

Evan Groenke

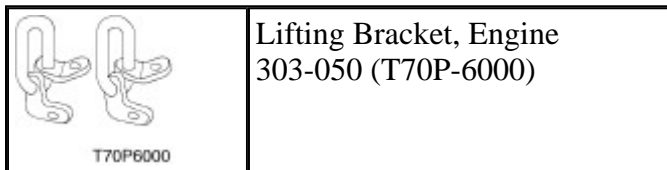
From: Daniel Lelovic [dlelovic@rogers.com]
Sent: May 8, 2005 12:06 PM
To: 'Evan Groenke'
Subject: 2.5L Engine Removal

SECTION 303-01B: Engine — 2.5L
REMOVAL

2000 Contour/Mystique Workshop Manual
Procedure revision date: 09/14/2001

Engine — Vehicles with Manual Transaxle

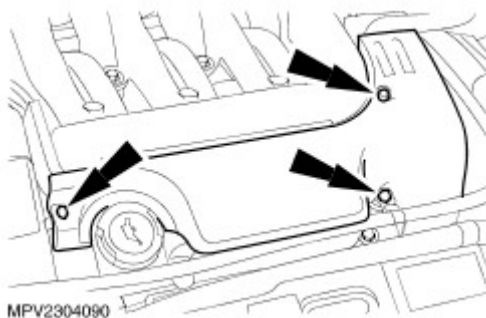
Special Tool(s)

**Removal**

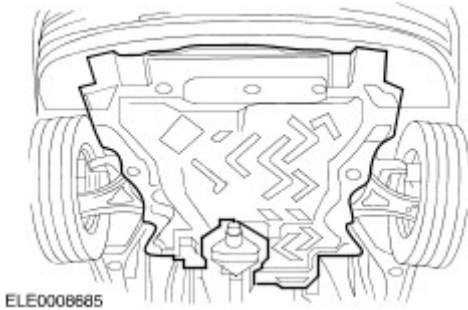
1. **NOTE:** The locations of the engine mountings and the engine support insulators are described looking from the transaxle to the engine.


General note.

- Steps which apply only to particular variants are indicated with a note.
 - If necessary, cut the cable ties and install new during installation.
2. Remove the hood.
 3. Disconnect the battery cables.
 4. Remove the battery. For additional information, refer to Section [414-01](#).
 5. Remove the water pump pulley cover.
 - Detach the coolant hose.

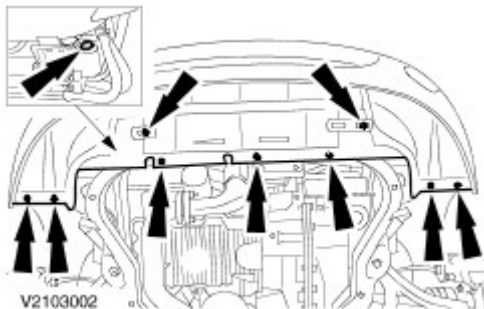


6. Remove the air cleaner (ACL). For additional information, refer to Section [303-12B](#).
 - Disconnect the upper intake vacuum supply line.
7. Raise and support the vehicle. For additional information, refer to Section [100-02](#).
8. Remove the lower engine cover (if equipped).

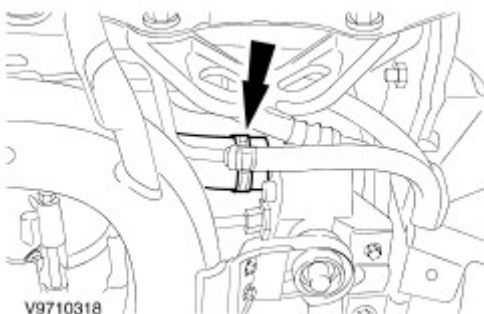


9.  **WARNING: When the engine is hot, there is risk of scalding. Failure to follow this instruction may result in personal injury.**

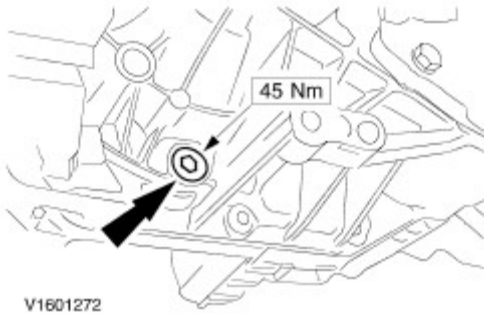
Remove the radiator splash shield and drain the coolant.



10. Disconnect the radiator lower hose from the radiator.



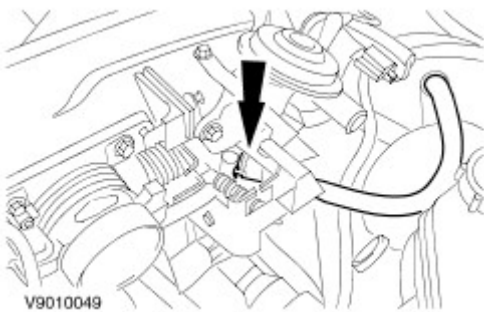
11. Remove the drain plug and drain the transmission fluid. For additional information, refer to Section [308-00](#).
 - Install the drain plug.



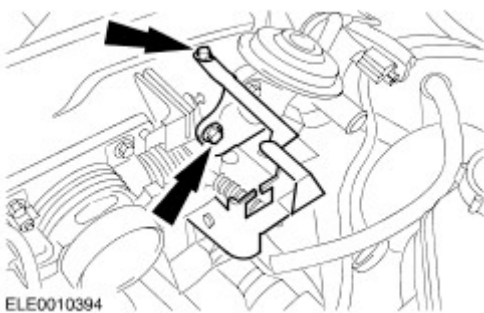
12. Lower the vehicle.
13. Disconnect the accelerator and speed control cables.
 1. Unclip the cables from the bracket.
 2. Disconnect the cables.



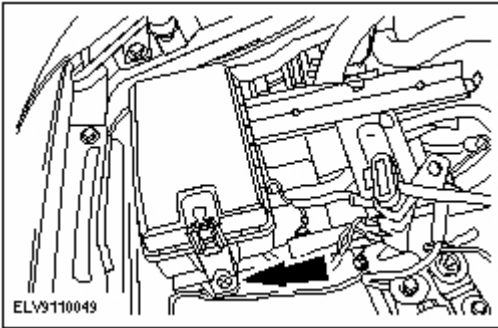
14. Disconnect the evaporative emission (EVAP) hose.



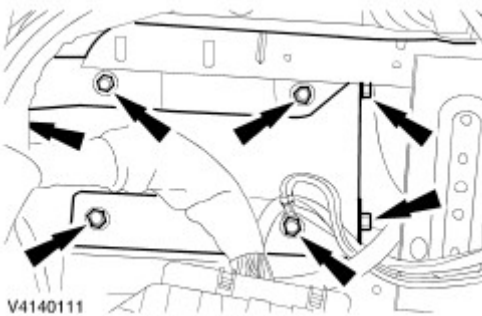
15. Remove the cable bracket.



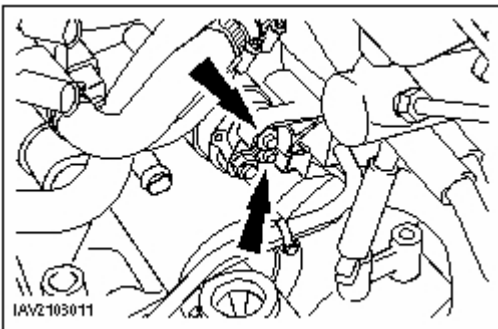
16. Loosen the central junction box (CJB) and position it to one side.



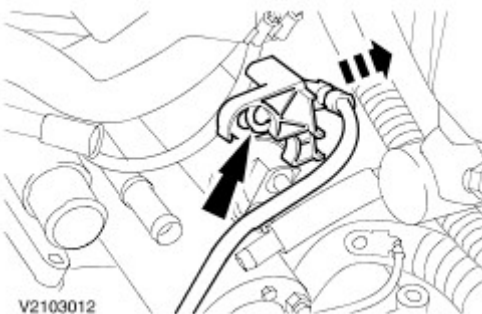
17. Remove the battery bracket.




18. Disconnect the starter wiring.



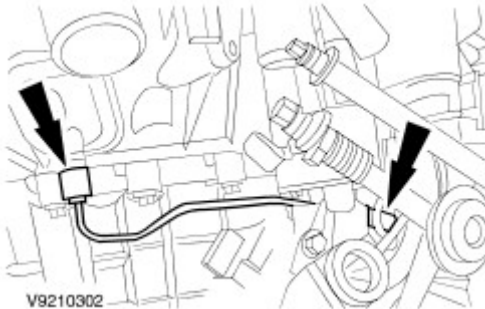
19. Disconnect the starter positive cable.
 - Open the cable housing and pull out the positive cable.



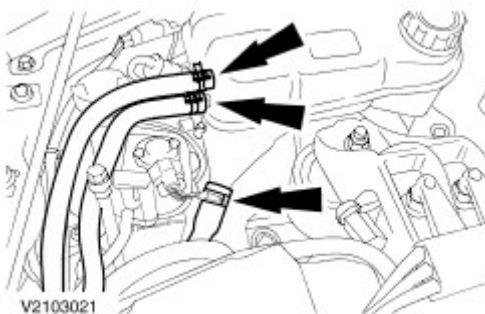
20. Disconnect the fuel line(s). For additional information, refer to Section 310-00.
21.  **CAUTION: If brake fluid is spilt on the paintwork, the affected area must be immediately washed down with cold water. For additional information, refer to Section [206-00](#).**

Drain the brake fluid reservoir.

22. Remove the clutch slave cylinder hydraulic line.



23. Remove the coolant expansion tank hoses.

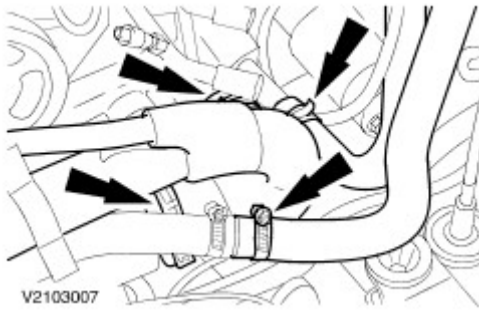


24. Remove the coolant expansion tank.
 - Disconnect the coolant level indicator electrical connector.

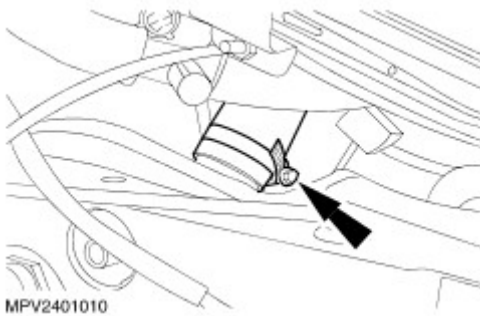


25. Remove the coolant hoses.
 - From the cylinder block
 - From the heater
 - Disconnect the heater coolant hose.

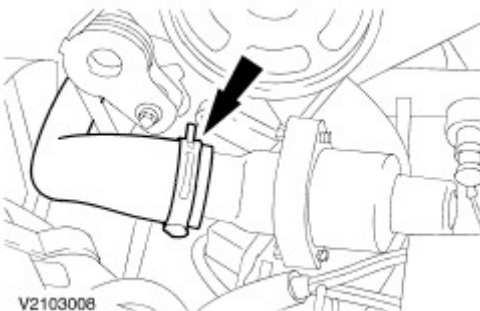
- From the thermostat housing.



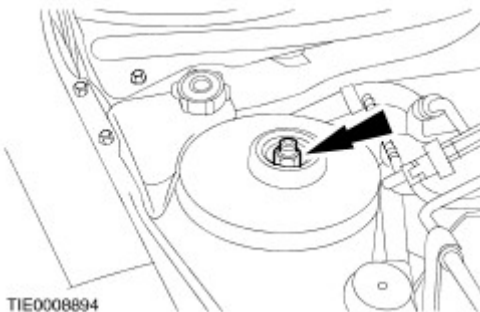
26. Remove the upper coolant hose from the radiator.



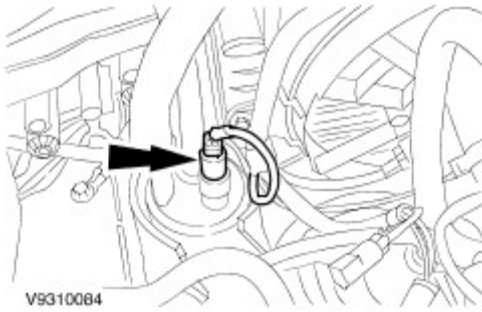
27. Disconnect the coolant hose from the thermostat housing.



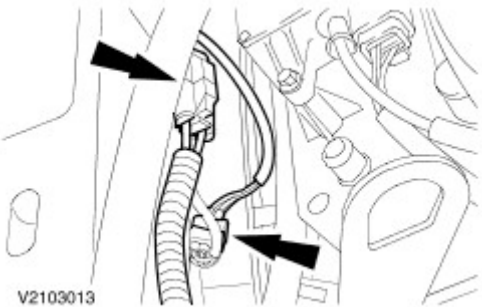
28. Loosen the right-hand suspension strut nut five turns.



29. Disconnect the suction accumulator electrical connector.



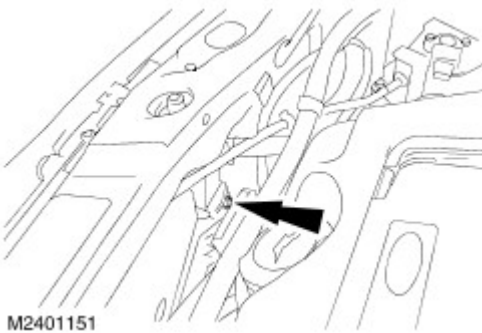
30. Disconnect the two fan motor electrical connectors.
- Detach the connectors and the wiring harness.



31. Remove the fan ground cable from the body.

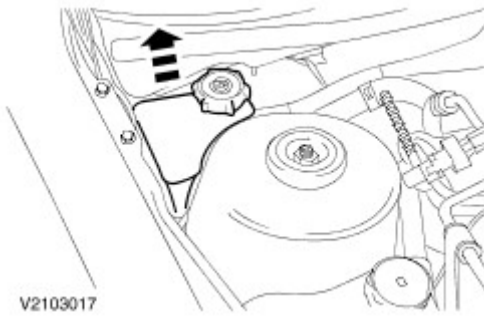



32. Remove the fan from the radiator.
- Detach the fan wiring harness.



33. Drain the power steering fluid reservoir and detach it (push-fit). Position it to one side.

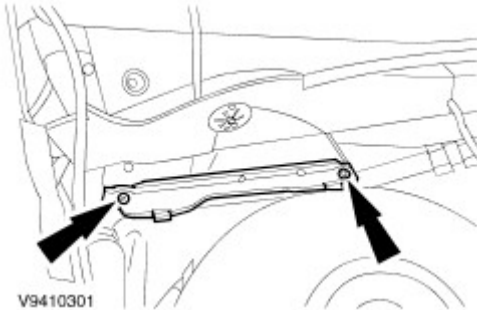
- Allow the fluid to drain into a suitable container.



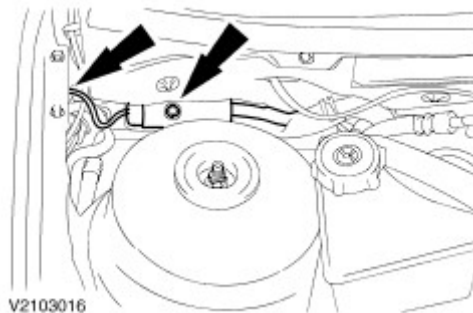
34.  **CAUTION: Do not damage the tube/hose (A/C).**

Remove the powertrain control module (PCM) cover plate.

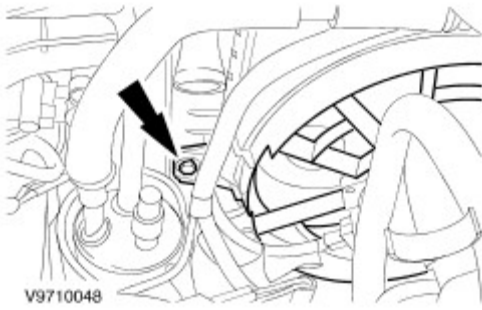
- Remove the rivets.



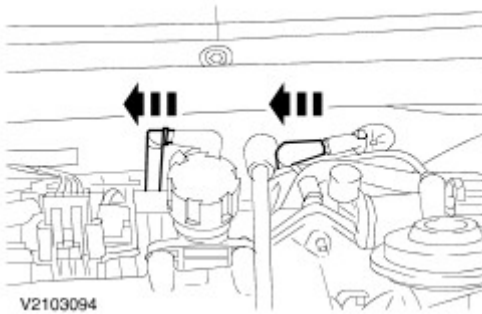
35. Disconnect the powertrain control module (PCM) and the ground cable.



36. Remove the fan from the radiator (continued).



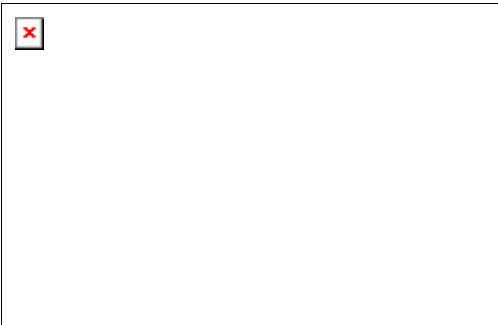
37. Disconnect the heater control and EVAP vacuum hoses.



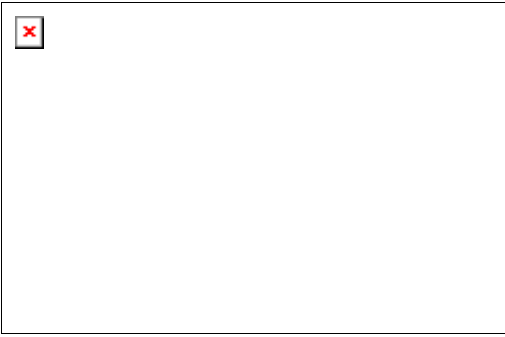
38.  **CAUTION: Do not let hydraulic oil drop onto the drive belt.**

Disconnect the power steering lines.

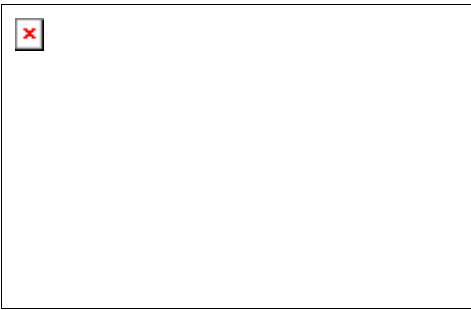
1. Disconnect the power steering pressure switch (PSP).
2. The return line
3. The pressure line bracket and ground cable
 - Allow the fluid to drain into a suitable container.



39. Disconnect the ground cable from the transaxle and remove the electrical connector.



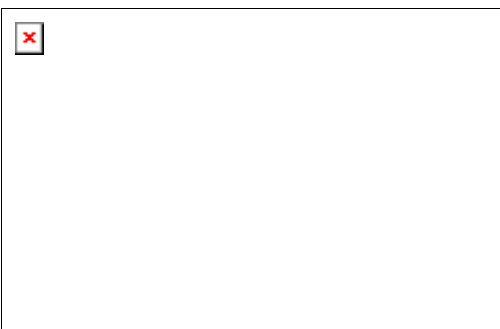
40. Disconnect the shifter cables.
1. From the shifter lever.
 2. Remove the nuts.
 3. Position the shifter bracket to one side.



41. Remove the dual converter Y-pipe.



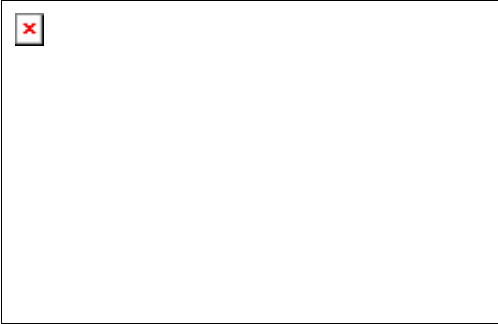
42. Remove the right-hand splash shields (shown with wheel removed).




43.  **CAUTION: Do not damage the boot or the wheel speed sensor ring.**

Disconnect the right-hand lower suspension arm (left-hand side shown).

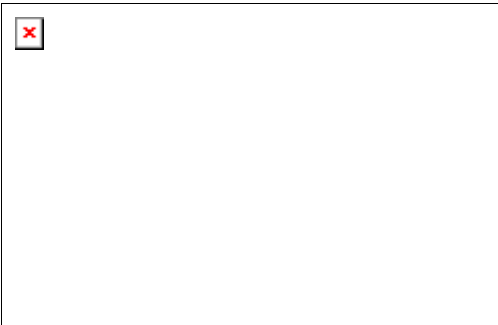
- Remove the lower suspension arm ball joint from the spindle carrier.




44.  **CAUTION: To prevent damage to the halfshaft joints and boots, do not bend the inner halfshaft joints by more than 18 degrees, the outer one by not more than 45 degrees.**

NOTE: Secure the halfshaft.

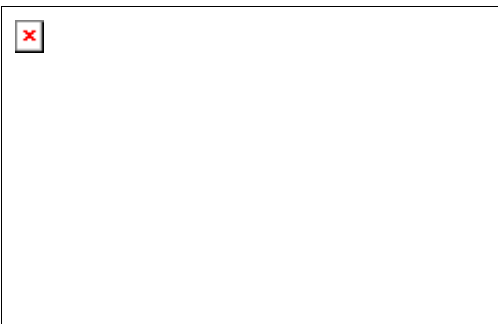
Remove the right-hand halfshaft from the intermediate shaft.



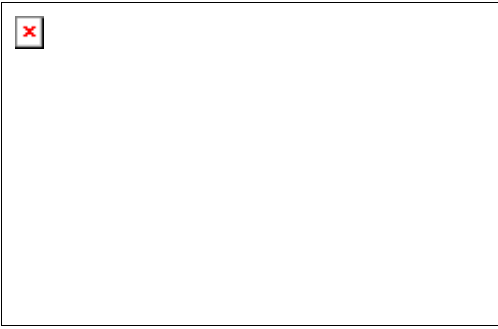
45.  **CAUTION: Do not damage the boot and the wheel speed sensor ring.**

NOTE: Secure the halfshaft.

Remove the left-hand halfshaft from the transaxle.



46. Remove the condenser core from the radiator.
- One bolt on each side (right-hand side shown.)
 - Secure the condenser core.



47. Disconnect the compressor electrical connector.

48. Remove the radiator.



49. Remove the fan.

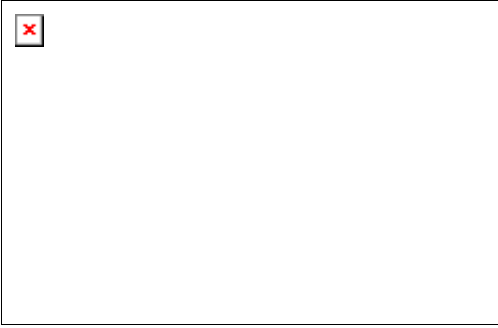
50. Disconnect the heated oxygen sensor (HO2S) electrical connector.



51. Remove the coolant pipe.



52. Remove the accessory drive belt.



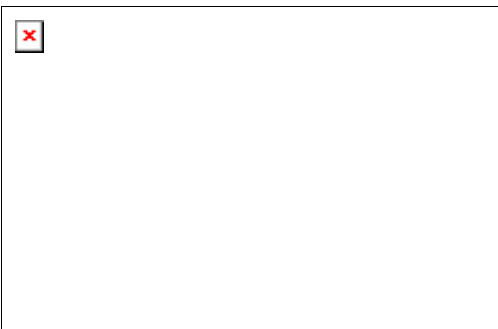
53. Remove the compressor heat shield.



54. Detach the compressor.
• Secure the compressor to one side.

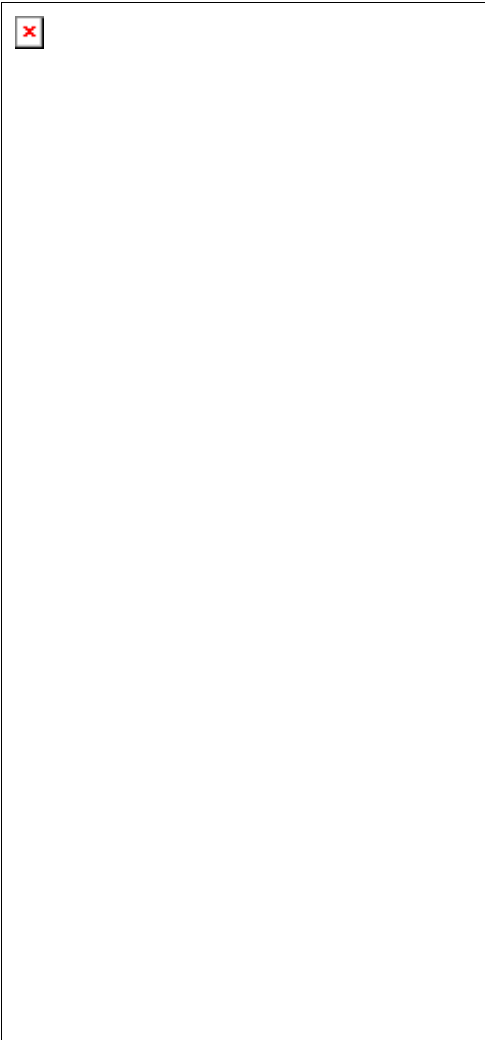


55. Remove the left-hand engine support insulator.

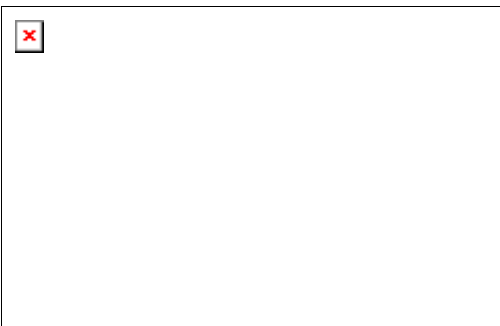


56. Remove the right-hand engine support insulator.

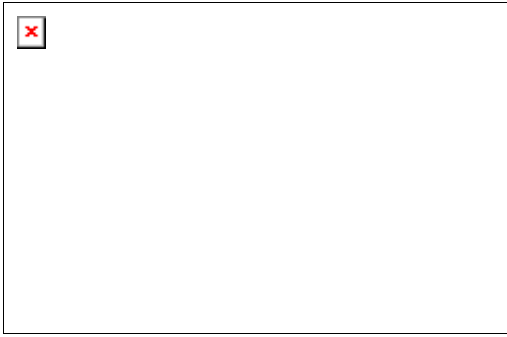
1. Center bolt
2. Three bolts
3. Engine support insulator



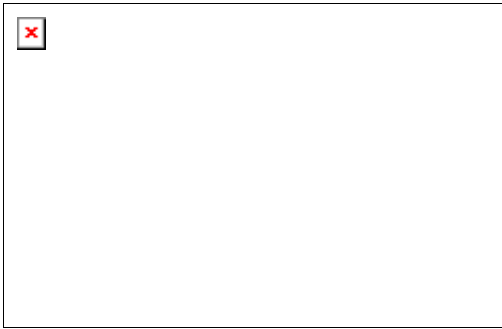
57. Remove the right-hand engine support insulator bracket.



58. Lower the vehicle.
59. Use a floor crane and the special tool.
- Raise the engine slightly to prevent pressure from the support insulator.



60. Remove the engine front support insulator.



61. Remove the engine rear support insulator.



62. Remove the engine.
