when working on the brakes. Do not, under any circumstances, use petroleum-based solvents to clean brake parts. Use brake system cleaner only!

Note: *For detailed photographs of the brake system, refer to Chapter 9.*

1 In addition to the specified intervals, the brakes should be inspected every time the wheels are removed or whenever a defect is suspected.

2 Any of the following symptoms could indicate a potential brake system defect: The vehicle pulls to one side when the brake pedal is depressed; the brakes make squealing or dragging noises when applied; brake pedal travel is excessive; the pedal pulsates; or brake fluid leaks, usually onto the inside of the tire or wheel.

3 Loosen the wheel lug nuts.

4 Raise the vehicle and place it securely on jackstands.

5 Remove the wheels (see "Jacking and towing" at the front of this book, or your owner's manual, if necessary).

Disc brakes

Refer to illustrations 18.7a, 18.7b and 18.9

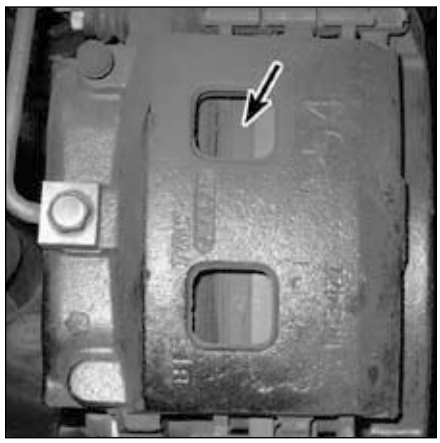
6 There are two pads (an outer and an inner) in each caliper. The pads are visible with the wheels removed.

7 Check the pad thickness by looking at each end of the caliper and through the inspection window in the caliper body **(see illustrations)**. If the lining material is less than the thickness listed in this Chapter's Specifications, replace the pads. **Note:** *Keep in mind that the lining material is riveted or bonded to a metal backing plate and the metal portion is not included in this measurement.*

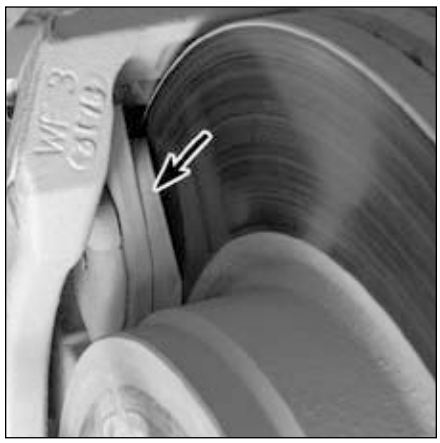
8 If it is difficult to determine the exact thickness of the remaining pad material by the above method, or if you are at all concerned about the condition of the pads, remove the caliper(s), then remove the pads from the calipers for further inspection (see Chapter 9).

9 Once the pads are removed from the calipers, clean them with brake cleaner and re-measure them with a ruler or a vernier caliper **(see illustration).**

10 Measure the disc thickness with a micrometer to make sure that it still has service life remaining. If any disc is thinner than the specified minimum thickness, replace it (see Chapter 9). Even if the disc has service life remaining, check its condition. Look for scoring, gouging and burned spots. If these conditions exist, remove the disc and have it resurfaced (see Chapter 9).



18.7a With the wheel off, check the thickness of the inner pad through the inspection hole (front disc shown, rear disc caliper similar)



18.7b The outer pad is more easily checked at the edge of the caliper

11 Before installing the wheels, check all brake lines and hoses for damage, wear, deformation, cracks, corrosion, leakage, bends and twists, particularly in the vicinity of the rubber hoses at the calipers. Check the clamps for tightness and the connections for leakage. Make sure that all hoses and lines are clear of sharp edges, moving parts and the exhaust system. If any of the above conditions are noted, repair, reroute or replace the lines and/or fittings as necessary (see Chapter 9).

Brake booster check

12 Sit in the driver's seat and perform the following sequence of tests.

13 With the brake fully depressed, start the engine - the pedal should move down a little when the engine starts.

14 With the engine running, depress the brake pedal several times - the travel distance should not change.

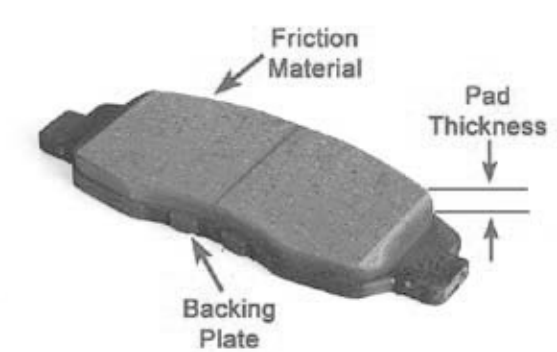
15 Depress the brake, stop the engine and hold the pedal in for about 30 seconds - the pedal should neither sink nor rise.

16 Restart the engine, run it for about a minute and turn it off. Then firmly depress the brake several times - the pedal travel should decrease with each application.

17 If your brakes do not operate as described, the brake booster has failed. Refer to Chapter 9 for the replacement procedure.

Parking brake

18 One method of checking the parking brake is to park the vehicle on a steep hill with the parking brake set and the transmission in Neutral (be sure to stay in the vehicle for this check!). If the parking brake cannot prevent the vehicle from rolling, it's in need of adjustment (see Chapter 9).



18.9 If a more precise measurement of pad thickness is necessary, remove the pads and measure the remaining friction material

19 Drivebelt check and replacement (every 15,000 miles or 12 months)

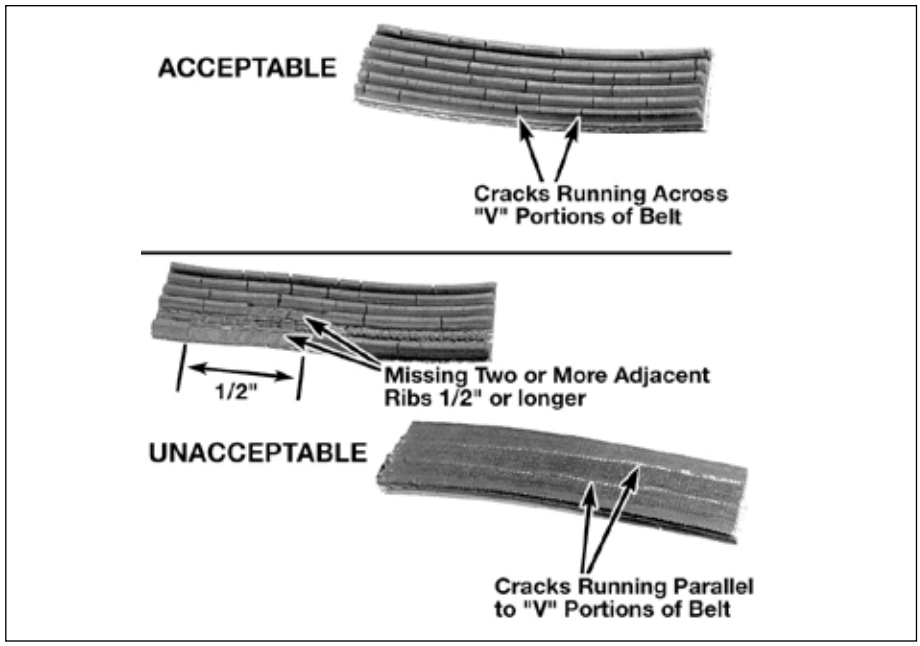
1 The drivebelt is located at the front of the engine and plays an important role in the overall operation of the vehicle and its components. Due to its function and material make-up, the drivebelt is prone to failure after a period of time and should be inspected and adjusted periodically to prevent major engine damage.

2 The vehicles covered by this manual are equipped with a single self-adjusting serpentine drivebelt, which is used to drive all of the accessory components such as the alternator, power steering pump, water pump and air conditioning compressor.

Inspection

Refer to illustrations 19.4 and 19.5

3 With the engine off, open the hood and locate the drivebelt 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 gives the belt a shiny appearance. Both sides of each belt should be inspected, which means you will have to twist the belt to check the underside.



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

4 Check the ribs on the underside of the belt. They should all be the same depth, with none of the surface uneven **(see illustration).**

5 The tension of the belt is automatically adjusted by the belt tensioner and does not require any adjustments. Drivebelt wear can be checked visually by inspecting the wear indicator marks located on the side of the tensioner body. Locate the belt tensioner at the front of the engine, then find the tensioner operating marks **(see illustration).** If the indicator mark is outside the operating range, the belt should be replaced.

Replacement

Refer to illustrations 19.6 and 19.8

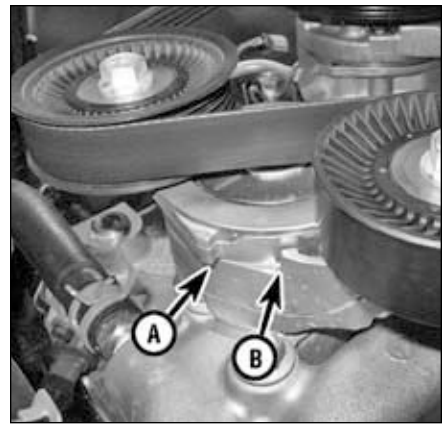
6 To replace the belt, rotate the tensioner to relieve the tension on the belt **(see illustration).** Some models have a square hole in the tensioner arm that will accept a breaker bar or ratchet. On other models, place a wrench on the tensioner pulley bolt.

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

8 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. **Note:** *Most models have a drivebelt routing decal on the upper radiator panel to help during drivebelt installation* **(see illustration).**

20 Fuel system check (every 15,000 miles or 12 months)

Warning: *Gasoline and diesel fuels are 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 fuel 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 constant pressure, so, before any lines are disconnected, the fuel system pressure must be relieved (see Chapter 4).*

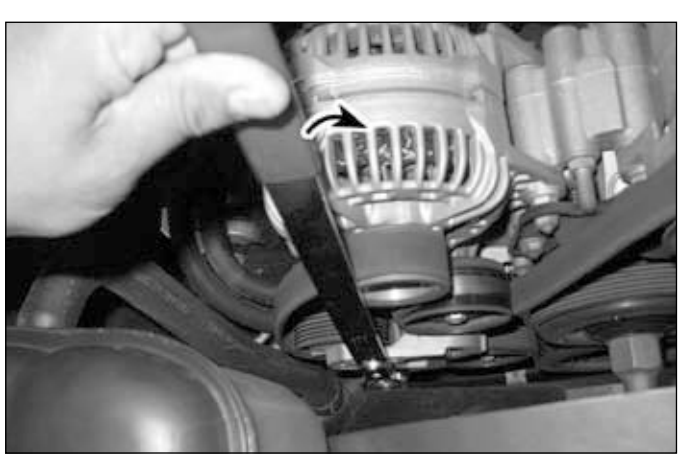


19.5 When the raised stop (A) nears the tensioner body (B), the belt can be considered worn-out

1 If you smell fuel while driving or after the vehicle has been sitting in the sun, inspect the fuel system immediately.

2 Remove the fuel filler cap and inspect it for damage and corrosion. The gasket should have an unbroken sealing imprint. If the gasket is damaged or corroded, install a new cap.

3 Inspect the fuel feed line for cracks. Make sure that the connections between the fuel lines and the fuel injection system and



19.6 Rotate the tensioner arm to relieve belt tension

19.8 The routing schematic for the serpentine belt is usually found on the fan shroud