



# Engine Removal/Installation

## NOTE:

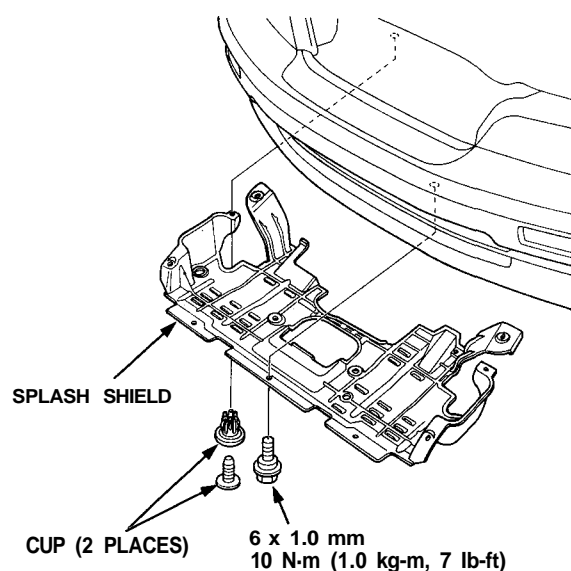
- The L and LS model radios have a coded theft protection circuit.
- If service to the car requires any of the following, be sure you get the customer's code number before you begin work:
  - disconnection of the battery.
  - removal of fuse No. 56 (7.5 A).
  - removal of the radio itself.
- After service, reconnect power to the radio and turn it ON.
- The word "CODE" will be displayed. Enter the customer's 5-digit code to restore radio operation.

## ⚠ WARNING

- **Make sure jacks and safety stands are placed properly and hoist brackets are attached to the correct positions on the engine (See Section 1).**
- **Make sure the car will not roll off stands and fall while you are working under it.**

## CAUTION:

- Use fender covers to avoid damaging painted surfaces.
- Unspecified items are common.
- Unplug the wiring connectors carefully while holding the coupler and the connector portion to avoid damage.
- Mark all wiring and hoses to avoid mis-connection. Also, be sure that they do not contact other wiring or hoses or interfere with other parts.



1. Disconnect the battery negative terminal first, then the positive terminal. Remove the battery.

2. Remove the radiator cap.

**⚠ WARNING** Use care when removing the radiator cap to avoid scalding by hot coolant or steam.

3. Raise the hoist to full height.

4. Remove the engine splash shield.

5. Drain the coolant (See Section 10).

- Loosen the drain plug from the radiator lower tank.

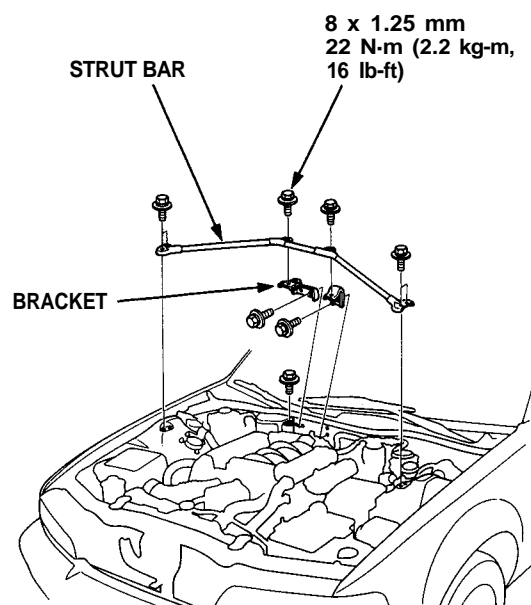
6. Drain transmission and differential oil/fluid. Use a 3/8" drive socket wrench to remove the drain plugs. Reinstall the drain plugs using new washers.

7. Drain the engine oil. Reinstall the drain plug using a new washer.

8. Lower the hoist.

9. Remove the open stay bolts, then fix the engine hood to vertical position.

Remove the strut bar and bracket.



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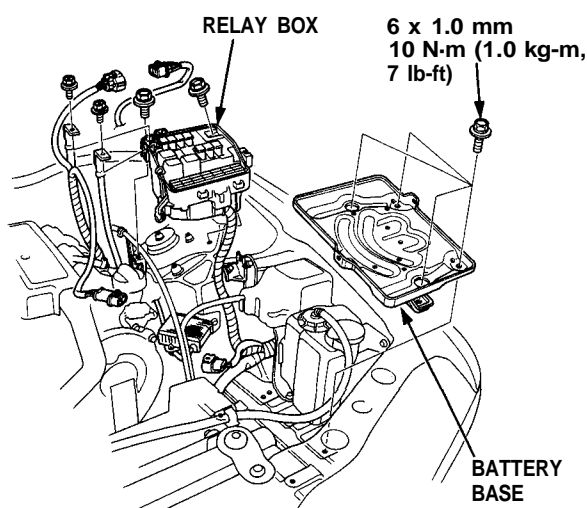
# Engine Removal/Installation

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11. Remove the battery base.

12. Disconnect the engine wire harness connectors, then remove the relay box.

- Remove the ground cable from cylinder block.
- Remove the battery cable from starter motor B terminal.

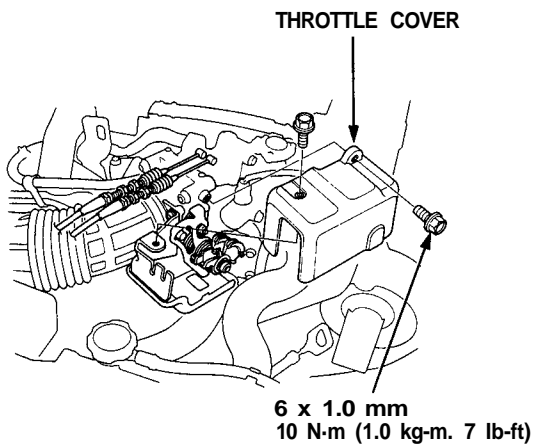


13. Remove the throttle cover.

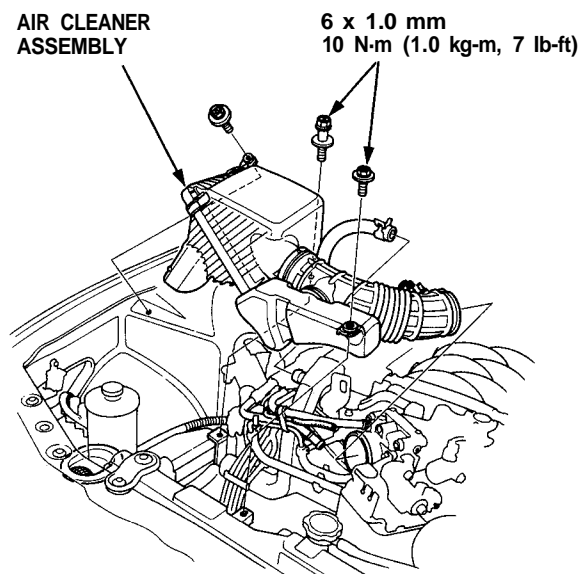
14. Remove the throttle cable by loosening the locknut, then slip the cable end out of the throttle bracket and accelerator linkage.

## NOTE:

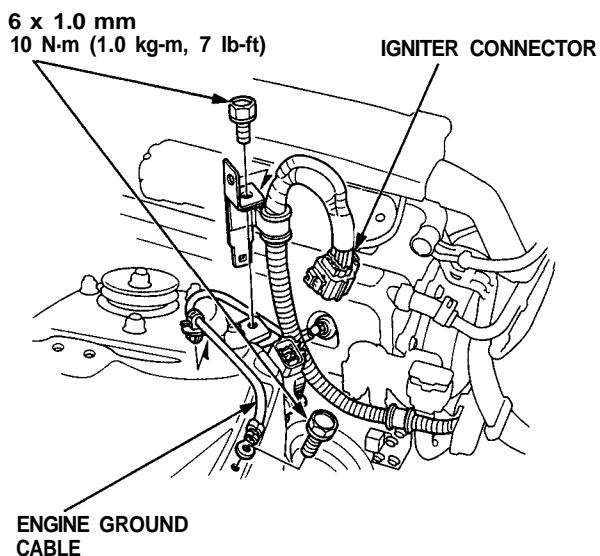
- Take care not to bend the cable when removing it. Always replace any kinked cable with a new one.
- Adjust the throttle cable when installing (See [Section 11](#)).



15. Remove air cleaner assembly and air duct.



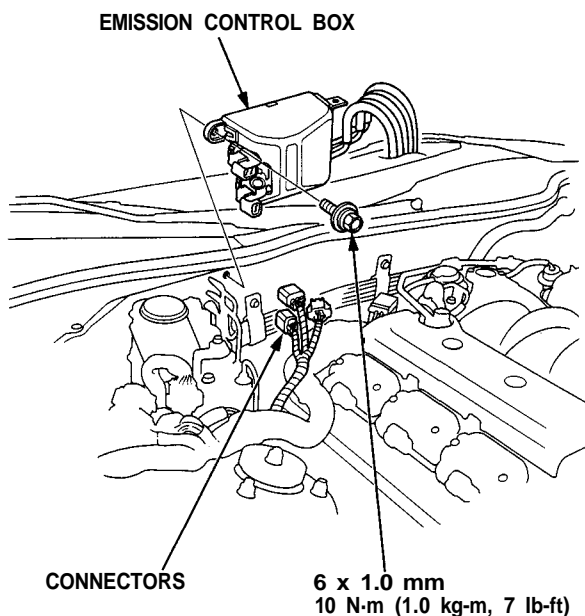
16. Remove the igniter connector, harness clamp and engine ground cable.



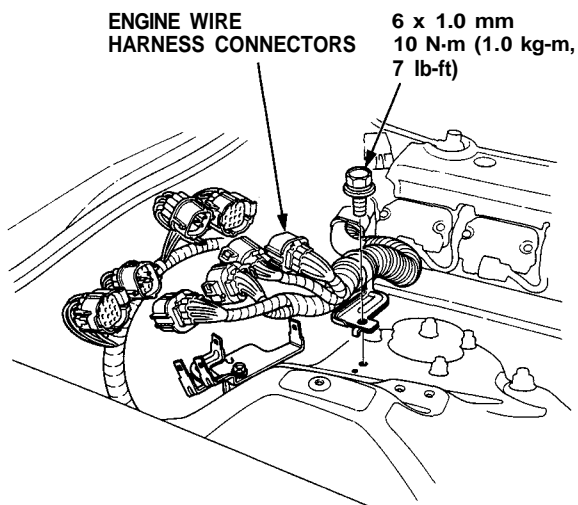


17. Disconnect three connectors, then remove the emission control box.

- Do not disconnect the vacuum hoses.



18. Disconnect four engine wire harness connectors and clamp.



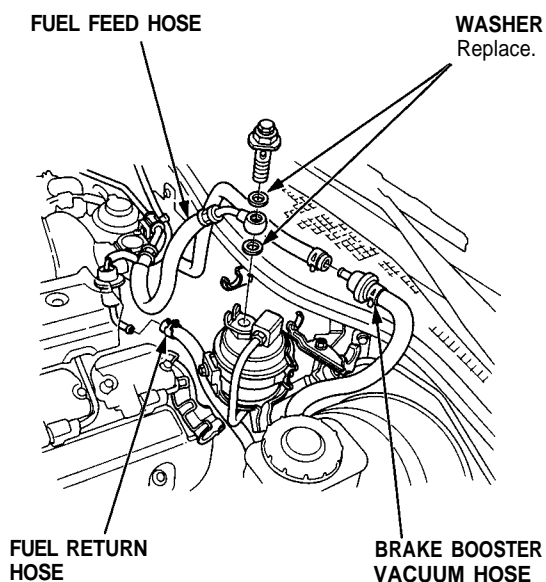
19. Relieve fuel pressure by slowly loosening the service bolt on the fuel filter about one turn (See [Section 11](#)).

**⚠ WARNING** Do not smoke while working on the fuel system. Keep open flame away from work area. Drain fuel only into an approved container.

**CAUTION:**

- Before disconnecting any fuel line, the fuel pressure should be relieved as described above.
- Place a shop towel over the fuel filter to prevent pressurized fuel from spraying over the engine.

20. Remove the fuel feed hose and the fuel return hose from the pressure control valve.

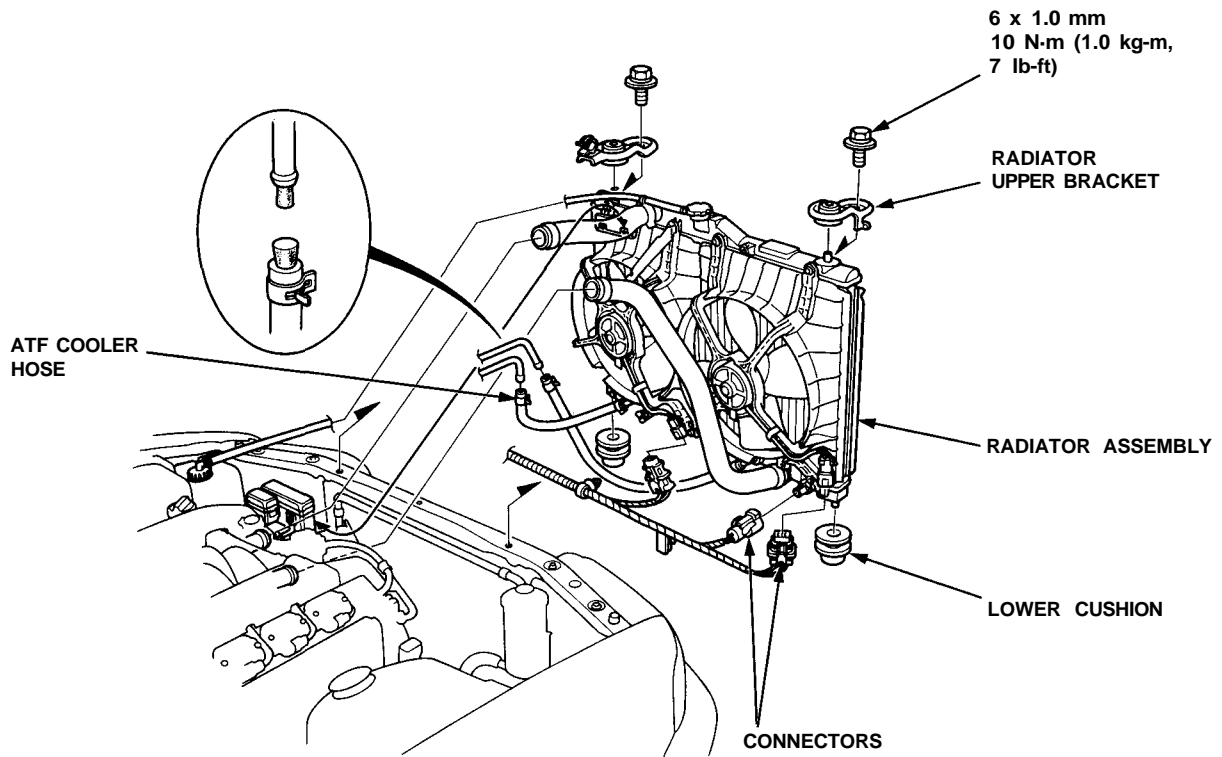


21. Remove the fuel purge hose and the purge cut vacuum hose.
22. Disconnect the brake booster vacuum hose.
23. Disconnect the transmission sub wire harness connector at the left rear of the engine compartment, then remove the harness clamp.

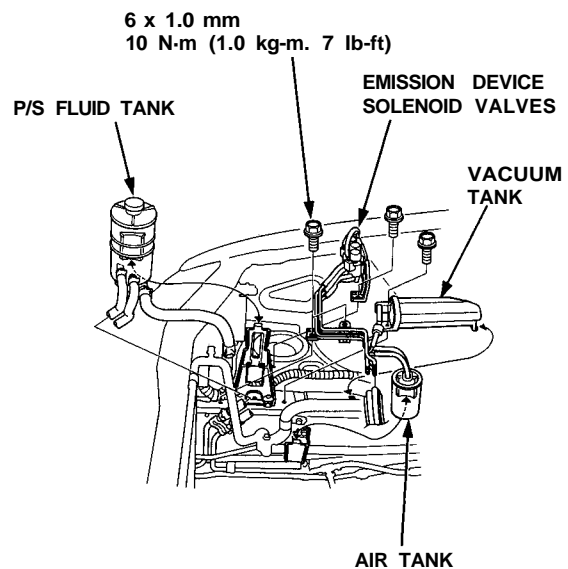
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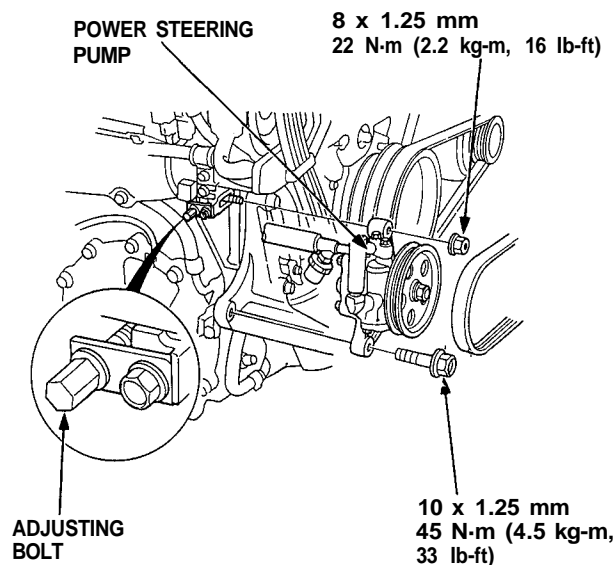


24. Disconnect the radiator hoses, the ATF cooler hoses, the thermosensor connector and the cooling fan motor connectors, then remove the radiator assembly.
25. Remove vacuum pipe, emission device solenoid valve assembly and air tank.
  - Do not disconnect the P/S hoses.



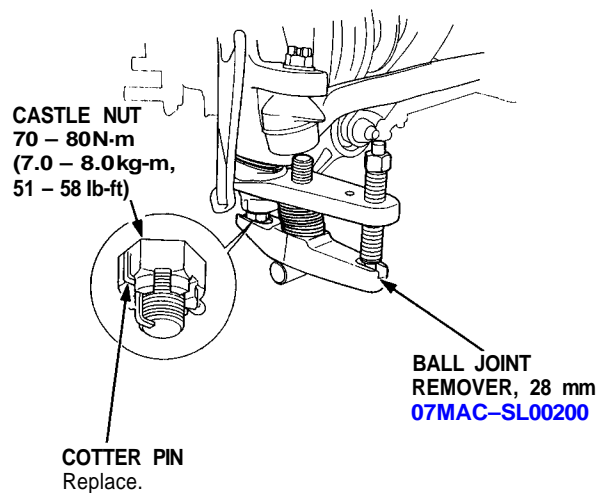


26. Remove the power steering belt and pump.
- Do not disconnect P/S hoses.



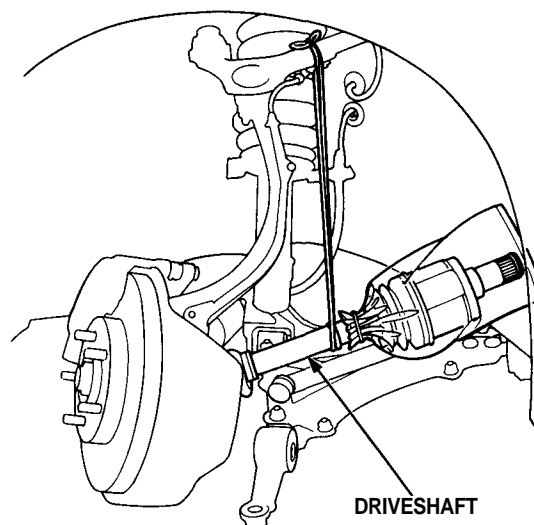
27. Remove the front tires/wheels.
28. Remove the damper forks.
29. Disconnect the suspension lower arm ball joints with the special tool. Refer to [Section 18](#) for the proper procedure.

NOTE: Adjust the tool so the jaws are parallel to each other.



30. Remove the driveshafts. Suspend them with a rope as shown.

NOTE: Coat all precision finished surfaces with clean engine oil or grease. Tie plastic bags over the driveshaft ends.



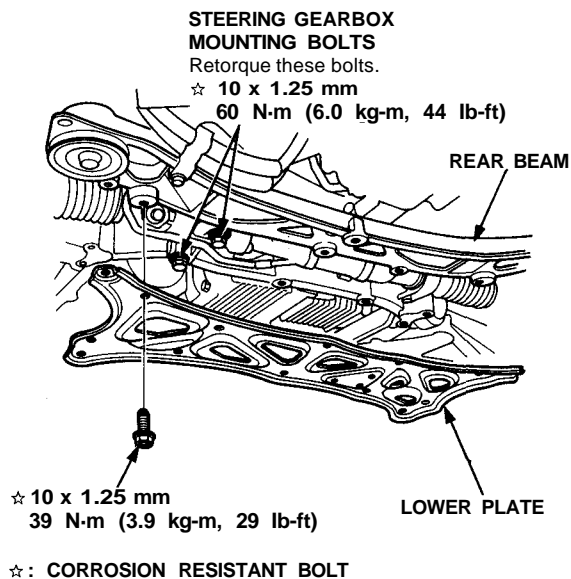
31. Raise the hoist to full height.

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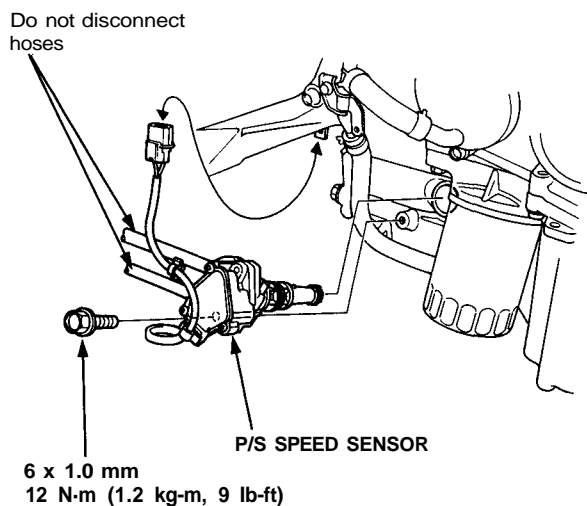
# Engine Removal/Installation

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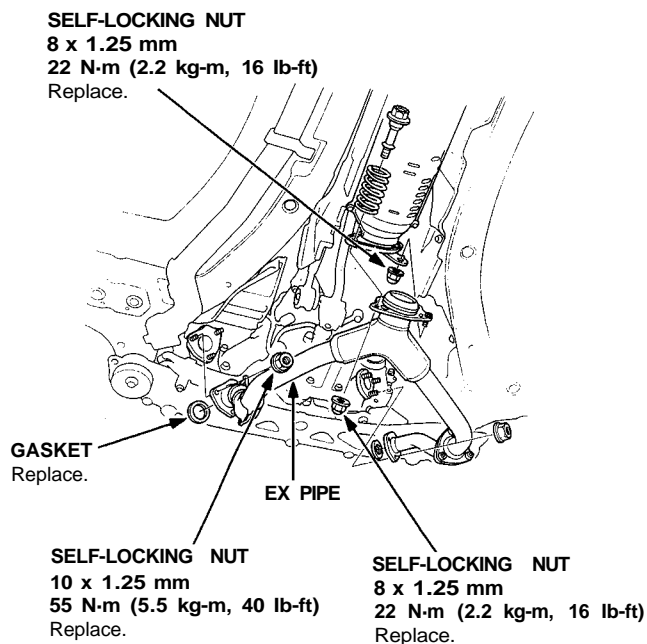
32. Remove the lower plate from the rear beam.



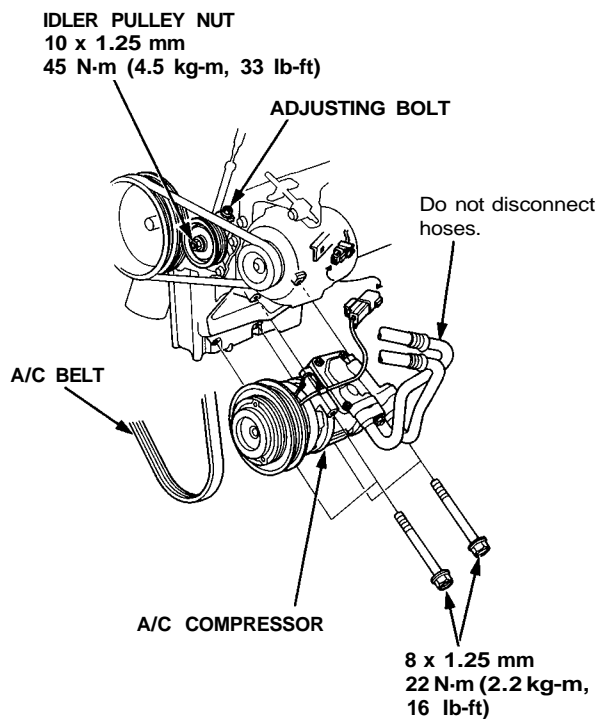
33. Remove the power steering speed sensor.
- Do not disconnect the hoses.



34. Remove the exhaust pipe A and joint pipe assembly.



35. Remove the air conditioner compressor and belt.
- Do not disconnect hoses.

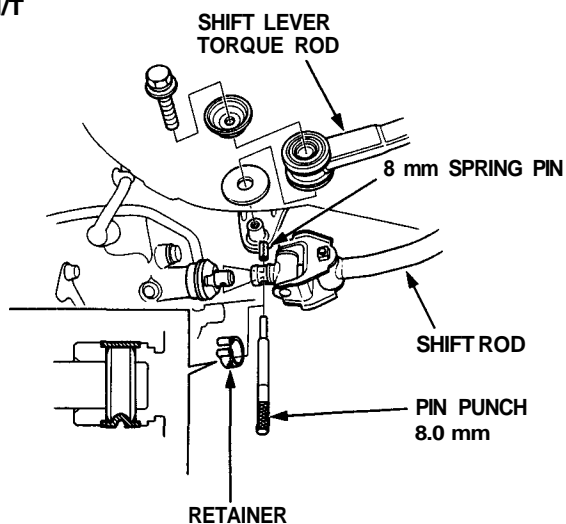




Manual transmission equipped cars:

36. Remove the slave cylinder from transmission housing.
  - Do not disconnect the clutch hose.
37. Disconnect the shift rod and shift lever torque rod as shown.

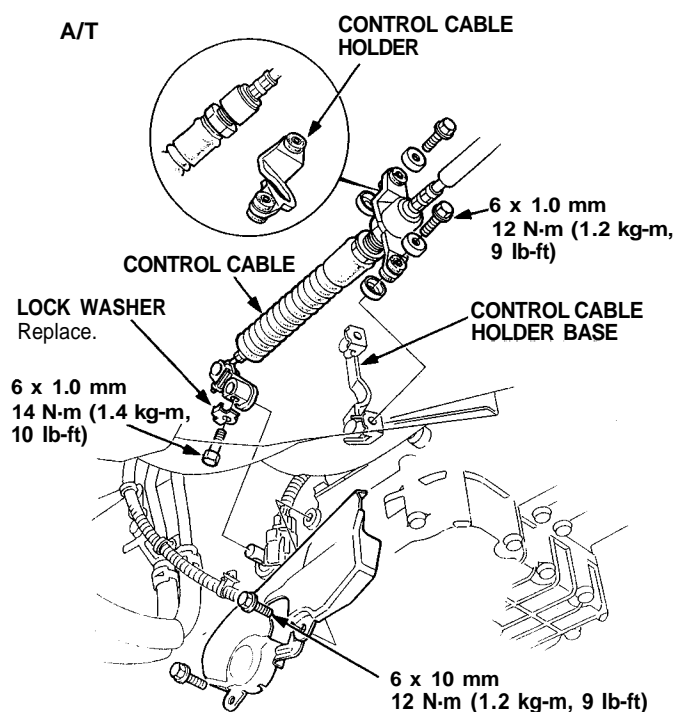
M/T



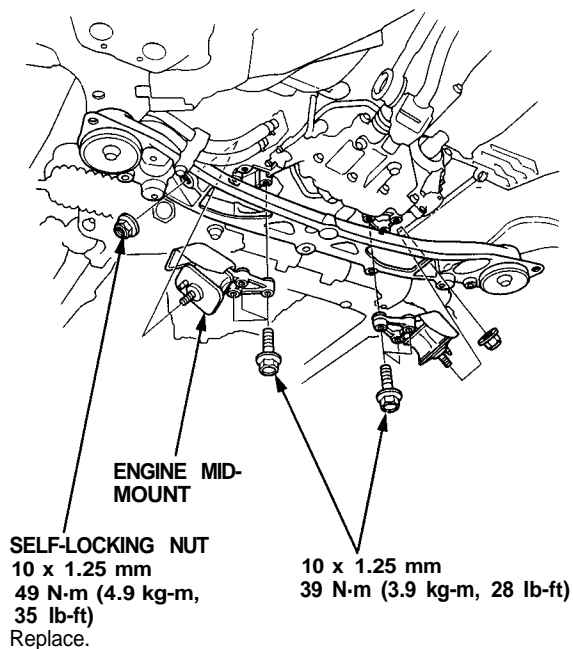
Automatic transmission equipped cars:

38. Disconnect the shift control cable.

A/T

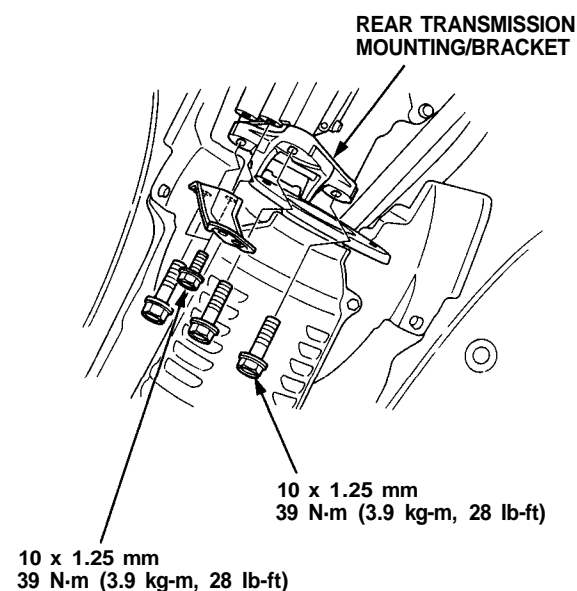


39. Remove the engine mid-mounting nuts and bolts.



40. Remove rear transmission mounting/bracket.

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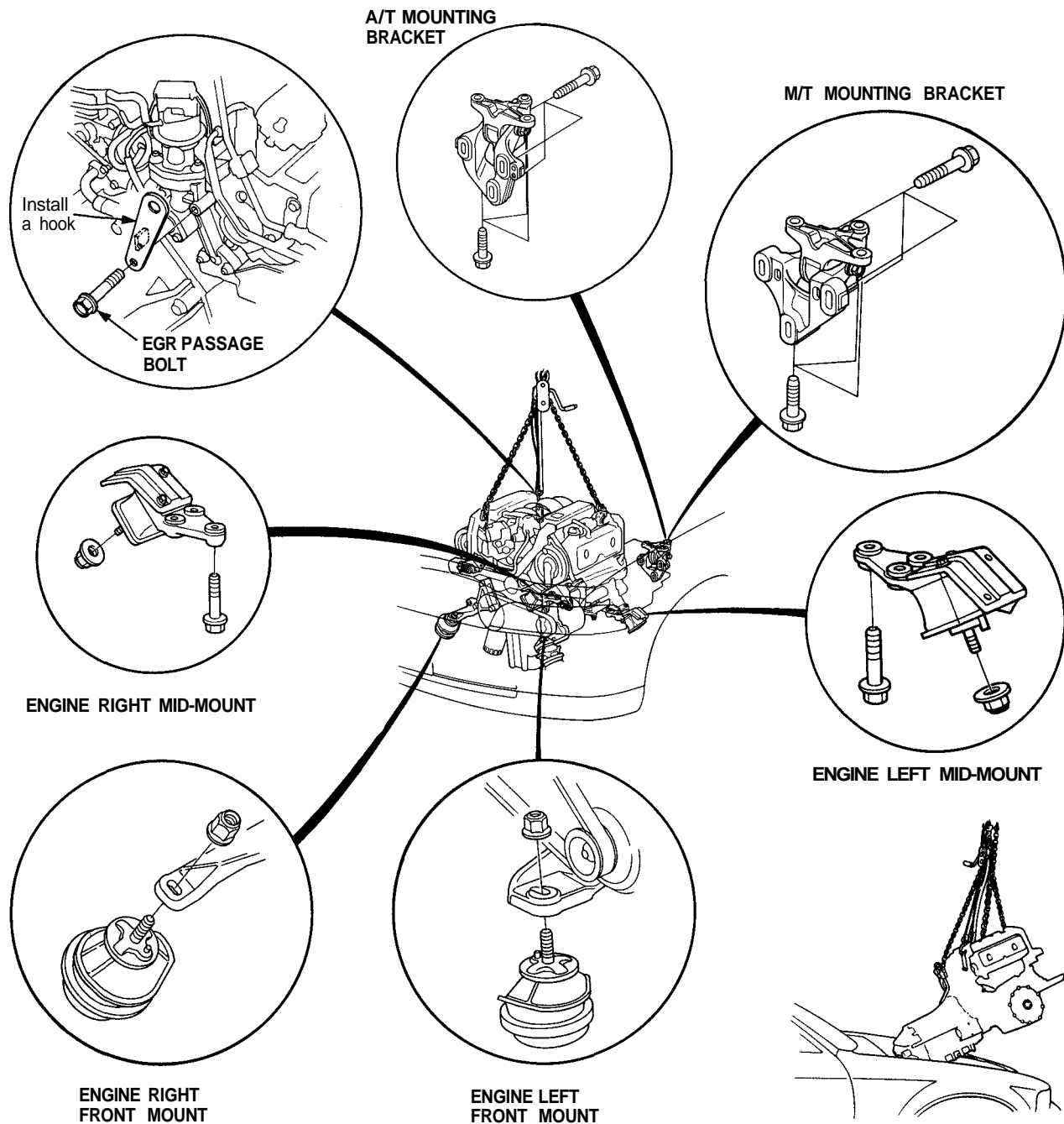


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# Engine Removal/Installation

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41. Lower the hoist.
42. Remove the front engine mounting nuts.
43. Remove the EGR passage bolt, then install a hook.
44. Attach a chain hoist to the engine. Raise the hoist to remove all slack from the chain.
45. Check that the engine/transaxle is completely free of vacuum hoses, fuel and coolant hoses, and electric wires.
46. Slowly raise the engine approximately 6". Check once again that all hoses and wires have been disconnected from the engine/transaxle.
47. Raise the engine/transaxle all the way and remove it from the car.







48. Install the engine in the reverse order of removal.  
After the engine is in place:

- Torque the engine mounting bolts in sequence shown below.

**CAUTION:** Failure to tighten the bolts in the proper sequence can cause excessive noise and vibration, and reduce bushing life: check that the bushings are not twisted or offset.

- Check that the spring clip on the end of each driveshaft clicks into place.

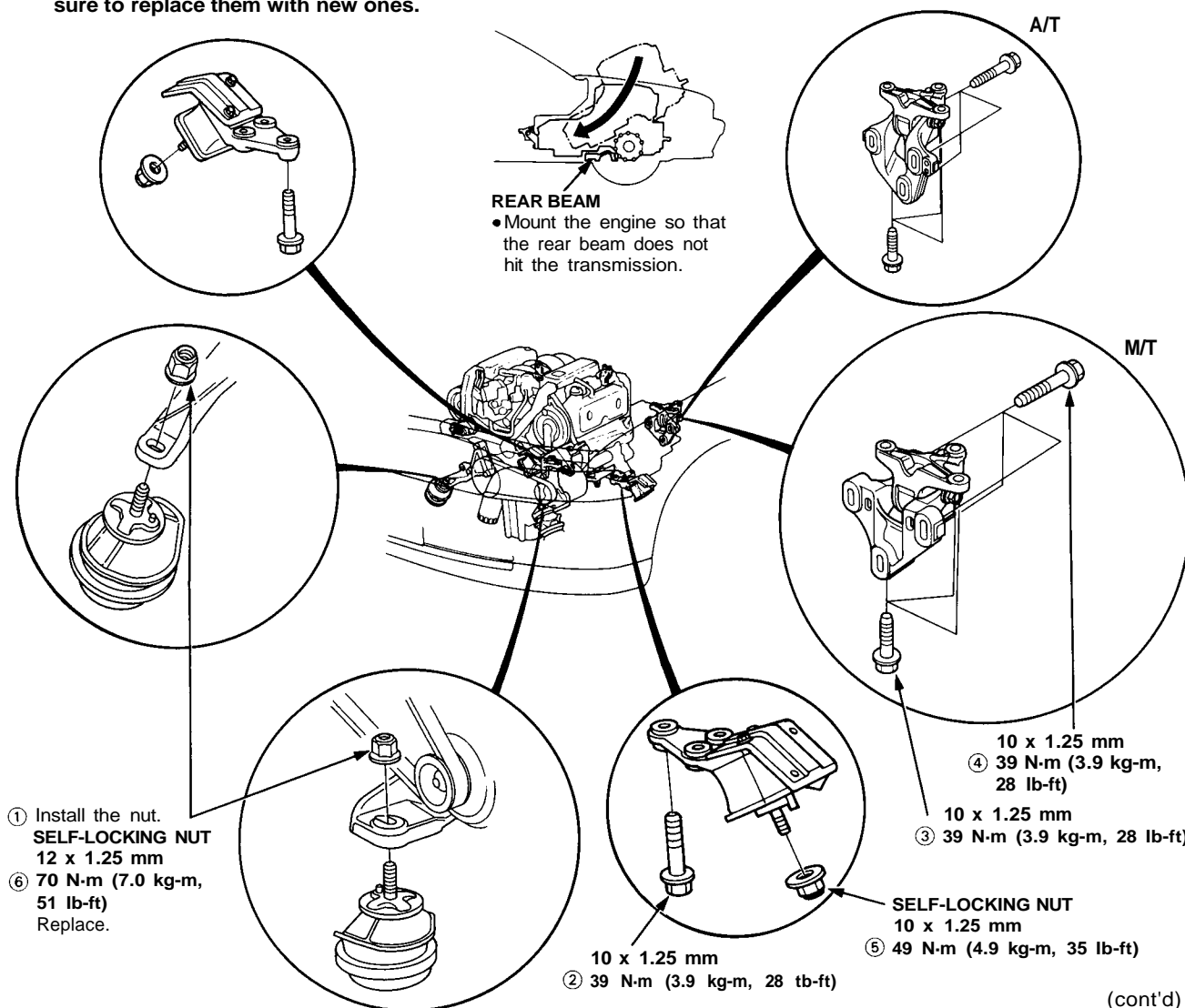
**CAUTION:** Use new spring clips on installation.

- Bleed air from the cooling system at the bleed bolt with the heater valve open.
- Adjust the throttle cable tension.

#### Engine Mounting Torque Sequence:

**CAUTION:** After loosening the special bolts, be sure to replace them with new ones.

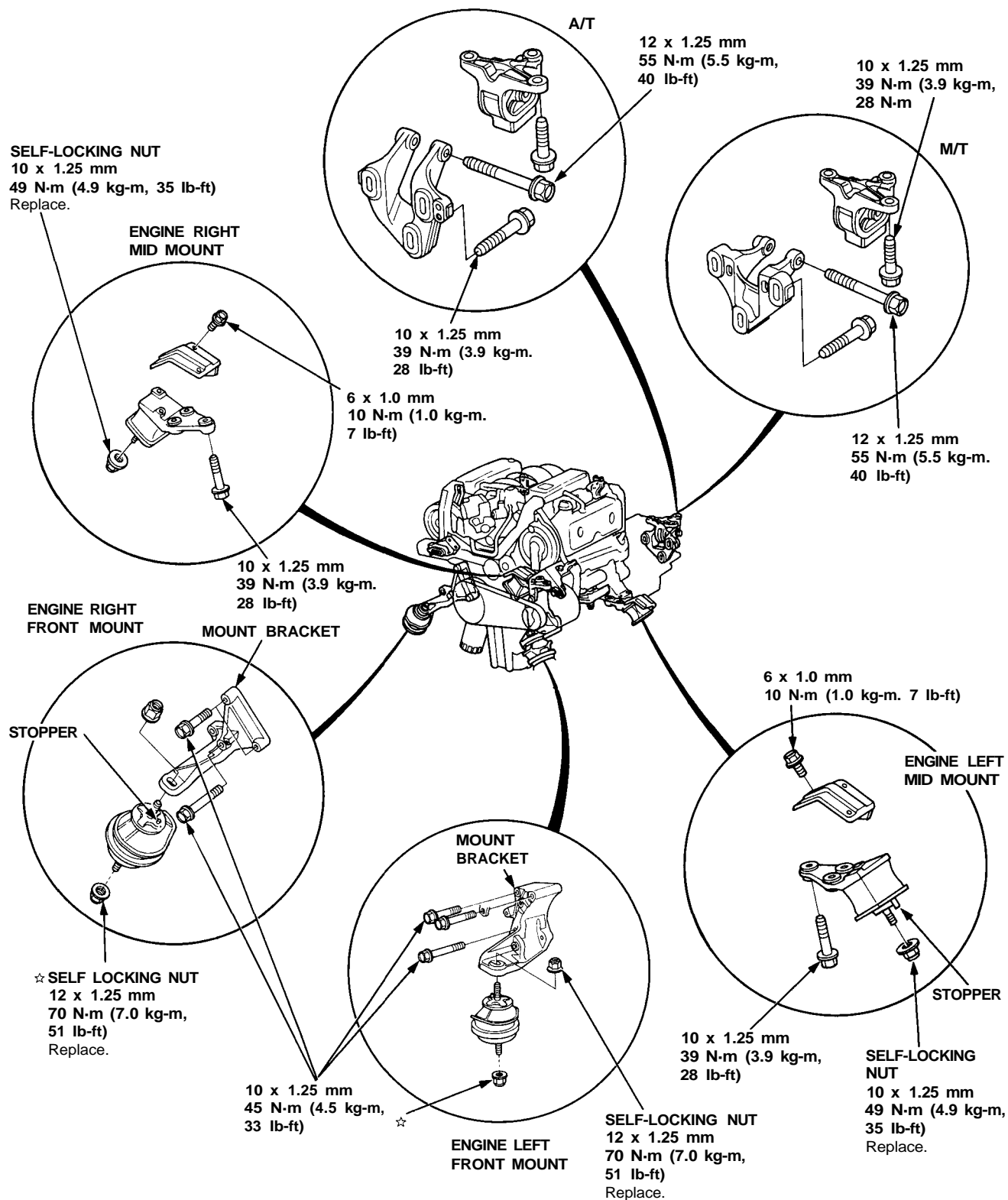
- Check the clutch pedal free play.
- Check that the transmission shifts into gear smoothly.
- Adjust the tension of the following drive belts  
Alternator belt (See [Section 23](#)).  
Power steering belt (See [Section 17](#)).  
Air conditioner belt (See [Section 22](#)).
- Clean battery posts and cable terminals with sandpaper, assemble, then apply grease to prevent corrosion.
- Inspect for fuel leakage.
  - After assembling fuel line parts, turn on the ignition switch (do not operate the starter) so that the fuel pump is operated for approximately two seconds and the fuel is pressurized. Repeat this operation two or three times and check whether any fuel leakage has occurred at any point in the fuel line.



# Engine Removal/Installation

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Mount and bracket torque:

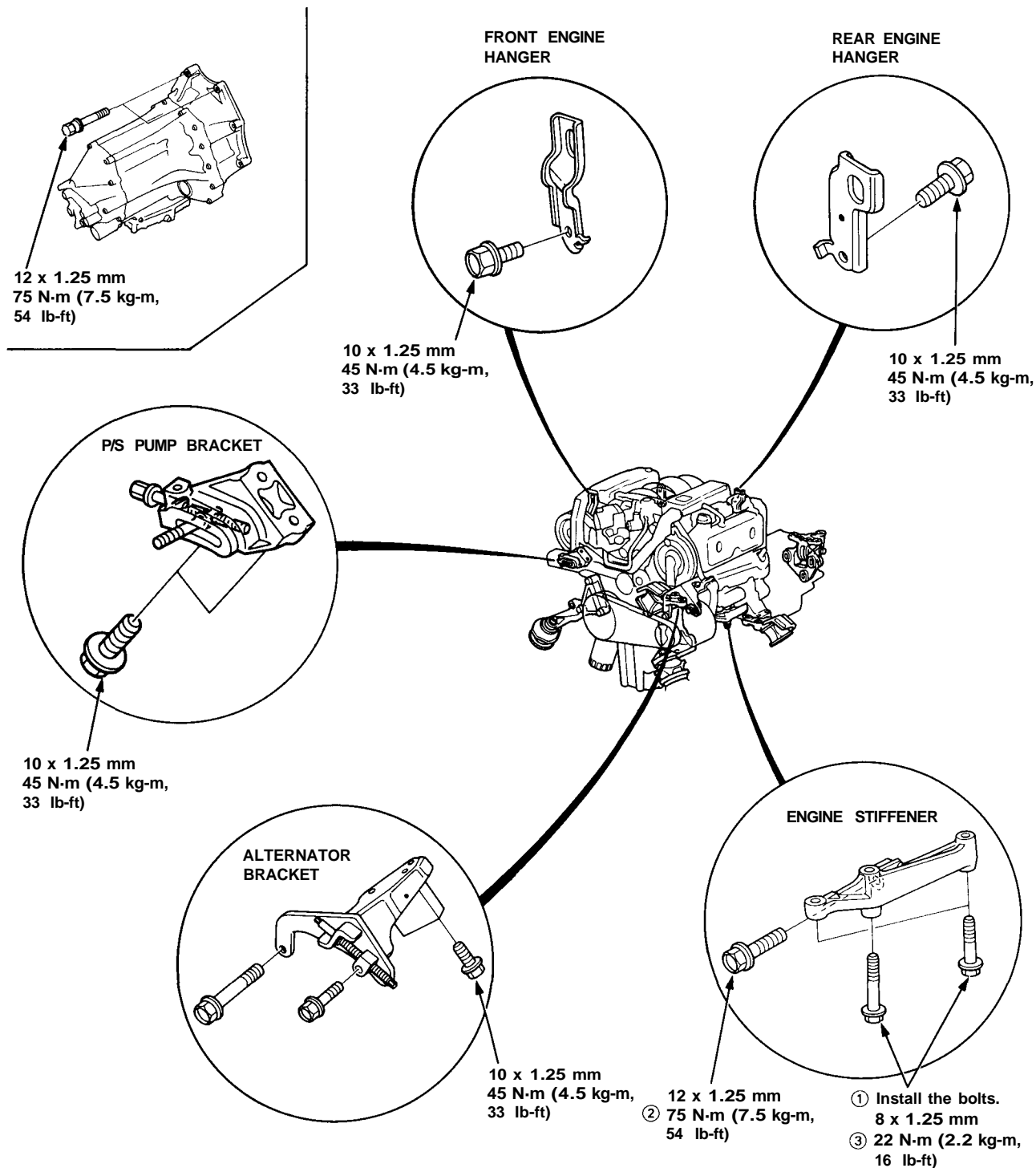


☆ CORROSION RESISTANT NUT



### Additional Torque Value Specifications:

NOTE: For manifold replacement, refer to [Section 9](#).



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