6 Front brake disc - inspection, removal and installation

Note:
Before starting work, refer to the precautions in Section 1 and the warnings at the beginning of Section 2 .

Note:
If either disc requires replacement, BOTH should be replaced at the same time, to ensure even and consistent braking. New brake pads should also be installed.

Inspection

1 Apply the parking brake, then jack up the front of the car and support it on jackstands. Remove the appropriate front wheel.

2 Slowly rotate the brake disc so that the full area of both sides can be checked; remove the brake pads if better access is required to the inboard surface (see Section 4). Light scoring is normal in the area swept by the brake pads, but if heavy scoring or cracks are found, the disc must be replaced.

3 It is normal to find a lip of rust and brake dust around the disc's perimeter; this can be scraped off if required. If, however, a lip has formed due to excessive wear of the brake pad swept area, then the disc's thickness must be measured using a micrometer **(see illustration)** . Take measurements at several places around the disc, at the inside and outside of the pad swept area; if the disc has worn at any point to the specified minimum thickness or less, the disc must be replaced.

6.3 Measure the disc thickness using a micrometer

4 If the disc is thought to be warped, it can be checked for run-out. Either use a dial gauge mounted on any convenient fixed point, while the disc is slowly rotated, or use feeler blades to measure (at several points all around the disc) the clearance between the disc and a fixed point, such as the caliper mounting bracket. If the measurements obtained are at the specified maximum or beyond, the disc is excessively warped, and must be replaced; however, it is worth checking first that the hub bearing is in good condition (see Chapter 10). If the run-out is excessive, the disc must be replaced.

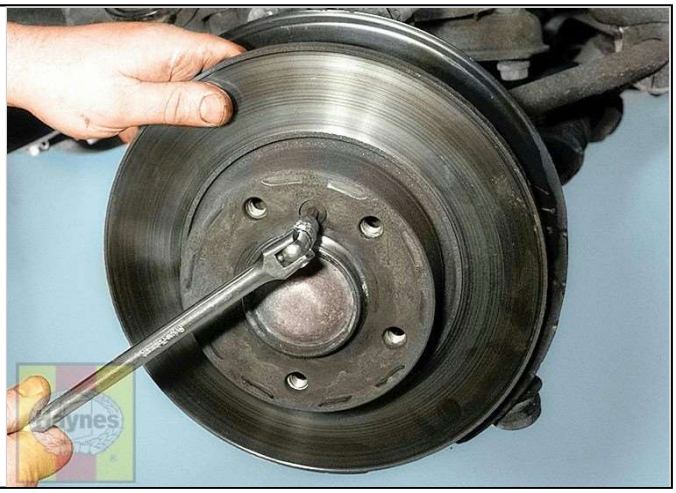
5 Check the disc for cracks, especially around the wheel bolt holes, and any other wear or damage, and replace if necessary.

Removal

6 Unscrew the two bolts securing the brake caliper mounting bracket to the steering knuckle, then slide the caliper assembly off the disc. Using a piece of wire or string, tie the caliper to the front suspension coil spring, to avoid placing any strain on the hydraulic brake hose.

7 Loosen and remove the screw securing the brake disc to the hub, and then remove the disc **(see illustrations)** . If it is tight, lightly tap its rear face with a hide or plastic mallet.

6.7a Remove the retaining screw . . .



6.7b . . . and remove the brake disc from the hub

Installation

8 Installation is the reverse of the removal procedure, noting the following points:

A. Ensure that the mating surfaces of the disc and hub are clean and flat.

B. Position the disc on the hub, install the disc retaining screw and tighten it to the specified torque.

C. If a new disc has been installed, use a suitable solvent to wipe any preservative coating from the disc, before installing the caliper.

D. Slide the caliper into position over the disc, making sure the pads pass either side of the disc. Tighten the caliper mounting bolts to the specified torque setting.

E. Install the wheel, then lower the vehicle to the ground and tighten the wheel bolts to the specified torque. On completion, repeatedly depress the brake pedal until normal (non-power assisted) pedal pressure returns.