Service Department:

THE ROVER COMPANY LIMITED

SOLIHULL
WARWICKSHIRE
ENGLAND

LAND-ROVER SERVICE NEWS LETTER
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Item 131 SUBJECT: **GEARBOX**

MODELS: Land-Rover Series IIA.

MODIFICATION: Introduction of increased diameter layshaft and intermediate shaft for transfer box. Also introduction of combined oil filler and level plugs in place of separate filler and level plugs for both gearbox and transfer box to eliminate overfilling.

PART NUMBERS:

Gearbox complete assembly	1	539543	
Plug retaining selector spring	1	243466	
Oil level plug, $\frac{1}{2}$ in. B.S.P.	1	3292	
Bell housing assembly	1	528717	
Transfer box casing assembly	1	521908	
Cover plate for transfer gear change	1	528235	
Oil level and filler plug, $\frac{1}{2}$ in. B.S.P.	1	3292	
Layshaft	1	528703	
Bearing for layshaft, front	1	528701	
Plain washer (Fixing bearing to layshaft)	1	528692	
Slotted nut $\frac{3}{4}$ in. UNF (Fixing bearing to layshaft)	1	528691	
Split pin (Fixing bearing to layshaft)	1	2766	
Bearing plate for layshaft	1	528685	
Distance piece .405 in. (For layshaft)	1	528720	as required
Distance piece .425 in. (For layshaft)	1	528721	as required
Distance piece .445 in. (For layshaft)	1	528722	as required
Retainer for layshaft front bearing (Fixing plate and bearing to bell housing)	1	528690	
Lock washer (Fixing plate and bearing to bell housing)	1	528683	
Nut ($\frac{5}{16}$ in. UNF) (Fixing plate and bearing to bell housing)	1	254811	
Gear, intermediate	1	521330	
Roller bearing for intermediate gear	2	521329	
Thrust washer for intermediate gear	2	521328	
Shim for intermediate gear	as reqd.	521327	
Shaft for intermediate gear	1	521326	
Sealing ring for intermediate shaft	1	532323	
Clutch withdrawal race housing assembly	1	528707	
Joint washer for clutch withdrawal housing	1	528697	

COMMENCING NUMBERS: Gearboxes numbered with suffix letter 'b' onwards.

REMARKS: The complete gearbox assembly is interchangeable with the earlier type and can be used as a replacement on all Diesel models and all Series II and IIA with $2\frac{1}{4}$ litre petrol engine. The component parts are not interchangeable and both early and late types must be stocked.

When topping up with oil or re-filling with new oil on the gearboxes with suffix letter 'b' it is necessary to fill through the plug in the left-hand side in the case of the gearbox and the plug in the rear of the transfer box until the oil is level with the bottom of the filler plug hole.

Item 132 SUBJECT: **CLUTCH MECHANISM**

MODELS: Land-Rover Series IIA Petrol and Diesel.

MODIFICATION: Introduction of hydrostatic clutch, that is, clutch mechanism which requires no adjustment for the life of the clutch plate.

PART NUMBERS:

Support bracket for clutch slave cylinder	1	531363
Shaft and operating lever for clutch	1	537603
Push rod for clutch slave cylinder	1	537601

COMMENCING NUMBERS: Engines and gearboxes with suffix letter 'b' onwards.

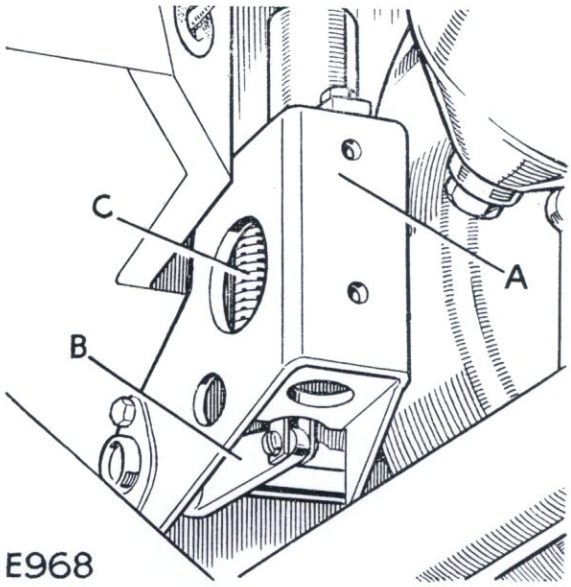

Fig. 1. Early type clutch mechanism

A—Enclosed slave cylinder B—Straight operating lever
C—Return spring for operating lever

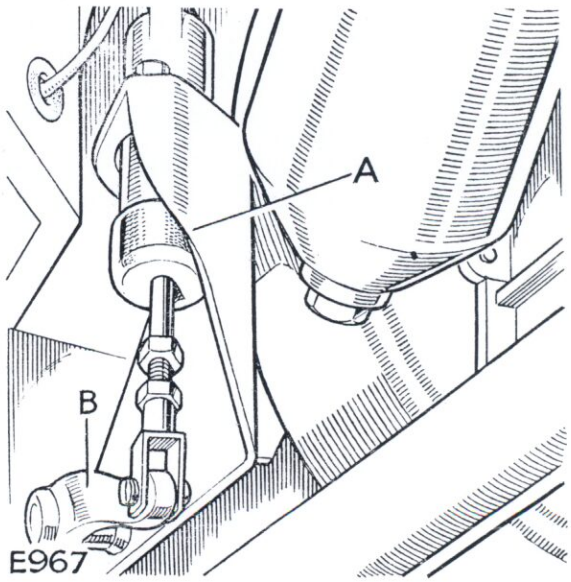

Fig. 2. Late type clutch mechanism

A—Exposed slave cylinder B—Cranked operating rod

REMARKS:

Models with the latest type clutch mechanism can be easily identified as follows:

(*a*) The support bracket for clutch slave cylinder on early models encloses the cylinder; on late models the cylinder is exposed.

(*b*) The operating lever on early models is straight, but on late models it is cranked.

(*c*) Return spring is not fitted to the operating lever on late models.

All these differences are clearly shown at Figs. 1 and 2.

IMPORTANT.

1. Do not 'ride' the clutch as immediately the $\frac{5}{16}$ in. (8 mm) free movement is taken up, the clutch mechanism begins to operate and premature clutch plate wear will result.

2. The hydrostatic clutch operating mechanism is correctly set on initial assembly, to give approximately $\frac{5}{16}$ in. (8 mm) free movement at the pedal pad and requires no adjustment throughout the life of the clutch plate, providing that no part or parts of the clutch assembly have been removed or replaced.

3. Therefore, should a new clutch plate have been fitted, or a clutch assembly, clutch pressure plate, clutch slave cylinder, support bracket for cylinder or flywheel have been removed and replaced, it becomes necessary to re-set the free movement at the pedal pad as follows:

   (*a*) If necessary bleed system, then hold operating lever on the clutch cross-shaft down and ensure there is no free movement or backlash in the clutch withdrawal mechanism.

To adjust, Method A

   (*b*) Adjust the push rod if necessary by slackening off lock nut 'C', and rotating push rod with the fingers to give dimension 'A' as shown as Fig. 3. Do not adjust nut 'B' to obtain this figure. Nut 'B' must always be tightened to the end of the push rod thread.

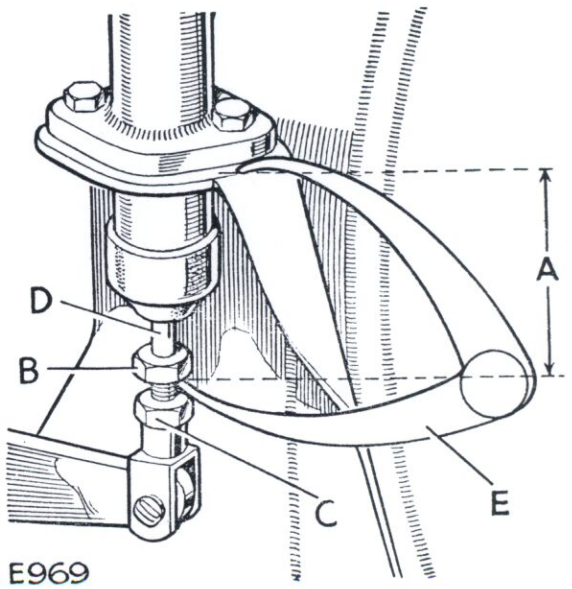

Fig. 3. Setting hydrostatic clutch linkage, Method A

A—$1\frac{7}{8}$ in. (48 mm)

B—Nut must always be at end of push rod thread

C—Lock nut for push rod

D—Check dimension with calipers as shown

To adjust, Method B

(*c*) Fully depress clutch pedal and withdraw rubber boot on cylinder. Then adjust push rod until there is approximately $\frac{1}{8}$ in. (3 mm) clearance between bottom of piston and circlip. See Fig. 4.

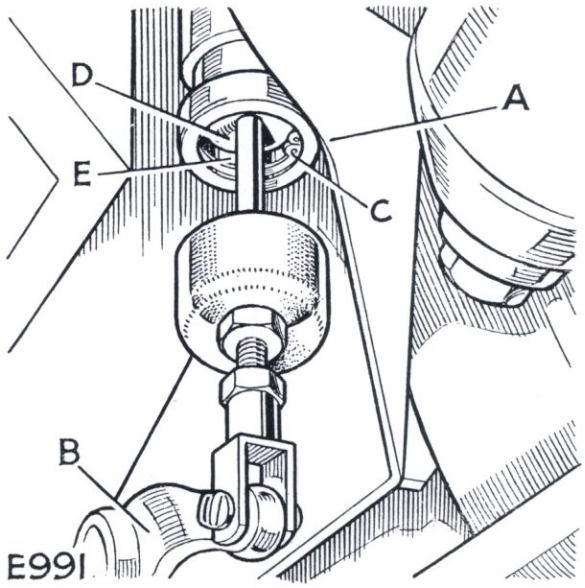

Fig. 4. Setting hydrostatic clutch, Method B

A—Exposed slave cylinder
B—Cranked operating rod
C—Circlip
D—Piston
E—$\frac{1}{8}$ in. (3 mm)

Early Land-Rover Series II and IIA models can be modified by fitting the new parts detailed above, discarding the return spring for operating lever and adjusting the push rod as shown at Fig. 3.

Item 133 SUBJECT: **MAINTENANCE AND REPAIR KITS FOR ELECTRICAL WIRING**

MODELS: Land-Rover.

REMARKS: The Rover Company officially approve the maintenance and repair kit for electrical equipment which is marketed by Aircraft-Marine Products (Great Britain) Ltd., and which has been specially packed to Rover requirements.

It comprises push-on fasteners, ring tongues and butt connectors, etc., of the various sizes used on Land-Rovers, together with a special hand tool for crimping these items to the wire. No soldering is required. The crimping tool also incorporates bolt cutters, stripping tool and cutting tool for wire. The kit, which is packed in a neat metal box, should be obtained direct from Aircraft-Marine Products (Great Britain) Ltd., Maintenance and Repair Division, Amplo House, 87-89, Saffron Hill, London, E.C.1 under Part No. MR/M 501. Cost price is £12 0s. 9d.