



Service Department:

THE ROVER COMPANY LIMITED

SOLIHULL
WARWICKSHIRE
ENGLAND

LAND-ROVER SERVICE NEWS LETTER
No. 26

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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	.....	.....	.....	1	528692	} Fixing bearing to layshaft
	Slotted nut $\frac{3}{4}$ in. UNF	.....	.....	.....	1	528691	
	Split pin	.....	.....	.....	1	2766	
	Bearing plate for layshaft	.....	.....	.....	1	528685	} For layshaft
	Distance piece .405 in.	.....	.....	.....	1	528720	
	Distance piece .425 in.	.....	.....	.....	1	528721	
	Distance piece .445 in.	.....	.....	.....	1	528722	} as required
	Retainer for layshaft front bearing	.....	.....	.....	1	528690	} Fixing plate and bearing to bell housing
	Lock washer	.....	.....	.....	1	528683	
	Nut ($\frac{5}{16}$ in. UNF)	.....	.....	.....	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.

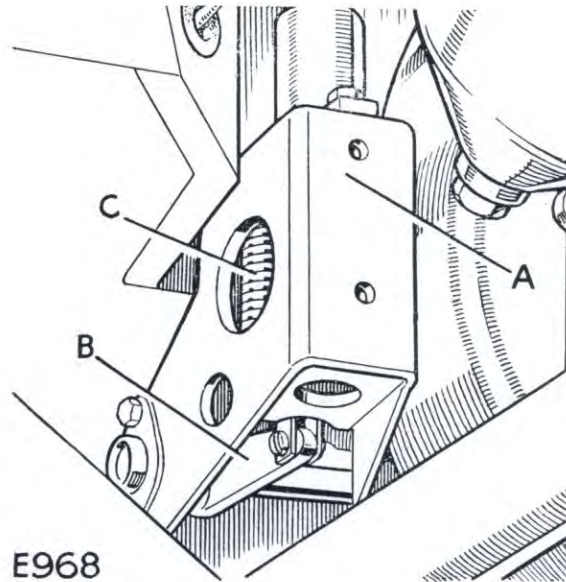


Fig. 1. Early type clutch mechanism

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

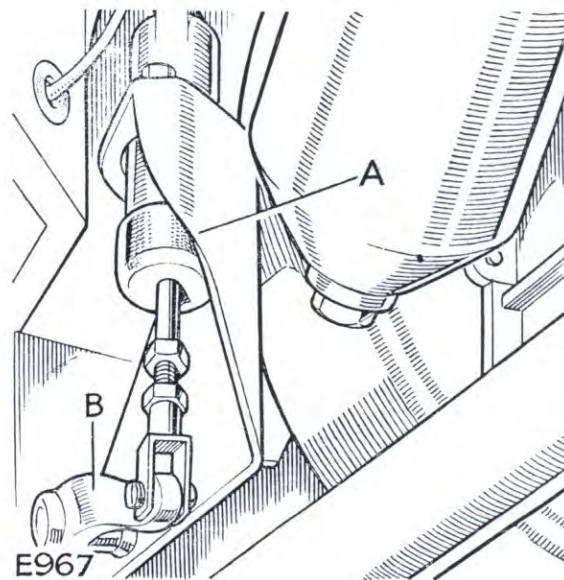


Fig. 2. Late type clutch mechanism

- 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.

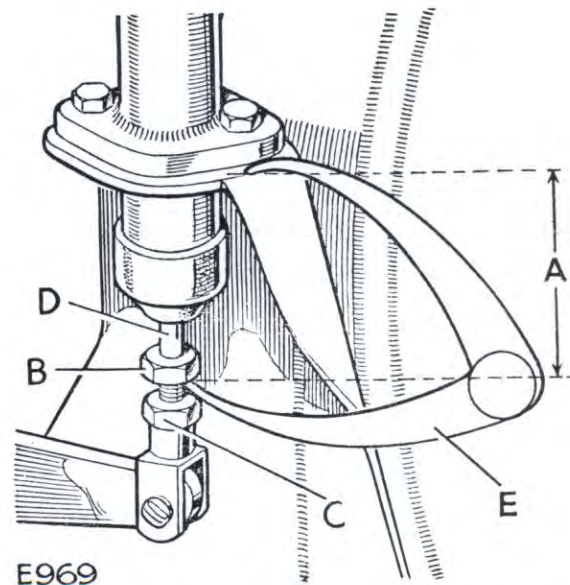


Fig. 3. Setting hydrostatic clutch linkage, Method A

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.

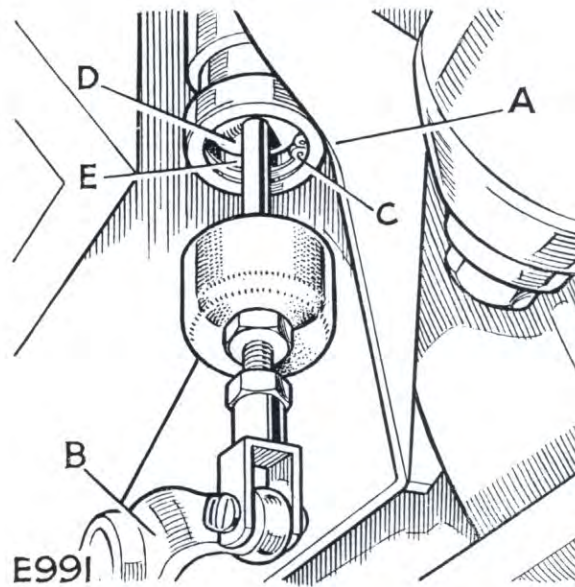


Fig. 4. Setting hydrostatic clutch, Method B

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.