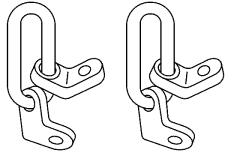
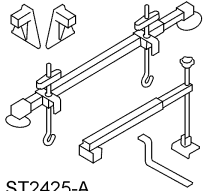
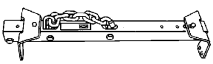


## REMOVAL

### Engine

#### Special Tool(s)

 <p>ST1595-A</p>	<p>Lifting Bracket, Engine 303-050 (D70P-6000) or equivalent</p>
 <p>ST2425-A</p>	<p>3-Bar Engine Support Kit 303-F072</p>
 <p>ST1377-A</p>	<p>Modular Engine Lift Bracket 303-F047 (014-00073) or equivalent</p>

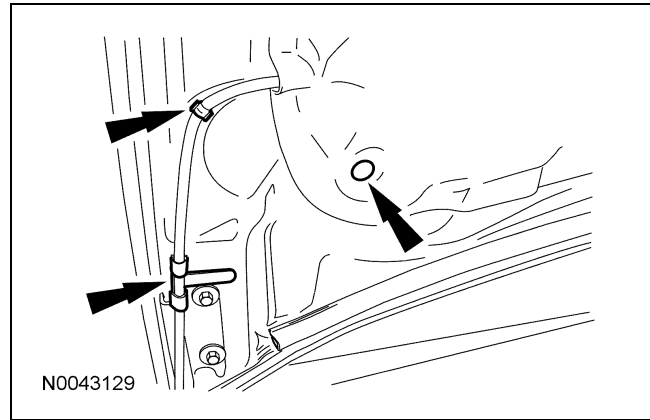
**⚠ WARNING:** Do not smoke or carry lighted tobacco or open flame of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited, resulting in possible personal injury.

**⚠ WARNING:** Fuel in the fuel system remains under high pressure even when the engine is not running. Before repairing or disconnecting any of the fuel system components, the fuel system pressure must be relieved to prevent accidental spraying of fuel, causing personal injury or a fire hazard.

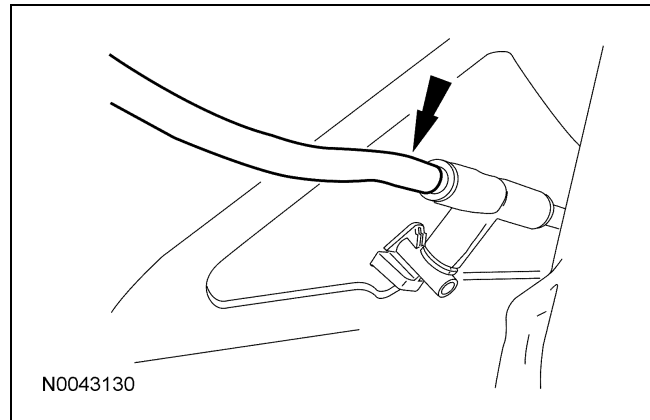
#### All vehicles

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to Section 100-02.
2. Release the fuel system pressure. For additional information, refer to Section 310-00.
3. Disconnect the battery ground cable. For additional information, refer to Section 414-01.

4. Release the 2 windshield washer hose retainers and the one hood insulation pin-type retainer.



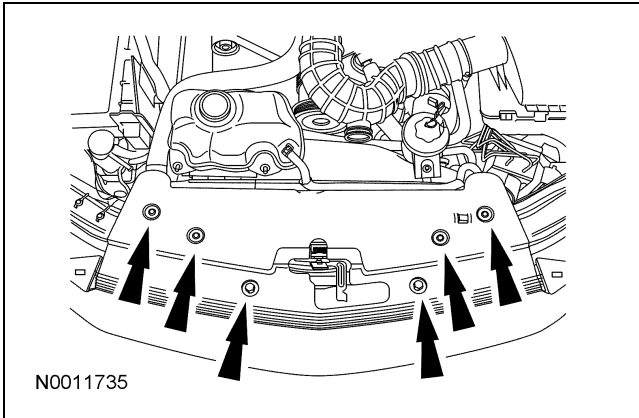
5. Position the hood insulation aside and disconnect the windshield washer hose.



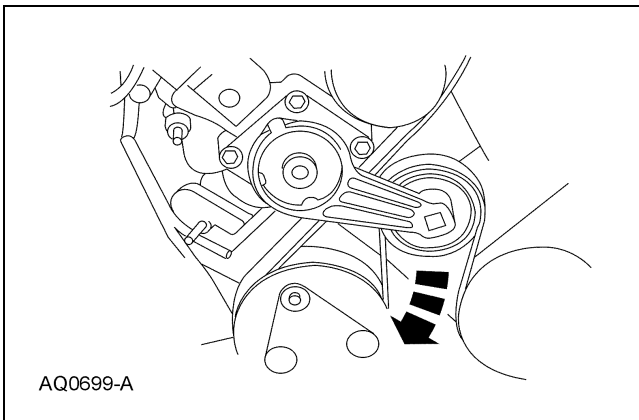
6. **NOTE:** Index-mark the hood hinge location to aid in hood installation. Remove the 4 bolts and the hood.
7. Remove the cowl vent screen. For additional information, refer to Section 501-02.
8. Remove the air cleaner and outlet pipe. For additional information, refer to Section 303-12.
9. Remove the engine coolant crossover. For additional information, refer to Section 303-03.
10. Remove the degas bottle. For additional information, refer to Section 303-03.

**REMOVAL (Continued)**

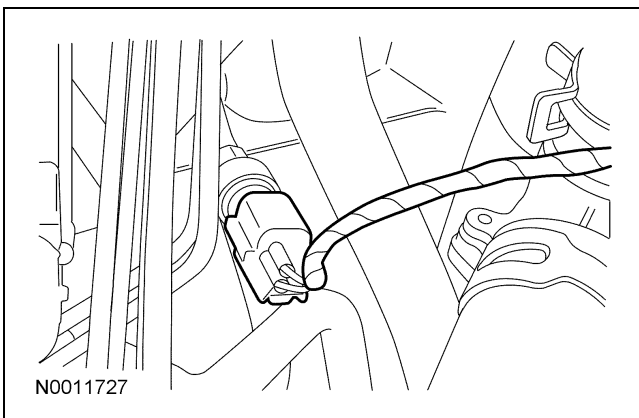
11. Remove the 6 pin-type retainers and the radiator sight shield.



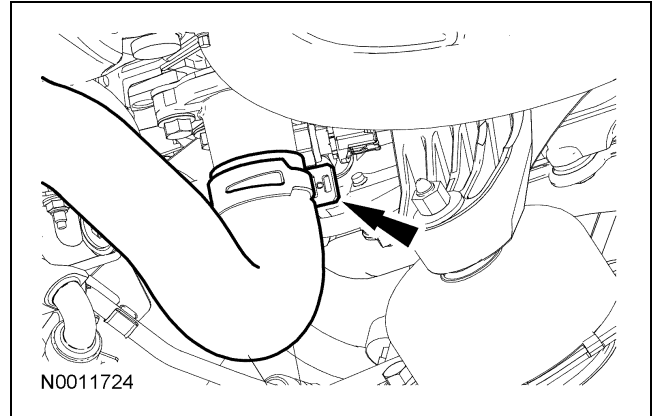
12. Rotate the accessory drive belt tensioner clockwise and remove the accessory drive belt.



13. Disconnect the A/C pressure transducer electrical connector.



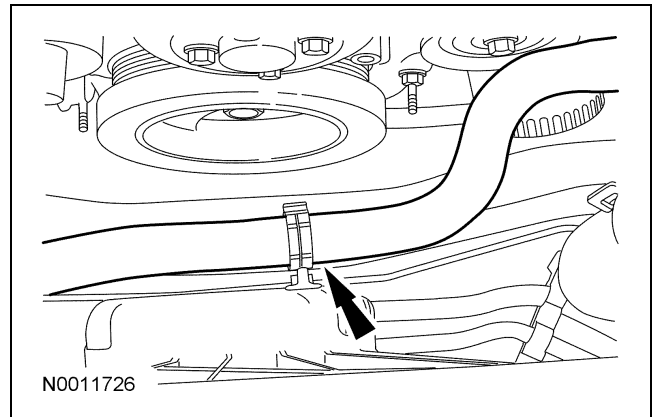
14. Disconnect the coolant hose from the oil filter adapter.



15. Remove the oil pan drain plug and drain the engine oil.

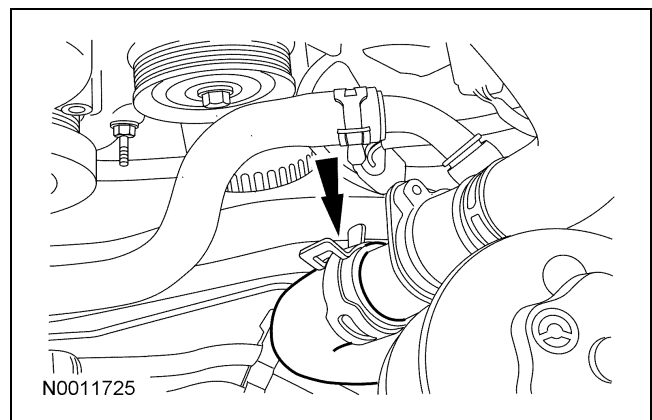
- Install the drain plug and tighten to 26 Nm (19 lb-ft).

16. Detach the degas bottle hose from the cooling fan assembly.



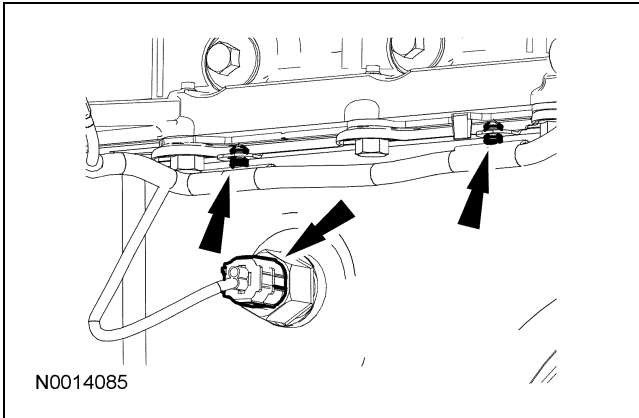
17. Disconnect the lower radiator hose from the thermostat housing.

- Remove the thermostat housing and coolant hoses as an assembly.



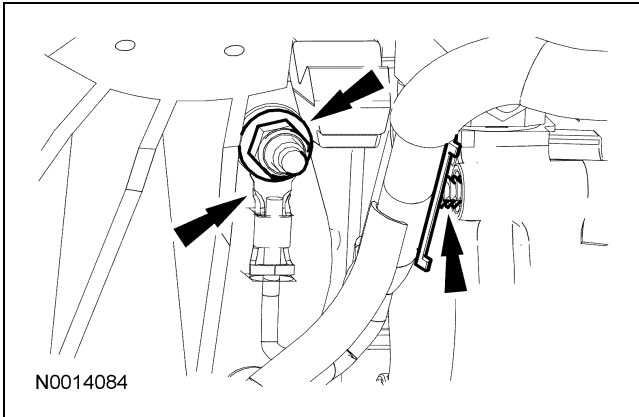
**REMOVAL (Continued)**

18. Disconnect the oil temperature sensor electrical connector and 2 pin-type retainers.



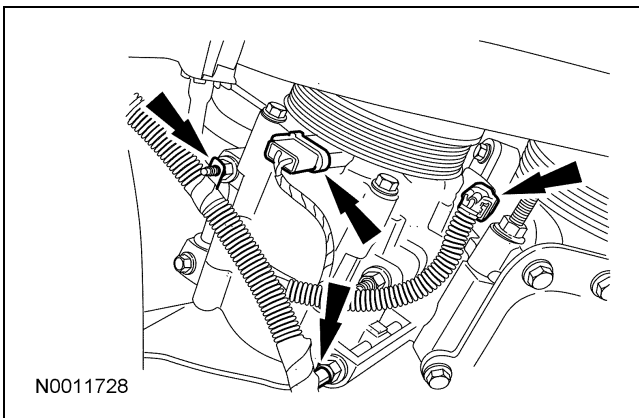
19. Remove the nut and the ground wire from the stud bolt.

- Detach the pin-type retainer from the A/C compressor.



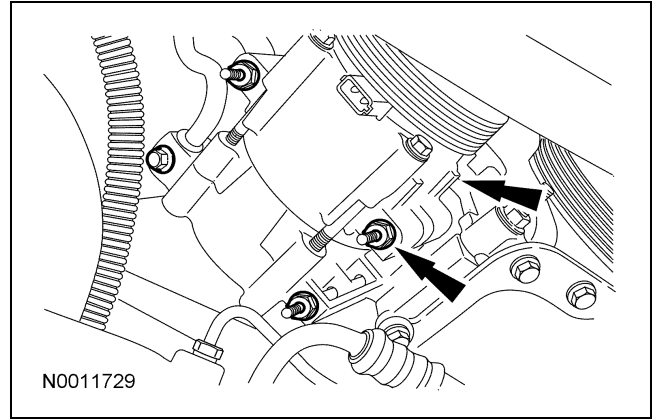
20. Disconnect the A/C clutch and crankshaft position (CKP) sensor electrical connectors.

- Detach the wiring harness retainers and position the harness aside.

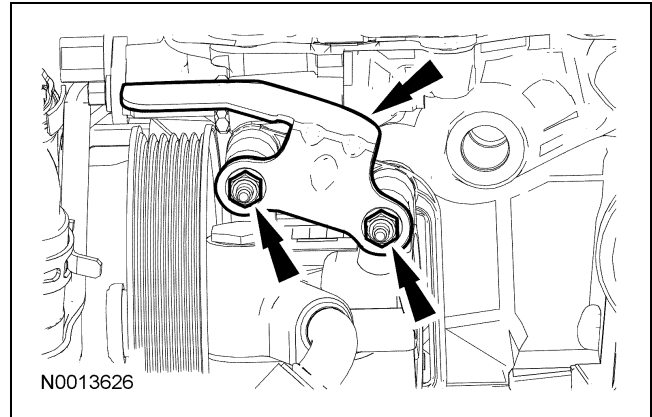


21. Remove the bolt, 3 nuts and position the A/C compressor aside.

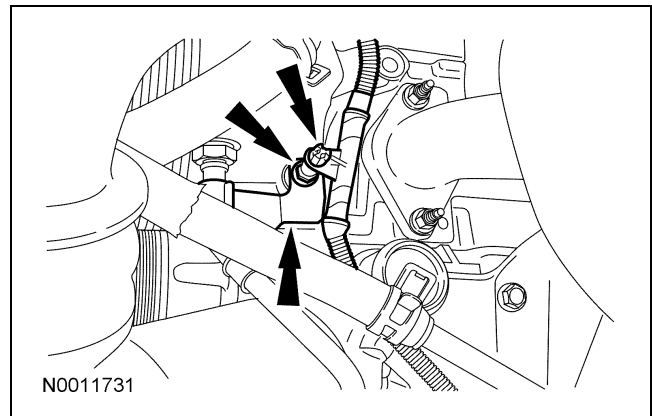
- Support the A/C compressor with a length of mechanic's wire.



22. Remove the 2 nuts and the power steering pulley shield.

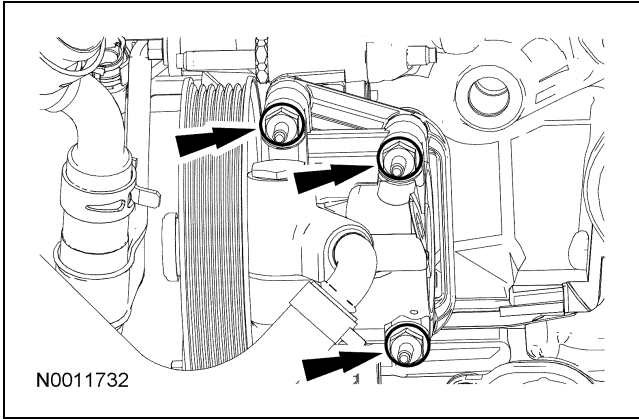


23. Remove the wiring harness retainer, nut and tube retaining clip from the power steering stud bolt.

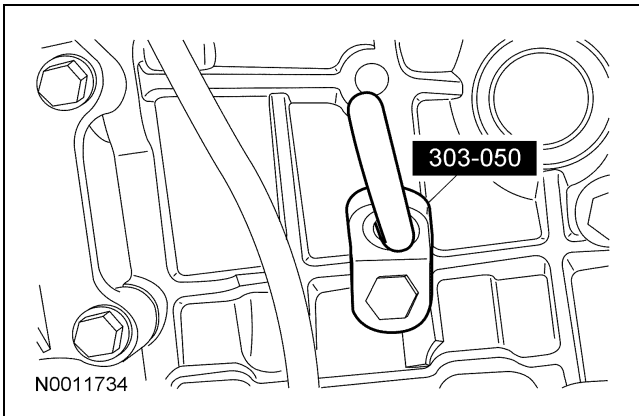


**REMOVAL (Continued)**

24. Remove the 3 stud bolts and position the power steering pump aside.
- Support the power steering pump with a length of mechanic's wire.



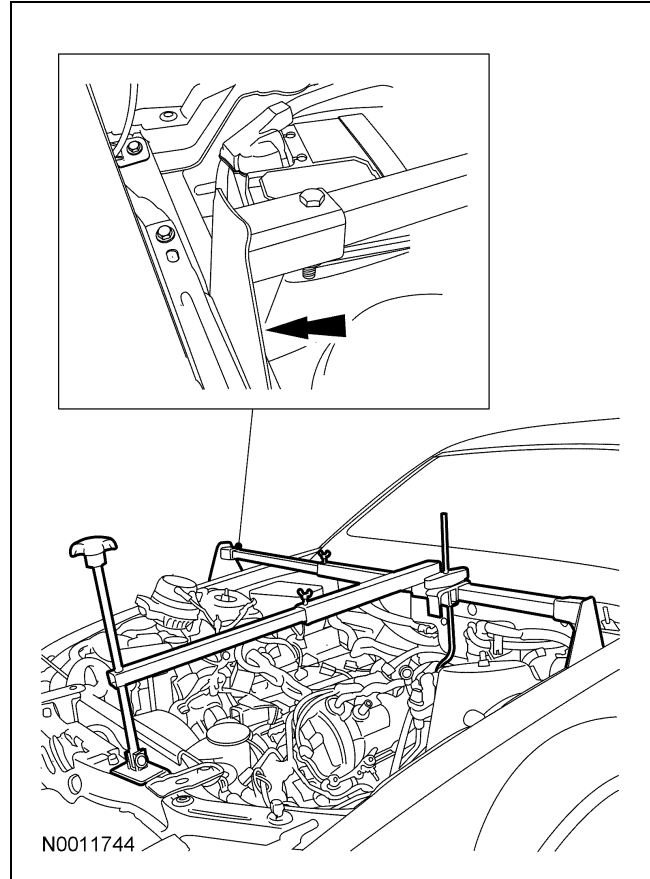
25. Install the special tool (lifting bracket) to the threaded hole located at the LH side of the engine block.



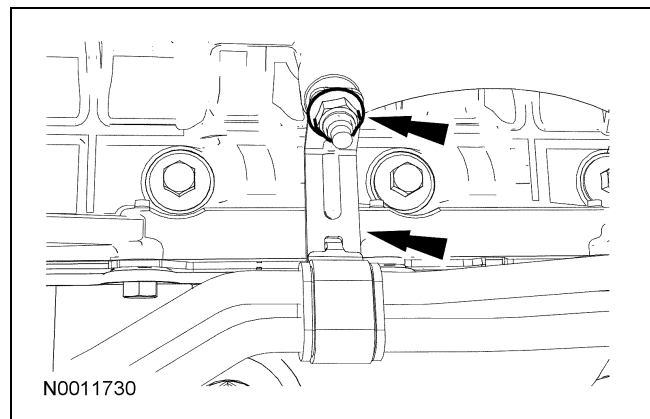
26. **⚠ CAUTION:** The rear of the engine must be supported before removing the transmission to prevent damage to the engine or cowl.

**⚠ CAUTION:** Do not position the legs of the special tool (3-bar engine support) on the fenders. Instead, the legs should be positioned on the body structure near the suspension strut tower.

Install the 3-bar engine support and a suitable length of chain to the engine lifting bracket installed in the previous step.

**Vehicles with automatic transmission**

27. Remove the nut and position aside the transmission cooler tube bracket.



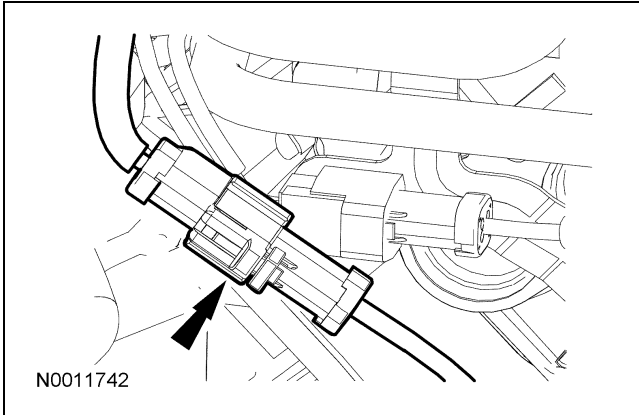
28. Remove the transmission. For additional information, refer to Section 307-01.

**Vehicles with manual transmission**

29. Remove the clutch. For additional information, refer to Section 308-01.

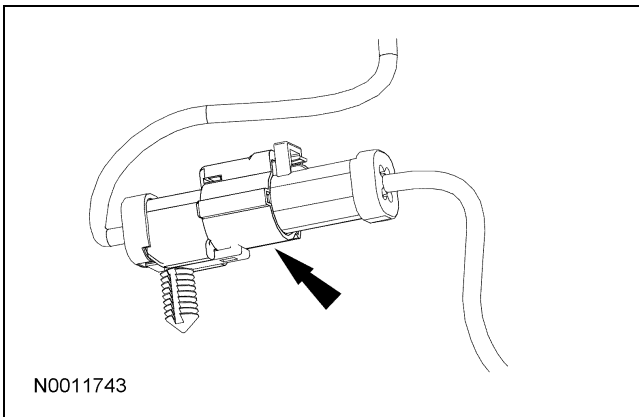
**REMOVAL (Continued)****All vehicles**

30. Disconnect the RH heated oxygen sensor (HO2S) electrical connector.

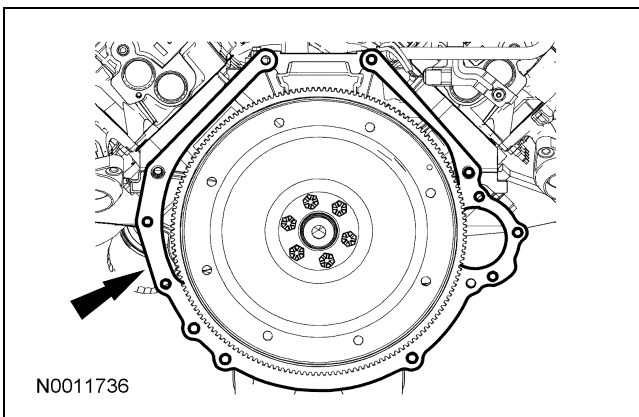


31. **NOTE:** RH shown, LH similar.

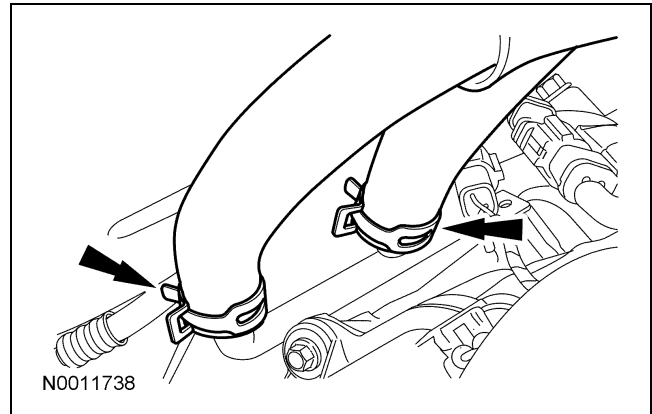
Disconnect the RH and LH catalyst monitor sensor (CMS).



32. Remove the engine-to-transmission spacer plate.

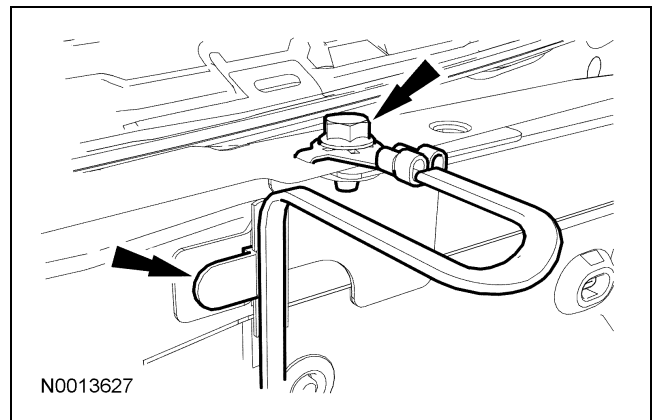


33. Disconnect the heater hoses.

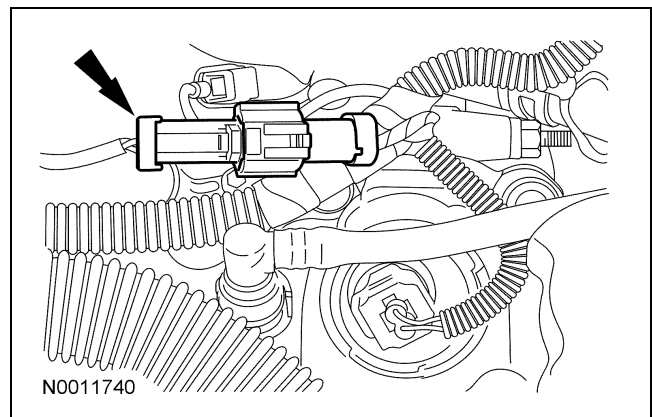


34. Remove the bolt and the ground strap from the cowl.

- Detach the pin-type retainer.

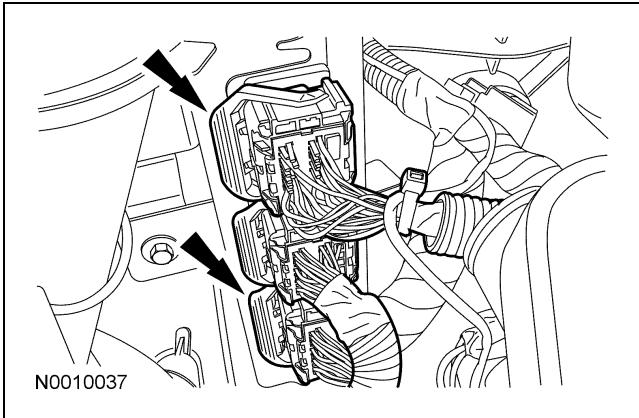


35. Disconnect the generator jumper harness electrical connector.

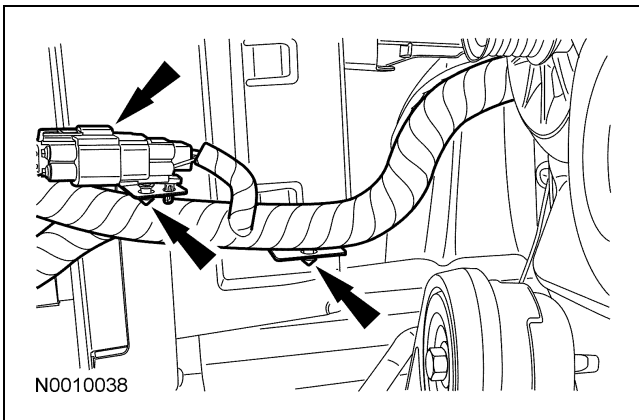


**REMOVAL (Continued)**

36. Disconnect the upper and lower powertrain control module (PCM) electrical connectors.

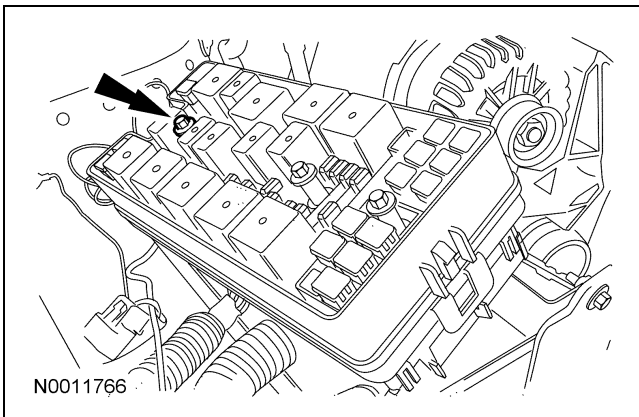


37. Disconnect the 16-pin electrical connector and detach the 2 wiring retainers.

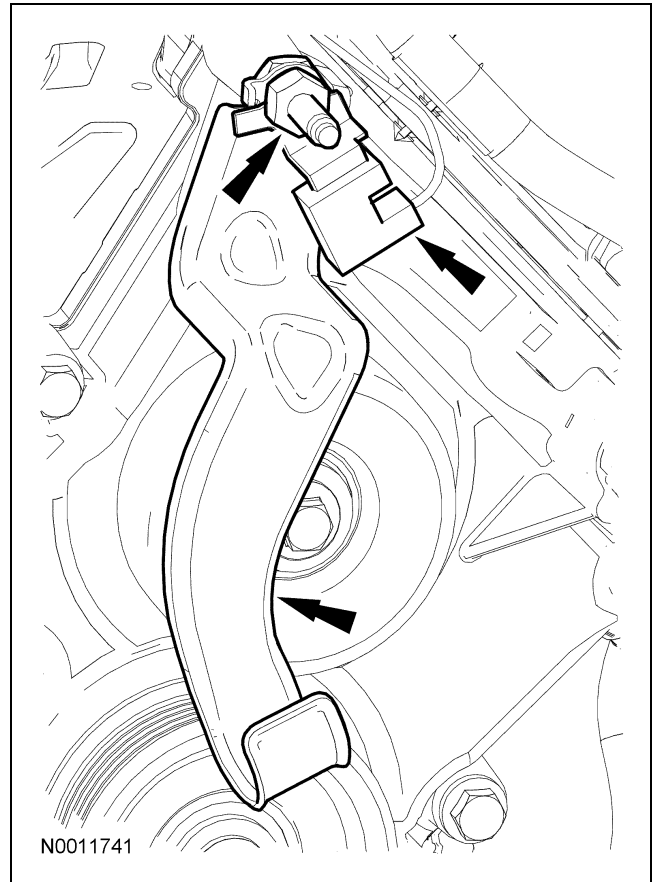


38. Remove the power distribution box cover.

39. Detach the power distribution box upper housing from the lower housing, loosen the bolt, then disconnect the 68-pin connector from the power distribution box.

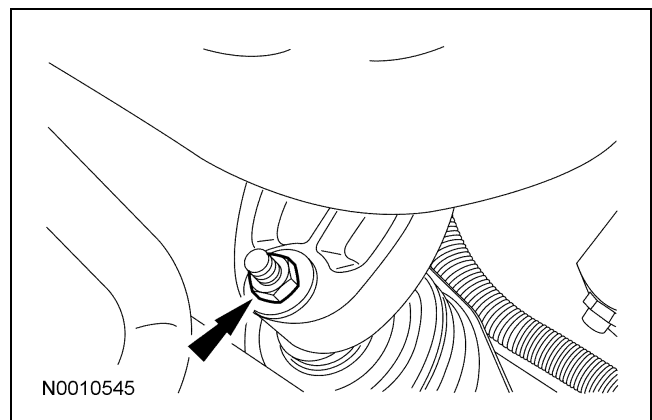


40. Remove the nut, radio interference capacitor and J-bracket from the engine front cover stud bolt.



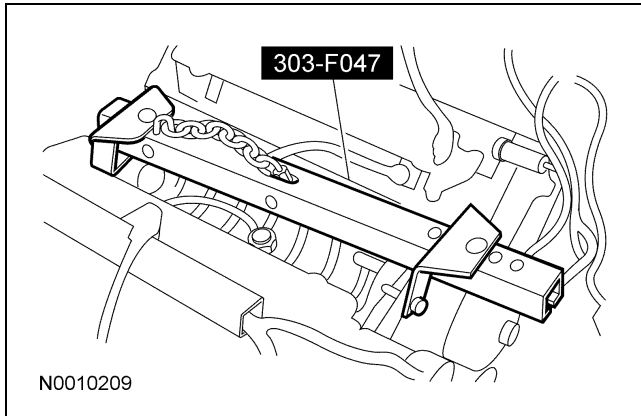
41. **NOTE:** RH shown, LH similar.

Remove the RH and LH engine support insulator nuts.



**REMOVAL (Continued)**

42. Install the special tool.



43. Attach a suitable floor crane to the engine lifting bracket installed in the previous step.

- Remove the 3-bar support from the vehicle.
- Remove the engine from the vehicle.