

## Sump – Remove and Install (21 154 0)

### Proprietary Tools

|         |
|---------|
| Scraper |
|---------|

### Workshop Equipment

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

### Materials

|                          |                            |
|--------------------------|----------------------------|
| Cable ties               |                            |
| Sealer for sump          | ESK-M4G269                 |
| Oil drain plug seal      |                            |
| 4.2 litres of engine oil | see General Specifications |

### Remove

**NOTE:** The hydraulic lines are not separated.

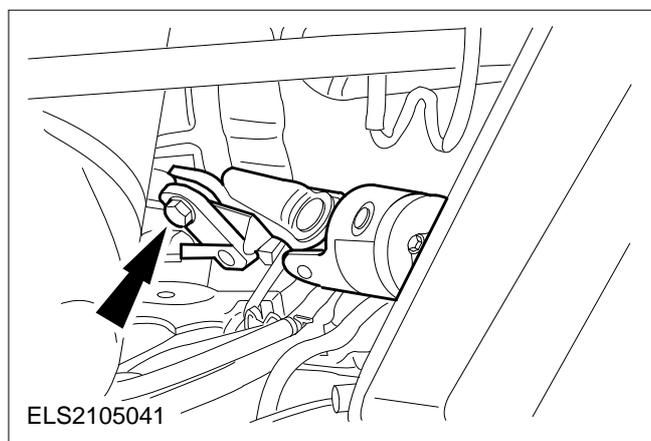
#### 1. Standard preparatory operations

- Make a note of the radio keycode.
- Make a note of the preset radio stations.
- Lay protective covers over the fenders.
- Detach the battery cover.

**⚠ CAUTION:** Disconnect the battery ground lead.

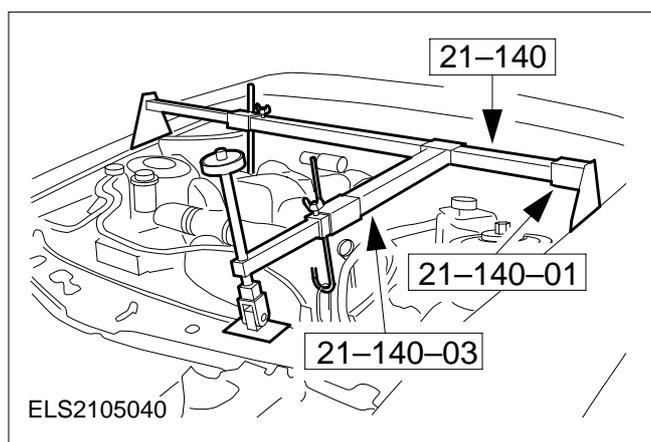
- If necessary cut the cable ties and renew them on installation.
- Remove the oil filler plug from the cylinder head cover.

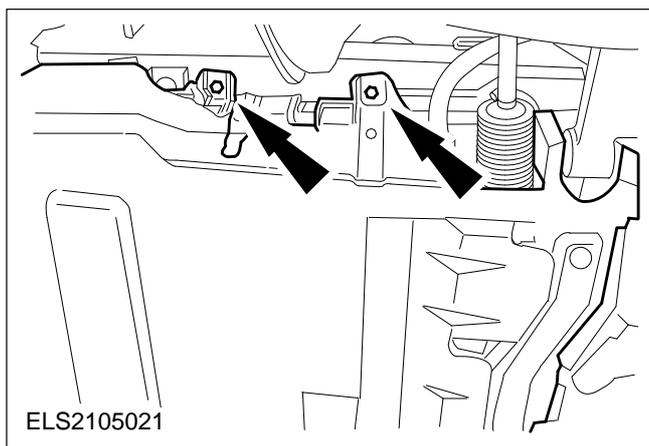
#### 2. Detach the steering intermediate shaft.



#### 3. Attach the engine support bar.

Raise the vehicle.

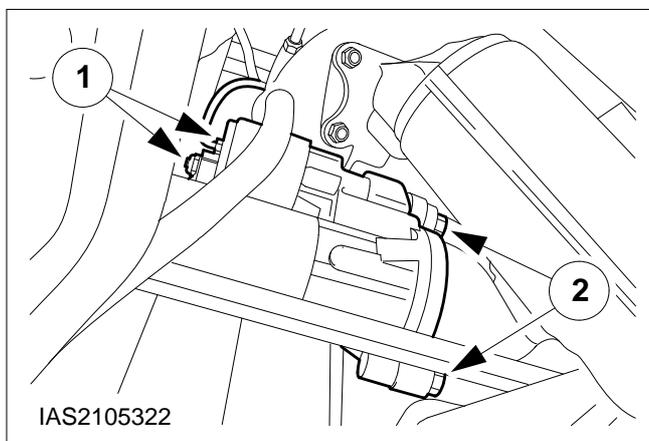




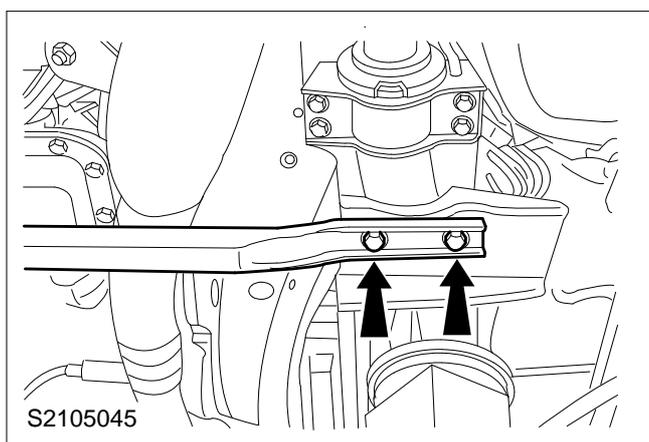
4. Detach the engine undershield (left-hand side shown).

5. Drain the engine oil by removing the drain plug.

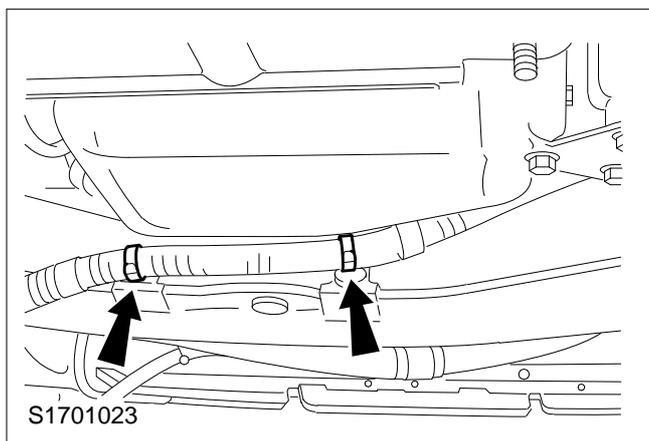
Screw the drain plug back in with a new seal.



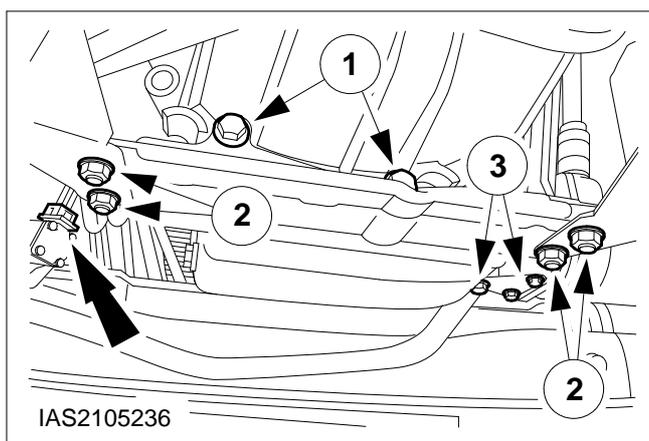
6. Remove the starter motor.
- Disconnect the starter motor.
  - Remove the starter motor.



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

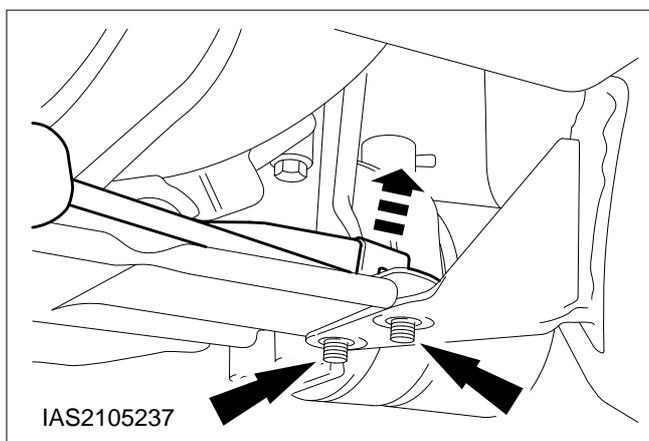


**8. Remove the wiring loom from the front crossmember.**

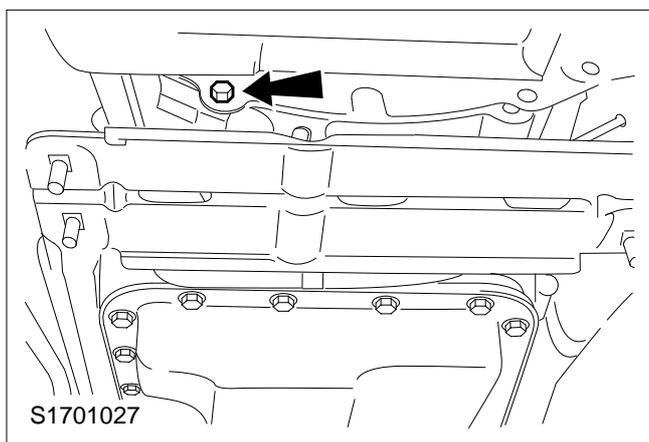


**9. Remove the brackets and disconnect the multiplug.**

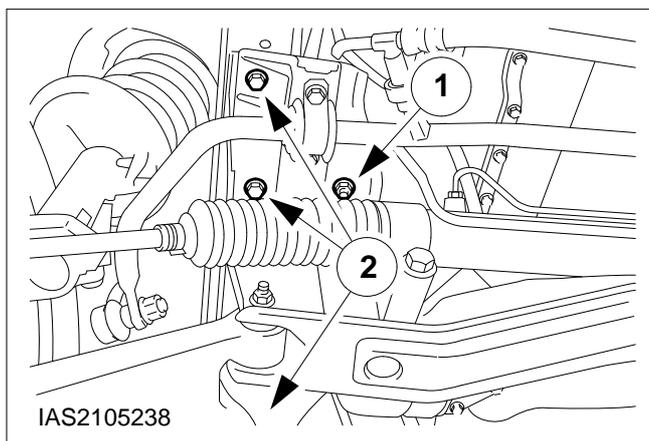
- 1 Catalytic converter bracket from the transmission.
- 2 Catalytic converter bracket from the catalytic converter.
- 3 Bracket for the oil filter connector.  
Power steering pressure switch multiplug.



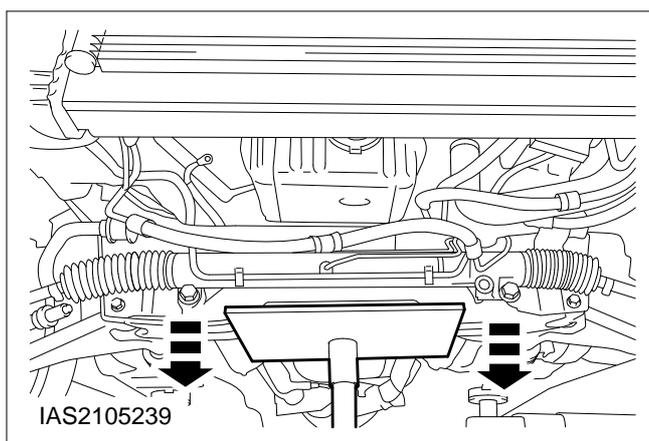
**10. Undo and remove the bolts from the retaining plate and push the retaining plate slightly backwards.**



**11. Unscrew the adaptor plate bolt.**

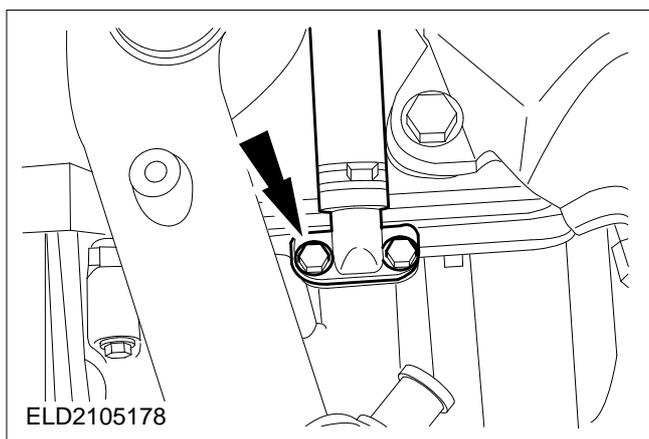


**12. Support the front crossmember with a transmission jack.**

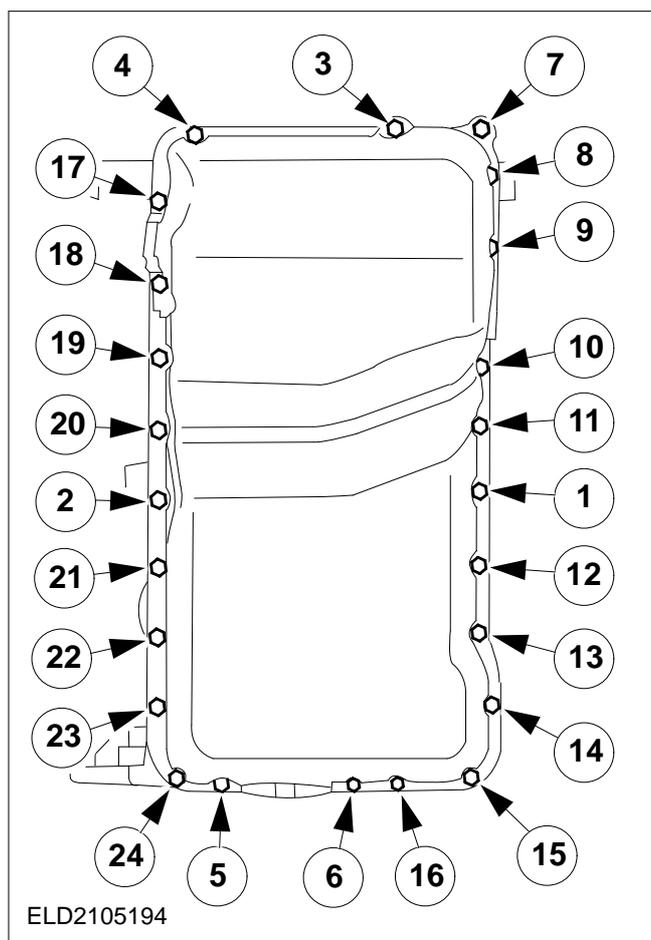


**13. Detach the engine mounting and the front crossmember.**

**14. Lower the front crossmember 150 mm with the transmission jack and tie it up.**



**15. Remove the positive crankcase ventilation (PCV) connector (right-hand side shown).**



**NOTE:** Bolt-slackening sequence.

**NOTE:** The bolts have different lengths.

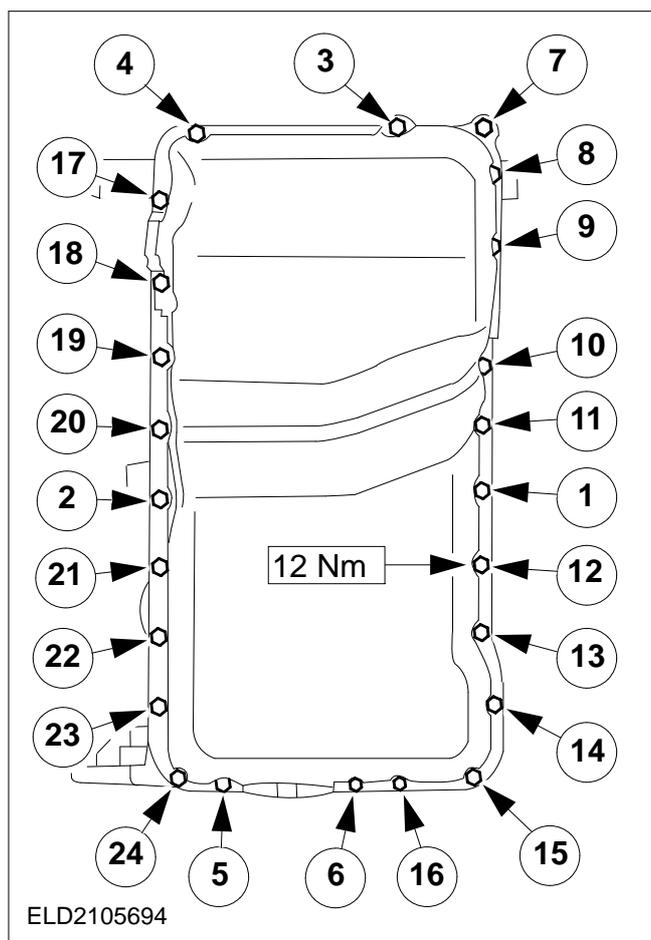
**16. Remove the sump.**

## Install

### 17. Preparations.

**NOTE:** Take care not to damage the mating faces.

- Thoroughly clean all mating surfaces with a scraper, check them for damage and renew them as necessary.



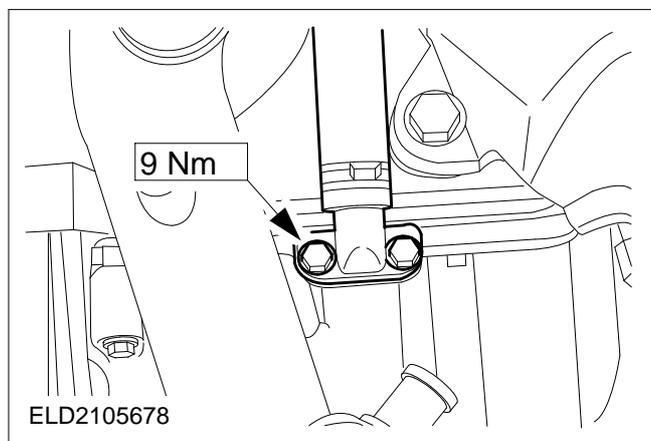
### 18. Fit the sump gasket.

Coat the ends of the gasket components with sealer (ESK-M4G269).

**NOTE:** Bolt tightening sequence.

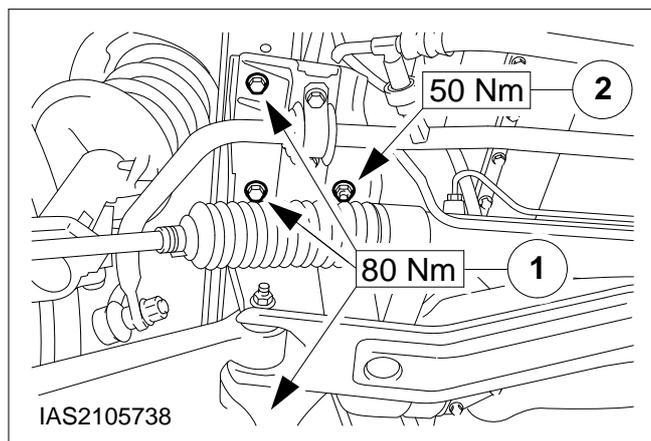
### 19. Fit the sump.

- Bolts five and six: M6 x 115
- Bolts 23 and 24: M6 x 45
- All other bolts: M6 x 20

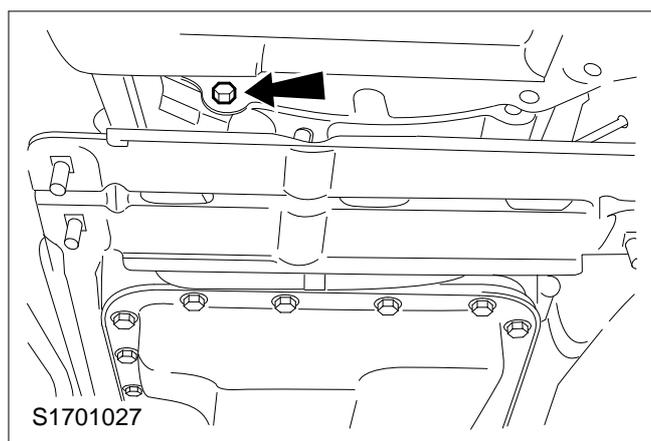


### 20. Fit the PCV connector (right-hand side shown).

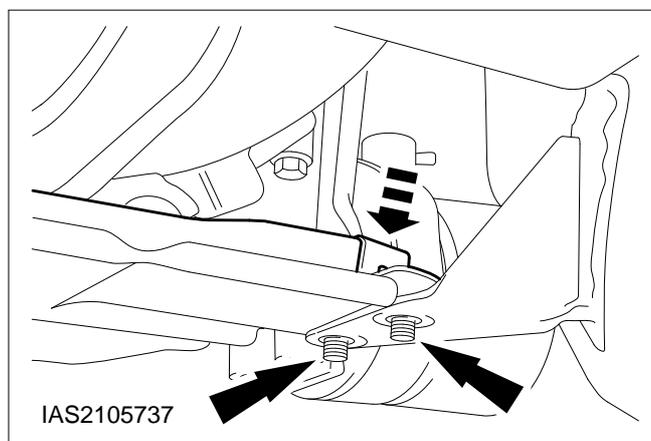
### 21. Move the front crossmember into installation position.



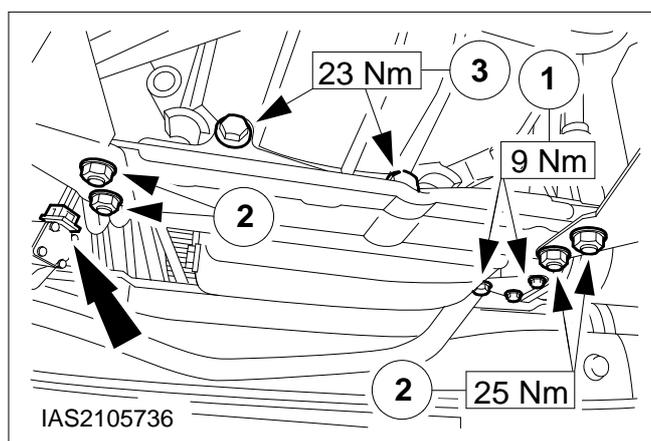
**22. Attach the engine mounting and the front crossmember.**



**23. Fit the bolt on the adapter plate.**

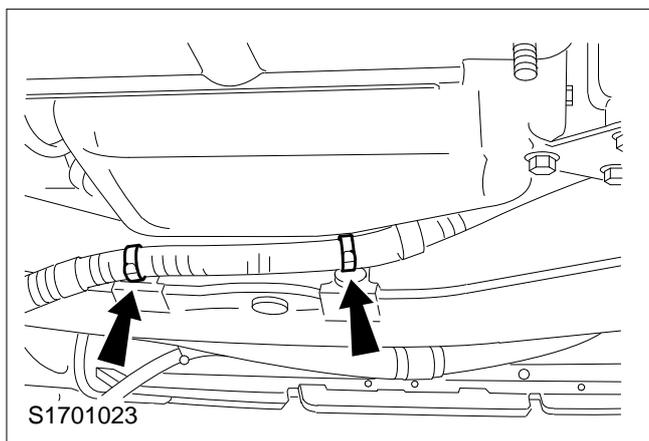


**24. Insert the bolts into the catalytic converter bracket and fit the bolts into the retaining plate.**

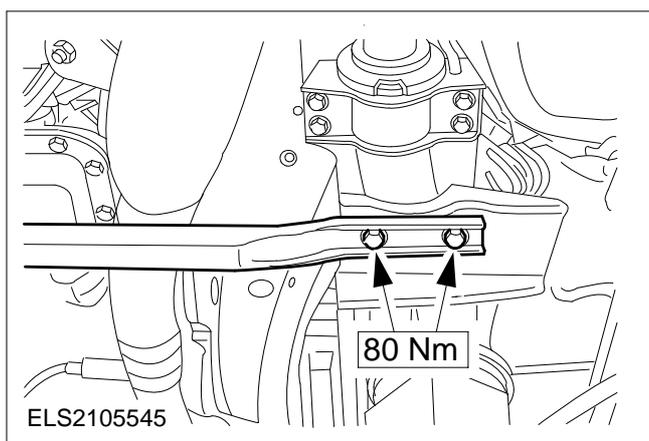


**25. Fit the brackets and connect the multiplug.**

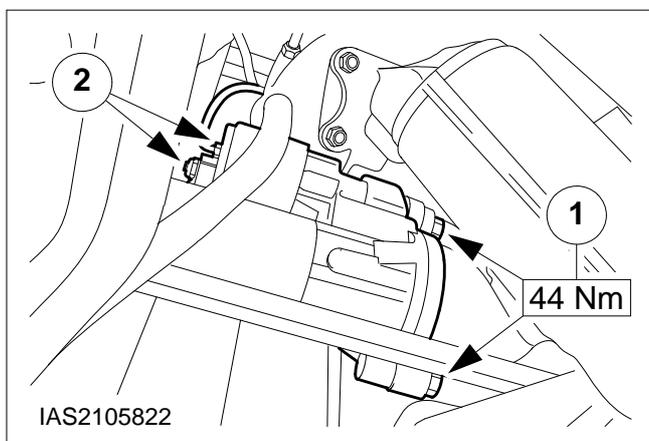
- 1 Bracket for the oil filter connector.
- 2 Catalytic converter bracket to the catalytic converter.
- 3 Catalytic converter bracket to the transmission.  
PSP switch multiplug.



**26. Attach the wiring loom to the front crossmember (cable ties).**

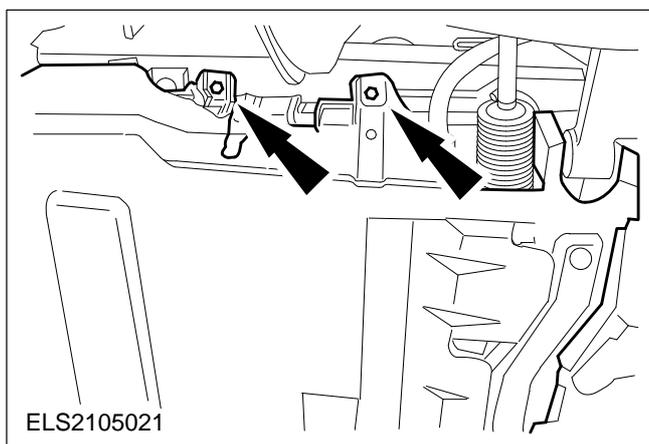


**27. Attach the transverse brace to the front crossmember (left-hand side shown).**



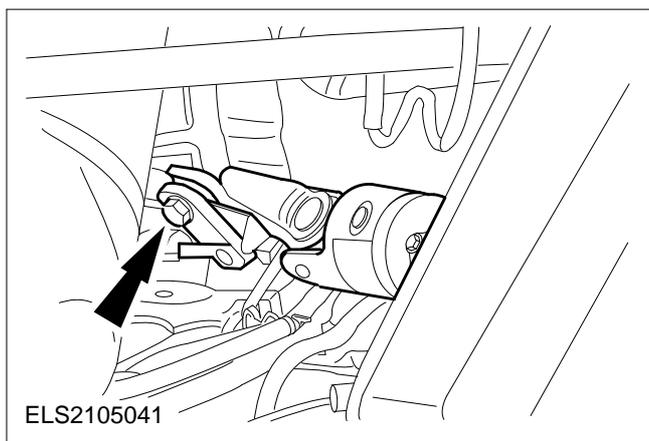
**28. Install the starter motor.**

- Install the starter motor.
- Connect the starter motor wiring.



**29. Fit the engine undershield (left-hand side shown).**

Lower the vehicle.

**30. Detach the engine support bar.****31. Attach the steering intermediate shaft.****32. Fill up with engine oil.**

Screw the oil filler plug into the cylinder head cover.

**33. Standard finishing operations.**

- Connect the battery ground lead.
- Fit the battery cover.
- Enter the radio keycode.
- Reprogramme the preset radio stations.
- Reset the clock.
- Remove the protective covers.
- Check the fluid levels and correct as necessary.
- Carry out a road test to enable the powertrain control module (PCM) to gather data.
- Check the fluid levels again and correct as necessary.