

SLAVE CYLINDER

Description and Operation

The unit consists of a metal body which is bored to accommodate a piston, seal and return spring.

A small inlet port is drilled in the body to admit fluid from the master cylinder. A second drilling contains a bleed valve.

When the clutch is operated fluid from the master cylinder is forced into the slave cylinder via the inlet port, causing the piston assembly to move along the bore thereby operating the clutch withdrawal lever via the push rod. The conical spring ensures that contact between the piston and push rod is maintained under "no load" conditions and therefore adjustment is unnecessary.

To Remove

Open and secure bonnet.

Remove master cylinder reservoir cap, place a

clean piece of polythene sheet over the reservoir aperture and refit the cap to seal the system and reduce loss of fluid.

Remove rear engine cover in cab.

Remove spring clip from push rod clevis pin and remove clevis pin.

Disconnect supply pipe at slave cylinder, plug open end of pipe.

Remove two setscrews securing slave cylinder, remove cylinder.

To Dismantle

Thoroughly clean outside of cylinder.

Remove spring ring securing boot, withdraw boot and push rod.

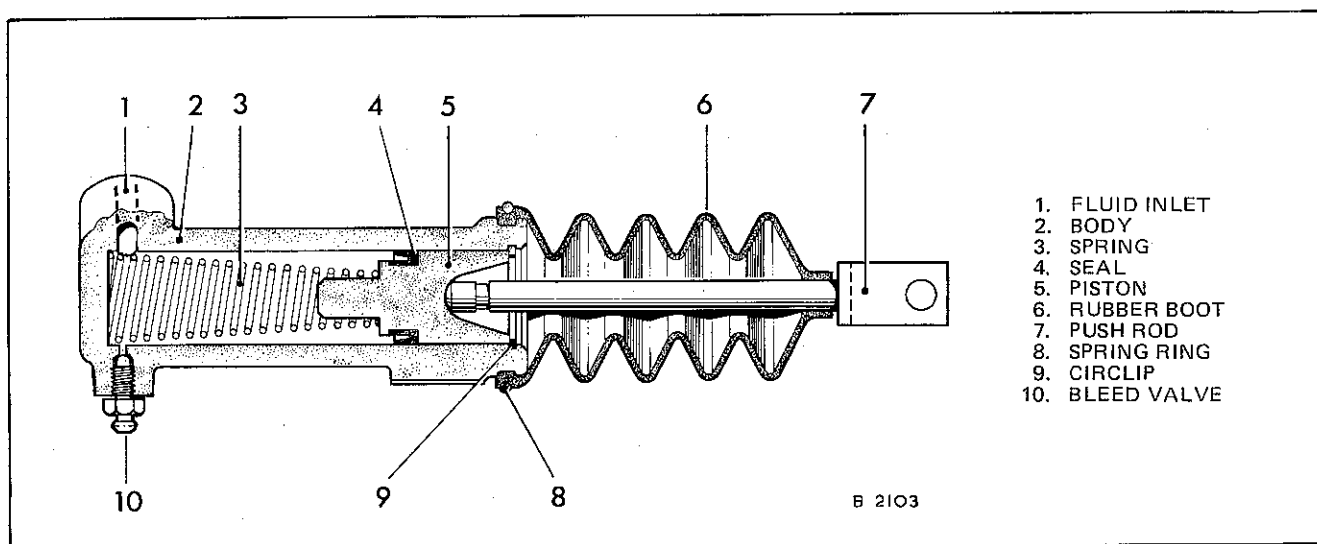


Fig. 1 Clutch slave cylinder

Slave Cylinder

Remove piston retaining circlip.

Extract piston and spring.

Remove seal from piston, discard seal.

Inspection and Overhaul

Wash all parts and blow dry with compressed air.

Carefully examine piston and cylinder bore. If any corrosion, scratches or scoring are evident the piston and cylinder are unserviceable.

Unscrew the bleed valve to ensure that no dirt is lodged behind the valve or in the threaded hole.

Ensure the conical spring is not coil bound or damaged.

Renew the rubber boot if cracked or perished.

To Reassemble

Ensure that all parts are scrupulously clean prior to assembly and lubricate with clean brake fluid.

Fit a new seal to the piston using fingers only, ensure the seal seats correctly in the groove.

Fit the small diameter of the conical spring to the piston.

Lubricate the cylinder bore with clean brake fluid, carefully insert the piston assembly into the cylinder bore, ensuring the piston seal lip is not damaged. Secure with circlip.

Smear the inside of the rubber boot and push rod with a suitable rubber lubricant.

With the push rod inserted in the boot, position the push rod in the cylinder and fit the boot to the cylinder body, ensuring the inner lip engages with the groove in the body. Secure boot with spring ring.

To Refit

Refitting is a reversal of the removal procedure, noting the following:

The slave cylinder should be secured to the bell housing before fitting and tightening the supply pipe. This avoids strain or twist to the pipe.

Before replacing the bleed valve, connect the supply pipe and remove polythene from master cylinder, replace the bleed valve as soon as fluid commences to run out of the valve orifice.

When completed, bleed the system, section E200, and check for leaks with the clutch pedal held down, i.e. system under pressure.

Check for correct drag free clutch operation.