



March, 1975

ITEM 23

Division : 33

Subject : Clutch master cylinder replacement

Models : 88 and 109 LH Stg only

Remarks :

To replace the clutch master cylinder on vehicles with LH steering it was considered necessary, because of difficulty of access, to remove the front wing first.

A revised workshop procedure, reproduced below, has now been evolved which avoids the complete removal of the front wing and thus reduces the time allowed to only 01.90 hours. This time will be included in Issue two of the Repair Operation Times, Part No. 607623 for Series III Land-Rover models.

### Clutch Master Cylinder (LH Stg.) – Replace 33.20.01

- 1 Open bonnet
- 2 Remove the L.H. front wing rear top section retaining bolt
- 3 Remove 2 nuts/bolts lower wing edge to sill panel
- 4 Remove 4 nuts/bolts splash plate to bulkhead
- 5 Remove 3 bolts, splash plate to wing top
- 6 Remove 1 nut/bolt steering box cover to L.H. inner wing valance
- 7 Remove 1 nut/bolt splash plate to L.H. inner wing valance
- 8 Remove splash plate
- 9 Remove 4 bolts rear vertical wing edge to 'A' post section
- 10 Seal top of clutch master cylinder to prevent spillage
- 11 Disconnect hydraulic pipe from clutch master cylinder outlet
- 12 Seal clutch master cylinder outlet port to prevent spillage and possible contamination
- 13 Remove brake pipe clip from pedal box cover
- 14 Remove 6 bolts securing clutch pedal box together with return spring
- 15 Ease away the rear section of the wing panel and manoeuvre out the clutch pedal box assembly
- 16 Drain fluid from master cylinder
- 17 Remove pedal box cover plate and gasket – 6 screws
- 18 Remove cylinder push rod nut
- 19 Remove cylinder retaining nuts/bolts
- 20 Detach cylinder from bracket
- 21 Re-fit cylinder to bracket, adjusting push rod lever to give 1.55mm (0.062 in.) free play between push rod and master cylinder piston, 6mm (0.25 in.) at pedal. Tighten lock nuts
- 22 Re-fit gasket and top cover
- 23 Re-fit clutch master cylinder assembly to vehicle. Ensure that pedal return spring is connected
- 24 Connect hydraulic pipe
- 25 Secure brake pipe clip
- 26 Bleed clutch system
- 27 Check pedal free play 6mm (0.25 in.). Check pedal lever height from floor, 140mm (5.50 in.)
- 28 Position wing panel, align with the sill and door panels. Re-fit securing bolts
- 29 Re-fit splash plate and steering box cover
- 30 Close bonnet