

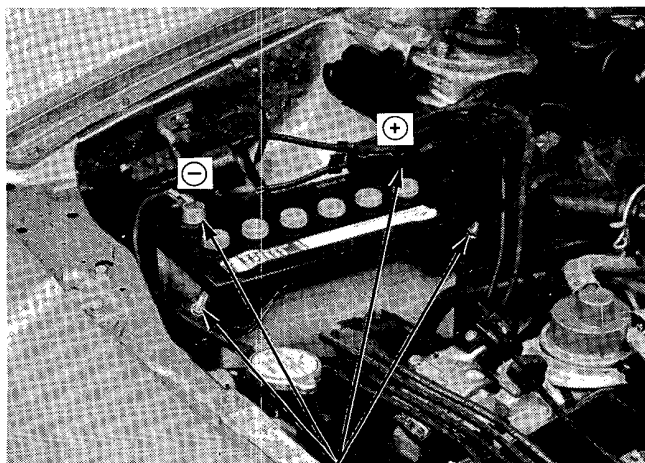
# Engine Removal/Installation

## WARNING

- Make sure jacks and safety stands are placed properly (pages 1-5 thru 7), and hoist brackets are attached to correct positions on the engine (page 5-10).
- Apply parking brake and block rear wheels, so car will not roll off stands and fall on you while working under it.

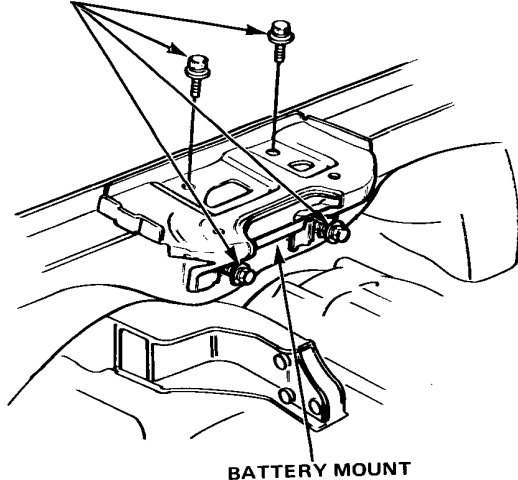
**CAUTION:** Use fender covers to avoid damaging painted surfaces.

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



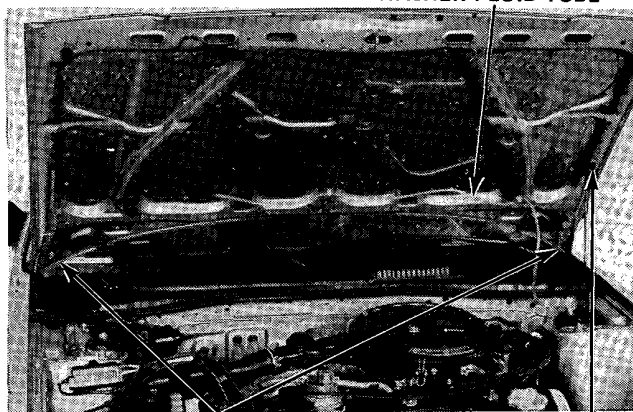
2. Remove the battery then, remove the battery mount.

8 x 1.25 mm  
24 N·m (2.4 kg-m, 17 lb-ft)



3. Unbolt the hood brackets and remove the hood.
  - Disconnect the washer fluid tube.

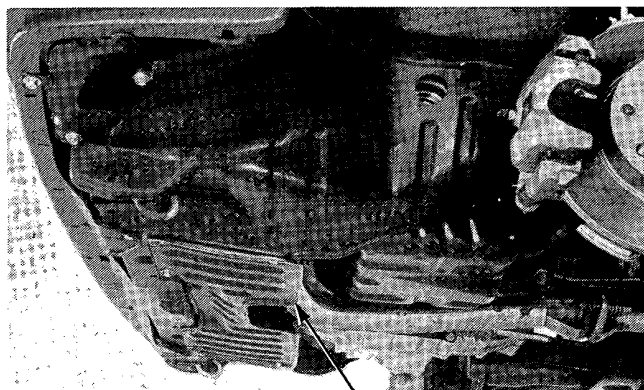
WASHER FLUID TUBE



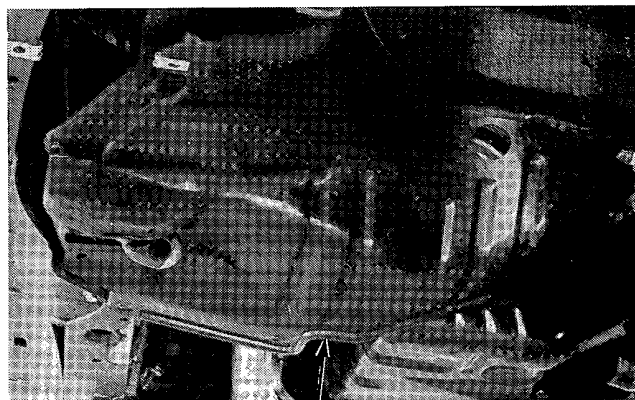
6 x 1.0 mm  
10 N·m (1.0 kg-m, 7 lb-ft)

**CAUTION:** Use care when storing the hood to avoid damaging the paint.

4. Remove the engine splash shield.



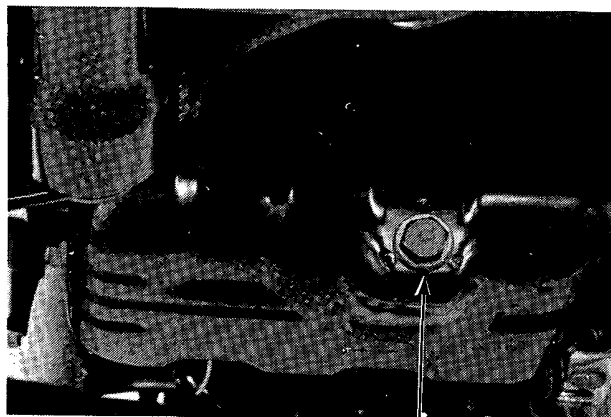
5. Remove the wheelwell splash shields.





6. Drain the engine oil. Remove the oil filler cap to speed draining. Reinstall the drain plug with a new washer.

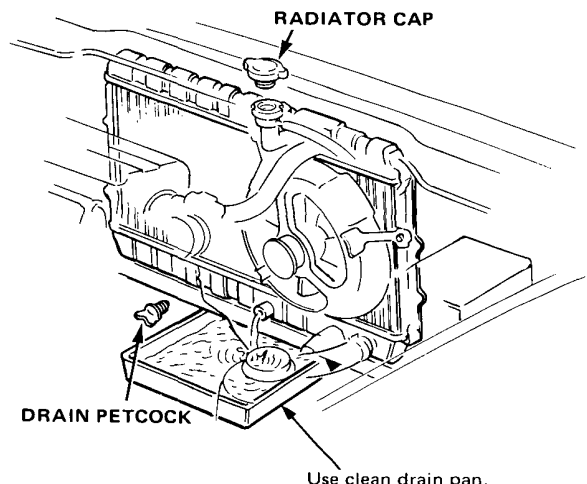
**CAUTION:** Do not re-use old washer.



**OIL PAN DRAIN PLUG**  
45 N·m (4.5 kg-m, 33 lb-ft)

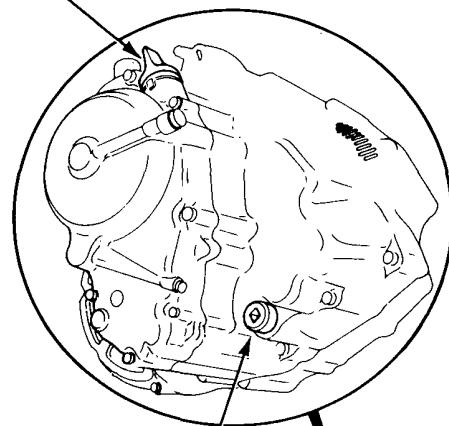
7. Drain the coolant from the radiator into a clean pan so it may be re-used. Remove the radiator cap to speed draining.

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



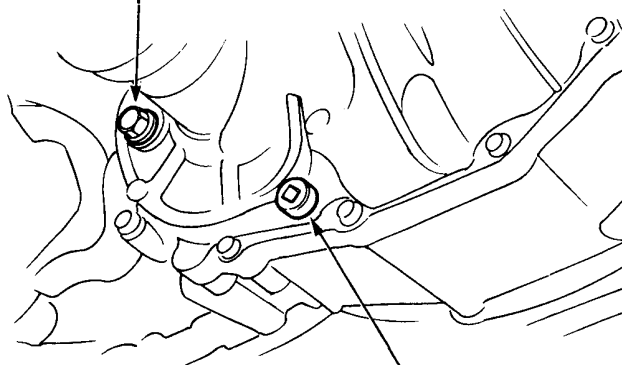
8. Drain transmission oil/fluid. Use a 3/8" drive socket wrench to remove the drain plug. Remove the oil filler plug to speed draining. Reinstall the drain plug with a new washer.

**FILLER PLUG/DIPSTICK**  
Hondamatic Transmission



**OIL FILLER PLUG**  
Manual Transmission  
45 N·m (4.5 kg-m, 33 lb-ft)

**DRAIN PLUG**  
40 N·m (4.0 kg-m, 29 lb-ft)  
Replace washer.



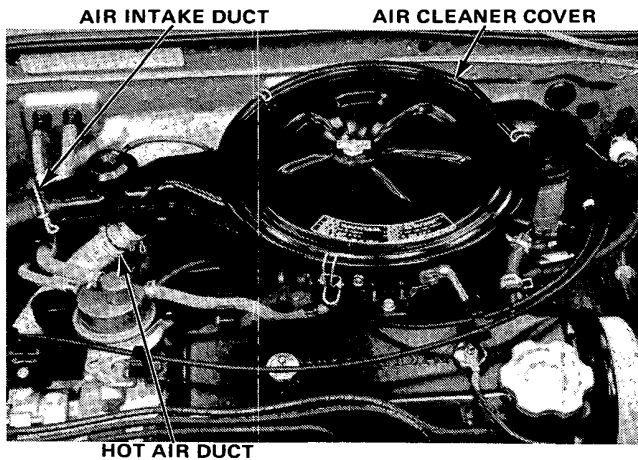
**DRAIN PLUG**  
40 N·m (4.0 kg-m, 29 lb-ft)  
Replace washer.

(cont'd)

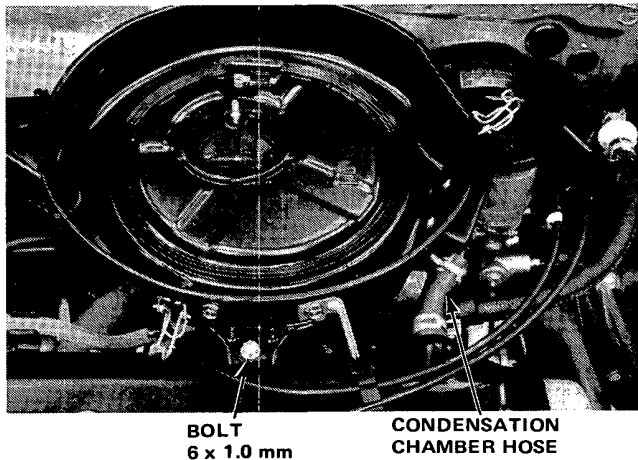
# Engine Removal/Installation (cont'd)

## 9. Remove the air cleaner: (Expect Coupe)

- Disconnect the air intake duct, hot air duct and air chamber hose.



- Remove the air cleaner cover and filter.
- Disconnect the condensation chamber hose.

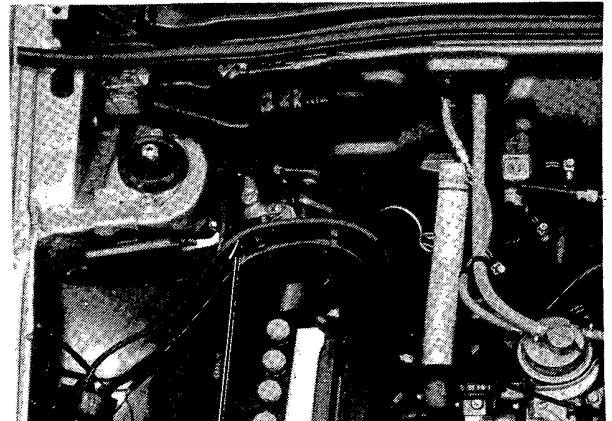


- Remove the bolt holding the air cleaner.
- Disconnect the intake air temperature sensor wire.
- Lift the air cleaner up and disconnect the air bleed valve hose and emission hose.

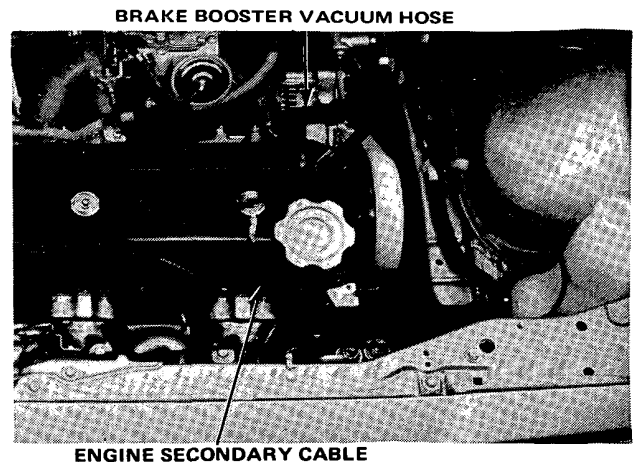
## 10. Disconnect the following wires:

NOTE: On reassembly, connect all wires properly; check that they are not pinched or interfering with adjacent parts.

- Disconnect the engine compartment sub harness connector.



- Disconnect the brake booster vacuum hose.



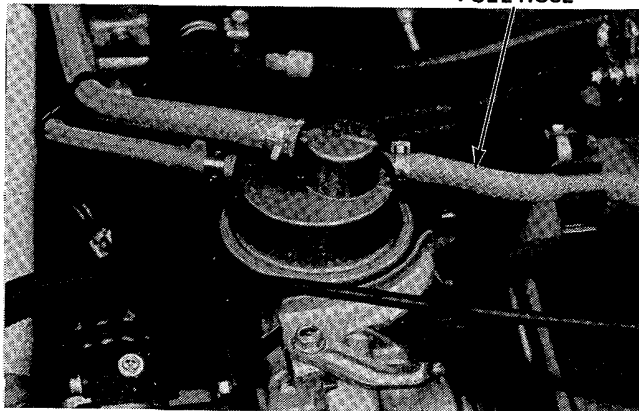
- Remove the engine secondary cable.



11. Disconnect fuel hose at the fuel pump. (Expect Coupe)

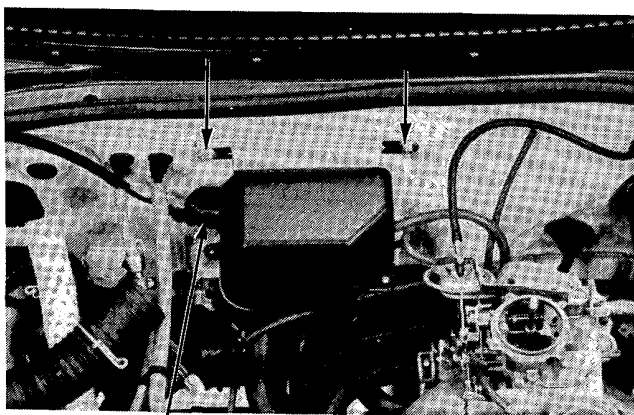
**WARNING** Do not smoke while working on fuel system. Keep open flame away from work area.

FUEL HOSE



12. Remove the fuel pump cover and fuel pump. (Expect Coupe)

13. Disconnect No. 1 control box connector. Lift control box off its bracket, and let it hang next to engine.

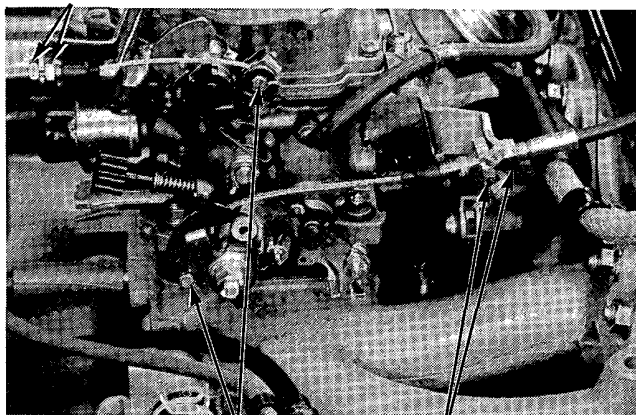


Disconnect the coupler.

14. Remove the choke and throttle cables by loosening the locknuts and the adjusting nuts, then slip the cable ends and out the brackets and carburetor linkage. (Expect coupe)

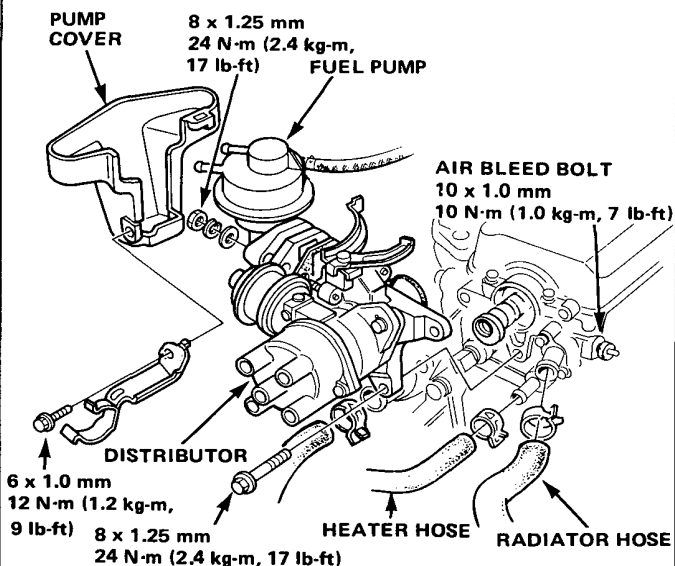
NOTE: Take care not to bend the cable when removing it. Do not use pliers to remove the cable from the linkage. Always replace a kinked cable with a new one.

CHOKE CABLE LOCK NUT  
and ADJUSTING NUT



CABLE ENDS THROTTLE CABLE LOCKNUT  
and ADJUSTING NUT

15. Disconnect the ignition wires at the spark plugs and remove the distributor. (Expect coupe)



(cont'd)

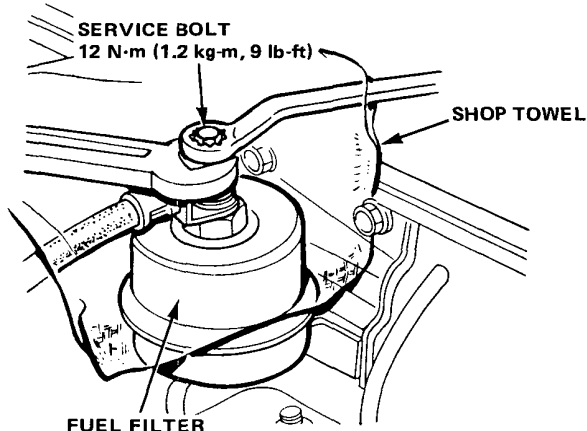
# Engine Removal/Installation (cont'd)

## 16. Relieve fuel pressure. (Coupe)

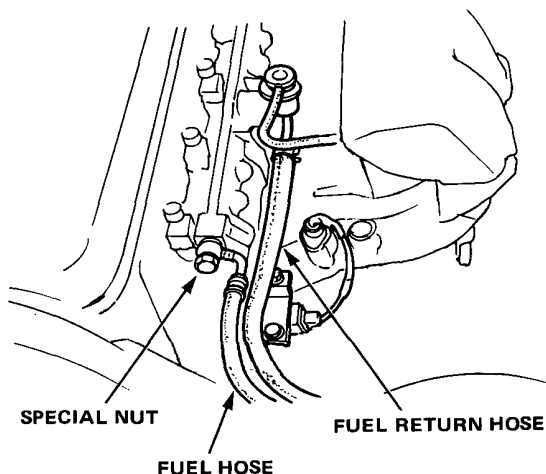
**WARNING** Do not smoke while working on fuel system. Keep open flame away from work area. Drain fuel only into an approved container.

**CAUTION:** Before disconnecting the fuel line, fuel pressure should be relieved by loosening the service bolt on the top of the fuel filter while engine is stopped.

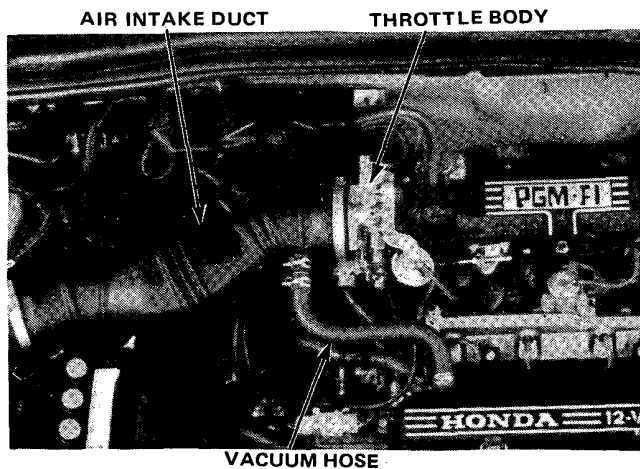
- 1) Place a shop towel over the fuel filter to prevent pressurized fuel from spreading over the engine.
- 2) Loosen the service bolt slowly by approximately one full turn. This relieves fuel pressure.
- 3) Using a new sealing washer, tighten the service bolt.



## 17. Disconnect the fuel return hose from the pressure regulator. Remove the special nut then remove the fuel hose.

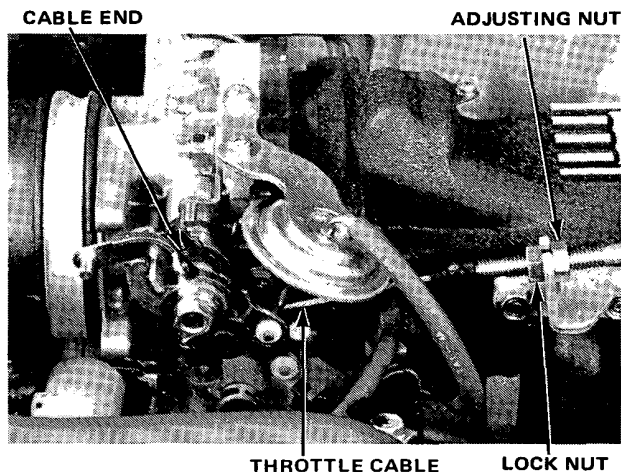


## 18. Disconnect the air intake duct and vacuum hose. (Coupe)



## 19. Remove the throttle cable by loosening the locknut and adjusting nuts, then slip the cable and out the bracket and linkage. (Coupe)

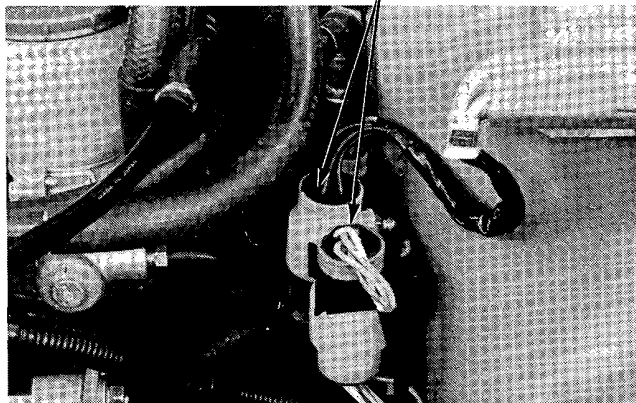
**NOTE:** Take care not to bend the cable when removing it. Do not use pliers to remove the cable from the linkage. Always replace a kinked cable with a new one.



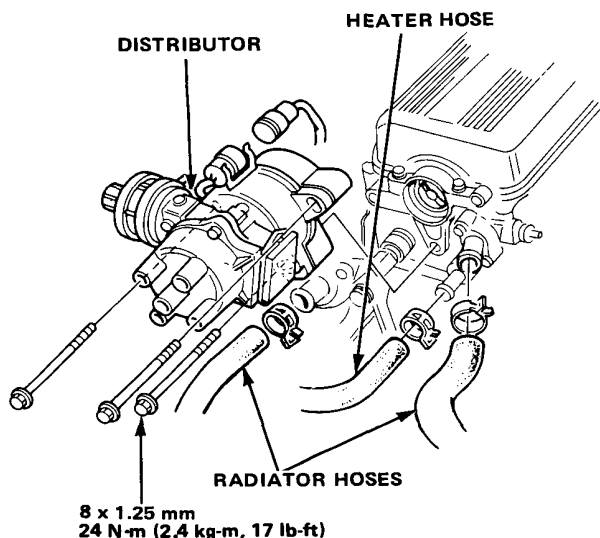


20. Disconnect the sub engine harness connectors.  
(Coupe)

**SUB ENGINE HARNESS CONNECTOR**



21. Disconnect the ignition wires at the spark plugs and remove the distributor. (Coupe)



22. Disconnect the radiator hoses and heater hoses at the engine. Mark the heater hoses so they will be reinstalled correctly.

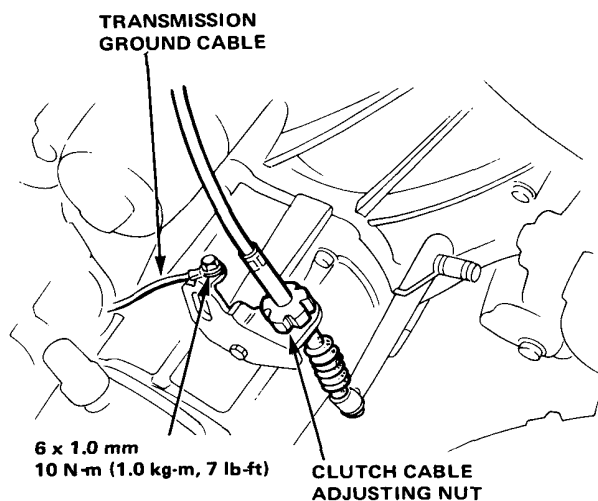
**NOTE:**

- Do not disconnect the heater valve cable.
- When refilling cooling system, open the heater valve and unscrew the air bleed bolt to bleed air out of the system.

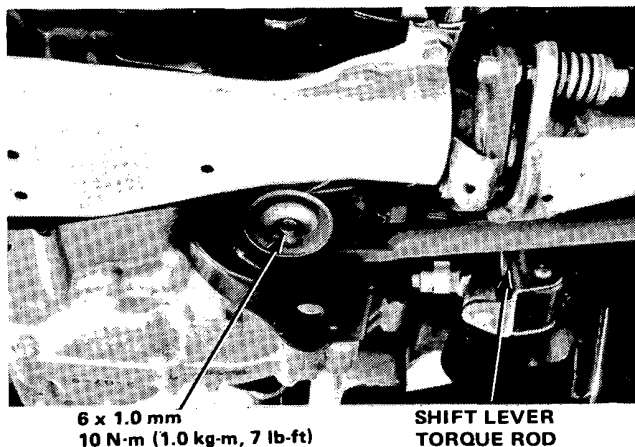
23. On Manual Cars:

- Loosen clutch cable adjusting nut and disconnect clutch cable from release arm.
- Disconnect the transmission ground cable.

**NOTE:** After installing engine, readjust clutch pedal free play (page 13-3).



- Disconnect the shift lever torque rod from the clutch housing.

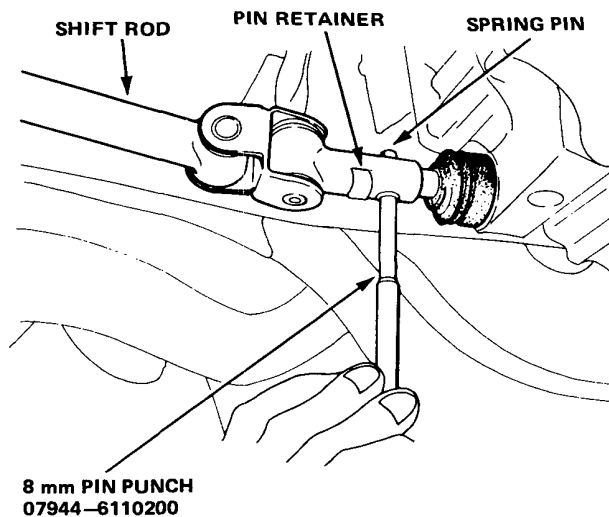


(cont'd)

# Engine Removal/Installation(cont'd)

- Slide the pin retainer out of way, drive out the spring pin with pin punch, then disconnect the shift rod.

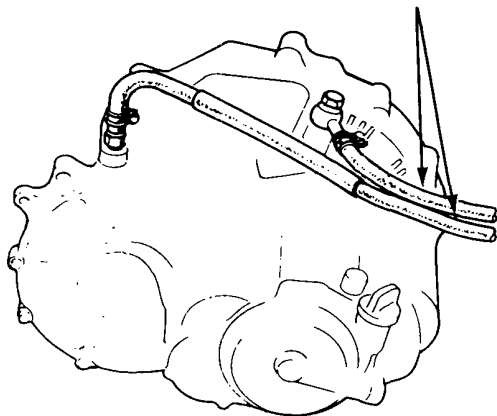
NOTE: On reassembly, slide the retainer back into place after driving in the spring pin.



## 24. On Automatic Cars:

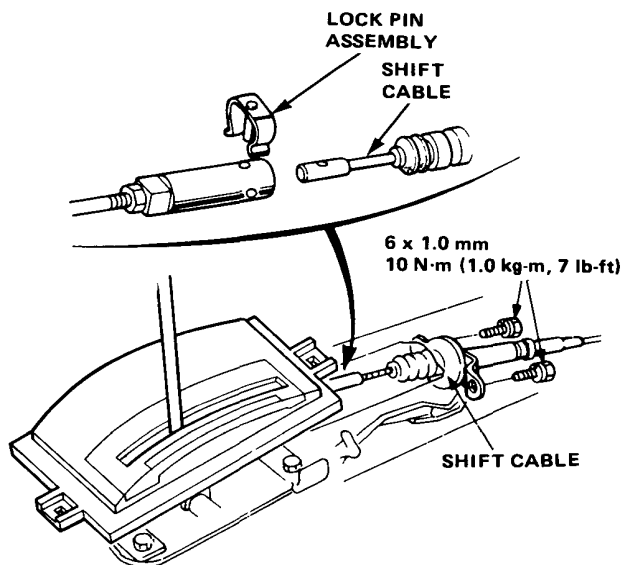
- Disconnect the transmission oil cooler hoses at the transmission, let the ATF drain from hoses, then hang the hoses up out of the way near the radiator.

AUTOMATIC TRANSMISSION  
OIL COOLER HOSES

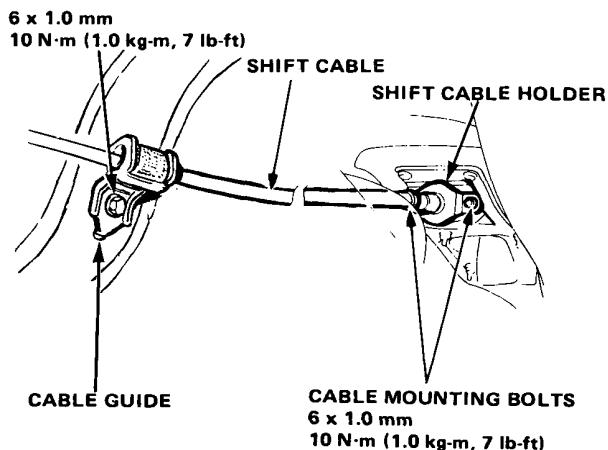


- Remove the center console.
- Place the shift lever in reverse, then remove the lock pin from the end of the shift cable.

NOTE: On reassembly, check the cable adjustment.

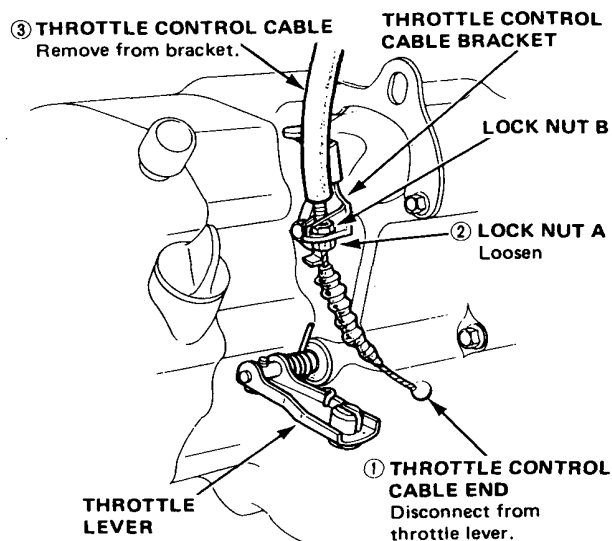


- Unscrew the cable mounting bolts and remove the shift cable holder.





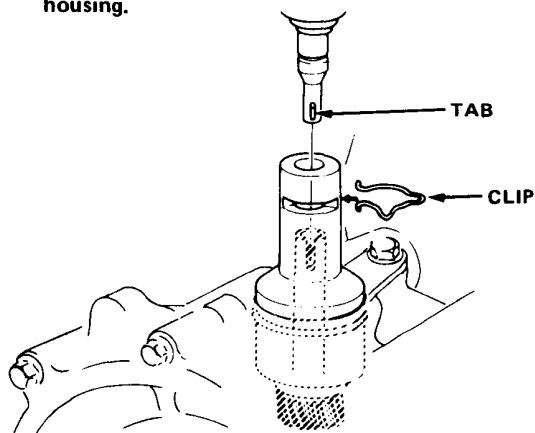
- Remote the throttle control cable in the numbered sequence shown.



**CAUTION:** Do not loosen lock nut B as it will change the transmission shift points.

25. Remove the cable clip, then pull the speedometer cable out of the holder.

**CAUTION:** Do not remove the holder because the speedometer gear may fall into the transmission housing.



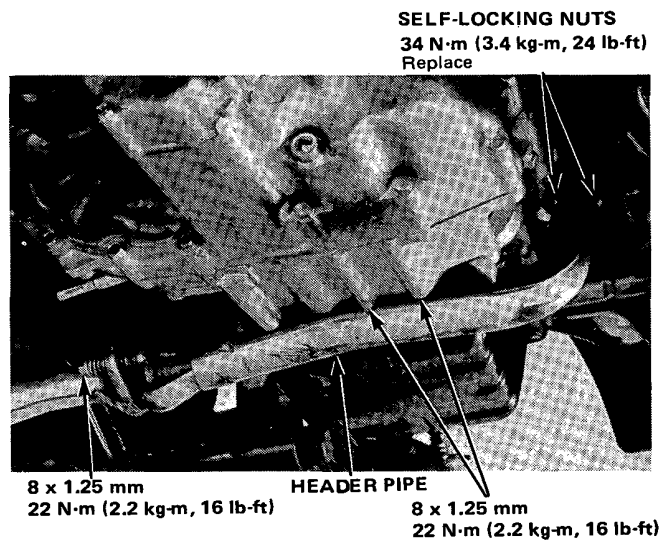
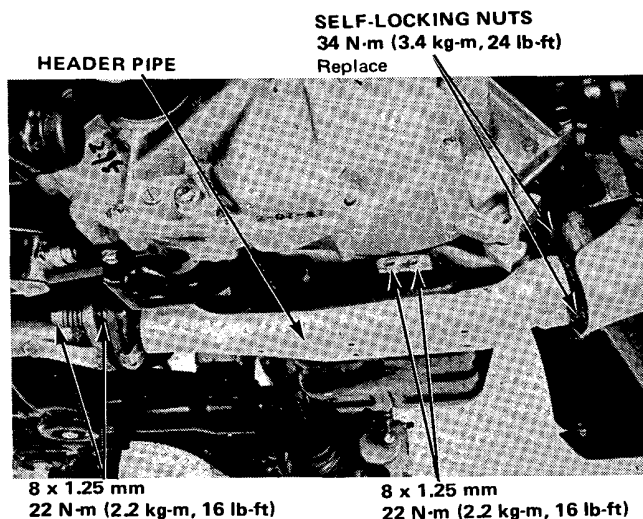
#### During Installation:

- Align tab on cable end with slot in holder.
  - Install clip so bent leg is on groove side.
- After installing, pull speedometer cable to make sure it is secure.

26. Remove the exhaust header pipe by removing the nuts.

#### CAUTION:

- To ease disassembly, squirt penetrating oil on the exhaust manifold studs before removing nuts.
- Replace the exhaust gaskets and the self-locking nuts on reassembly.



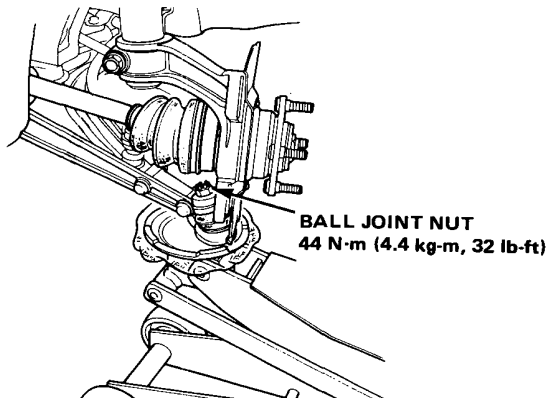
(cont'd)



# Engine Removal/Installation (cont'd)

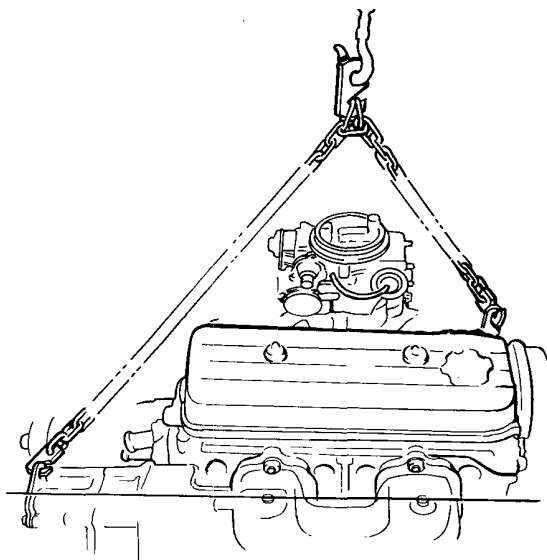
27. Remove the drive shafts (See page 18-2).

- Place a jack under the radius arm ball joint.
- Remove the ball joint nut and pry off the lower arm.
- Use ball joint remover if it is hard to separate the ball joint from the knuckle.



**CAUTION:** Make sure to place a jack under the lower arm. Otherwise, the arm may "jump" down when the ball joint is free, because the assembly is under tension from the torsion bar.

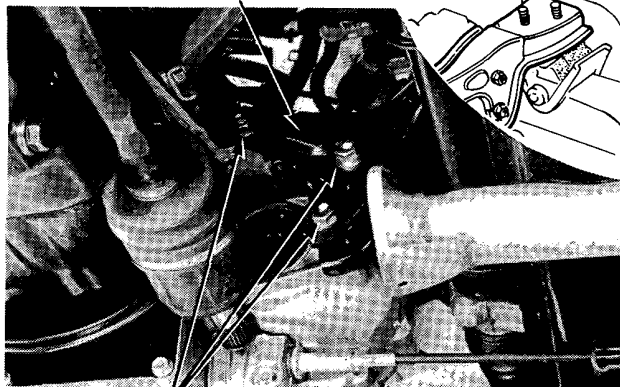
28. Attach a hoist chain to the engine block and raise the hoist just enough to remove slack from chain with slight tension.



29. Remove the rear transmission mount bracket.

8 x 1.25 mm  
22 N·m (2.2 kg-m, 16 lb-ft)

REAR TRANSMISSION MOUNT BRACKET

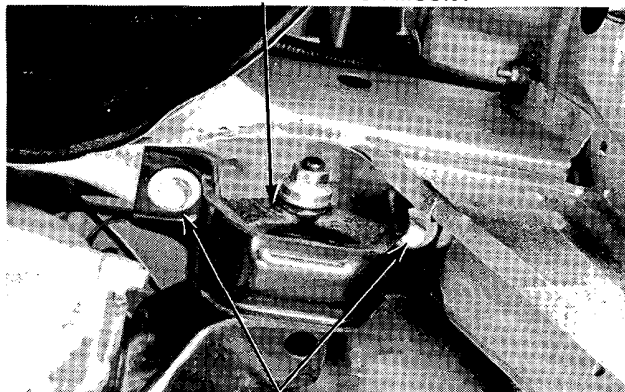


12 x 1.25 mm  
65 N·m (6.5 kg-m, 47 lb-ft)  
Replace.

**NOTE:** When installing the transmission mount, make sure that the rubber damper mounting surface is not contaminated with oil.

30. Remove the bolts from the transmission mount.

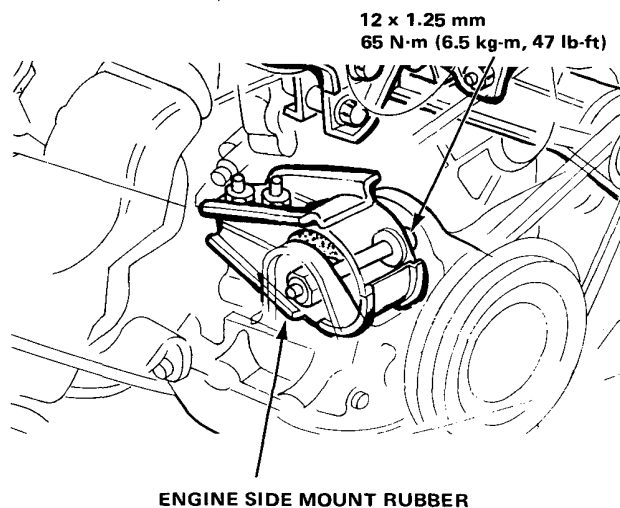
FRONT TRANSMISSION MOUNT



10 x 1.25 mm  
39 N·m (3.9 kg-m, 28 lb-ft)



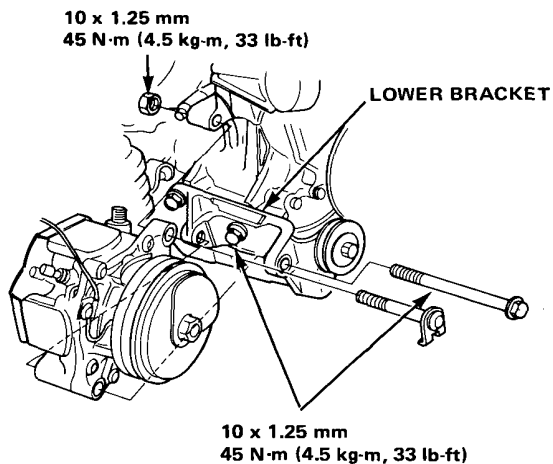
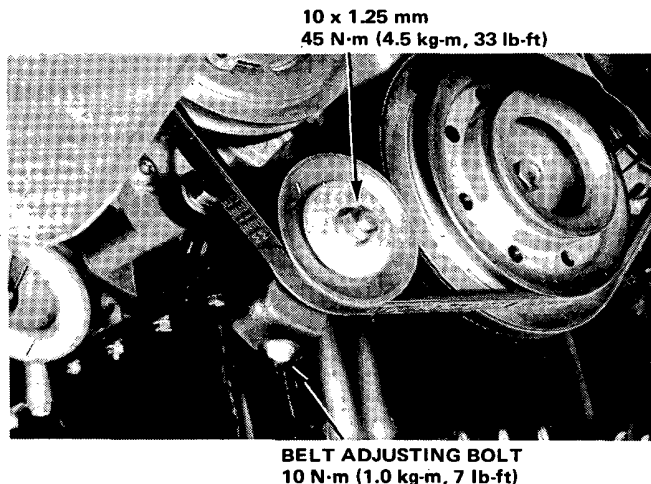
31. Remove the bolt from the engine side mount.



32. On Cars with A/C:

- Loosen the belt adjusting bolt and idler pulley nut.
- Remove the compressor mounting bolts, then lift the compressor out of the bracket with hoses attached, and wire it up to the front beam.

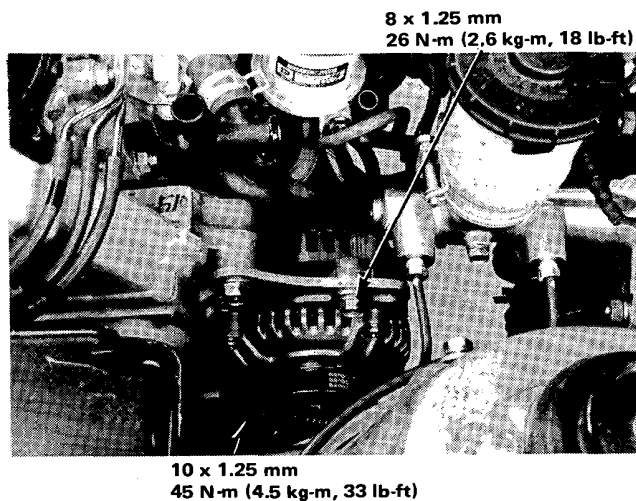
NOTE: The compressor can be moved without discharging the air conditioner system.



- Remove the lower compressor mounting bracket.

33. Remove the alternator:

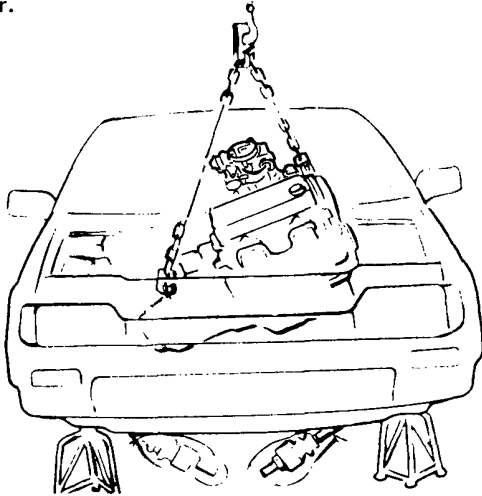
- Disconnect the alternator wire harness connectors.
- Remove the belt adjusting bolt and remove the belt.
- Remove the alternator mount bolt and remove the alternator.



(cont'd)

# Engine Removal/Installation (cont'd)

34. Check that the engine/transaxle is completely free of vacuum, fuel, and coolant hoses, and electrical wires.
35. Slowly raise engine approximately 6" and stop. Check once again that all wires and hoses have been disconnected from engine/transaxle.
36. Raise engine all the way and remove the from the car.



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

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

- Torque engine mount bolts in sequence shown on next page.

**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 the differential.

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

- Inspection for fuel leakage. (Coupe)
  - 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 in any of the various points in the fuel line.
- Bleed air from the cooling system at the bleed bolt with the heater valve open.
- Adjust the throttle cable and choke cable tension.
- Adjust the alternator belt tension.
- Check the clutch pedal free play.
- Check that the transmission shifts into gear smoothly.
- Connect the air conditioning hoses and wiring.
- Clean battery posts and cable terminals with sandpaper, assemble, then apply grease to prevent corrosion.



## ENGINE MOUNT TORQUE SEQUENCE

