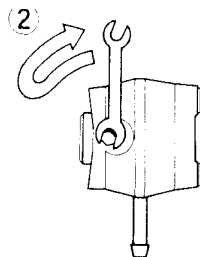


**Bleeding the brake**

The brake fluid has a very low compression coefficient so that almost all the movement of the brake lever or pedal is transmitted directly to the caliper for braking action. Air, however, is easily compressed. When air enters the brake lines, brake lever or pedal movement will be partially used in compressing the air. This will make the lever or pedal feel spongy, and there will be a loss in braking power.

Bleed the air from the brake whenever brake lever or pedal action feels soft or spongy, after the brake fluid is changed, or whenever a brake line fitting has been loosened for any reason.

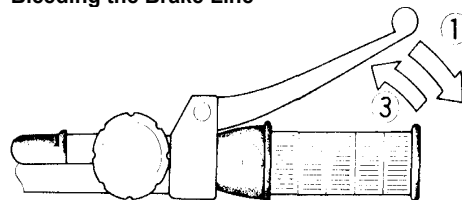
- Remove the reservoir cap, and check that there is plenty of fluid in the reservoir. The fluid level must be checked several times during the bleeding operation and replenished as necessary. If the fluid in the reservoir runs completely out any time during bleeding, the bleeding operation must be done over again from the beginning since air will have entered the line.
- With the reservoir cap off, slowly pump the brake lever



or pedal several times until no air bubbles can be seen rising up through the fluid from the holes at the bottom of the reservoir. This bleeds the air from the master cylinder end of

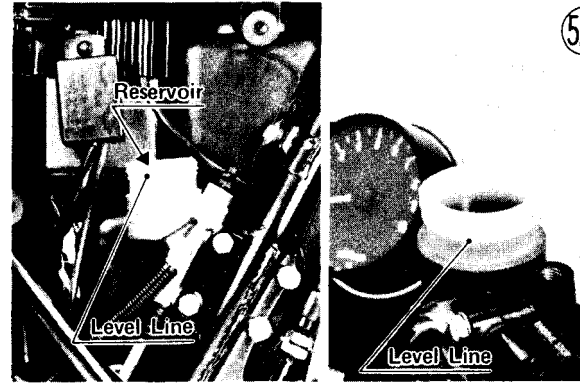
the line.

**Bleeding the Brake Line**



1. Hold the brake applied.
2. Quickly open and close the valve.
3. Release the brake.

• Install the reservoir cap, and connect a clear plastic hose to the bleed valve at the caliper, running the other end of the hose into a container. Pump the

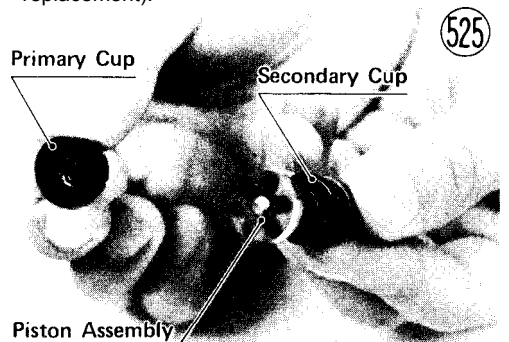


**Master cylinder parts wear**

When master cylinder parts are worn or damaged, proper brake fluid pressure cannot be obtained in the line, and the brake will not hold.

If the small relief port becomes plugged, especially with a swollen or damaged primary cup, the brake pads will drag on the disc.

- Check that there are no scratches, rust or pitting on the inside of the master cylinder, and that it is not worn past the service limit.
- Check the piston for these same faults.
- Inspect the primary and secondary cups. If a cup is worn, damaged, softened (rotted), or swollen, replace it. When inserting the cup into the cylinder, see that it is slightly larger than the cylinder (standard values given in the table). If fluid leakage is noted at the brake lever or pedal, the cups should be replaced. (The secondary cup is part to the piston assembly. Replace the piston if the secondary cup requires replacement).



brake lever or pedal a few times until it becomes hard and then, holding the level squeezed or the pedal

pushed down, quickly open (turn counterclockwise) and close the bleed valve. Then release the lever or pedal. Repeat this operation until no more air can be seen coming out into the plastic hose. Check the fluid level in the reservoir every so often, replenishing it as necessary.

- When air bleeding is finished, install the rubber cap on the bleed valve, and check that the front or rear brake fluid is filled to the line marked in the reservoir (handlebar turned so that the reservoir is level).

- Check that the spring is not damaged and is not shorter than the service limit.

