

MASTER CYLINDER (See Fig. 10)

The master cylinder is fitted to a mounting plate which in turn is mounted in the floor of the luggage compartment beneath the petrol tank. It is connected to the fluid reservoir by the feed port in the front end of the body and to the wheel assemblies by the pressure port in the side of the body. It can be identified as the one having the two lines cast into its body.

The master cylinder has an alloy body with a highly polished cylinder bore and contains the centre valve and piston assembly. The centre valve consists of a spring thimble, piston return spring, valve spacer, spring washer, centre valve and seal; this assembly is attached to the shouldered end of the piston by a spring leaf in the thimble. A push rod assembly which is connected to the foot pedal consists of a push rod, dished washer and rubber dust cover is held in the open end of the body by a circlip. The dished washer acts as a pedal stop.

When pressure is applied to the foot pedal, the piston moves down the cylinder bore and the piston return spring which abuts to the centre valve closes the valve to the feed port cutting off the supply of fluid from the reservoir. Continued movement of the piston forces the fluid out through the pressure port, in the side of the body, to the wheel assemblies and also keeps the centre valve hard on its seat.

On the return stroke, the piston moves back along the cylinder bore and with the final movement of the piston lifts the centre valve off its seat and allows the free flow of fluid between the master cylinder and reservoir.

To remove and refit (See Fig. 10)

1. Remove the petrol tank from the bottom of the luggage compartment, see under "PETROL TANK—To remove and refit, FUEL SYSTEM—SECTION C".
2. Disconnect the feed and pressure pipes from the master cylinder by releasing the union nuts and trapping any escaping fluid in a drip tray.
3. Detach the push rod from the foot pedal by discarding the split pin and withdrawing the clevis pin and washer.
4. Remove the master cylinder from the bracket by withdrawing two bolts and washers.
5. Refitting is the reverse of the removal sequence, but particular attention must be given to the following:—
 - i. A new split pin is fitted when attaching the push rod to the foot pedal.
 - ii. The brake system is bled of air, see under "BLEEDING THE HYDRAULIC SYSTEM".

Girling service kits

Girling service kits, containing the necessary rubber seal(s) and a tube of Girling Red Rubber Grease, are available. The appropriate Service Kit must always be obtained when any seal(s) need renewing and fitted as follows:—

1. When the master or wheel cylinder has been dismantled, the bore and internal parts of the cylinder must be cleaned with Girling Cleaning Fluid and allowed to dry off.
2. Examine the cylinder bore and piston, when they are smooth to the touch with no corrosion, score marks or ridges, the new seal can be fitted; but when there is any doubt as to their condition, a new replacement cylinder must be obtained.
3. Fit the seal to the piston or valve with a liberal coating of Girling Brake Fluid giving particular attention to the position of the lip face, normally towards the fluid supply.
4. Smear the piston with Girling Red Rubber Grease and insert into the cylinder bore, exercising care not to damage or fold back the fine edge of the seal.
5. Smear the inside edge of the dust cover also with Girling Red Rubber Grease, fit to the cylinder body and secure with a metal clip as necessary.