

## Automatic Transmission Assembly – Remove and Install (2,0 DOHC 16V Engine) (17 214 0)

### Workshop Equipment

Transmission jack	
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### Materials

High-temperature grease	ESDM-1C220-A
Automatic transmission fluid (build date up to August '96)	ESP-M2C166-H
Automatic transmission fluid (build date from August '96 onwards)	WSS-M2C202-B
Automatic transmission fluid for vehicles with 2,3 DOHC 16V engine	WSS-M2C202-B

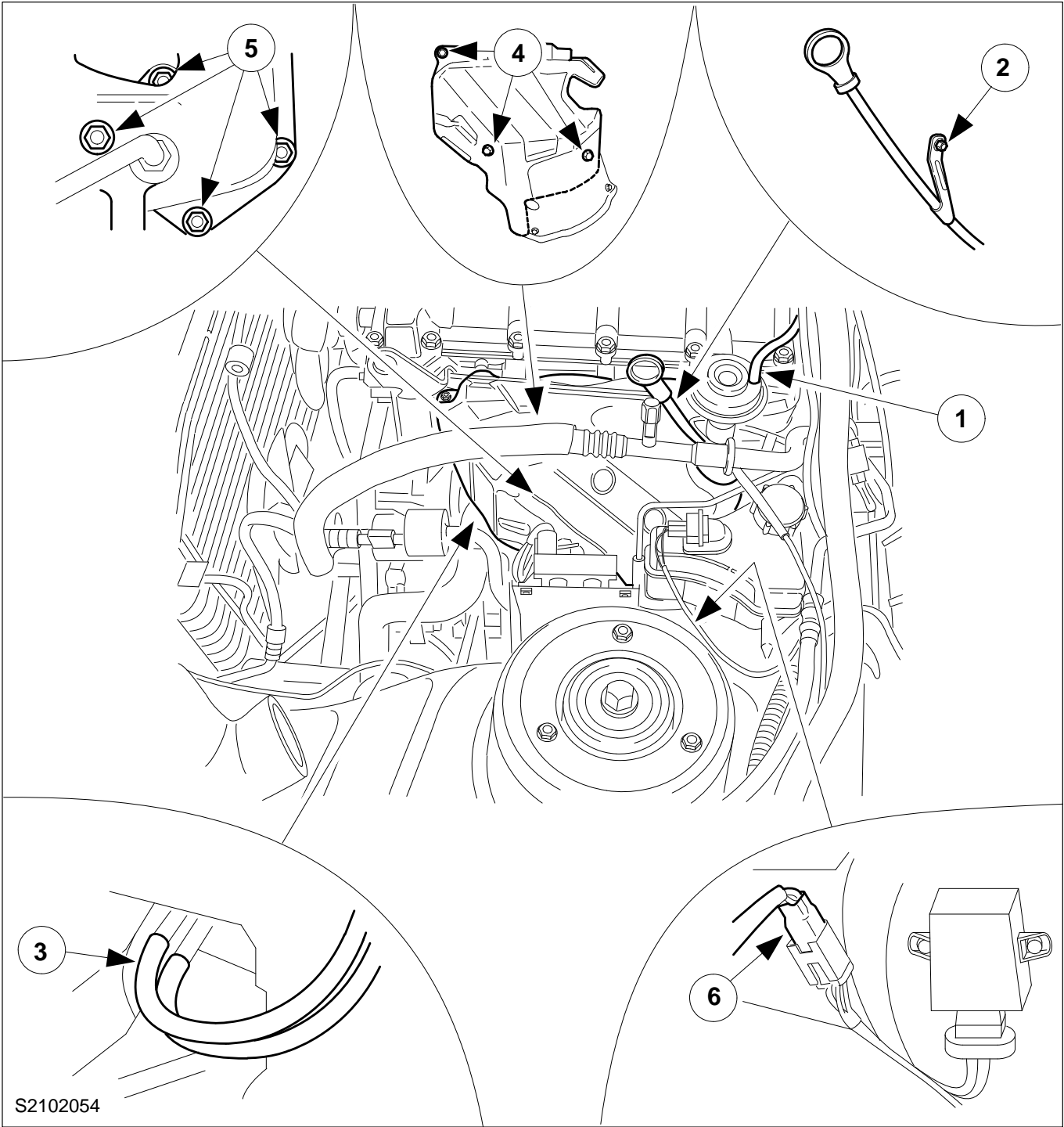
### Remove

#### 1. Standard preparatory operations

- Make a note of the radio keycode.
- Make a note of the preset radio stations.
- Detach the battery cover.

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

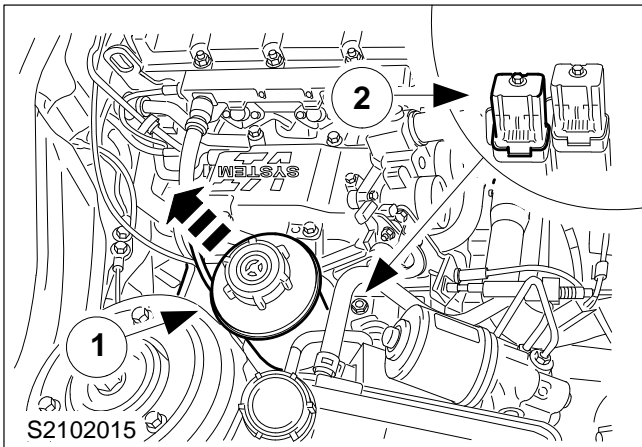
- Withdraw the transmission fluid dipstick.



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**Detach the parts mounted on the left-hand side of the engine.**

Item	Description	Item	Description
1	Disconnect the vacuum line from the exhaust gas recirculation valve (EGR valve).	4	Detach the heat shield.
2	Remove the dipstick tube.	5	Detach the catalytic converter from the exhaust manifold.
3	Disconnect the vacuum lines from the exhaust gas recirculation pipes.	6	Disconnect the oxygen sensor (HO2S sensor) multiplug.

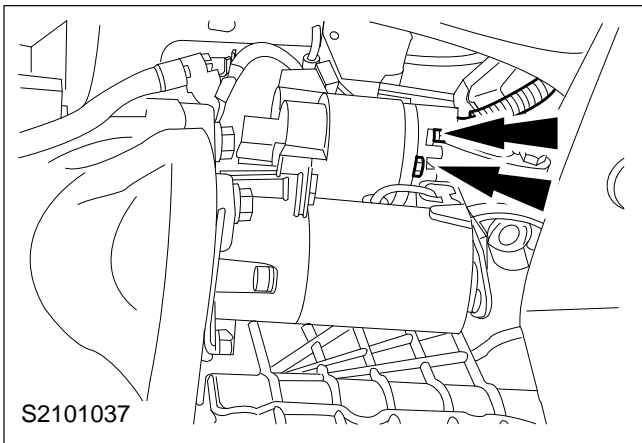


**2. Separate the main connector of the transmission main wiring loom.**

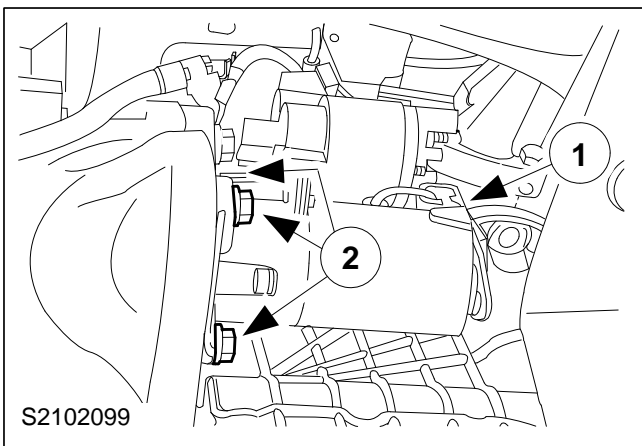
1 Unhook the power steering reservoir and lay it to one side.

2 Unscrew the centre bolt and disconnect the plug.

Raise the vehicle.



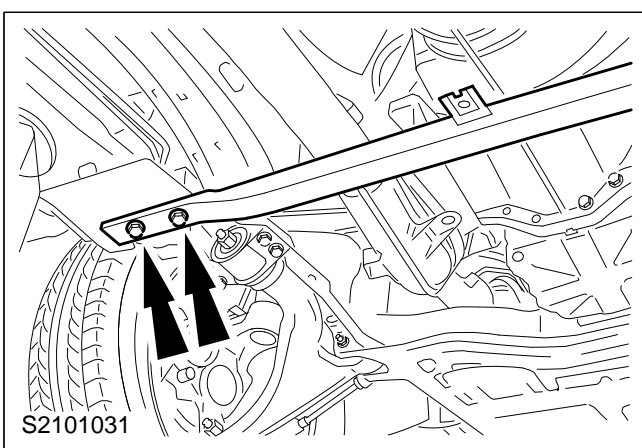
**3. Disconnect the starter motor wiring.**



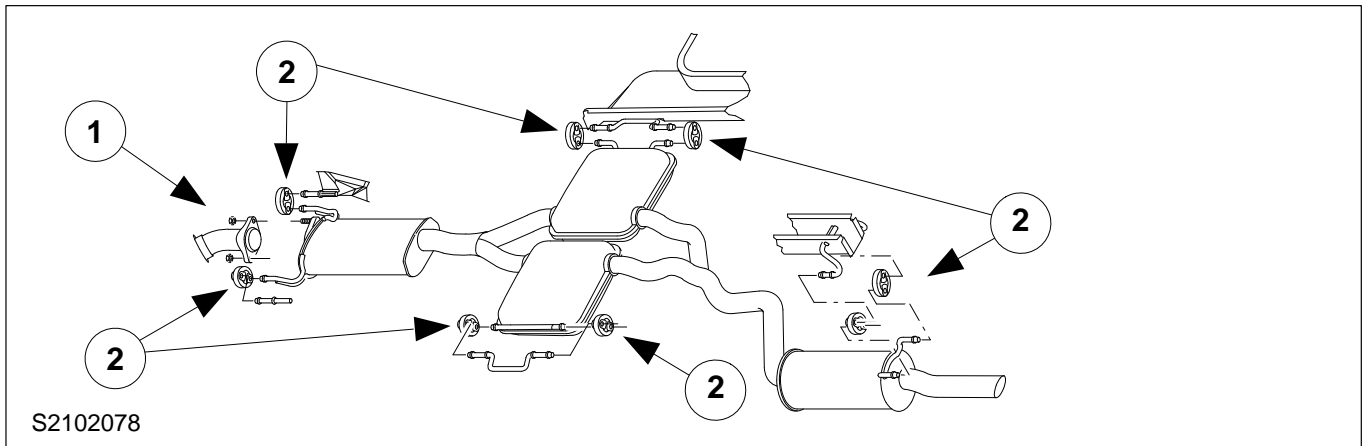
**4. Remove the starter motor.**

1 Detach the bracket from the cylinder block.

2 Unscrew the bolts.

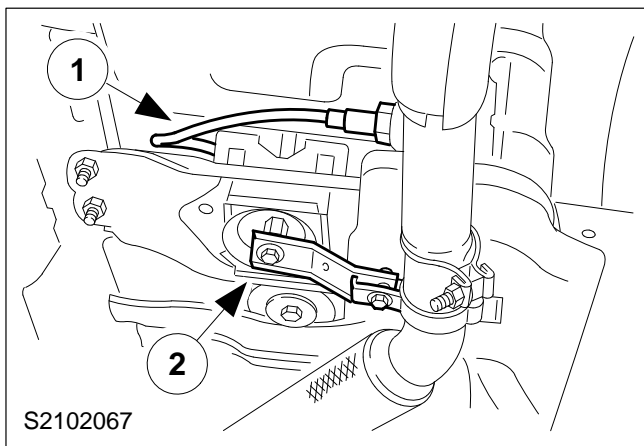


**5. Detach the front axle transverse brace (left-hand side shown).**



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

- 1 Disconnect the exhaust flange.
- 2 Unhook the mountings.

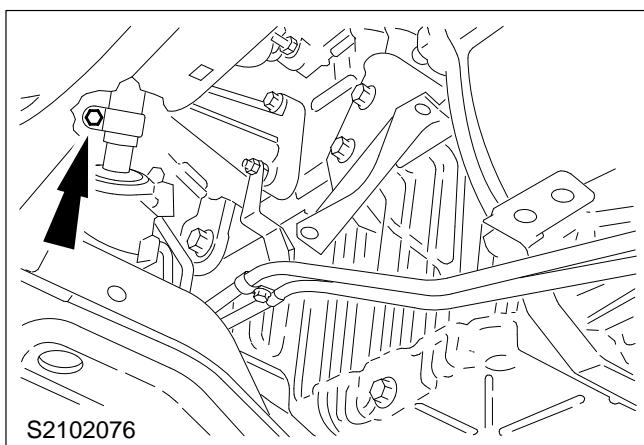


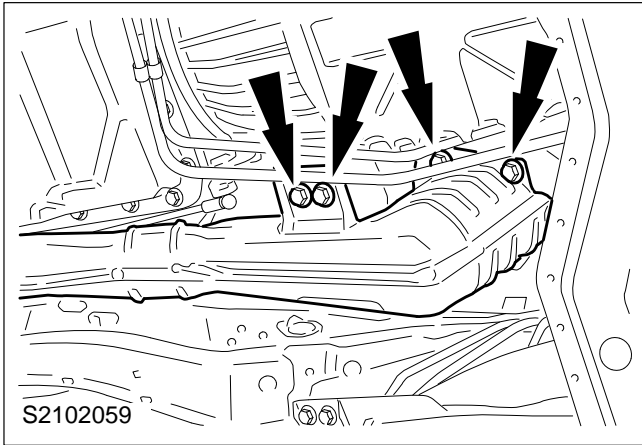
**7. Remove the catalytic converter.**

- 1 Disconnect the oxygen sensor (HO2S sensor).
- 2 Detach the bracket from the transmission crossmember.

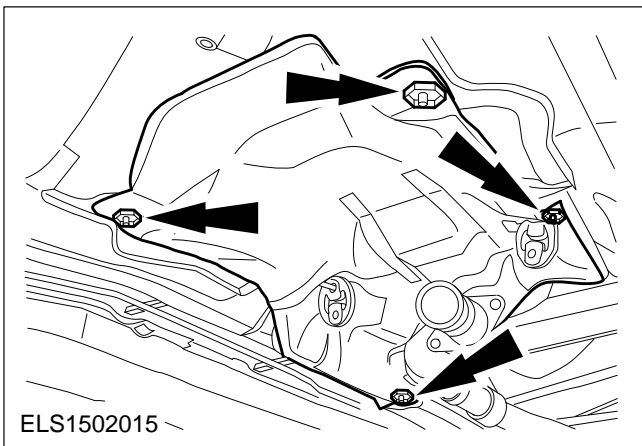
**NOTE:** This step is necessary to ensure that the oxygen sensor is not damaged when the catalytic converter is removed.

**8. Turn the steering intermediate shaft to the appropriate position.**

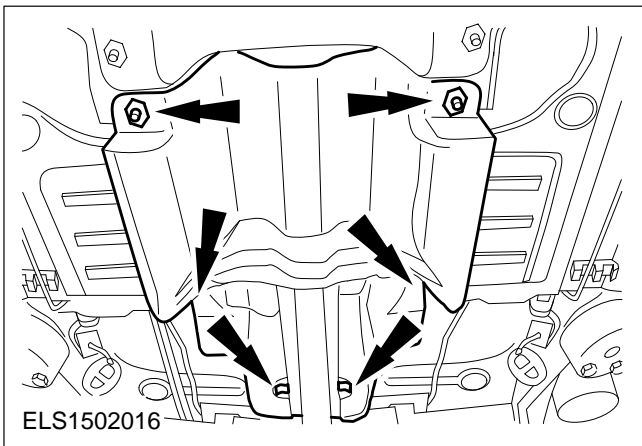




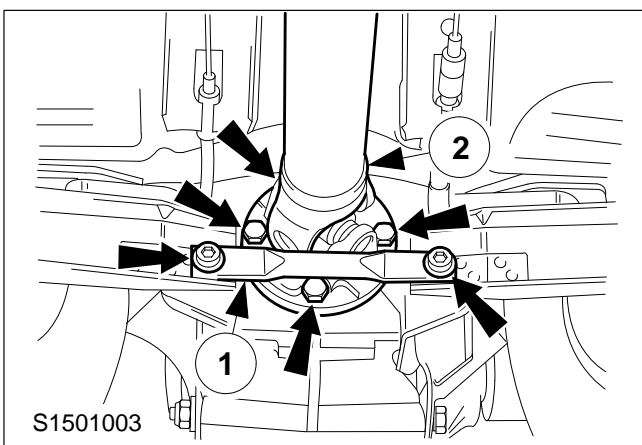
**9. Remove the catalytic converter (continued).**



**10. Detach the heat shield for the front part of the exhaust system.**



**11. Detach the heat shield for the rear part of the exhaust system.**

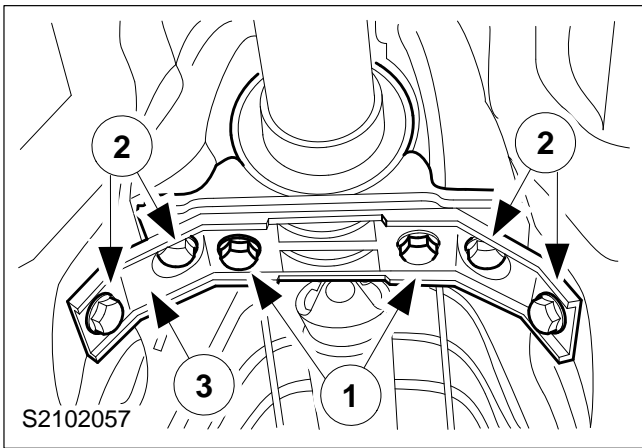


**⚠ CAUTION:** The driveshaft is finely balanced using bolts of different lengths. Mark the installation position of the driveshaft and the bolts.

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

**NOTE:** There is no transverse brace on vehicles from 01/96 onwards.

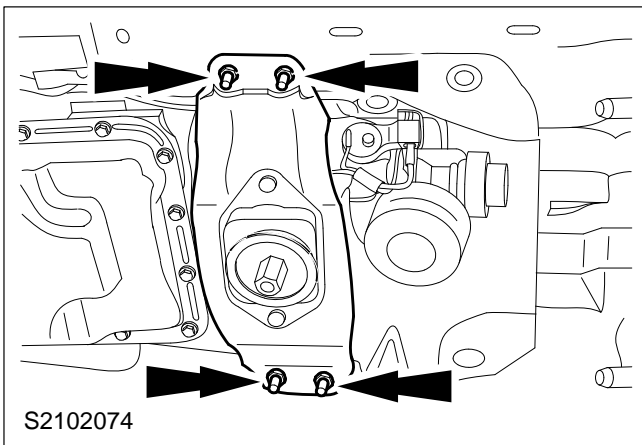
- 1 Detach the transverse brace from the rear axle.
- 2 Detach the driveshaft.



**NOTE:** Adjustment shims between floor assembly and centre bearing.

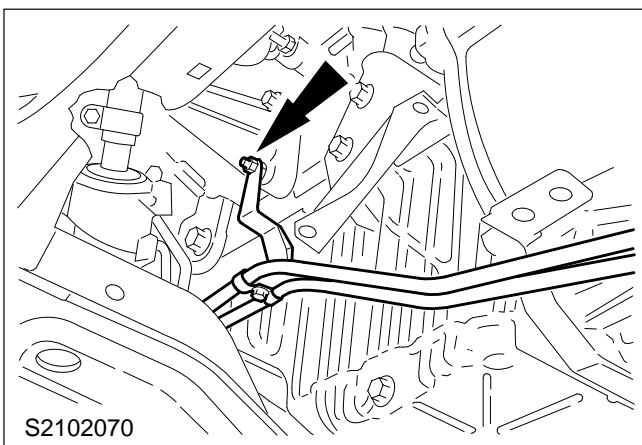
### 13. Remove the driveshaft.

- 1 Slacken the bolts.
  - 2 Unscrew the bolts.
  - 3 Turn the two brackets through 90°.
- Withdraw the driveshaft from the automatic transmission.
  - Close off the openings in the automatic transmission with auxiliary plugs.



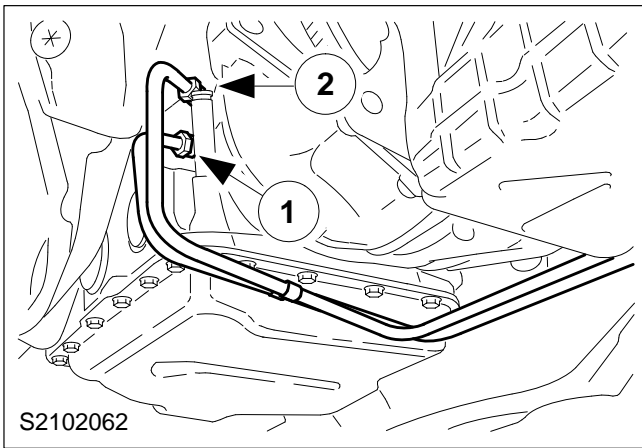
### 14. Lower the rear of the transmission.

- Position a transmission jack underneath.
- Detach the transmission crossmember from the body.
- Detach the shift rod from the selector lever.
- Lower the transmission.



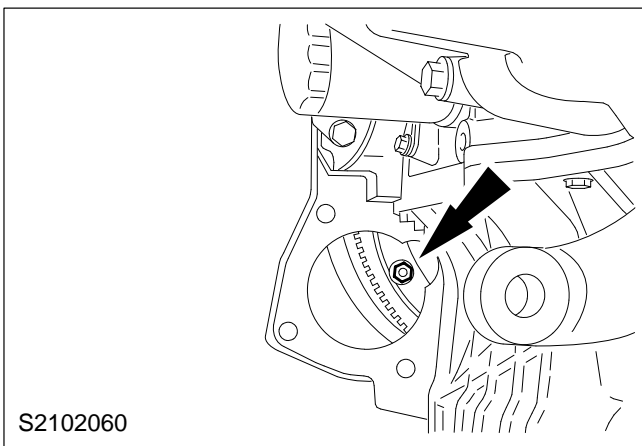
### 15. Disconnect the transmission fluid pipes running to the transmission fluid cooler.

Detach the bracket from the engine mounting.



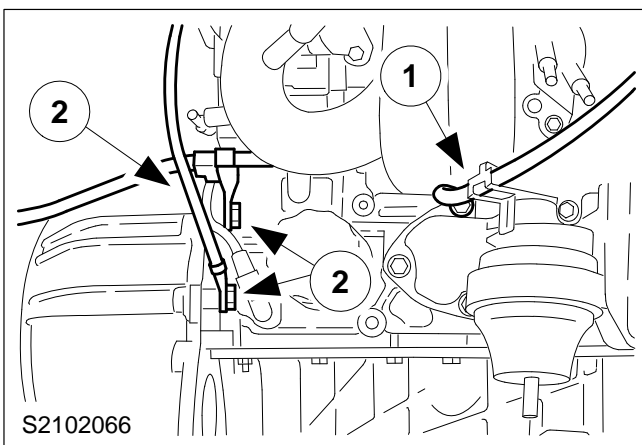
**16. Disconnect the fluid pipes from the automatic transmission.**

- 1 Return pipe.
- 2 Feed pipe.



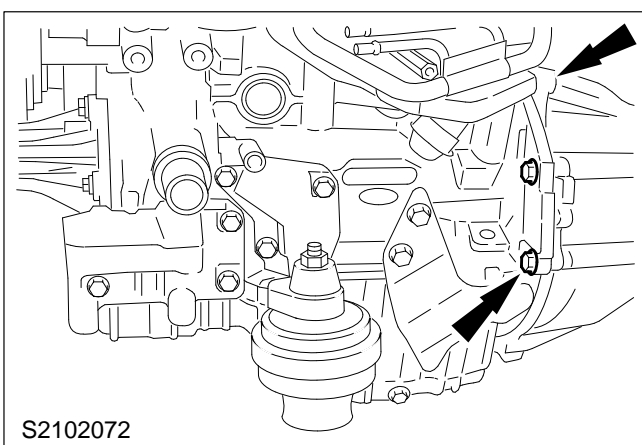
**17. Release the torque converter.**

Unscrew the four nuts.



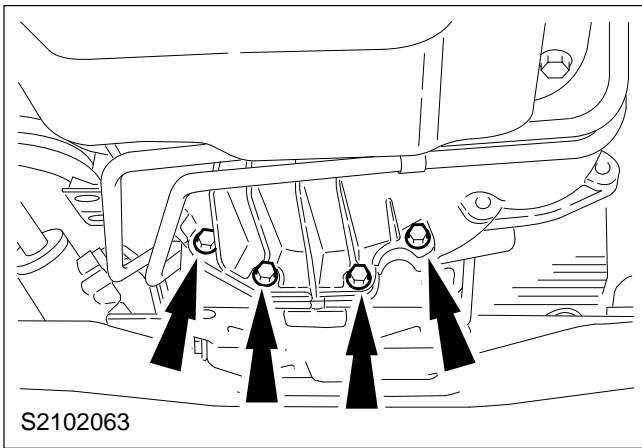
**18. Detach the transmission wiring loom and unscrew the transmission flange bolts.**

- 1 Unclip the loom at the engine mounting.
  - 2 Unscrew the transmission flange bolts.
- Remove the transmission dipstick tube.



**19. Unscrew the transmission flange bolts.**

Support the transmission with a transmission jack.



**⚠ WARNING:** The torque converter can drop out of the transmission.

## 20. Remove the automatic transmission.

- Unscrew the lower transmission flange bolts.
- Separate the transmission from the engine and lower it with the transmission jack.

## Install

### 21. General note.

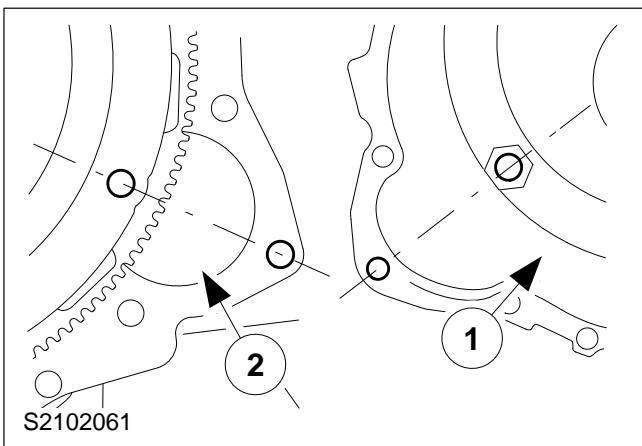
Renew all circlips and self-locking nuts.

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

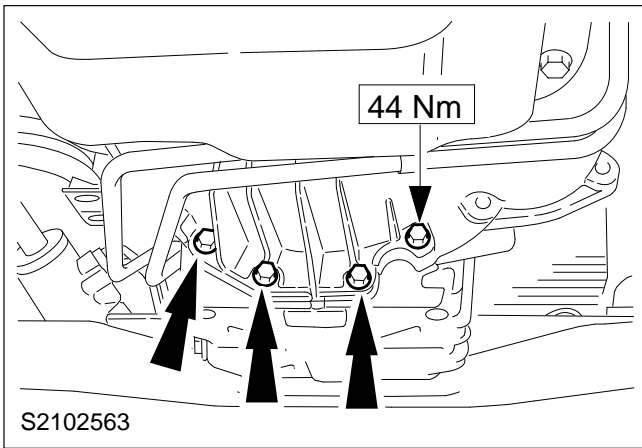
### 22. Move the torque converter on the transmission and the drive plate on the engine into the correct position for installation.

- 1 Torque converter
- 2 Drive plate

### 23. Apply high-temperature grease (ESDM-1C220-A) to the bore for the torque converter spigot.





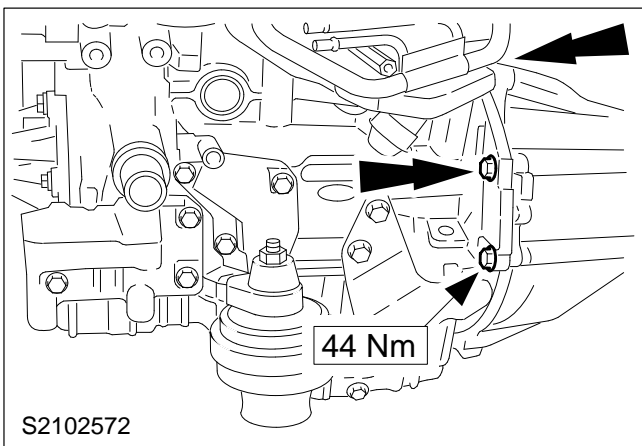


**NOTE:** The torque converter spigot must be inserted correctly in the drive plate.

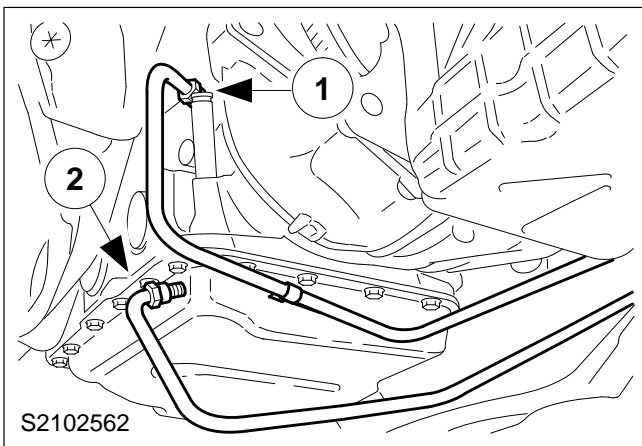
**24. Install the automatic transmission.**

Bring the transmission into position using the transmission jack and secure it with a single bolt on each side.

**25. Connect the engine to the automatic transmission.**

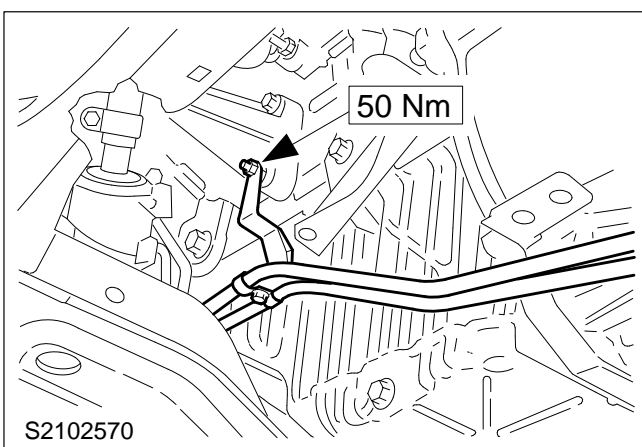


**26. Connect the engine to the automatic transmission (continued).**

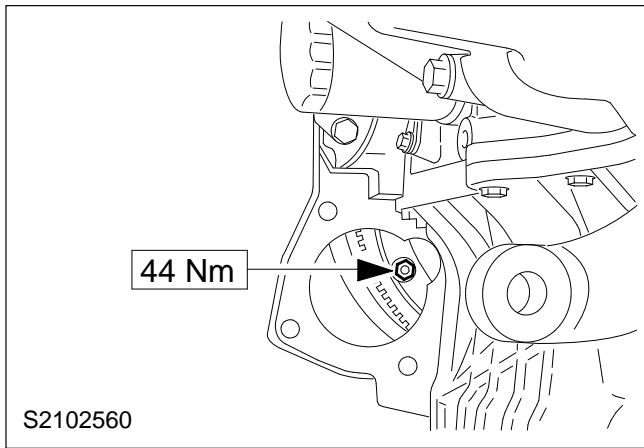


**27. Connect the transmission fluid pipes to the transmission fluid cooler.**

- 1 Connect the feed pipe.
- 2 Connect the return pipe.

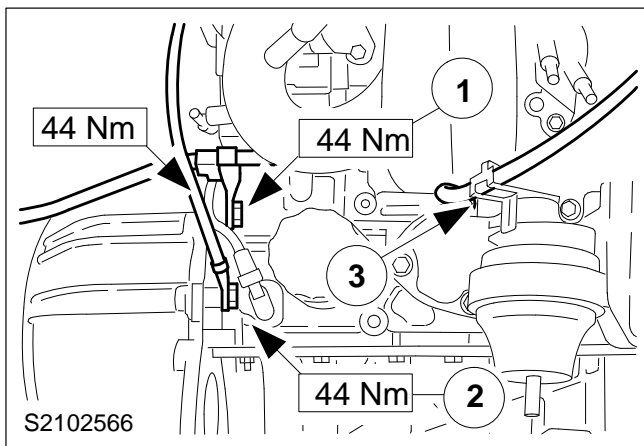


**28. Attach the bracket for the automatic transmission fluid pipes to the engine mounting.**



### 29. Secure the torque converter.

Four nuts.



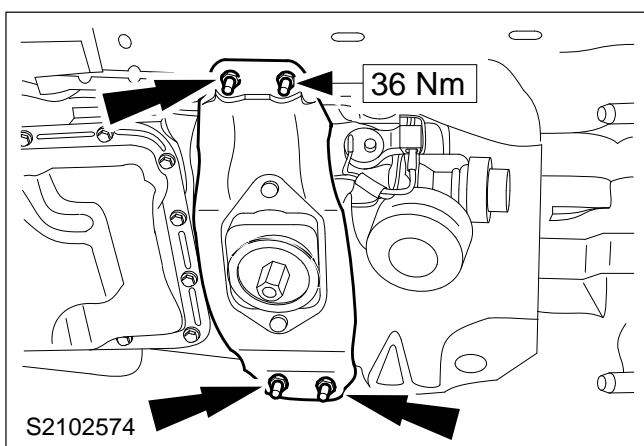
### 30. Attach the transmission wiring loom and tighten the transmission flange bolts.

- 1 Tighten the transmission flange bolt with the wiring loom bracket.

**NOTE:** Ground lead.

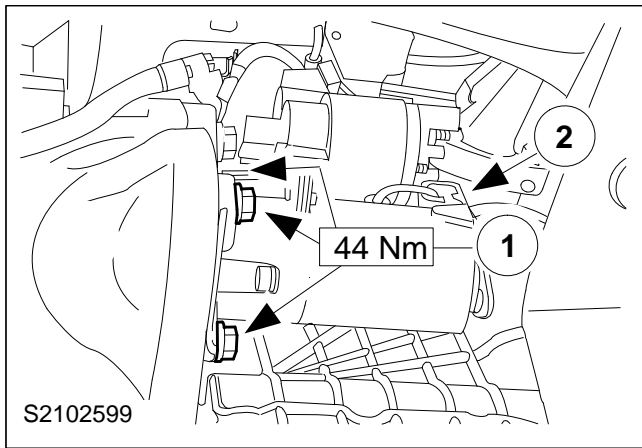
- 2 Tighten the transmission flange bolt.
- 3 Clip the wiring loom in place on the engine mounting.

Tighten the upper transmission flange bolt together with the bracket for the transmission fluid dipstick tube.



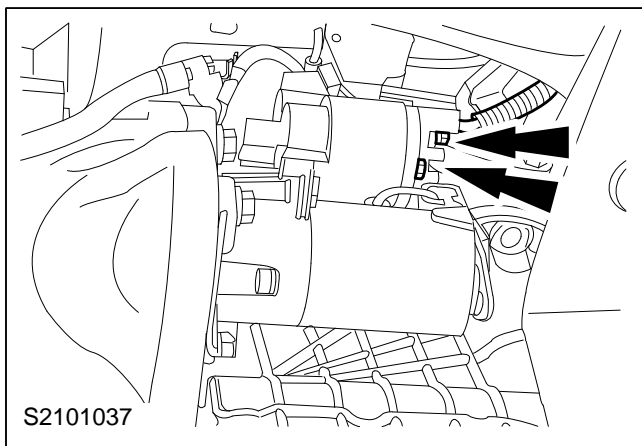
### 31. Attach the transmission crossmember.

- Raise the automatic transmission.
- Attach the transmission crossmember.
- Attach the shift rod to the selector lever.

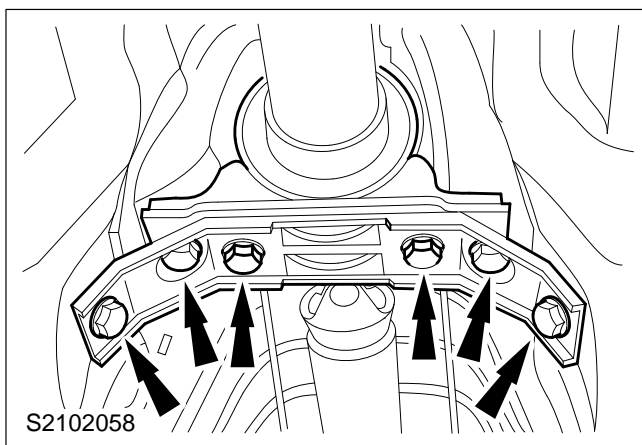


### 32. Install the starter motor.

- 1 Tighten the three bolts.
- 2 Attach the starter motor bracket to the cylinder block.



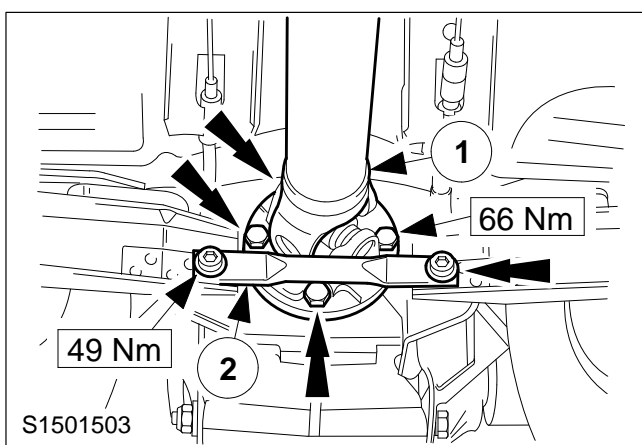
### 33. Connect the starter motor wiring.



**NOTE:** Adjustment shims between floor assembly and centre bearing.

### 34. Install the driveshaft.

- Remove the auxiliary plugs from the automatic transmission.
- Insert the driveshaft into the transmission.
- Attach the entire bearing (do not tighten the bolts).



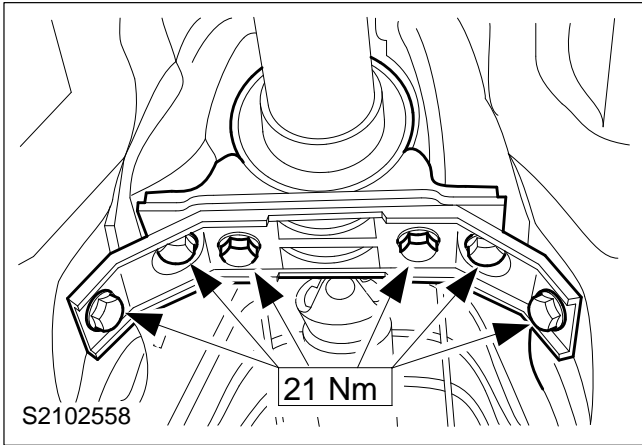
**CAUTION:** The driveshaft is finely balanced using bolts of different lengths. Note the marks showing the installation position of the driveshaft and bolts.

### 35. Install the driveshaft (continued).

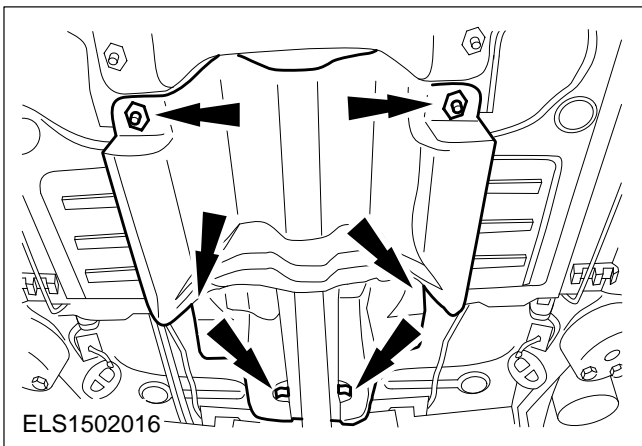
- 1 Attach the driveshaft to the rear axle flange.

**NOTE:** Vehicles from 01/96 onwards do not have a transverse brace.

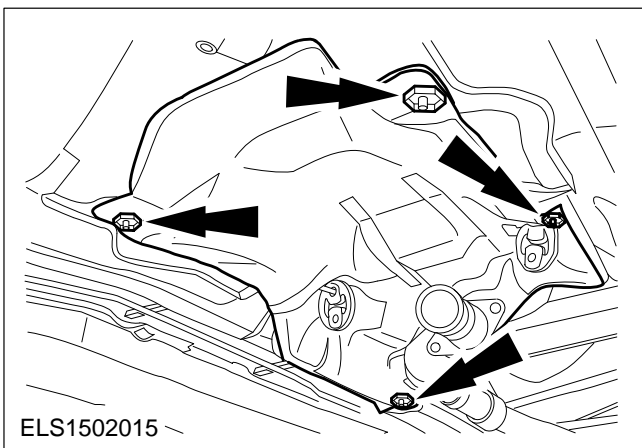
- 2 Attach the transverse brace.



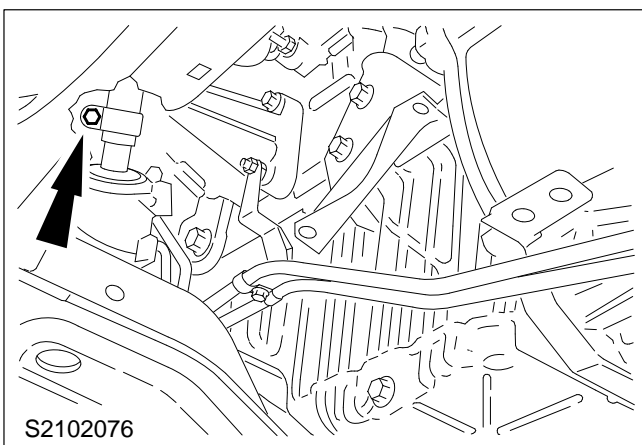
**36. Align the centre bearing free of strain and tighten it.**



**37. Attach the heat shield for the rear part of the exhaust system.**



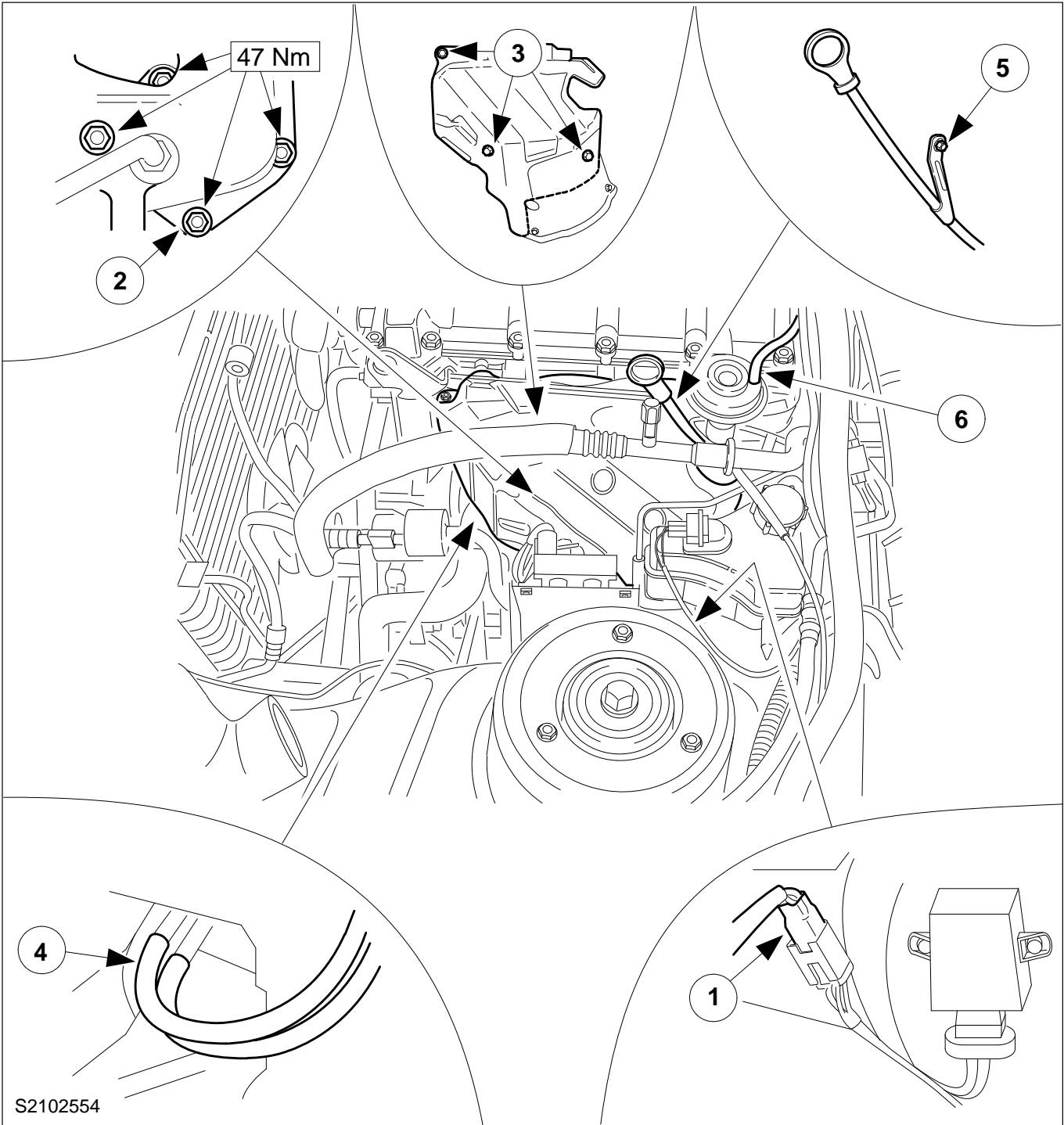
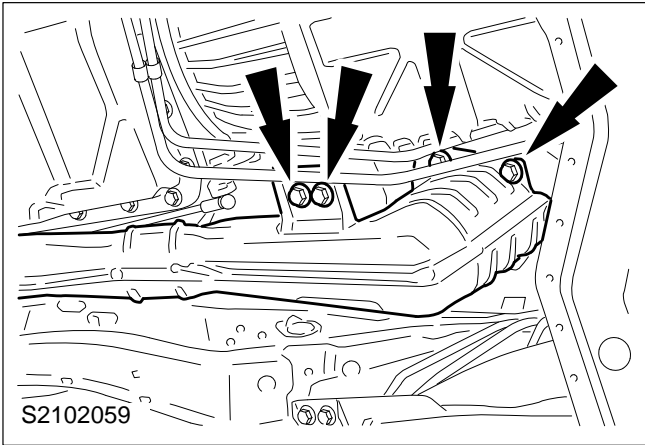
**38. Attach the heat shield for the front part of the exhaust system.**



**NOTE:** This step is necessary to ensure that the oxygen sensor (HO<sub>2</sub>S sensor) is not damaged when the catalytic converter is installed.

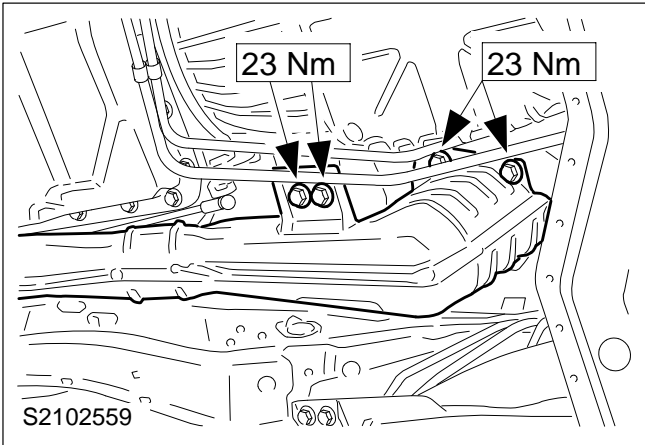
**39. Turn the steering intermediate shaft.**

40. Fit the catalytic converter loosely.

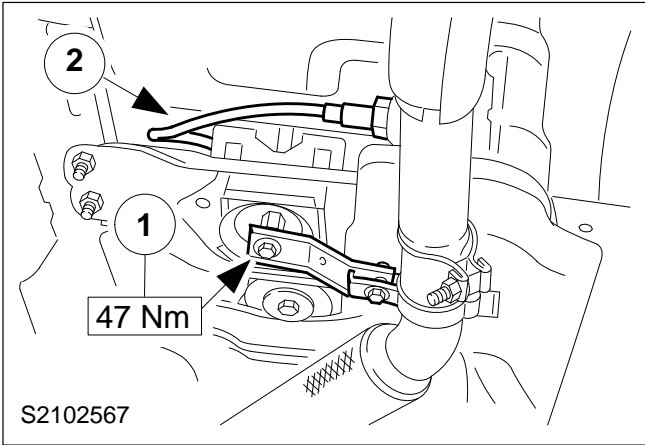


**Attach the parts mounted on the left-hand side of the engine.**

Item	Description	Item	Description
1	Connect the oxygen sensor (HO2S sensor) plug.	4	Connect the vacuum lines to the exhaust gas recirculation (EGR) pipes.
2	Attach the catalytic converter to the exhaust manifold.	5	Fit the dipstick tube.
3	Attach the heat shield.	6	Connect the vacuum line to the exhaust gas recirculation valve (EGR valve).

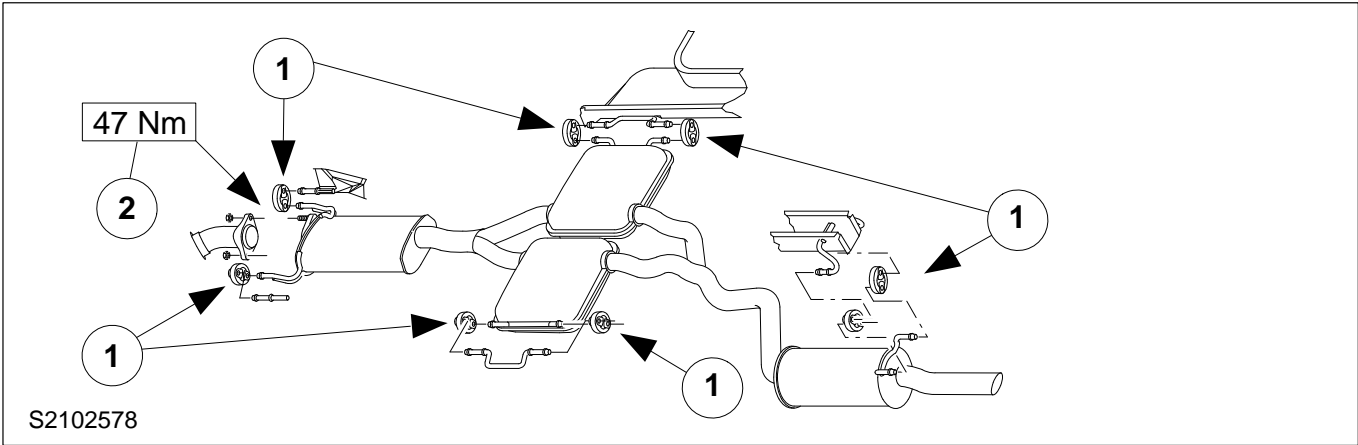


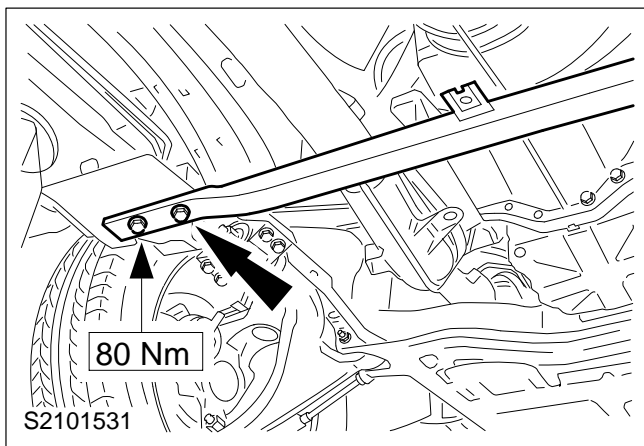
**41. Tighten the catalytic converter bolts.**



**42. Attach the exhaust system to the transmission crossmember.**

- 1 Attach the bracket to the transmission crossmember.
- 2 Connect the HO2S multiplugs.





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

- 1 Suspend the exhaust in its mountings.
- 2 Connect the exhaust flange.

**44. Attach the front axle transverse brace (left-hand side shown).**

**45. Check the automatic transmission fluid as described in the Vehicle Systems Test Manual.**

**46. Standard finishing operations.**

- Check the fluid levels and rectify them as necessary.
- Check the routing of the vacuum hoses and the wiring and secure them using cable ties as required.
- Connect the battery negative lead.
- Attach the battery cover.
- Enter the radio keycode.
- Reprogramme the preset radio stations.
- Reset the clock.
- Carry out a road test to enable the PCM (EEC V) to gather data.
- After the road test check the fluid levels and correct them if necessary.
- Attach the engine undershield.