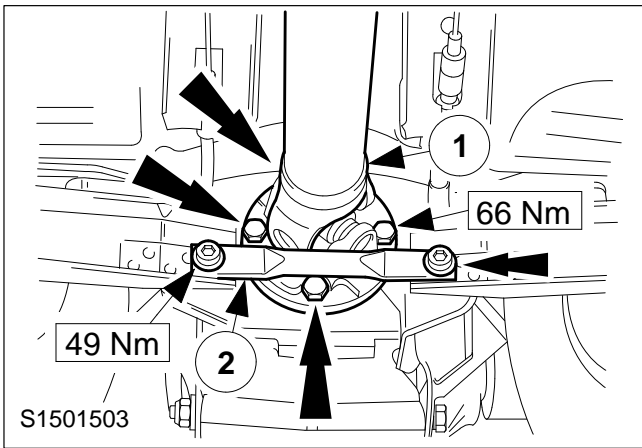


**35. Attach the centre bearing loosely.**



**36. Attach the driveshaft to the vibration damper.**





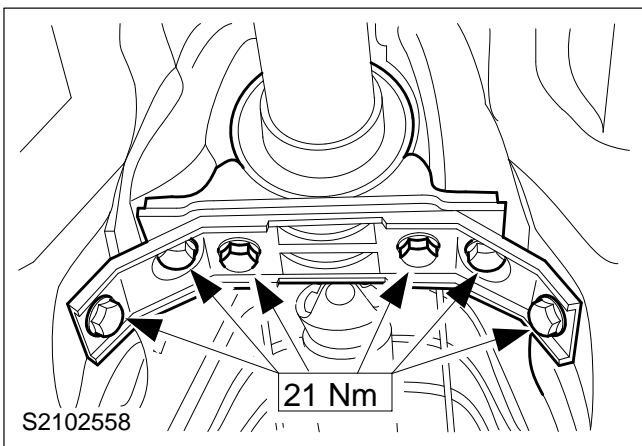
**⚠ CAUTION:** The driveshaft is precision-balanced by bolts of different lengths. Mark the position of the driveshaft and the bolts.

**37. Install the driveshaft (continued).**

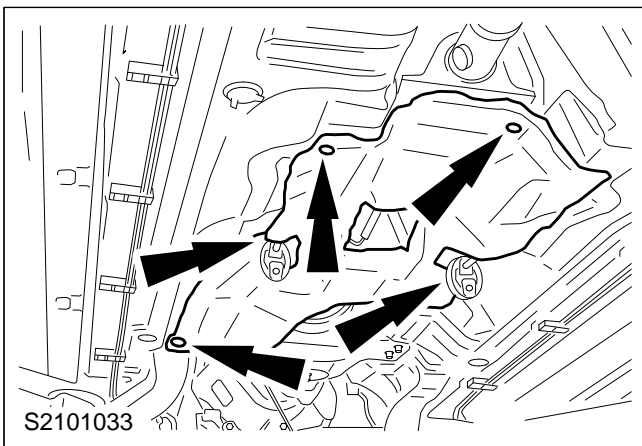
1 Attach the driveshaft to the rear axle flange.

**NOTE:** For vehicles built from Jan onwards. The transverse brace will not be installed from '96 onwards.

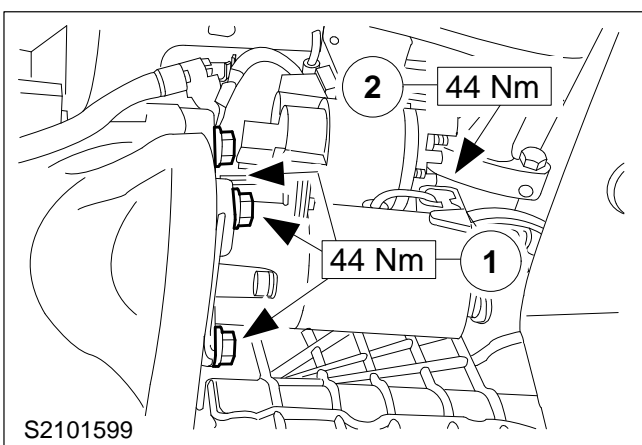
2 Attach the transverse brace.



**38. Align the centre bearing free of stress and secure it.**



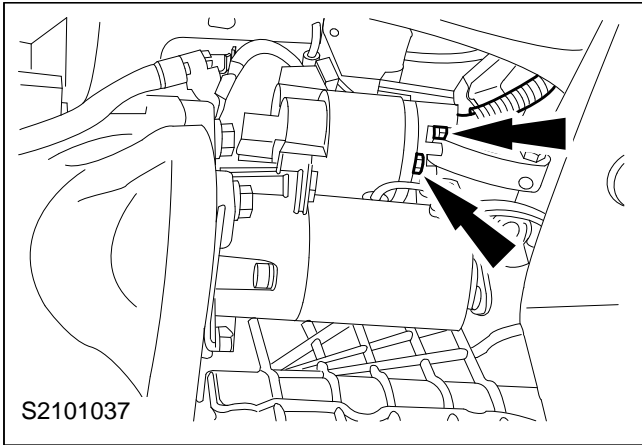
**39. Fit the exhaust system heat shield.**



**40. Install the starter motor.**

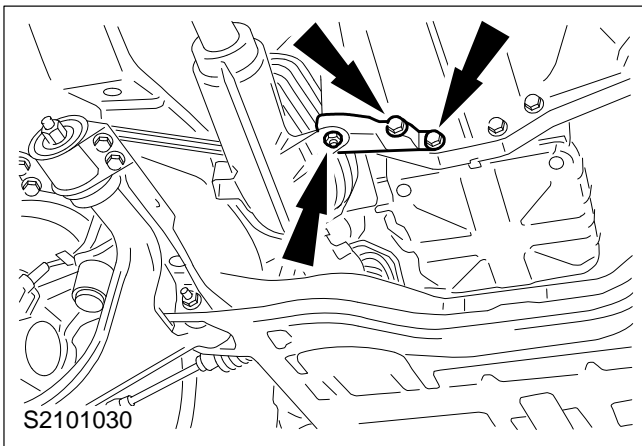
1 Tighten the bolts.

2 Tighten the bracket on the cylinder block.



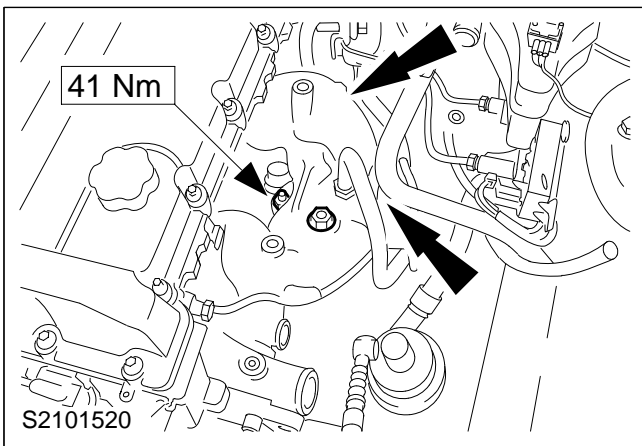
**41. Connect the starter motor wiring.**

Tighten the two nuts.

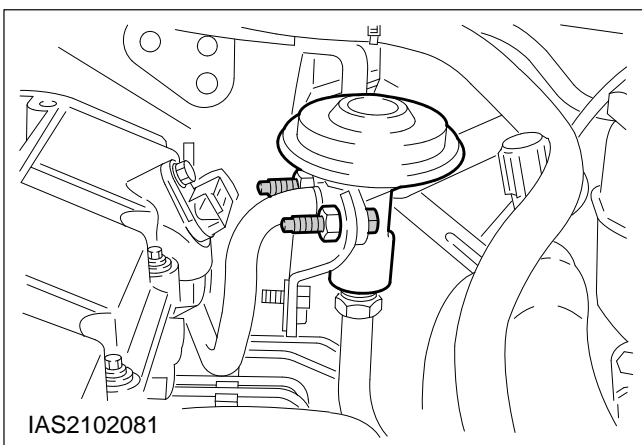


**42. Attach the front part of the exhaust system loosely.**

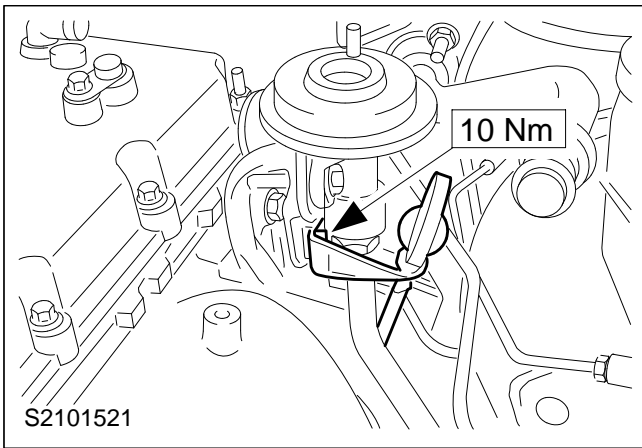
Lower the vehicle.



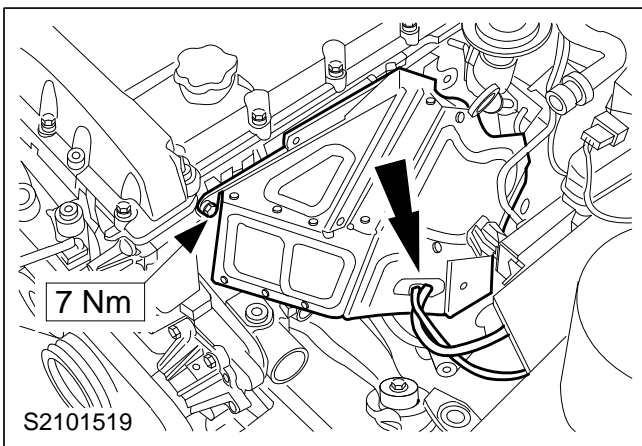
**43. Secure the catalytic converter to the exhaust manifold.**



**44. Locate the exhaust gas recirculation valve (EGR valve) in position and attach it to the engine.**

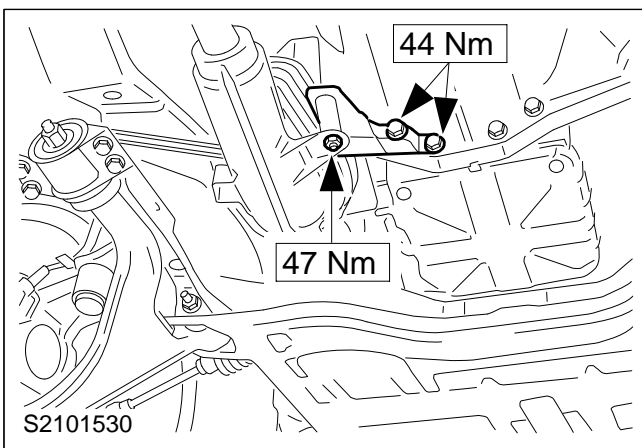


**45. Install the oil dipstick tube.**



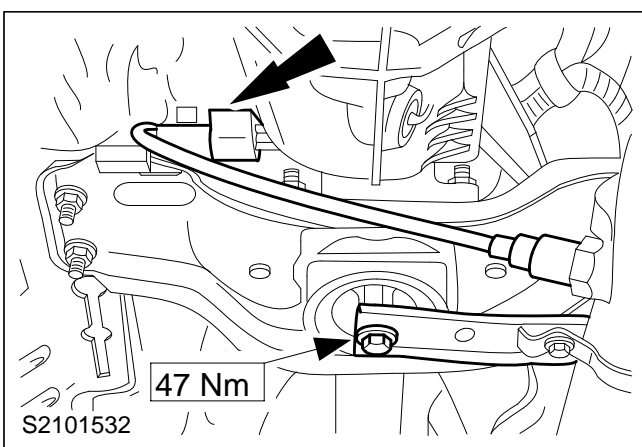
**46. Fit the exhaust manifold upper and lower heat shield (four bolts).**

Connect the vacuum hoses to the DPFE sensor (differential pressure feedback EGR).



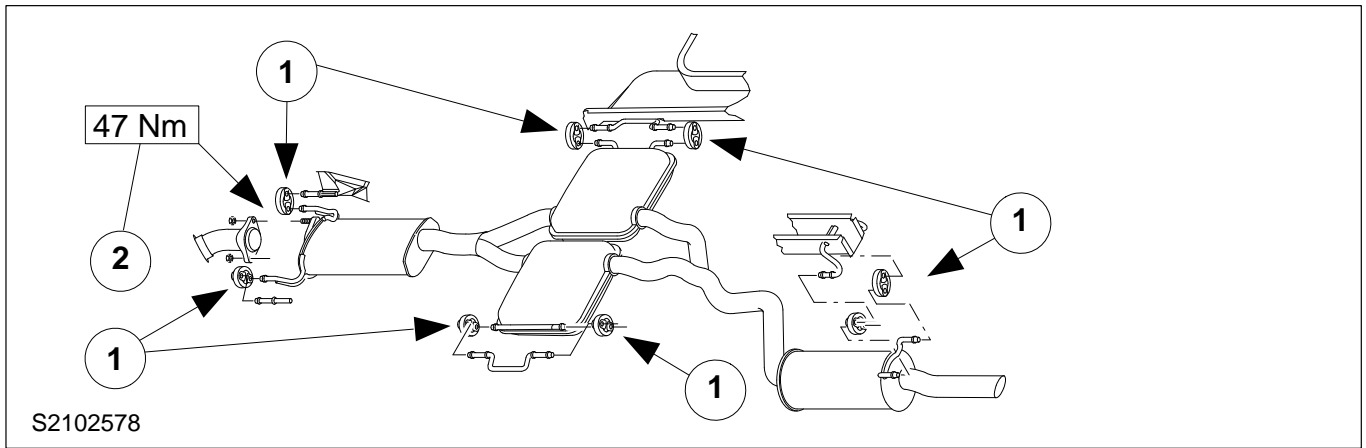
**47. Secure the exhaust mounting brackets.**

Raise the vehicle.



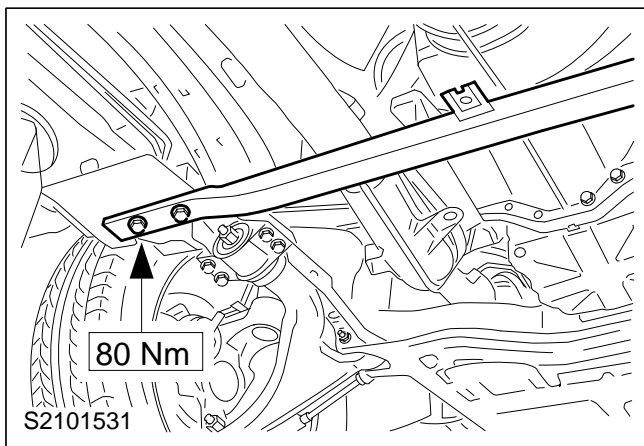
**48. Attach the exhaust mounting bracket.**

Connect the multiplug to the HO2S sensor and clip it in place.



**49. Install the rear part of the exhaust system.**

- 1 Attach the rubber insulators.
- 2 Secure the exhaust flange.



**50. Fit the front axle transverse brace (left-hand side shown).**

Fit the engine undershields (when applicable).

**51. Check the transmission fluid level.**

- Top up the fluid to the lower edge of the level check bore.
- Tighten the oil filler plug to 35 Nm.

**52. Bleed the hydraulic system as described in Operation No. 16 843 0.**

**53. Standard finishing operations:**

- Check the routing of the wiring and secure it with cable ties.
- Connect the battery negative lead and fit the battery cover.
- Enter the radio keycode and reprogramme the preset radio stations.
- Reset the clock.
- Carry out a road test to enable the PCM (EEC V) to gather data.