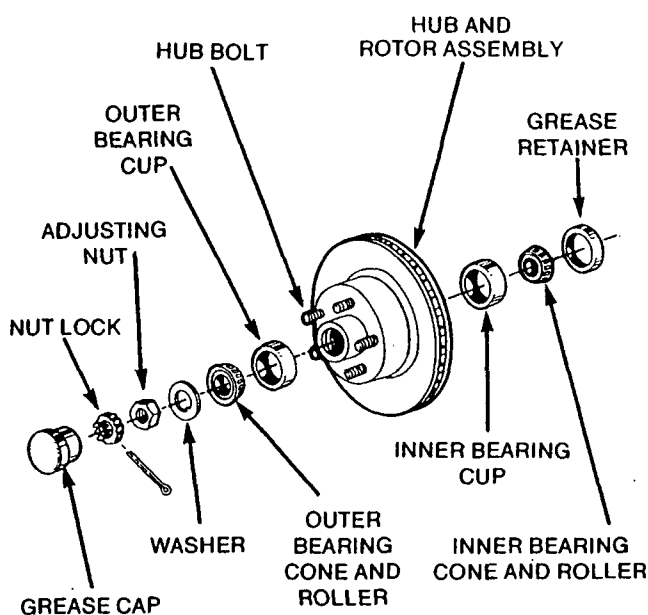
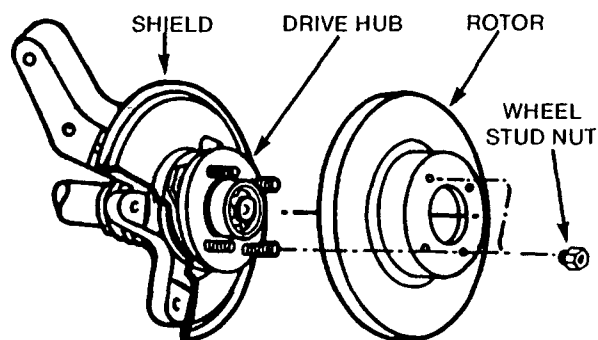




(Figure 62) The Hub and Rotor and Bearings

There are two types of rotors: with hubs and hubless. The hub and rotor (Figure 62) incorporates two bearings and a seal. The bearings hold the rotor in alignment when it is mounted. (When the rotor is removed, the bearings should be serviced, and the grease seal should be replaced. The adjusting nut must be torqued to the correct specifications.)

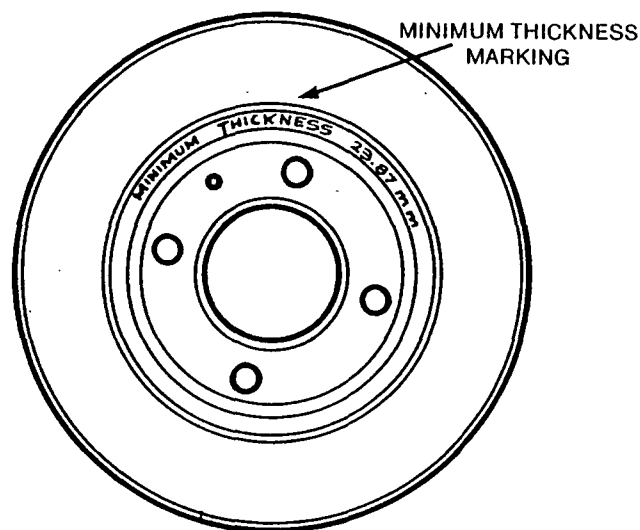


(Figure 63) The Hubless Rotor

Hubless rotors mount on the drive hub and axle flange. The flange is held in alignment by bearings in the suspension. These bearings are usually sealed for life and require no periodic servicing.

When a brake job is done, the rotor surface is usually machined to ensure a smooth, blemish-free surface. However, care should be taken that

the rotor is not machined beyond the minimum thickness stamped or forged on it. Machining the rotor beyond recommended tolerances may affect the cooling capacity of the rotor and the balance of the brake system. Some states, in fact, have a law against exceeding recommended tolerances. Rotor thickness should be checked with a micrometer. If the rotor does not meet minimum thickness specifications before machining or will not meet those specifications after it is machined, it should be replaced.



(Figure 64) The minimum thickness of the rotor is stamped or forged on it. Thickness may be indicated in millimeters or inches.

Rotor Finish

Rotor surface finish is important for proper pad lining seating. Semi-metallic brake pads do not conform to surface imperfections like grooves or roughness, and need a smooth, unblemished rotor finish. If the surface is rough or grooved, the pads do not make full surface contact, and the brakes are noisy and create excess heat.

The rotor finish should be between twenty-five and eighty micro-inches. (For instance, a crankshaft finish is approximately 15 to 20 micro-inches.) For best results, the brake lathe must have a vibration dampening strap and sharp tool bits. It should run between 150 and 200 rpm and have a .002 inch feed per revolution. Some manufacturers recommend a non-directional finish after machining with 120-grit sandpaper.