



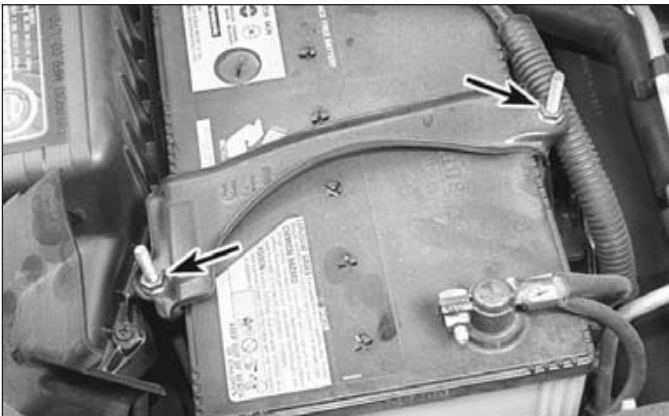
10.6b Removing the cable from a battery post with a wrench - sometimes special battery pliers are required for this procedure if corrosion has caused deterioration of the nut hex (always remove the ground cable first and hook it up last!)



10.7a 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)



10.7b Regardless of the type of tool used on the battery posts, a clean, shiny surface should be the result



10.11 Make sure the battery hold-down nuts (arrows) are tight

not covered with corrosion. If they are, wash them off. If corrosion is extensive, sand the brackets down to bare metal and spray them with a zinc-based primer (available in spray cans at auto paint and body supply stores).

9 Reinstall the battery back into the engine compartment. Make sure that no parts or wires are laying on the carrier during installation of the battery.

10 Install a pair of specially treated felt washers around the terminals (available at auto parts stores), then coat the terminals and the cable clamps with petroleum jelly or grease to prevent further corrosion. Install the cable clamps and tighten the nuts, being careful to install the negative cable last.

11 Install the hold-down clamp and nuts. Tighten the nuts only enough to hold the battery firmly in place (**see illustration**). Overtightening these nuts can crack the battery case.

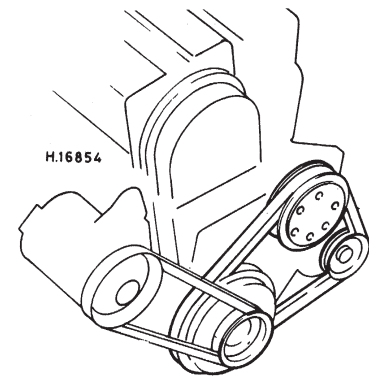
Charging

12 Remove all of the cell caps (if equipped) and cover the holes with a clean cloth to prevent spattering electrolyte. Disconnect the negative battery cable and hook the battery charger leads to the battery posts (positive to positive, negative to negative), then plug in the charger. Make sure it is set at 12 volts if it has a selector switch.

13 If you're using a charger with a rate higher than two amps, check the battery regularly during charging to make sure it doesn't overheat. If you're using a trickle charger, you can safely let the battery charge overnight after you've checked it regularly for the first couple of hours.

14 If the battery has removable cell caps, measure the specific gravity with a hydrometer every hour during the last few hours of the charging

11.2 A typical drivebelt layout



cycle. Hydrometers are available inexpensively from auto parts stores - follow the instructions that come with the hydrometer. Consider the battery charged when there's no change in the specific gravity reading for two hours and the electrolyte in the cells is gassing (bubbling) freely. The specific gravity reading from each cell should be very close to the others. If not, the battery probably has a bad cell(s).

15 Some batteries with sealed tops have built-in hydrometers on the top that indicate 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. Check the battery manufacturer's instructions to be sure you know what the colors mean.

16 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 12.6 volts or higher.

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

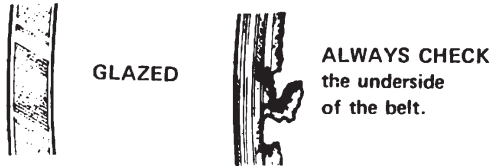
11 Drivebelt check, adjustment and replacement (every 7500 miles or 6 months)

Refer to illustrations 11.2, 11.3a, 11.3b, 11.4, 11.6, 11.7 and 11.10

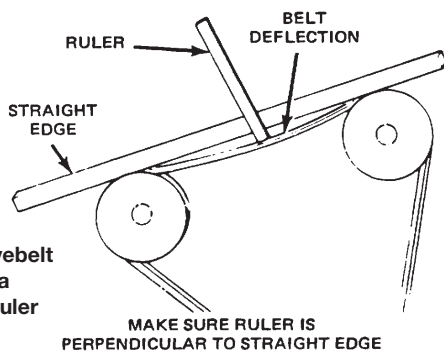
Check

1 The alternator and air conditioning compressor drivebelts are either V-belts or V-ribbed belts. Sometimes referred to as "fan" belts, the drivebelts are located at the left end of the engine. The good condition and proper adjustment of the alternator belt is critical to the operation of the engine. Because of their composition and the high stresses to which they are subjected, drivebelts stretch and deteriorate as they get older. They must therefore be periodically inspected.

2 The number of belts used on a particular vehicle depends on the accessories installed (**see illustration**).



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



11.4 Measuring drivebelt deflection with a straightedge and ruler

3 With the engine off, open the hood and locate the drivebelts at the left end of the engine. With a flashlight, check each belt: On V-belts, check for cracks and separation of the belt plies (see illustration). On V-ribbed belts, check 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). On both belt types, check for fraying and glazing, 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).

4 The tightness of each belt is checked by pushing on it at a distance halfway between the pulleys (see illustration). Apply about 10 pounds of force with your thumb and see how much the belt moves down (deflects). Refer to the Specifications Section at the beginning of this Chapter for the amount of deflection allowed in each belt.

Adjustment

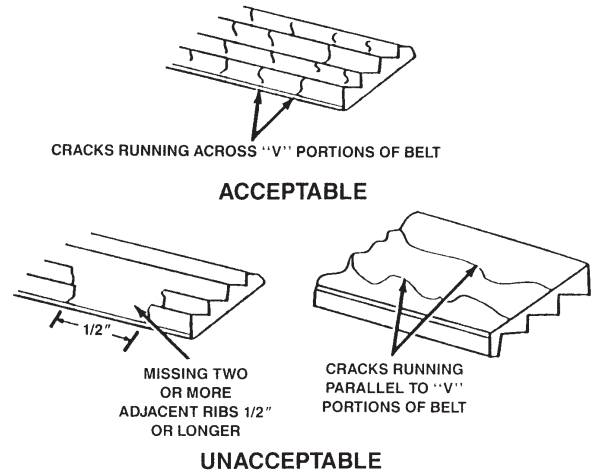
5 If adjustment is necessary, it is done by moving the belt-driven accessory on the bracket.

6 For some components, there will be an adjusting bolt/nut and a pivot bolt. Both must be loosened slightly to enable you to move the component. 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). After adjustment, tighten the bolts securely (see illustration).

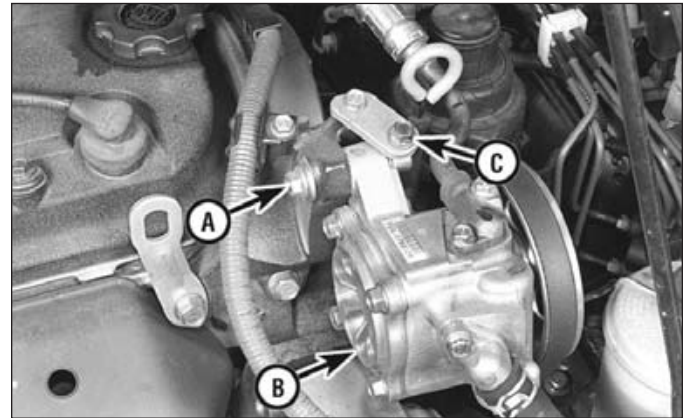
7 On other components, loosen the pivot bolt and locknut on the adjusting bolt. Turn the adjusting bolt to tension the belt (see illustration).

Replacement

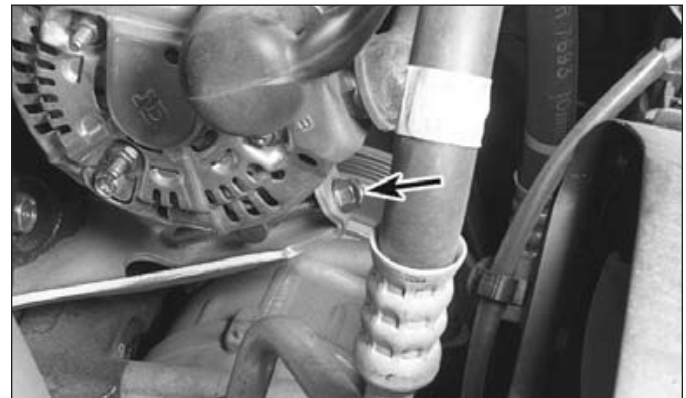
8 To replace a belt, follow the above procedures for drivebelt adjustment but slip the belt off the crankshaft pulley and remove it. If you are replacing the alternator belt, you might have to remove another



11.3b Check V-ribbed belts for signs of wear like these - if the belt looks worn, replace it



11.6 Loosen the pivot nut (A) and the lower mounting nut (B), then turn the adjustment bolt (C) clockwise to tighten the belt, or counterclockwise to loosen the belt



11.7 Loosen the alternator through-bolt, loosen the adjuster locknut, then turn the adjusting bolt (arrow) to tighten or loosen the drivebelt



11.10 When installing the V-ribbed belt, make sure it is centered on the pulley - it must not overlap either edge of the pulley