

The caliper assembly comprises the piston, A and B pads, and A and B calipers. The calipers are held together by two shafts, on which the caliper mountings are also fitted to hold the assembly onto the front fork. When the calipers move, the shafts slide back and forth through the holder and keep the brake pads parallel with the disc.

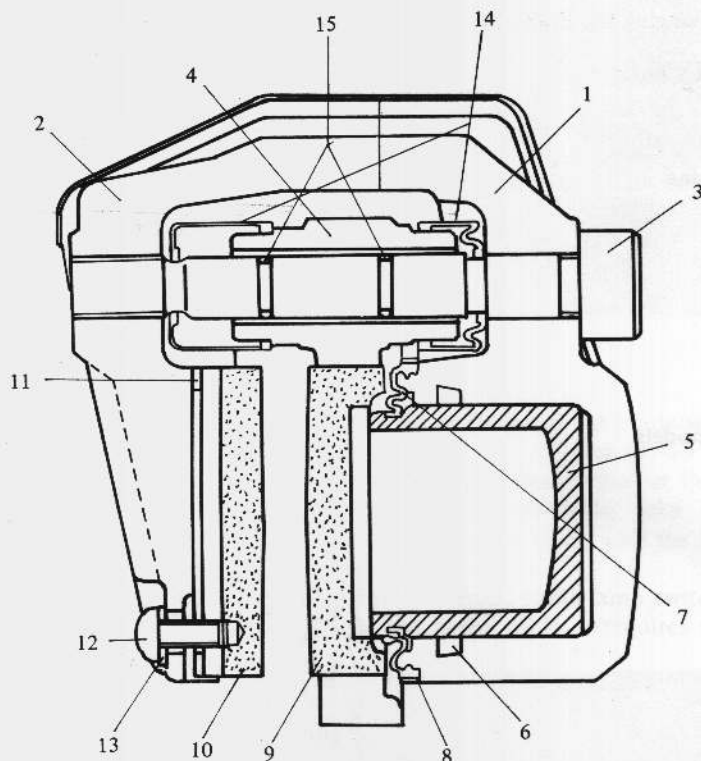
Unlike drum-type brakes, the components of the disc brake which perform the actual braking action, i.e. the disc and pads, are open to direct contact with the air flow past the motorcycle. This provides for excellent dissipation of the heat from brake friction, and reduces the possibility of brake fade common to drum brakes.

When oil pressure is developed inside caliper A's cylinder, the piston is pushed and exerts pressure against the brake pad which in turn presses against the brake disc. The pressurized oil is prevented from leaking by a rubber seal fitted into the cylinder wall. The seal presses against the piston, and instead of sliding when the piston moves, the seal

only bends, allowing no oil leakage at all. When the brake lever is released and oil pressure lowers, the elasticity of the seal returns the piston to its original position. After the brakes are used for awhile and the pads wear slightly, the rubber seal will no longer be able to bend the additional amount to conform with piston travel. Instead, when piston travel forces the seal past its limit, the seal slips slightly on the piston, and now returns the piston to a new rest position a little further out. A small amount of oil from the reservoir supplements the oil in the brake line to compensate for the difference in piston position, so that the length of the brake lever stroke remains unchanged, and the brake never needs adjustment.

The caliper A oil seal and the cup at the head of the master cylinder piston are made of an oil and heat resistant rubber composition for best performance and to prevent their contaminating the brake fluid by deterioration. For this reason, only standard parts should be used.

#### Caliper Assembly



- |                     |              |           |                 |
|---------------------|--------------|-----------|-----------------|
| 1. Caliper A        | 5. Piston    | 9. Pad A  | 13. Lock washer |
| 2. Caliper B        | 6. Ring      | 10. Pad B | 14. Dust seal   |
| 3. Shaft            | 7. Dust seal | 11. Ring  | 15. O ring      |
| 4. Caliper mounting | 8. Band      | 12. Screw |                 |