

the state of charge by the color displayed in the hydrometer window. Normally, a bright-colored hydrometer indicates a full charge and a dark hydrometer indicates the battery still needs charging.

18 If the battery has a sealed top and no built-in hydrometer, you can hook up a digital voltmeter across the battery terminals to check the charge. A fully charged battery should read 12.5 volts or higher.

19 Further information on the battery and jump-starting can be found in Chapter 5 and at the front of this manual.

12 Drivebelt check and replacement (every 6000 miles or 6 months)

Refer to illustration 12.1

1 A drivebelt is located at the front of the engine (see illustration) and plays an important role in the overall operation of the engine and its components. Due to its function and material make up, the belt is prone to wear and should be periodically inspected. All models have a single, ribbed serpentine belt to drive all the engine accessories.

Check

Refer to illustrations 12.2 and 12.4

2 With the engine off, open the hood and use your fingers (and a flashlight, if necessary) to move along the belt, checking for cracks and separation of the belt plies. Also check for fraying and glazing, which gives the belt a shiny appearance (see illustration). Both sides of the belt should be inspected,

12.1 Always note the routing of the drivebelt before removing



which means you will have to twist the belt to check the underside.

3 Check the ribs on the underside of the belt. They should all be the same depth, with none of the surface uneven.

4 Inspect the indicator marks next to the automatic belt tensioner. If the stationary mark is aligned with the outer limit of the tensioner's travel, the belt must be replaced (see illustration).

Replacement

Refer to illustrations 12.5 and 12.7

5 Refer to the accompanying illustration for the belt routing diagram for your vehicle (see illustration).

6 Disconnect the cable from the negative terminal of the battery. Remove the intake air

duct and intake air resonator (see Chapter 4).

7 To replace the belt, rotate the tensioner to relieve the tension on the belt (see illustration).

8 Remove the belt from the auxiliary components and carefully release the tensioner.

9 Route the new belt over the various pulleys, again rotating the tensioner to allow the belt to be installed, then release the belt tensioner. Make sure the belt fits properly into the pulley grooves - it must be completely engaged.

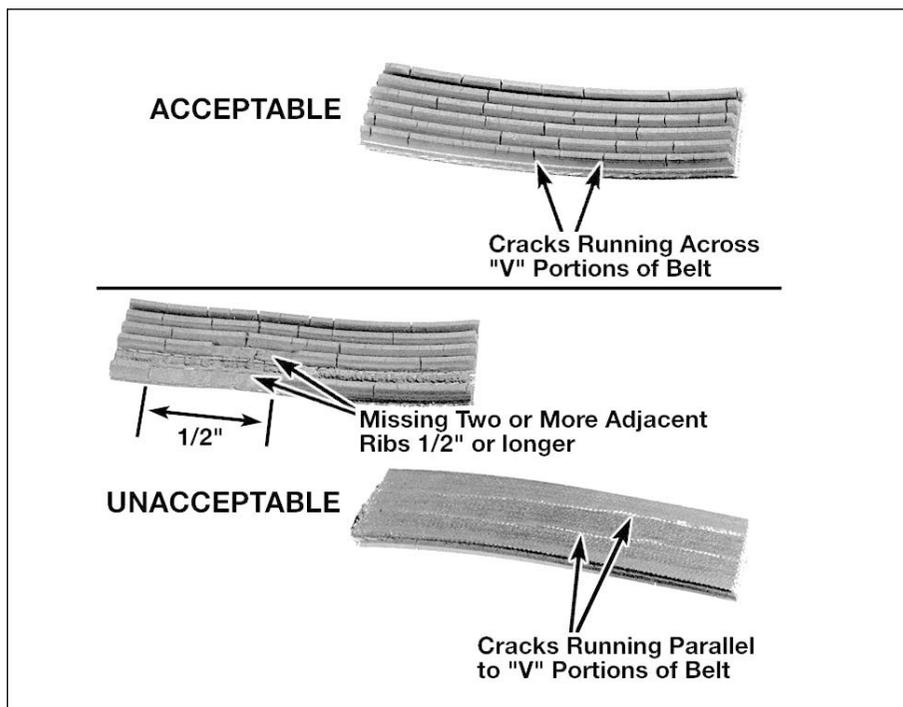
10 Reconnect the battery.

Tensioner replacement

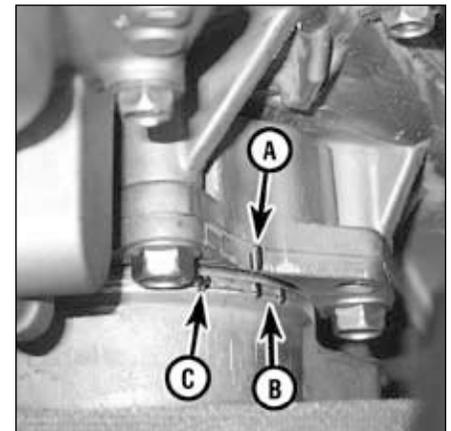
11 Remove the drivebelt.

12 Remove the three bolts and remove the tensioner assembly.

13 Installation is the reverse of removal. Tighten the bolts to the torque listed in this Chapter's Specifications.



12.2 Check ribbed belts for signs of wear like these

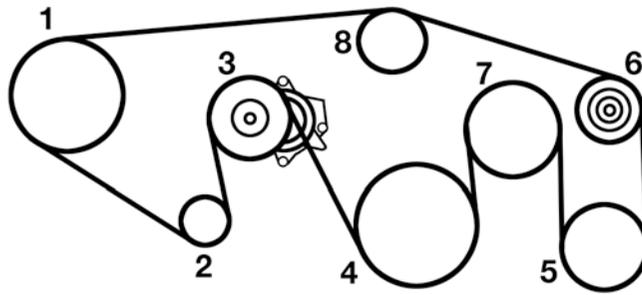


12.4 Observe the scale at the belt tension automatic adjuster; if the maximum wear mark is aligned with the stationary mark, replace the belt

- A Stationary mark
- B New belt range
- C Wear limit mark

12.5 Drivebelt routing diagram

- 1 Power steering pump
- 2 Alternator
- 3 Tensioner pulley
- 4 Crankshaft pulley
- 5 Air conditioning compressor (if equipped) or idler pulley
- 6 Idler pulley
- 7 Water pump
- 8 Idler pulley



72070-1-12.2 HAYNES

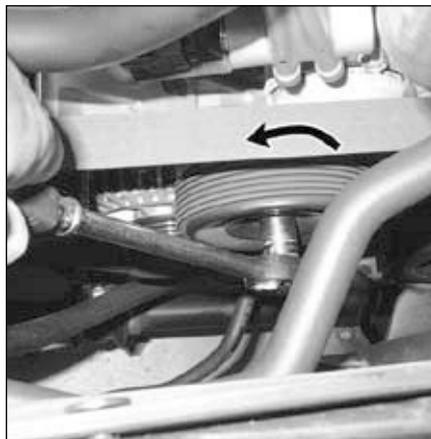
13 Underhood hose check and replacement (every 6000 miles or 6 months)

General

Caution: Replacement of air conditioning hoses must be left to a dealer service department or air conditioning shop that has the equipment to depressurize the system safely and recover the refrigerant. Never remove air conditioning components or hoses until the system has been depressurized.

1 High temperatures in the engine compartment can cause the deterioration of the rubber and plastic hoses used for engine, accessory and emission systems operation. Periodic inspection should be made for cracks, loose clamps, material hardening and leaks. Information specific to the cooling system hoses can be found in Section 14.

2 Some, but not all, hoses are secured to their fittings with clamps. Where clamps are



12.7 Use a socket and ratchet or breaker bar to rotate the tensioner counterclockwise far enough to remove the drivebelt, then slowly release the tensioner

used, check to be sure they haven't lost their tension, allowing the hose to leak. If clamps aren't used, make sure the hose has not expanded and/or hardened where it slips over the fitting, allowing it to leak.

Vacuum hoses

3 It's quite common for vacuum hoses, especially those in the emissions system, to be color-coded or identified by colored stripes molded into them. Various systems require hoses with different wall thickness, collapse resistance and temperature resistance. When replacing hoses, be sure the new ones are made of the same material.

4 Often the only effective way to check a hose is to remove it completely from the vehicle. If more than one hose is removed, be sure to label the hoses and fittings to ensure correct installation.

5 When checking vacuum hoses, be sure to include any plastic T-fittings in the check. Inspect the fittings for cracks and the hose where it fits over the fitting for distortion, which could cause leakage.

6 A small piece of vacuum hose (1/4-inch inside diameter) can be used as a stethoscope to detect vacuum leaks. Hold one end of the hose to your ear and probe around vacuum hoses and fittings, listening for the hissing sound characteristic of a vacuum leak. **Warning:** When probing with the vacuum hose stethoscope, be very careful not to come into contact with moving engine components such as the drivebelt, cooling fan, etc.

Fuel hose

Warning: Gasoline is extremely flammable, so take extra precautions when you work on any part of the fuel system. Don't smoke or allow open flames or bare light bulbs near the work area, and don't work in a garage where a gas-type appliance (such as a water heater or clothes dryer) is present. Since gasoline is carcinogenic, wear fuel-resistant gloves when there's a possibility of being exposed to fuel, and, if you spill any fuel on your skin, rinse it

off immediately with soap and water. Mop up any spills immediately and do not store fuel-soaked rags where they could ignite. When you perform any kind of work on the fuel system, wear safety glasses and have a Class B type fire extinguisher on hand. The fuel system is under pressure, so if any lines must be disconnected, the pressure in the system must be relieved first (see Chapter 4 for more information).

7 Check all rubber fuel lines for deterioration and chafing. Check especially for cracks in areas where the hose bends and just before fittings, such as where a hose attaches to the fuel filter and fuel injection unit.

8 High quality fuel line, specifically designed for high-pressure fuel injection applications, must be used for fuel line replacement. Never, under any circumstances, use regular fuel line, unreinforced vacuum line, clear plastic tubing or water hose for fuel lines.

9 Spring-type (pinch) clamps are commonly used on fuel lines. These clamps often lose their tension over a period of time, and can be sprung during removal. Replace all spring-type clamps with screw clamps whenever a hose is replaced.

Metal lines

10 Sections of metal line are routed along the frame, between the fuel tank and the engine. Check carefully to be sure the line has not been bent or crimped and no cracks have started in the line.

11 If a section of metal fuel line must be replaced, only seamless steel tubing should be used, since copper and aluminum tubing don't have the strength necessary to withstand normal engine vibration.

12 Check the metal brake lines where they enter the master cylinder and brake proportioning unit for cracks in the lines or loose fittings. Any sign of brake fluid leakage calls for an immediate and thorough inspection of the brake system.