

24.4 Small cracks in the underside of a V-ribbed belt are acceptable - lengthwise cracks, or missing pieces that cause the belt to make noise, are cause for replacement

brake fluid may drip or splash when pouring it, place plenty of rags around the master cylinder to protect any surrounding painted surfaces.

2 Before beginning work, purchase the specified brake fluid (see *Recommended lubricants and fluids* in this Chapter's Specifications).

3 Remove the cap from the master cylinder reservoir.

4 Using a hand suction pump or similar device, withdraw the fluid from the master cylinder reservoir.

5 Add new fluid to the master cylinder until it rises to the base of the filler neck.

6 Bleed the brake system as described in Chapter 9 at all four brakes until new and uncontaminated fluid is expelled from the bleeder screw. Be sure to maintain the fluid level in the master cylinder as you perform the bleeding process. If you allow the master cylinder to run dry, air will enter the system.

7 Refill the master cylinder with fluid and check the operation of the brakes. The pedal should feel solid when depressed, with no sponginess. **Warning:** Do not operate the vehicle if you are in doubt about the effectiveness of the brake system.

# 24 Drivebelt check and replacement (every 30,000 miles or 24 months)

1 The serpentine drivebelt(s) are located at the front of the engine and play an important role in the overall operation of the engine and its components. Depending on the year and engine used several configurations are available ranging from a single belt to multiple belts. Due to its function and material make up, the belts are prone to wear and should be periodically inspected. The serpentine belt or belts drive the alternator, power steering pump, water pump, air conditioning compressor and super charger on later model V8 engines. Although the belts should be inspected at the recommended intervals, replacement may not be necessary for more than 100,000 miles.

### Check

#### Refer to illustrations 24.4

2 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 front of the tensioner body. Locate the belt tensioner(s) at the front of the engine. If the indicator mark is outside the operating range, the belt should be replaced. Since the drivebelt(s) are located at the front of the engine compartment, it will be necessary to remove the engine cover and air cleaner inlet or outlet duct on V8 models.

3 With the engine stopped, inspect the full length of the drivebelt(s) for cracks and separation of the belt plies. It will be necessary to turn the engine (using a wrench or socket and bar on the crankshaft pulley bolt, working clockwise only) in order to move the belt from the pulleys so that the belt can be inspected thoroughly. Twist the belt between the pulleys so that both sides can be viewed. Also check for fraying, and glazing which gives the belt



24.5 To remove the drivebelt, insert a 1/2inch drive ratchet or breaker bar into the square hole and rotate the tensioner arm to relieve belt tension - V6 model shown, other models similar

a shiny appearance. Check the pulleys for nicks, cracks, distortion and corrosion.

4 Note that it is not unusual for a ribbed belt to exhibit small cracks in the edges of the belt ribs, and unless these are extensive or very deep, belt replacement is not essential (see illustration).

## Replacement V6 engines

#### Refer to illustration 24.5

**Note:** Before removing the drivebelts, take a good look and note how the belt is routed on all the pulleys.

5 On models equipped with a single drivebelt, insert a 1/2-inch drive ratchet or breaker bar into the tensioner hole and rotate the handle clockwise to release the drivebelt tension (see illustration). Once tension has been released, remove the belt from the pulleys. Note: *It may be easier to work from under the vehicle to remove the belt.* 

6 Install the new drivebelt onto the crankshaft, alternator, power steering pump, and air conditioning compressor pulleys, as applicable, then turn the tensioner back and locate the drivebelt on the pulley. Make sure that the drivebelt is correctly seated in all of the pulley grooves, then release the tensioner.

7 On models equipped with multiple drive belts, start with the outer (water pump/alternator) drivebelt. Insert a 1/2-inch drive ratchet or breaker bar into the tensioner square hole and rotate the handle clockwise to release the drivebelt tension. Once tension has been released, remove the belt from the pulleys.

8 With the outer drivebelt removed, insert a 1/2-inch drive ratchet or breaker bar into the inner (power steering/air conditioning compressor) belt tensioner square hole and rotate the handle clockwise to release the drivebelt tension. Once tension has been released, remove the belt from the pulleys.

9 Starting with the inside belt, install the



24.11 To remove the drivebelt, rotate the tensioner bolt (1), clockwise (2) to relieve belt tension (2007)



24.25 Typical V6 tensioner mounting fastener locations

new drivebelt onto the crankshaft, power steering pump, and air conditioning compressor pulley, then turn the tensioner back and locate the drivebelt on the pulley. Make sure that the drivebelt is correctly seated in all of the pulley grooves, then release the tensioner. Repeat the same procedure for the outer drivebelt.

#### V8 engines

10 Remove the air filter housing outlet duct (see Chapter 4).

### 2007 and earlier models

Refer to illustration 24.11

11 Place a socket on to the accessory drivebelt tensioner pulley center bolt and rotate the tensioner clockwise to release the drivebelt tension (see illustration). Once tension has been released, remove the belt from the pulleys.

12 With the outer accessory drivebelt removed, place a socket on the air conditioning compressor drivebelt tensioner pulley center bolt and rotate the tensioner clockwise to release the drivebelt tension. Once tension has been released, remove the belt from the pulleys.

13 Starting with the inside belt, install the new drivebelt onto the crankshaft and air conditioning compressor pulley, then turn the tensioner back and locate the drivebelt on the pulley. Make sure that the drivebelt is correctly seated in all of the pulley grooves, then release the tensioner. Repeat the same procedure for the outer accessory drivebelt and reinstall the air filter duct.

# 2009 and later model supercharger and accessory drivebelts

14 Start with the outer (supercharger) drivebelt. Insert a 1/2-inch drive ratchet or breaker bar into the tensioner square hole and rotate the handle clockwise to release the drivebelt tension. Once tension has been released, remove the belt from the pulleys.

15 With the outer supercharger drivebelt

removed, insert a 1/2-inch drive ratchet or breaker bar into the accessory tensioner square hole and rotate the handle clockwise to release the drivebelt tension. Once tension has been released, remove the belt from the pulleys.

16 Starting with the accessory belt, install the new drivebelt onto the crankshaft and various pulleys, then turn the tensioner back and locate the drivebelt on the pulley. Make sure that the drivebelt is correctly seated in all of the pulley grooves, then release the tensioner. Repeat the same procedure for the outer supercharger drivebelt and reinstall the air filter duct.

## 2009 and later model air conditioning compressor drivebelt

**Note:** The air conditioning compressor belt doesn't use a tensioner and must be cut to be removed. Make sure you have a new belt before cutting the old belt off.

17 Remove the supercharger and accessory belts (see Steps 14 and 15).

18 Remove the splash shield (see illustration 22.4).

19 Disconnect the electrical connector to the charge air cooler pump, then remove the pump mounting nuts and the pump (see Chapter 3).

20 Using a pair of diagonal cutters, cut the air conditioning belt to remove it.

21 Place the new belt to the rear of the crankshaft pulley, making sure the belt is fully seated in the pulley grooves.

22 Install the special belt installation tool on to the air conditioning compressor and place the belt over the tool.

23 Rotate the crankshaft pulley and allow the tool to turn and seat the belt on the compressor pulley.

24 The remainder of installation is the reverse of removal.

### Drivebelt tensioner

Refer to illustration 24.25

25 On V6 models, remove the bolts secur-

ing the tensioner to the engine, then detach the tensioner from the engine (see illustration).

26 On V8 models, remove two bolts securing accessory tensioner to the engine, then detach the tensioner.

27 On V8 models with superchargers, remove the supercharger tensioner center bolt, then detach the tensioner.

28 Installation is the reverse of removal. Tighten the tensioners bolt(s) to the torque listed in this Chapter's Specifications.

#### 25 Automatic transmission fluid and filter change (every 60,000 miles or 48 months)

Refer to illustrations 25.5, 25.8 and 25.9

1 Before beginning work, purchase the specified transmission fluid (see *Recommended lubricants and fluids* in this Chapter's Specifications) and a new filter.

2 Other tools necessary for this job include a floor jack, jackstands to support the vehicle in a raised position, a drain pan capable of holding at least 5 quarts, newspapers and clean rags.

3 Raise the vehicle and support it securely on jackstands. **Note:** *The vehicle must be level.* 

4 Place the drain pan underneath the transmission pan. Remove the front and side pan mounting bolts, but only loosen the rear pan bolts approximately four turns. **Note:** Some early models are equipped with a drain plug in the bottom of the transmission pan. If equipped with a drain plug, drain the fluid from the drain plug before loosening any pan bolts.

5 Carefully pry the transmission pan loose with a screwdriver, allowing the fluid to drain (see illustration).

6 Remove the remaining bolts, pan and gasket. Carefully clean the gasket surface of