

9.2 The tire rotation pattern for these models

9 Tire rotation (every 6000 miles or 6 months)

Refer to illustration 9.2

1 The tires should be rotated at the specified intervals and whenever uneven wear is noticed. Since the vehicle will be raised and the tires checked anyway, check the brakes also (see Section 25). **Note:** Even if you don't rotate the tires, at least check the lug bolt tightness.

2 It is recommended that the tires be rotated in a specific pattern (see illustration).

3 Refer to the information in *Jacking and towing* at the front of this manual for the proper procedure to follow when raising the vehicle and changing a tire. If the brakes must be checked, don't apply the parking brake as stated.

4 The vehicle must be raised on a hoist or supported on jackstands to get all four tires off the ground. Make sure the vehicle is safely supported!

5 After the rotation procedure is finished, check and adjust the tire pressures as necessary and be sure to check the lug bolt tightness.

10 Underhood hose check and replacement (every 6,000 miles or 6 months)

Warning: 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. Never disconnect air conditioning hoses or components until the system has been depressurized.

General

1 High temperatures under the hood can cause 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.

2 Information specific to the cooling system can be found in Section 21.

3 Most (but not all) hoses are secured to the fitting with clamps. Where clamps are 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

4 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 thicknesses, collapse resistance and temperature resistance. When replacing hoses, be sure the new ones are made of the same material.

5 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.

6 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 each fitting for distortion, which could cause leakage.

7 A small piece of vacuum hose 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 careful not to come into contact with moving engine components such as the drivebelt, cooling fan, etc.

Fuel hoses

Warning: There are certain precautions which must be taken when servicing or inspecting fuel system components. Work in a well ventilated area and do not allow open flames (cigarettes, appliance pilot lights, etc.) or bare light bulbs near the work area. Mop up any spills immediately and do not store fuel-soaked rags where they could ignite.

8 The fuel lines are usually under pressure, so if any fuel lines are to be disconnected be prepared to catch spilled fuel.

Warning: Your vehicle is equipped with fuel injection and you must relieve the fuel system pressure before servicing the fuel lines. Refer to Chapter 4 for the fuel system pressure relief procedure.

9 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 pump, fuel filter and fuel injection system.

10 Only high quality fuel line, made specifically for use with high-pressure fuel injection systems, should be used for fuel line replacement. Never, under any circumstances, use unreinforced vacuum line, clear plastic tubing or water hose for fuel lines.

11 Band-type 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 band-type clamps with screw clamps whenever a hose is replaced

Metal lines

12 Sections of metal line are often used for fuel line between the fuel pump and fuel injection system. Check carefully to make sure the line isn't bent, crimped or cracked.

13 If a section of metal fuel line must be replaced, use seamless steel tubing only, since copper and aluminum tubing do not have the strength necessary to withstand the vibration caused by the engine.

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

Power steering hoses

15 Check the power steering hoses for leaks, loose connections and worn clamps. Tighten loose connections. Worn clamps or leaky hoses should be replaced.

11 Drivebelt check, adjustment and replacement (every 6000 miles or 6 months)

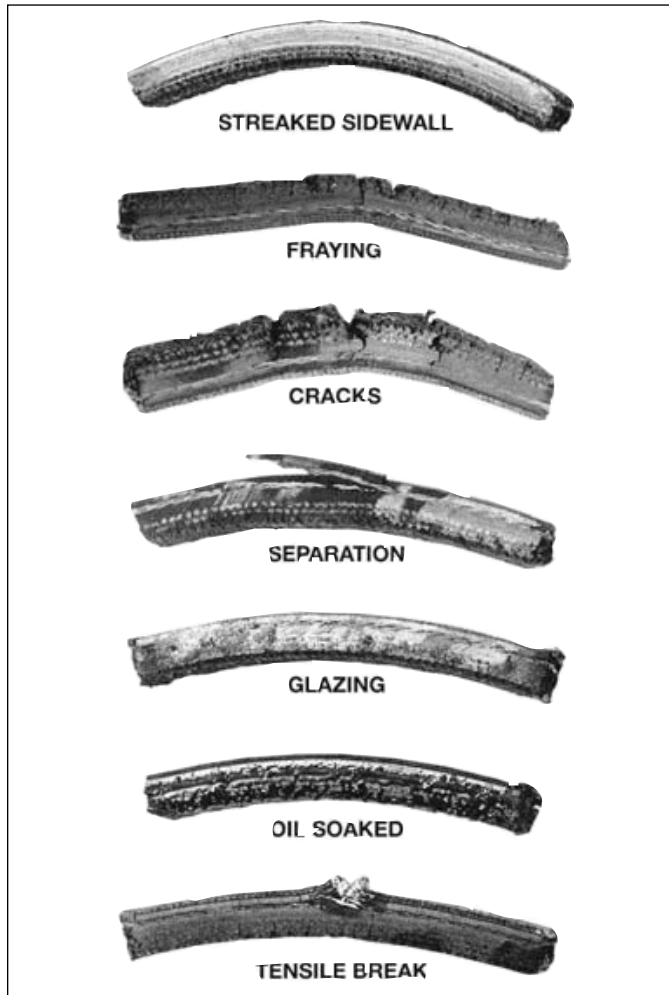
Refer to illustrations 11.3, 11.4 and 11.6

Check

1 The drivebelts, sometimes called V-belts or simply "fan" belts, are located at the front of the engine and play an important role in the overall operation of the vehicle and its components. Due to their function and material make up, the belts are prone to failure after a period of time and should be inspected and adjusted periodically to prevent major engine damage.

2 The number of belts used on a particular vehicle depends on the accessories installed. Drivebelts are used to turn the alternator, power steering pump, water pump and air conditioning compressor. Depending on the pulley arrangement, a single belt may be used to drive more than one of these components.

3 With the engine off, open the hood and locate the various belts at the front of the engine. Using your fingers (and a flashlight, if necessary), move along the belts checking for cracks and separation of the belt plies. Also check for fraying and glazing, which



11.3 Here are some of the more common problems associated with drivebelts (check the belts very carefully to prevent an untimely breakdown)

gives the belt a shiny appearance (see illustration). Both sides of the belts should be inspected, which means you will have to twist each belt to check the underside.

4 The tension of each belt is checked by pushing firmly with your thumb and see how much the belt moves (deflects). Measure the deflection with a ruler (see illustration). A good rule of thumb is that the belt should deflect 1/4-inch if the distance from pulley center-to-pulley center is between 7 and 11 inches. The belt should deflect 1/2-inch if the distance from pulley center-to-pulley center is between 12 and 16 inches.

Adjustment

5 If it is necessary to adjust the belt tension, either to make the belt tighter or looser, it is done by moving the belt driven accessory on the bracket.

6 For each component there will be an adjusting bolt and a pivot bolt. Both bolts must be loosened slightly to enable you to move the component. On some components the drivebelt tension can be adjusted by turning an adjusting bolt after loosening the lockbolt (see illustration).

7 After the two bolts have been loosened,

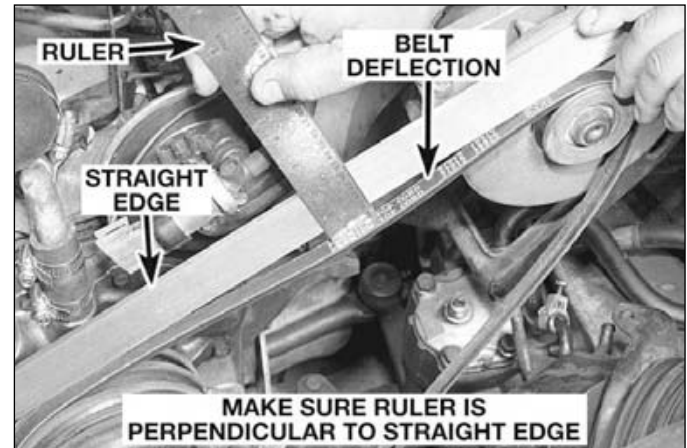
move the component away from the engine to tighten the belt or toward the engine to loosen the belt. Hold the accessory in position and check the belt tension. If it is correct, tighten the two bolts until just snug, then recheck the tension. If the tension is correct, tighten the bolts.

8 It will often be necessary to use some sort of prybar to move the accessory while the belt is adjusted. If this must be done to gain the proper leverage, be very careful not to damage the component being moved or the part being pried against.

Replacement

9 To replace a belt, follow the instructions above for adjustment, however completely remove the belt from the pulleys.

10 In some cases you will have to remove more than one belt because of their arrangement on the front of the engine. Due to this and the fact that belts will tend to fail at the same time, it is wise to replace all belts together. Mark each belt and its appropriate pulley groove so all replacement belts can be installed in their proper positions.



11.4 Measuring drivebelt deflection with a straightedge and ruler



11.6 Loosen the nut on the other end of the adjuster bolt (arrow) and turn the bolt to increase or decrease tension on the drivebelt

11 It is a good idea to take the old belts with you when buying new ones in order to make a direct comparison for length, width and design.

12 Battery check, maintenance and charging (every 15,000 miles or 12 months)

Check and maintenance

Refer to illustrations 12.1, 12.8a, 12.8b, 12.8c and 12.8d

Warning: Certain precautions must be followed when checking and servicing the battery. Hydrogen gas, which is highly flammable, is always present in the battery cells, so keep lighted tobacco and all other flames and sparks away from it. The electrolyte inside the battery is actually dilute sulfuric acid, which will cause injury if splashed on your skin or in your eyes. It will also ruin clothes and painted surfaces. When removing the battery cables, always detach the negative cable first and hook it up last!

1 Battery maintenance is an important procedure which will help ensure that you are