



Service Department:

THE ROVER COMPANY LIMITED

SOLIHULL
WARWICKSHIRE
ENGLAND

LAND-ROVER SERVICE NEWS LETTER

No. 7

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Item 37 SUBJECT: ENGINE ASSEMBLIES (Policy item)

REMARKS:

Now that the current 2½ litre petrol engine assembly is supplied less certain ancillary items, see Land-Rover News Letter No. 2A; the engine sub-assembly which comprises cylinder block, crankshaft, pistons, camshaft, valves and rockers, etc., will no longer be supplied.

See below for cancelled and superseding part numbers.

We feel this is the right policy to adopt, as the difference in cost between the two units is more than absorbed by labour costs in reconditioning the original cylinder head, fitting it to the sub-assembly and testing the engine.

Part number 500126 superseded by part number 524138 Land-Rover 2½ litre petrol.

Item 38 SUBJECT: DIESEL ENGINE (Policy item)

MODELS:

Land-Rover Diesel.

PART NUMBERS:

Engine and clutch assembly, new	.....	.....	.....	.....	1	247796
Engine and clutch assembly, rebuilt	.....	.....	.....	.....	1	276067

REMARKS:

Future supplies of Diesel engines, both new and rebuilt, will be to the 1961 specification, that is, suitable for models with the filter fitted on the dash.

When these engines are fitted to earlier models it will be necessary to remove the existing filter and pipes, as detailed below, from the original engine and fit them to the new unit.

Parts removed from original engine and fitted to new unit:

Description	Qty.	Part No.	
Fuel filter	1	515437	Fit new element 517711
Mounting bracket for filter	1	278517	
Bolt (3/8" UNF x 1 1/8" long)	3	255048	} Fixing filter to bracket
Spring washer	3	3076	
Nut (3/8" UNF)	3	254812	
Set bolt (3/8" UNF x 3/4" long)	3	255045	} Fixing bracket to cylinder head
Spring washer	3	3076	
Adaptor in filter for distributor pump and drain pipe	2	247778	
Joint washer	1	243957	} In filter for leak-off pipe
Union	1	502776	
Restrictor for filter union	1	272396	
Leak-off pipe, injector to filter	1	274847	
Washer, leak-off pipe to injector	8	273069	Fit new washers
Drain pipe, distributor pump to filter	1	273070	
Pipe, mechanical pump to filter	1	277774	
Banjo bolt	1	247774	} Fixing pipe to filter
Joint washer	1	247808		Fit new washer

Description	Qty.	Part No.	
Grommet for filter pipe	1	272512	
Clip for grommet	1	232425	
Bolt ($\frac{1}{4}$ " UNF x $\frac{1}{2}$ " long)	1	255006	} Fixing clip and grommet to pipe
Spring washer	1	3074	
Nut ($\frac{1}{4}$ " UNF)	1	254800	
Stud for No. 4 injector	1	247883	
Pipe, filter to distributor pump	1	277556	
Washer	2	275265	} Fixing pipe, filter to distributor pump
Banjo bolt	1	275266	

Fit new washers

Parts removed from new unit to be put into stock:

These items will not be accepted for credit by The Rover Co.

Description	Qty.	Part No.	
Leak-off pipe	1	515980	
Washer	8	273069	} Scrap
Bracket for leak-off pipe	1	521584	
Locknut	2	254861	
Union for mechanical pump	2	247929	
Washer for union	2	243967	} Scrap
Stud for No. 4 injector	1	521600	

Item 39 SUBJECT: INJECTORS

MODELS: Land-Rover Diesel.

REMARKS: When refitting injectors to the Land-Rover Diesel engine always ensure that new copper and steel gaskets are fitted. The steel washer must be fitted with the "U" of the corrugation downwards.

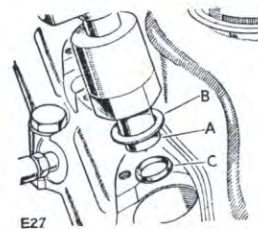


Fig. 1—Position of injector nozzle washer
A—Nozzle B—Copper washer C—Steel washer

Tighten each clamp bar alternately an equal amount to ensure that the injector goes into position evenly. The nuts must be tightened only to a torque figure of 6-8 lb/ft (0.8-1.1 mkg). Alternatively a $\frac{1}{2}$ in. A.F. open-ended spanner of not more than 4 in. (100 mm) in length can be used.

Failure to carry out the above precautions when replacing injectors may result in nozzle distortion, giving rise to rough and uneven running.

Item 40 SUBJECT: INLET AND EXHAUST MANIFOLD

MODELS: Land-Rover.

MODIFICATION: Set bolts replace studs to facilitate removal of exhaust and inlet manifold.

PART NUMBERS: Set bolt ($\frac{5}{16}$ " UNF x $2\frac{3}{4}$ " long) 2 256029
Set bolt ($\frac{5}{16}$ " UNF x 2" long) 2 256226

REMARKS: Set bolts can be used in lieu of studs on all earlier $2\frac{1}{4}$ litre petrol models in the lower central position.

Item 41 SUBJECT: **WATER PUMP**
 MODELS: Land-Rover Series II.
 MODIFICATION: Stainless steel deflector added to water pump spindle to deflect water from pump spindle bearing during the initial bedding-in period of the seal.
 PART NUMBER: Water pump spindle and bearing complete 1 523354
 COMMENCING NUMBERS: Engines numbered:
 All petrol models from 151105232 onwards
 88 Diesel models from 146100593 onwards
 109 Diesel models from 156100538 onwards
 REMARKS: The latest type water pump spindle, bearing and deflector can be used as a replacement on all earlier Land-Rover 2 litre Diesel and 2¼ litre Petrol models.

Item 42 SUBJECT: **LOCATION STOP FOR JACKING POINT**
 MODELS: Land-Rover Series II.
 MODIFICATION: Location stop added at joint flange of swivel pin bearing housing and axle casing to prevent jack platform from turning when lifting right-hand front axle.
 PART NUMBER: Location stop for jacking point 1 519206
 REMARKS: The location stop can be added to any earlier Land-Rover Series II model. It is retained by the two lower bolts fixing the swivel pin bearing housing to the axle case. See Fig. 2 below.

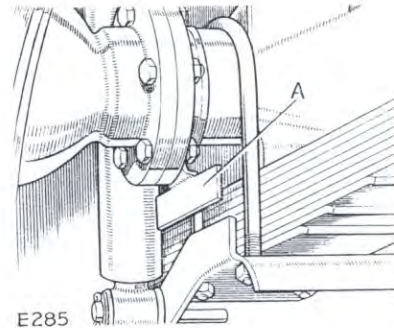


Fig. 2—Location stop fitted to axle
 A—Location stop

Item 43 SUBJECT: **CLUTCH ADJUSTMENT**
 MODELS: Land-Rover Series II.
 REMARKS: Some complaints have been received from certain classes of operators that the Land-Rover clutch life is rather short. On investigation many of these complaints have been traced back to faulty clutch adjustment. This is due to the fact that many drivers do not recognise the symptoms of hydraulic clutch maladjustment in time to prevent slipping and excess wear. Adjustment of the hydraulically-operated clutch as fitted to the Land-Rover Series II models is quite different from that of the mechanical linkage fitted to Land-Rover Series I models. It should be noted that the feel of the pedal is in three stages:

- (i) Master cylinder free play against the pedal return spring;
- (ii) Slave cylinder free play, through the hydraulic system and against the slave cylinder return spring.
- (iii) Operating the clutch against the full force of the pressure springs.

Distributors and Dealers are requested to ensure that all those concerned with the maintenance and operation of Land-Rover Series II models are conversant with:

- (a) How to recognize the need for clutch adjustment, and
- (b) The correct method of adjusting clutch free movement when required.

Master cylinder free play, to adjust

1. Check the free play between the master cylinder piston and the push rod. See Fig. 3. This free play should be $\frac{1}{16}$ in. (1.5 mm) at the push rod and is felt as approximately $\frac{5}{16}$ in. (8 mm) at the pedal pad. If the movement is less than the given figure:
2. Slacken off locknut and rotate the push rod with the fingers until the correct movement has been attained.

Pedal free play, to adjust

1. Slacken the push rod locknut at the slave cylinder. See Fig. 4.
2. Adjust the push rod by rotating until the total free movement at the pedal is $1\frac{1}{2}$ in. (38 mm). The total free play is felt in two stages:
 - (a) Light movement of approximately $\frac{5}{16}$ in. (8 mm) which takes up the master cylinder free play against the pedal return spring.
 - (b) Slightly heavier movement which should be approximately $1\frac{3}{16}$ in. (30 mm) which takes up the slave cylinder free play through the hydraulic system and against the slave cylinder return spring.
3. When the correct movement of the pedal pad has been attained secure the push rod with the locknut.

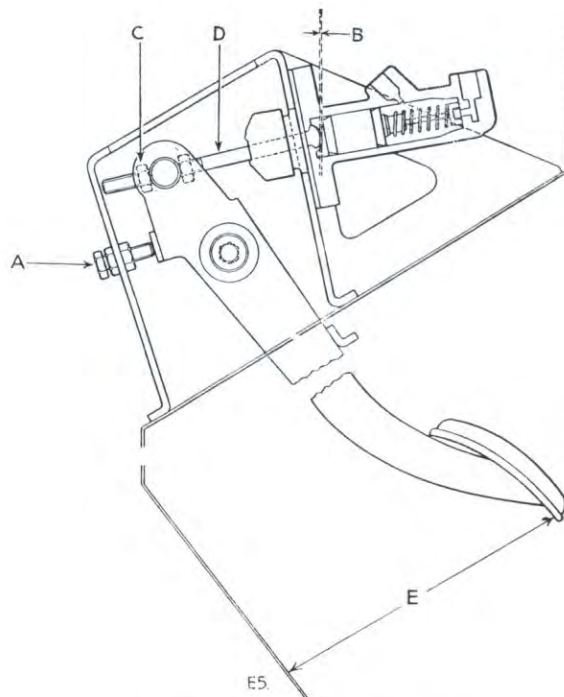


Fig. 3—Clutch linkage setting

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|---|-------------------------------------|
| A—Pedal position setting bolt | C—Master cylinder push rod locknuts |
| B—Free play against master cylinder push rod
$\frac{1}{16}$ in. (1.5 mm) | D—Master cylinder push rod |
| E—6 in. (152 mm) from pedal pad to toe-board. Adjust by means of bolt 'A' | |

