5 The external condition of the battery should be checked periodically. Look for damage such as a cracked case.

6 Check the tightness of the battery cable bolts (see illustration) to ensure good electrical connections. Inspect the entire length of each cable, looking for cracked or abraded insulation and frayed conductors.

7 If corrosion (visible as white, fluffy deposits) (see illustration) is evident, remove the cables from the terminals, clean them with a battery brush and reinstall them (see illustrations). Corrosion can be kept to a minimum by applying a layer of petroleum jelly or grease to the terminals.

8 Make sure the battery carrier is in good condition and the holddown clamp is tight. If the battery is removed (see Chapter 5 for the removal and installation procedure), make sure that no parts remain in the bottom of the carrier when it's reinstalled. When reinstalling the hold-down clamp, don't overtighten the nuts.

9 Corrosion on the carrier, battery case and surrounding areas can be removed with a solution of water and baking soda. Apply the mixture with a small brush, let it work, then rinse it off with plenty of clean water.

10 Any metal parts of the vehicle damaged by corrosion should be coated with a zinc-based primer, then painted.

11 Additional information on the battery, charging and jump starting can be found in the front of this manual and in Chapter 5.

12 Always replace the battery with a like kind and size.

12 Drivebelt check, adjustment and replacement

Refer to illustrations 12.3, 12.5, 12.6a, 12.6b and 12.7

: The electric cooling fan can activate at any time. Disconnect the fan motor or negative battery cable when working in the vicinity of the fan.



11.7b When cleaning the cable clamps, all corrosion must be removed (the inside of the clamp is tapered to match the taper on the post, so don't remove too much material)



11.6 Use a wrench to check the tightness of the battery cable bolts when removing corroded bolts, special battery pliers may be needed

Check

1 The alternator, power steering and air conditioning compressor drivebelts, also referred to simply as "fan" belts, are located at the right (passenger's) side of the engine compartment. The condition and proper adjustment of the drivebelts is critical to the operation of the engine. Since they stretch and deteriorate as they get older, they must be inspected periodically.

2 The number of belts used on a particular vehicle depends on the accessories installed. One belt transmits power from the crankshaft to the alternator and water pump. If the vehicle is equipped with air conditioning or power steering, these are driven by separate belts.

3 With the engine off, open the hood and locate the drivebelts on the right side of the engine. With a flashlight, check each belt for separation of the adhesive rubber on both sides of the core, core separation from the belt side, a severed core, separation of the ribs from the adhesive rubber, cracking or separation of the ribs, and torn or worn ribs or cracks in the inner ridges of the ribs (see illustration). Also check for fraying and glaz-



11.7c Regardless of the type of tool used to clean the battery posts, a clean, shiny surface should be the result



11.7a Battery terminal corrosion usually appears as light, fluffy powder

ing, which gives the belt a shiny appearance. Both sides of the belt should be inspected, which means you will have to twist the belt to check the underside. Use your fingers to feel the belt where you can't see it. If any of the above conditions are evident, replace the belt (go to Step 8).



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



12.5 Measuring drivebelt deflection with a straightedge and ruler



12.6a Typical belt adjuster (arrow)

4 To check the tension of each belt in accordance with factory specifications, install a belt tension gauge, available at most auto parts stores, on the belt. Measure the tension in accordance with the manufacturer's instructions and compare your measurement to the drivebelt tension listed in this Chapter's specifications for a used belt. **Note:** A "used" belt is defined as any belt which has been operated more than five minutes on the engine; run a new belt for at least five minutes and readjust it.

5 If you don't have either of the special tools, and cannot borrow one, the following rule of thumb method is recommended: Push firmly on the belt with your thumb at a distance halfway between the pulleys and note how far the belt can be moved (deflected). Measure the deflection with a ruler (see illustration). 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 is between 12 and 16-inches.

Adjustment

6 If the alternator or power steering pump belt must be adjusted, loosen the adjustment bolt **(see illustrations)** that secures the alternator or power steering pump to the slotted



12.6b Typical belt adjuster (arrow)

bracket and pivot the alternator or power steering pump (away from the engine block to tighten the belt, toward the block to loosen the belt). It's helpful to lever the alternator or power steering pump with a large pry bar when adjusting the belt because the pry bar enables you to precisely position the component until the adjuster bolt is tightened. Be very careful not to damage the aluminum housing of the alternator or power steering pump. Recheck the belt tension using one of the above methods. Repeat this Step until the alternator or power steering pump drivebelt tension is correct.

7 If the air conditioner compressor drivebelt must be adjusted, locate the idler pulley on the front right corner of the block, just above the compressor (see illustration). Loosen the idler pulley locknut and turn the idler pulley adjuster bolt. Measure the belt tension in accordance with one of the above methods. Repeat this step until the air conditioning compressor drivebelt is adjusted. Tighten the idler pulley locknut.

Replacement

8 To replace a belt, follow the above procedures for drivebelt adjustment but slip the belt off the crankshaft pulley and remove it. If you're replacing the power steering belt or air conditioning compressor belt, you'll have to



12.7 Typical air conditioning compressor belt adjuster and locknut (arrows)

remove the alternator belt first because of the way they're arranged on the pulleys. Because of this and because belts tend to wear out more or less together, it's a good idea to replace both belts at the same time. Mark each belt and its appropriate pulley groove so the replacement belts can be installed in the proper positions.

9 Take the old belts to the parts store in order to make a direct comparison for length, width and design.

10 After replacing a new-style V-ribbed drivebelt, make sure that it fits properly in the ribbed grooves in the pulleys. It's essential that the belt be properly centered.

11 Adjust the belt(s) as described above. Set belt tension to the new belt setting listed in this Chapter's Specifications.

13 Underhood hose check and replacement

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

General

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.

2 Information specific to the cooling system hoses can be found in Section 14.

3 Some, but not all, hoses are secured to the fittings 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. 1