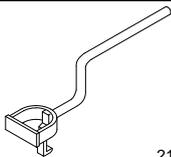
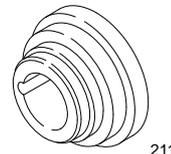
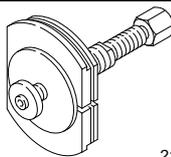
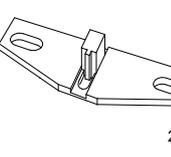


## Oil Seal – Crankshaft Front – Renew (21 467 0)

### Special Tools

 <p>21051</p>	<p><b>21-051</b> Oil seal remover</p>
 <p>21137</p>	<p><b>21-137</b> Oil seal installer/aligner</p>

 <p>21147</p>	<p><b>21-147</b> Vibration damper remover</p>
 <p>21168</p>	<p><b>21-168</b> Crankshaft locking tool</p>

### Materials

Cable ties	
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### Renew

#### 1. Standard preparatory measures:

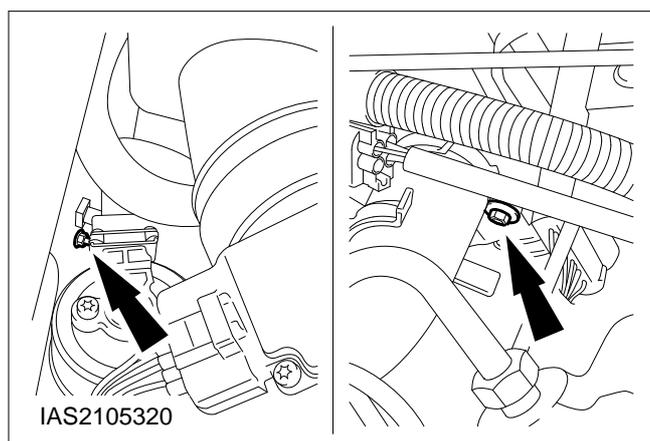
- Lay protective covers over the fenders.
- Make a note of the radio keycode.
- Make a note of the preset radio stations.
- Detach the battery cover

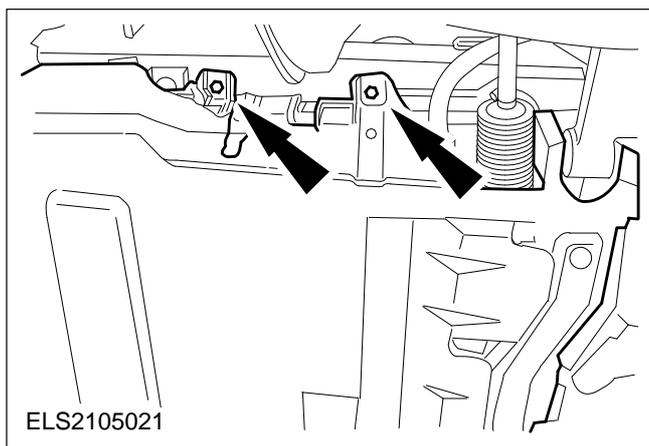
**⚠ CAUTION:** Disconnect the battery ground lead.

- Cut the cable ties if necessary and renew them during installation.

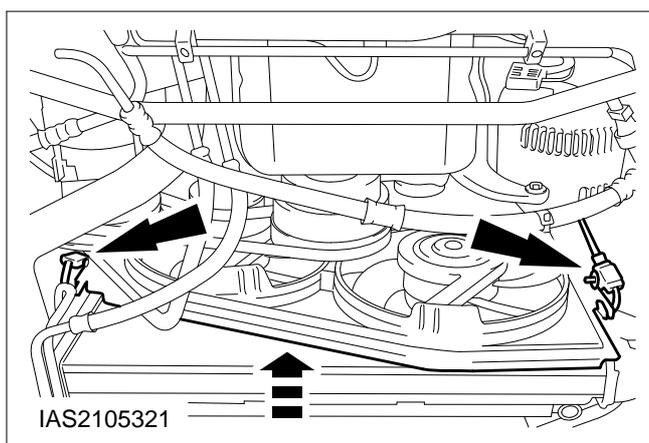
#### 2. Remove the radiator fan shroud.

Raise the vehicle.



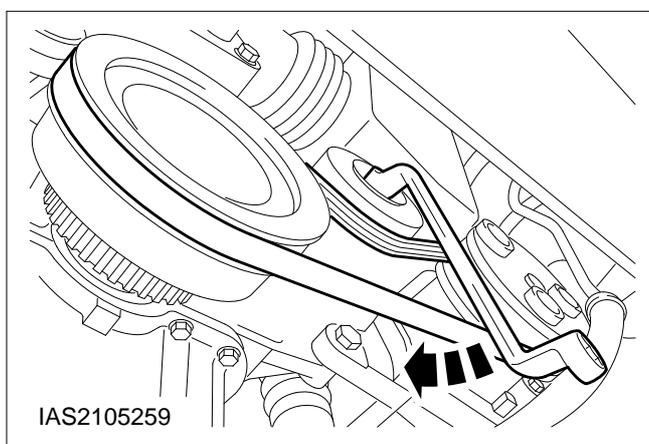


### 3. Detach the engine undershield.



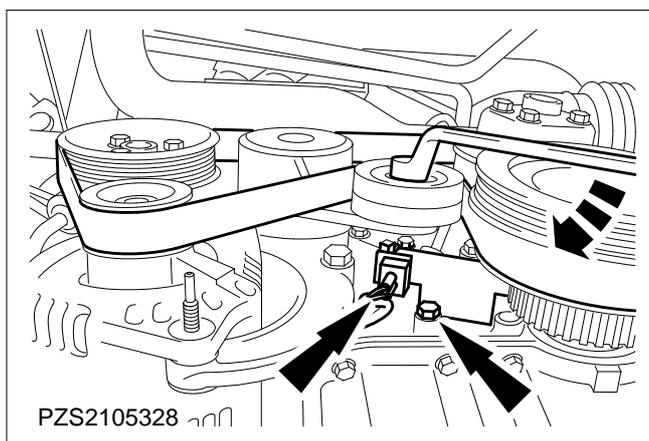
### 4. Remove the radiator fan shroud (continued).

- Disconnect the fan motor plug and detach the wiring from the radiator fan shroud.
- Push the radiator fan shroud upwards out of the grommets and lift it out downwards.



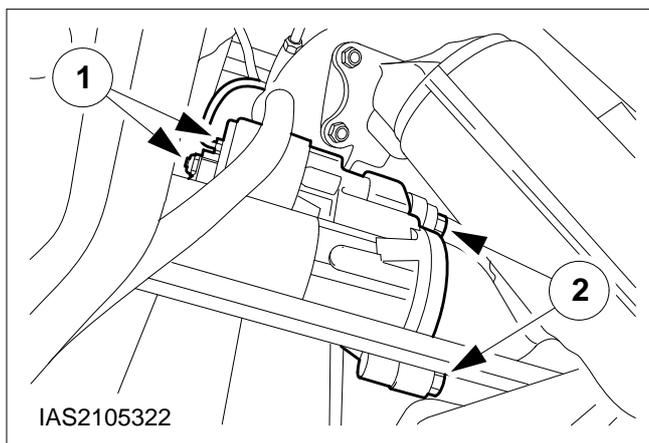
### 5. Remove the air conditioning multi-groove belt.

- Take the pressure off the belt by turning the tensioning pulley clockwise.
- Remove the multi-groove belt.



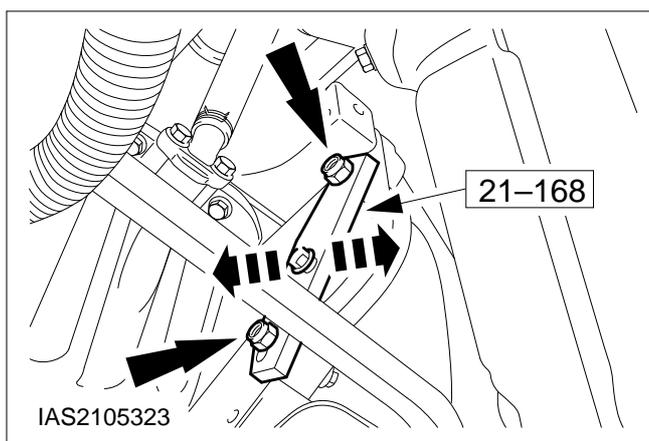
### 6. Remove the multi-groove belt of the alternator/power steering pump and the crankshaft position (CKP) sensor.

- Take the pressure off the belt by turning the tensioning pulley clockwise.
- Remove the multi-groove belt.
- Remove the crankshaft position (CKP) sensor and disconnect the plug.



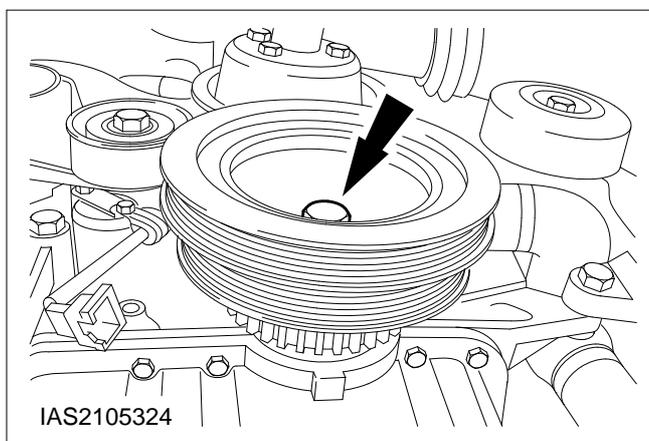
### 7. Remove the starter motor.

- 1 Disconnect the starter motor.
- 2 Remove the starter motor.

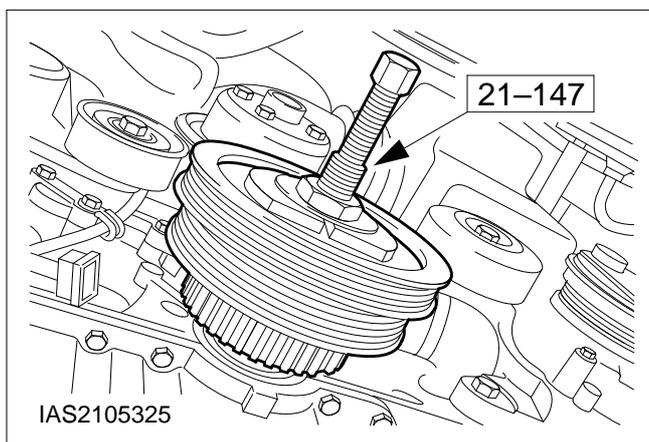


**NOTE:** The special tool must locate firmly between the flywheel teeth.

### 8. Fit the flywheel locking tool.

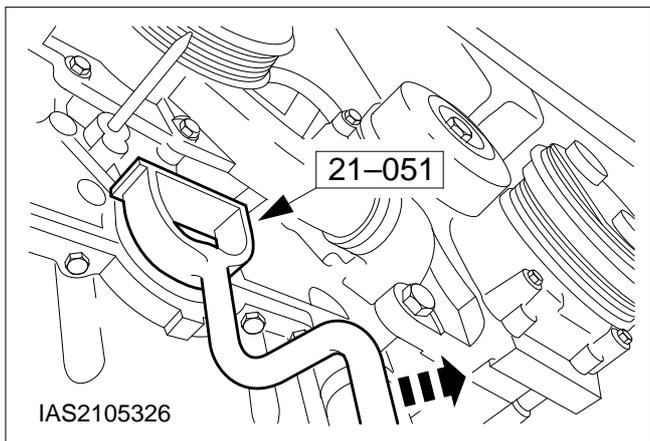


### 9. Undo the vibration damper bolt about 20 mm.

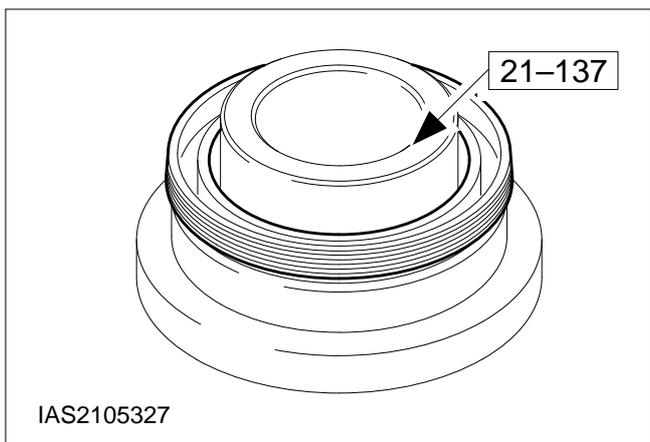


### 10. Pull off the vibration damper.

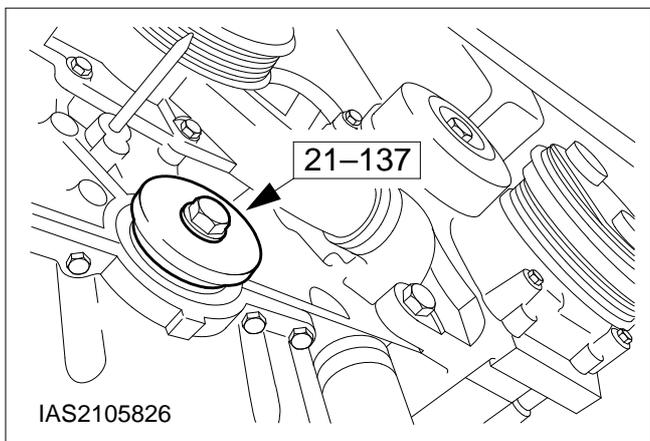
- Pull the vibration damper off the crankshaft.
- Remove the puller and unscrew and remove the bolt.
- Remove the vibration damper.



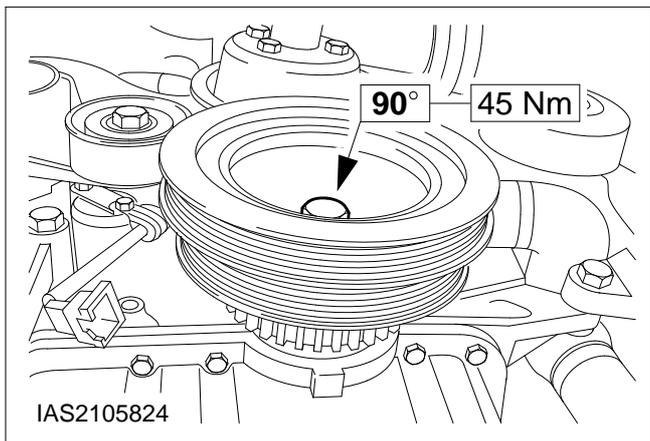
11. Remove the crankshaft front oil seal.



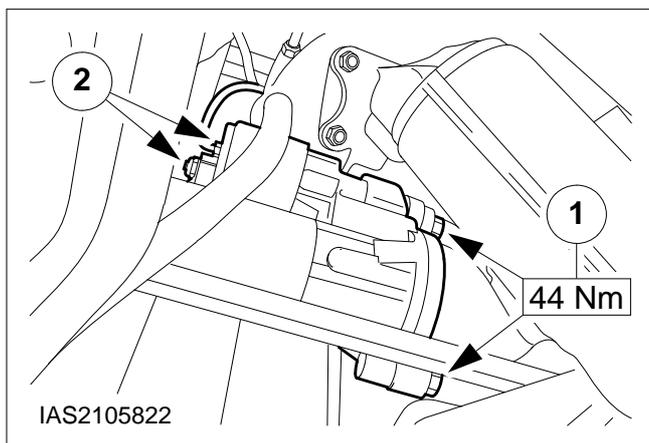
12. Push a new seal onto the installer.



13. Install the crankshaft front oil seal.



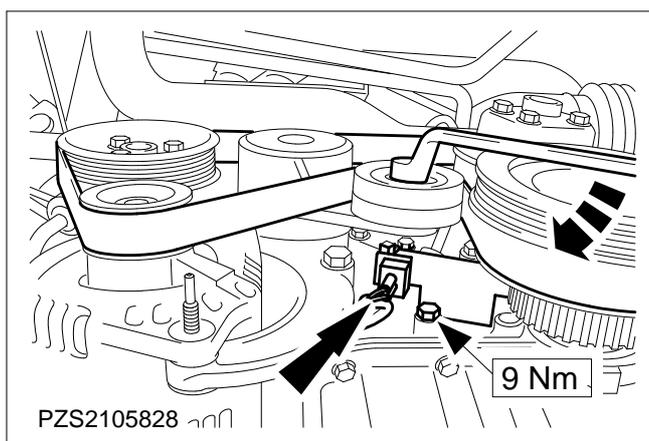
14. Fit the vibration damper.



**15. Remove the flywheel locking tool.**

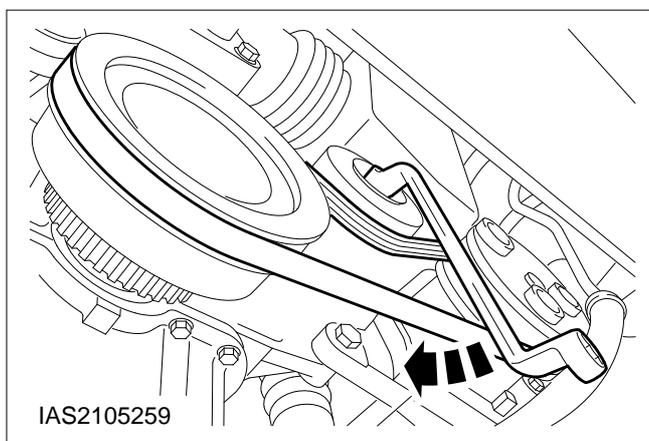
**16. Install the starter motor.**

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



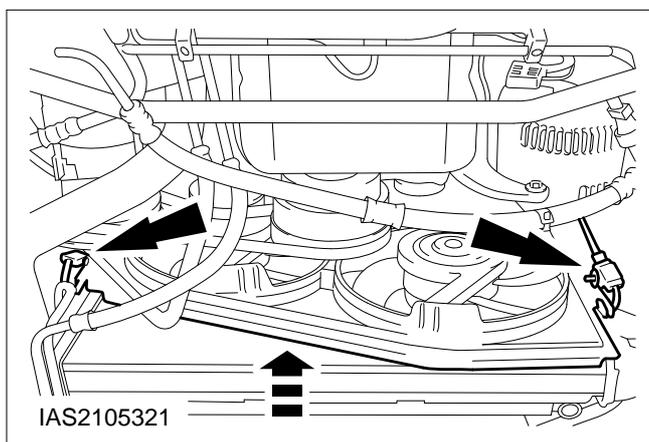
**17. Fit the CKP sensor and the multi-groove belt of the alternator/power steering pump.**

- Fit the CKP sensor and connect the plug.
- Take the pressure off the belt by turning the tensioning pulley clockwise.
- Fit the multi-groove belt.



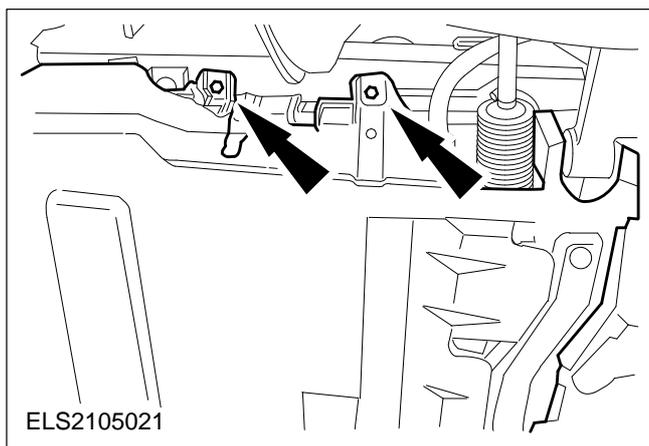
**18. Fit the air conditioning multi-groove belt.**

- Take the pressure off the belt by turning the tensioning pulley clockwise.
- Fit the multi-groove belt.

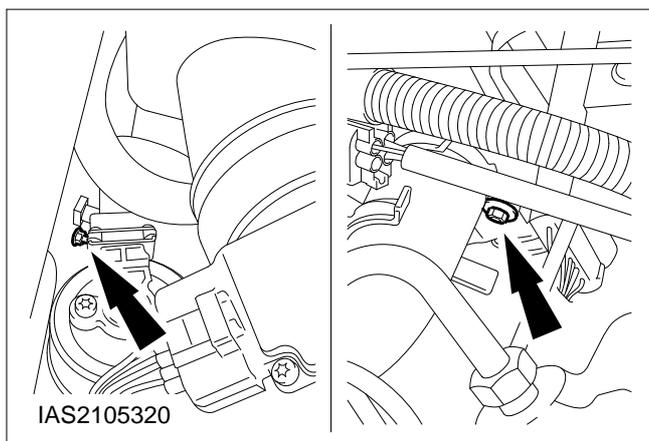


**19. Fit the radiator fan shroud (continued).**

- Hook the radiator fan shroud into the retaining tabs.
- Connect the fan motor plug and attach the wiring to the radiator fan shroud.

**20. Fit the engine cover.**

Lower the vehicle.

**21. Fit the radiator fan shroud.****22. Standard finishing operations:**

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