



Service Department:

**THE ROVER COMPANY LIMITED**



SOLIHULL  
WARWICKSHIRE  
ENGLAND

**LAND-ROVER SERVICE NEWS LETTER No. 38**

September 1963

**Item 184 SUBJECT: CLUTCH ASSEMBLY**  
**MODELS:** Land-Rover Series II and IIA Regular, Long and Station Wagons, Petrol and Diesel.  
**PART NUMBER:** Clutch assembly, Borg & Beck No. 45693/41 .... 1 236684  
**REMARKS:** With effect from the date of this News Letter clutch assembly Part No. 236684 must be used for all Service replacements on vehicles in the above range. This clutch has stronger springs to eliminate clutch slip under arduous conditions, but it requires a 5% higher pedal pressure to operate.

**Item 185 SUBJECT: GEARBOX ASSEMBLY**  
**MODELS:** Land-Rover Series IIA Regular, 109 Long, 88 and 109 Station Wagon, Petrol and Diesel.  
**MODIFICATION:** Introduction of gearbox and transfer box with revised ratios to give improved vehicle performance.  
**PART NUMBERS:**

Gearbox assembly	....	....	....	....	....	1	539850
Gearbox casing and cover assembly	....	....	....	....	....	1	539901
Primary pinion and constant gear	....	....	....	....	....	1	542231
Mainshaft gear, 1st speed	....	....	....	....	....	1	511205
Layshaft gear, 1st speed	....	....	....	....	....	1	511189
Reverse wheel assembly	....	....	....	....	....	1	511203
Intermediate gear cluster	....	....	....	....	....	1	533080
Low gear wheel	....	....	....	....	....	1	532979

**COMMENCING NUMBERS:**

Basic Land-Rovers from gearbox suffix letter 'C' onwards.

**REMARKS:**

Earlier vehicles in the above range can be modified by supplying and fitting all the component parts of the gearbox assembly detailed above or alternatively the complete gearbox can be used.

Early and late gear ratios.

**MAIN GEARBOX**

	Suffix letter 'A' and 'B' Gearboxes	Suffix letter 'C' Gearboxes
Top	Direct	Direct
Third	1.377-1	1.512-1
Second	2.043-1	2.22-1
First	2.996-1	3.6-1
Reverse	2.547-1	3.02-1

## TRANSFER BOX

High transfer	....	1.148-1	1.148-1
Low transfer	....	2.888-1	2.4-1

## OVERALL RATIO (FINAL DRIVE)

	In High Transfer		In Low Transfer	
	Suffix letters 'A' and 'B'	Suffix letter 'C'	Suffix letters 'A' and 'B'	Suffix letter 'C'
Top	5.4-1	5.4-1	13.6-1	11.28-1
Third	7.4-1	8.15-1	18.69-1	17.0-1
Second	11.0-1	12.0-1	27.7-1	25.0-1
First	16.2-1	19.4-1	40.6-1	40.6-1
Reverse	13.77-1	16.3-1	34.6-1	34.0-1

## Item 186 SUBJECT:

**GEARBOX SELECTOR LEVER SET BOLTS**

MODELS: Land-Rover 109 Forward Control with  $2\frac{1}{4}$  and 2.6 litre engine.

PART NUMBERS: Gearbox selector lever set bolt .... 3 544202

MODIFICATION: Introduction of new set bolts, with increased tensile strength, fixing the selector levers to the linkage.

## COMMENCING NUMBERS:

$2\frac{1}{4}$  litre models  
Chassis numbered

R.H.D., Home 28600295 onwards

R.H.D., Export 28700364 onwards

L.H.D., Export 28900242 onwards

2.6 litre models  
Chassis numbered

R.H.D., Home 30000002 onwards

R.H.D., Export 30100036 onwards

L.H.D., Export 30300117 onwards

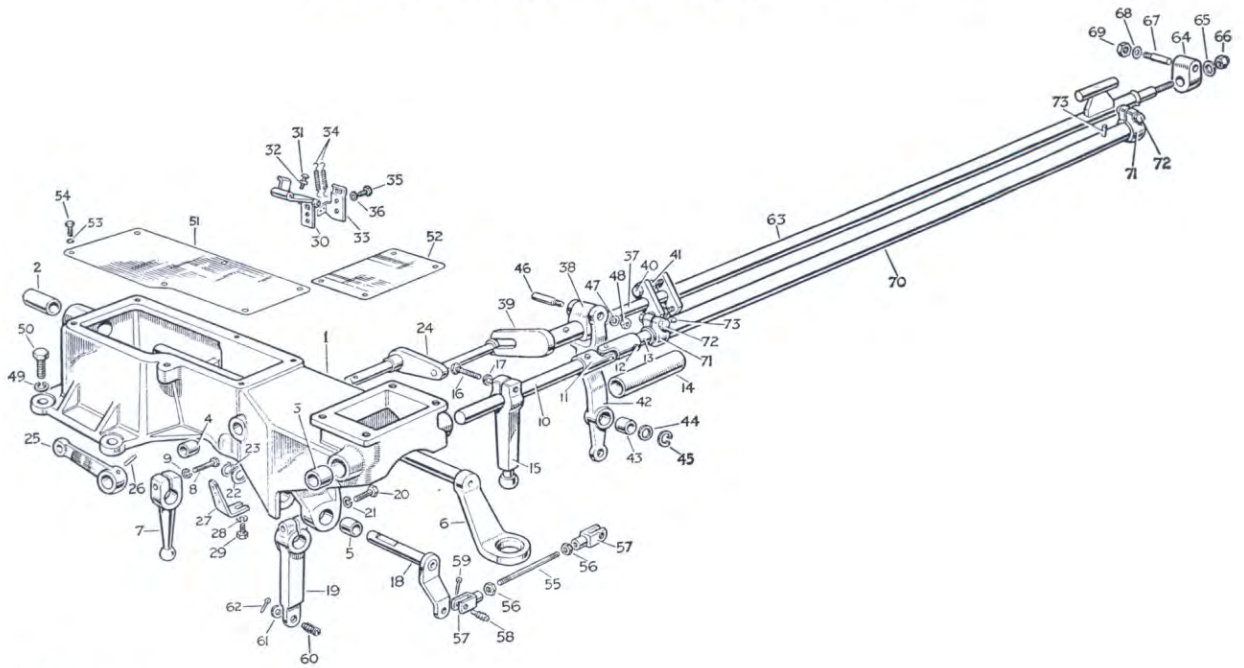
## REMARKS:

The above strengthened set bolts, which are dimensionally identical to the previous ones, are fitted to the gearbox remote control gear change mechanism as follows: One set bolt—lever to shaft, one set bolt—lever to rod and one set bolt—lever to cross-shaft. The new bolts are identified by the code letter 'V' stamped on the head.

These bolts have been introduced with the above commencing numbers to allow an increased torque of 26 lb/ft (3,5 mkg) loading in order to prevent the operating levers slipping on their respective shafts.

New type set bolts only should be used for all Service replacements. If there is any doubt about the type of set bolt which is fitted, or where the levers slip, the latest type set bolt must always be used. It should also be noted that a certain number of vehicles prior to the above commencing numbers have already been modified.





F73. COLLINS-JONES.

Fig. 1. Gearbox controls, rear assembly

- |  |                                       |
|--|---------------------------------------|
| 1 Remote control housing, rear             | 38 Pivot piece, transfer relay, rear  |
| 2 Bearing for selector shaft               | 39 Rear lever, transfer selector tube |
| 3 Bearing for control shaft                | 40 Bolt                               |
| 4 Bearing for cross-shaft                  | 41 Nut                                |
| 5 Bearing for transfer shaft               | 42 Pivot lever for transfer relay     |
| 6 Transverse selector shaft, rear          | 43 Bush for pivot lever               |
| 7 Gear change selector lever               | 44 Plain washer                       |
| 8 Set bolt*                                | 45 Circlip                            |
| 9 Spring washer                            | 46 Pin, transfer selector lever       |
| 10 Gear change selector rod                | 47 Plain washer                       |
| 11 Universal joint, rear                   | 48 Nut                                |
| 12 Mills pin                               | 49 Spring washer } Fixing rear remote |
| 13 Adjusting screw                         | 50 Set bolt } housing to gearbox      |
| 14 Cover for universal joint               | 51 Cover plate, large                 |
| 15 Rear selector lever                     | 52 Cover plate, small                 |
| 16 Set bolt*                               | 53 Spring washer                      |
| 17 Spring washer                           | 54 Set bolt                           |
| 18 Transfer cross-shaft                    | 55 Transfer selection rod             |
| 19 Transfer lever                          | 56 Locknut                            |
| 20 Set bolt*                               | 57 Clevis fork end                    |
| 21 Spring washer                           | 58 Clevis pin and spring              |
| 22 Plain washer                            | 59 Split pin                          |
| 23 Circlip                                 | 60 Clevis pin                         |
| 24 Cross-shaft                             | 61 Plain washer                       |
| 25 Lever for four-wheel drive shaft        | 62 Split pin                          |
| 26 Mills pin                               | 63 Transfer selector tube             |
| 27 Anchor plate                            | 64 Pivot piece, transfer tube front   |
| 28 Spring washer                           | 65 Plain washer                       |
| 29 Set bolt                                | 66 Self-locking nut                   |
| 30 Reverse stop hinge complete             | 67 Pivot                              |
| 31 Adjusting screw                         | 68 Plain washer                       |
| 32 Locknut                                 | 69 Self-locking nut                   |
| 33 Bracket for reverse stop spring         | 70 Gear change connecting tube        |
| 34 Spring for reverse stop                 | 71 Clips                              |
| 35 Set bolt                                | 72 Pinch bolts                        |
| 36 Locker                                  | 73 Mills pins                         |
| 37 Pivot pin, transfer selector tube, rear |                                       |

Note: The three set bolts in question are marked with an asterisk (\*).

**Item 187** SUBJECT: **FREEWHEELING HUB, MANUAL TYPE**  
 MODELS: Land-Rover Series I, II and IIA.  
 REMARKS: Some failures of the freewheeling hub have been reported. Investigations of these incidents have shown that they are due to incorrect fitting. It is imperative that the manufacturer's instructions, which are supplied with each kit, are strictly adhered to. When topping up the hub with oil after fitting, one of 90 E.P. grades recommended in the current Owner's Manual must be used, that is:

BP	....	....	....	Energol SAE 90 EP
Castrol	....	....	....	Castrol Hypoy
Duckham's	....	....	....	Duckham's Hypoid 90
Esso	....	....	....	Esso Gear Oil GP 90
Mobil	....	....	....	Mobilube G X 90
Regent (Texaco/Caltex)	....	....	....	Universal Thuban 90
Shell	....	....	....	Spirax 90 E.P.

**Item 188** SUBJECT: **HYDRAULIC STEERING DAMPER ASSEMBLY**  
 MODELS: Land-Rover Series II and IIA 88 and 109.  
 REMARKS: Please note that the hydraulic steering damper conversion kit, specified in Land-Rover Service News Letter No. 25, Item 129, cannot be used on a Land-Rover which already has a capstan winch fitted.

**Item 189** SUBJECT: **LIFTING HANDLES**  
 MODELS: All Land-Rover except 109 Forward Control.  
 PART NUMBERS:

Lifting handle, rear	....	....	....	....	....	2	300816
Bolt ( $\frac{5}{16}$ in. UNF x $\frac{3}{4}$ in. long)	....	....	....	....	....	8	255226
Spring washer	....	....	....	....	....	8	3075
Nut ( $\frac{5}{16}$ in. UNF)	....	....	....	....	....	8	254811

REMARKS: A certain number of complaints have been received from Dealers and Distributors, reporting that the lifting handles were missing on vehicles which had been supplied recently. We would advise all Dealers and Distributors that the fitting of these handles as standard equipment has been temporarily discontinued. Lifting handles together with fittings are of course still available from our Parts Department under the part numbers listed above for vehicles manufactured during this period.

**Item 190** SUBJECT: **INITIAL PARTS STOCKING RECOMMENDATIONS**  
 MODELS: Land Rover 109 Forward Control with 6-cylinder engine.  
 REMARKS: News Letter No. 37A gave particulars of the initial parts stocking range for 109 Forward Control vehicles fitted with 6-cylinder engines. It is important to emphasize that this specification applies only to certain specific Export territories, and these vehicles fitted with 6-cylinder engines are not currently being supplied in the Home market.

**Item 191** SUBJECT: **SERVICE SCHOOL FACILITIES**  
 REMARKS: We would draw the attention of our Dealers and Distributors to the Service School facilities offered by the S.U. Carburetter Co. Ltd. The five-day course covers the basic design of S.U. products together with correct methods of assembly, their installation, maintenance, repair procedure and practical work on engines. For further information and bookings Dealers and Distributors are advised to contact the S.U. Carburetter Co. Ltd. direct at Wood Lane, Erdington, Birmingham 24.