



Service Department:

THE ROVER COMPANY LIMITED

SOLIHULL
WARWICKSHIRE
ENGLAND

LAND-ROVER SERVICE NEWS LETTER
No. 20

March 1962

Item 100 SUBJECT: **GIRLING CLEANING FLUID FOR HYDRAULIC BRAKING SYSTEM**
MODELS: All
PART NUMBER: Girling cleaning fluid ½-pint 535642

REMARKS: Half-pint tins of Girling cleaning fluid for cleaning all hydraulic systems are now available from our Parts Department. This cleaning fluid, which is far more economical in use than actual brake fluid, has no harmful effect on seals and hoses, and can be used with complete safety.

When overhauling the brake system, clean all parts of the hydraulic system with the cleaning fluid and allow it to dry off. Place the cleaned parts on clean paper, lubricate with the recommended brake fluid and assemble. If the system has been contaminated, clean all cylinders with the fluid, wash out the supply tank and all pipes and replace all seals and hoses.

The use of any other fluids for cleaning may be harmful and should never be used.

Item 101 SUBJECT: **BEARING SET FOR CRANKSHAFT**
MODELS: Land-Rover Series IIA, 2¼ Litre Petrol and 2¼ Litre Diesel
PART NUMBERS: Bearing set for crankshaft, Std. 1 533979
Bearing set for crankshaft, .010 in. U.S. 1 533980
Bearing set for crankshaft, .020 in. U.S. 1 533981
Bearing set for crankshaft, .030 in. U.S. 1 533982
Bearing set for crankshaft, .040 in. U.S. 1 533983

} Land-Rover
Series IIA
2¼ Litre
Petrol and
Diesel

REMARKS: Each bearing set for crankshaft comprises:
Main bearings, connecting rod bearings and five pairs of thrust washers covering the complete range of standard and oversize washers. This applies to all the bearing sets above, standard and undersize. When fitting the bearings, select the appropriate thrust washers to give the correct crankshaft end-float and discard the remainder.

It should be noted that the total price of the complete sets with additional thrust washers is the same as buying individual bearings and only one pair of thrust washers.

- Item 102 SUBJECT: PISTONS AND CYLINDER BORES**
- MODEL: Land-Rover 2½ Litre Diesel
- REMARKS: Pistons for the Land-Rover 2½ Litre Diesel models are available in the standard size only in two diameters, that is small diameter identified by the letters 'ZAB' stamped on the piston crown; and large diameter identified by the letters 'BCD'. The difference between the two diameters being .0005 in. (0,012 mm).
- The letters 'L' and 'H' which follow the diameter letters represent a difference in height between the gudgeon pin centre and the piston crown. All Service replacement pistons will be type 'L' and these must be used where the 'H' type pistons were fitted as original equipment.
- The cylinder block bore size is also identified by a diameter letter stamped adjacent to the bore on the manifold side of the cylinder block just above the water gallery casting.
- The diameter letters represent a difference in bore diameter of .0002 in. (0,005 mm) as shown below:
- 'Z' nominal to minus .0002 in.
 - 'A' nominal to plus .0002 in.
 - 'B' .0002 in. to .0004 in. above nominal.
 - 'C' .0004 in. to .0006 in. above nominal
 - 'D' .0006 to .0008 in. above nominal.
- When fitting new pistons to a replacement cylinder block the appropriate piston diameter should be selected as follows:
- Use small diameter pistons in bores stamped 'Z', 'A' or 'B'.
 - Use large diameter pistons in bores stamped 'B', 'C' or 'D'.
- When replacement standard-size pistons are fitted to an engine which has been in service, it is of course necessary to check each individual cylinder bore and fit the appropriate size of piston as required.
- Piston clearance in bore, measured at bottom of skirt at right angles to gudgeon pin is .004 to .005 in. (0,10 to 0,12 mm).
- Item 103 SUBJECT: TAPPET SLIDE**
- MODELS: Land-Rover 2½ Litre Petrol, 2 Litre Diesel and 2½ Litre Diesel.
- REMARKS: Damage to the tappet slides can be caused after refitting the cylinder head and rocker assembly to the cylinder block by rotating the engine before any tappet adjustment is carried out.
- Excessive tappet clearance at this stage of assembly can allow the push rods to be lifted out of the spherical seat and on to the top of the tappet slide. Further rotation of the engine will then cause the push rod to damage the tappet as the rocker fully compresses the valve spring. It is, therefore, important that excessive tappet clearance is eliminated as follows:—
- (a) Before rotating the engine, or the camshaft after a complete strip down, adjust all the tappets which are slack.
 - (b) Then rotate engine or camshaft a quarter of a turn at a time. After each movement of the camshaft adjust any tappets which are slack.
 - (c) When the excessive clearance on all the tappets has been eliminated, finally adjust the tappets in the normal manner to the correct clearance.
- Item 104 SUBJECT: INJECTION EQUIPMENT**
- MODELS: Land-Rover 2 Litre and 2½ Litre Diesel.
- REMARKS: Complaints received concerning poor starting, excessive smoke or excessive fuel consumption, etc. on the Land-Rover 2 Litre or 2½ Litre Diesel model are nearly always due to the incorrect type of injection equipment being fitted. This is particularly so with Fleet Owners who may be running other Diesel equipment with Pintaux nozzles, etc.

Distributors, Dealers and Fleet Owners are therefore requested to pay particular attention to the type of equipment fitted as replacements and to ensure that the information given below is understood and made available to Workshop Staff who are dealing with Land-Rover Diesel engines.

Distributor pumps

- (a) Rover Part No. 276407 suitable for 1957–58 Land-Rover 2 Litre Diesel models, identified by one of the following C.A.V. numbers:
DPA 3240081, DPA 3240091, DPA 3240094 or DPA 3240095.
- (b) Rover Part No. 513617 suitable for 1959–61 Land-Rover 2 Litre Diesel models, identified by the C.A.V. number DPA 3240099.
Please note that Rover Part No. 513617 can be used as a replacement in lieu of Rover Part No. 276407.
- (c) Rover Part No. 516092 suitable for Land-Rover 2½ Litre Diesel models, identified by C.A.V. No. DPA 3243370. This pump is not suitable for 2 Litre Diesel models.

Injectors

- (a) Rover Part No. 273452 suitable for 2 Litre models, may be identified in three ways. They are:
 - (i) Stamped with C.A.V. despatch number 5345902 and nozzle holder number BKB 40SD 5008R.
 - (ii) No despatch number but stamped with nozzle holder number BKB 40SD 5008R.
 - (iii) No despatch number but stamped with nozzle holder number BKB 40S 5008 DR.
- (b) Rover Part No. 515552 suitable for 2½ Litre models, may be identified in two ways. They are:
 - (i) Stamped with C.A.V. despatch number 5345501 and nozzle holder number BKB 40S 5008R.
 - (ii) No despatch number but stamped with nozzle holder number BKB 40S 5008R.

The 2 Litre and 2½ Litre injectors are not interchangeable.

Nozzle for injector

- (a) Rover Part No. 247726 suitable for 2 Litre and 2½ Litre models, may be identified by C.A.V. No. BDNO SP 6209 or BDNO SPC 6209.

On late 2 Litre distributor pumps and all 2½ Litre distributor pumps an aluminium end plate is fitted in place of the steel end plate previously used. On pumps with the aluminium end plate the nylon filter and the regulating valve are in line with the fuel inlet connection instead of being at right angles to the connection as on the steel end plate. Care must be taken, therefore, to ensure that any parts removed when cleaning the nylon filter are replaced in their correct relative positions. See Fig. 1 below.

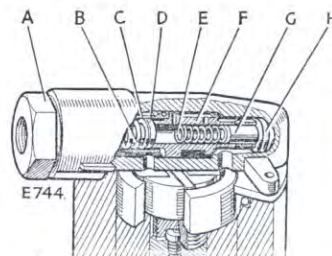


Fig. 1. Cross-section of aluminium end plate

- | | |
|---------------------------|-----------------------|
| (a) Fuel inlet connection | (e) Regulating spring |
| (b) Retaining spring | (f) Valve sleeve |
| (c) Nylon filter | (g) Regulating piston |
| (d) Spring guide | (h) Priming spring |

Distributors, Dealers and Fleet Owners are also requested to pay particular attention to the information given in combined News Letter No. 102, Item 486 and in Land-Rover News Letter No. 7, Item 39 when dealing with any complaints of poor starting, excessive smoke, rough running, etc.

Item 105 SUBJECT: BEARING LUBRICATION

MODELS: All

REMARKS: It is important that the hub bearings used on Land-Rover models are efficiently packed with grease before they are assembled to the vehicle in question. It is our recommendation therefore that a wheel-bearing lubricator be used to pack lubricant into the races and cages. The use of this equipment eliminates the danger of over-lubrication and ensures conformity of packing right through the bearing.

Suitable equipment can be obtained from the following:

Alemite Division Stewart-Warner Limited,
Elizabeth Way, Harlow, Essex, England.

Telephone: Harlow 25791/5. *Telegrams:* Alemite, Harlow.

Bearings lubricated in this manner do not require the addition of any further grease into the hub assembly.