



Service Department:

THE ROVER COMPANY LIMITED

SOLIHULL
WARWICKSHIRE
ENGLAND

LAND-ROVER SERVICE NEWS LETTER

No. 11

June 1961

- Item 55 SUBJECT: ENGINE OIL LEVEL DIPSTICK**
- MODELS:** Land-Rover 2½ litre Petrol.
- PART NUMBER:** Engine oil level dipstick 1 274154
- MODIFICATION:** Introduction of engine oil level dipstick with three marks: high level — low level — minimum level.
- REMARKS:** When using the Land-Rover under normal circumstances, the oil level should not be allowed to fall below the minimum level mark, that is, the lower line on the dipstick. However, when using the Land-Rover in circumstances which involve it being used at steep angles, the oil should not be allowed to fall below the intermediate mark, that is, the low level. This will obviate any danger of oil pump starvation when the vehicle is facing downhill at a steep angle.
- Item 56 SUBJECT: EXHAUST MANIFOLD**
- MODELS:** Land-Rover 2½ litre Petrol.
- MODIFICATION:** Diameter of four holes in end branches of manifold increased from $\frac{3}{8}$ in. to $\frac{1}{2}$ in. (9,5 to 12,5 mm) to rectify possible tendency to crack due to thermal expansion.
- REMARKS:** Future supplies of exhaust manifold, Part No. 501422, will be to the latest specification. When fitting these manifolds to earlier engines, longer studs, Part No. 252623, should be used in the four end positions, together with plain washers, Part No. 2920.
- Item 57 SUBJECT: CYLINDER HEAD**
- MODELS:** Land-Rover Diesel.
- REMARKS:** We still occasionally get complaints of cracked cylinder heads due to water loss and we feel, therefore, that Distributors and Dealers should ensure the following points are checked on Diesel engines, whenever the opportunity occurs.
1. Defective seal in radiator cap or incorrect tightening of the radiator cap.
In either of the above instances air is allowed to be drawn into the system, which will expand and cause water to be lost through radiator overflow.
 2. Cylinder liner sealing ring.
Water loss can be detected from the tell-tale holes which are situated on the left-hand side of the cylinder block.
 3. Cylinder head gasket blowing between the water port and combustion chamber.
This will cause gassing of the system and will create the same conditions as outlined under item 1.

4. General water leakage. That is at hoses, unions, water pump, etc.

The water level in the cooling system must be checked periodically, and if loss of water is observed, an investigation must be carried out immediately to ascertain the cause of leakage.

In some cases of persistent water leakage, it may be desirable to fit the latest type thermostat, Part No. 525588, in conjunction with the new water temperature and oil pressure gauge, Part No. 525590.

See Items 62 and 63 in this News Letter.

Item 58 SUBJECT:**CARBURETTER****MODELS:**

Land-Rover Series II 2½ litre Petrol
Home and North America

MODIFICATION:

Introduction of a new carburetter incorporating a heater element to eliminate 'icing up' and also a new cold start control to provide a fast idle without enrichment.

PART NUMBERS:

Carburetter Solex B40 PA10-6	....	....	....	....	1	524587
Carburetter body only, SX B 14108	....	....	....	....	1	528037
Throttle chamber only, SX B 13894	....	....	....	....	1	529089
Starter complete, SX B 13942	....	....	....	....	1	527273
Starter body and valve, SX B 13937	....	....	....	....	1	528039
Heater element for starter, SX B 13941	....	....	....	....	1	528053
Special screw fixing starter body, SX 51384/P1	....	....	....	....	4	527272
Accelerator pump complete, SX B 13896	....	....	....	....	1	528041
Pilot jet (55), SX 50797/4/55	....	....	....	....	1	260269
Starter jet, petrol (130), SX 52823/130	....	....	....	....	1	528038
Distance piece, elbow to top cover, SX B 13934	....	....	....	....	1	527275
Screw fixing elbow to top cover, SX 51421/3	....	....	....	....	2	260157
Engine harness	....	....	....	....	1	519814
Cable cleat for engine harness, LU 941834	....	....	....	....	2	240429
Dash harness	....	....	....	....	1	519806
Cold start control	....	....	....	....	1	523637
Mixture control warning light	....	....	....	....	1	519744

COMMENCING NUMBERS:

Engines numbered: for carburetter, engine harness and cable cleat
Petrol models from 151117643 onwards.

REMARKS:

The heater element is wired in conjunction with the manual and thermostatic switches operating the cold start warning light, and therefore the heater element functions immediately the cold start control is pulled out beyond the fast idle position. The warning light operates as previously, that is, it glows when the engine is at running temperature and indicates that cold start and heater element are no longer necessary. The cold start control should then be pushed in until the warning light is just extinguished, and left in position, until the engine is sufficiently warm to idle normally, when the control must be pushed fully home.

The heater in operation warms the ducted air as it enters the starter box, therefore preventing an 'icing-up' condition in that region. The fast idle position on the cold start control allows the engine to run at higher r.p.m., necessary to prevent stalling until the engine is fully warm, without enrichment of the mixture.

Item 59 SUBJECT:**STEERING LEVERS AND BALL JOINTS****MODELS:**

1961 Land-Rover Series II.

MODIFICATION:

Introduction of steering ball joints fitted in the non-pendant position, that is with the ball joint above steering lever.

PART NUMBERS:	Front axle complete	....	....	1	519248	R.H.D.	} 88 Standard type
	Front axle complete	....	....	1	519249	L.H.D.	
	Front axle complete	....	....	1	519252	R.H.D.	} 88 Reinforced type
	Front axle complete	....	....	1	519253	L.H.D.	
	Front axle complete	....	....	1	519250	R.H.D.	} 109 Standard type
	Front axle complete	....	....	1	519251	L.H.D.	
	Front axle complete	....	....	1	519254	R.H.D.	} 109 Reinforced type
	Front axle complete	....	....	1	519255	L.H.D.	
	Housing assembly for swivel pin L.H.	....	....	1	524874		
	Housing assembly for swivel pin R.H.	....	....	1	524875		
	Swivel pin and steering lever R.H.	....	....	1	502710		} R.H.D.
	Swivel pin and steering lever L.H.	....	....	1	502711		
	Swivel pin and steering lever R.H.	....	....	1	502713		} L.H.D.
	Swivel pin and steering lever L.H.	....	....	1	502712		
	Swivel pin and bracket complete	....	....	2	502714		
	Steering track rod assembly	....	....	1	526993		
	Steering track rod	....	....	1	526994		

REMARKS:

Identification.

Early type: steering levers fitted to top of swivel housings and ball joints below levers.

Late type: steering levers fitted to bottom of swivel housings and ball joints above levers.

See Figs. 1 and 2 below.

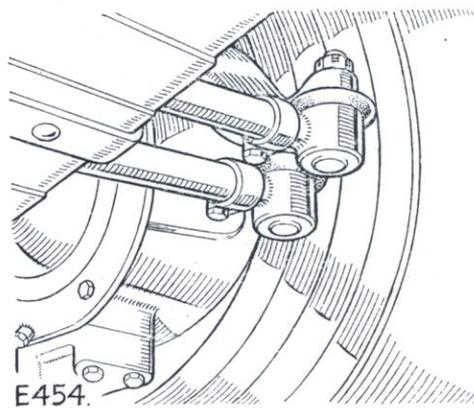


Fig. 1—Early type, pendant ball joint.

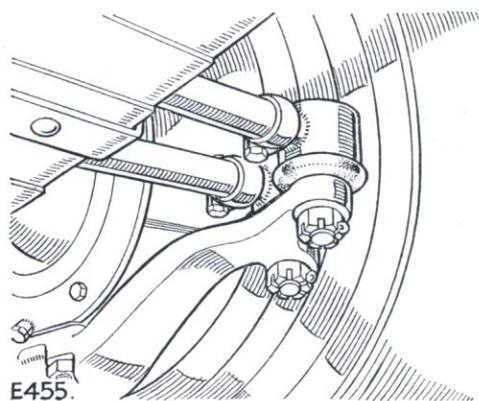


Fig. 2—Late type, non-pendant ball joint.

Interchangeability.

Axles, completely interchangeable, can be fitted to any earlier Land-Rover Series II model.

Housing assembly for swivel pin, completely interchangeable, can be fitted to any earlier Land-Rover Series I and Series II 1948 onwards.

Swivel pin and steering levers not interchangeable as individual items, they can, however, be fitted in pairs provided either the swivel pin housing complete is changed for the latest type, or studs are fitted in the bottom position of the existing swivel pin housing. Studs required are 6 off 508152, 2 off 508153. It is most important that the latest type steering levers are not fitted to an early type housing in the lower position with the existing bolts; the studs detailed above including the special fitting studs 508153 must be fitted. This prevents any tendency for movement between lever and housing which could give rise to premature breakage of the bolts with the possibility of serious damage.

Steering track rod, not interchangeable, overall length altered as follows:

Steering track rod assembly, length between ball joint centres,

- Pendant type ball joint 46 $\frac{1}{4}$ in. (123 cm)
- Non-pendant type ball joint 45 $\frac{5}{8}$ in. (116 cm)

Steering track rod, overall length

- Pendant type ball joint 43 $\frac{3}{4}$ in. (111 cm)
- Non-pendant type ball joint 43 $\frac{1}{8}$ in. (109 cm)

Item 60 SUBJECT:
MODELS:
REMARKS:

CLUTCH ADJUSTMENT

Land-Rover Series II.

In News Letter number 7, item 43, we gave information concerning clutch adjustment with the hydraulic clutch operating system, as used on the Land-Rover Series II models.

Another important point to consider, when dealing with cases of reduced clutch plate life, is the carburetter adjustment. Any tendency for flat spots must, therefore, be eliminated by tuning the carburetter. In some cases it may be necessary to fit stronger clutch springs, as used on the Rover '105' models. These can be obtained from our Parts Department under Part No. 275301 and are identified by black paint. The use of these springs increases clutch pedal load by 5%.

Item 61 SUBJECT:
MODELS:
PART NUMBER:
REMARKS:

WINDSCREEN WASHER KIT

Land-Rover Series II.

Windscreen washer kit 1 526358

Complete kits of parts for fitting either one or two windscreen washer jets to the Land-Rover Series II are now available from our Parts Department under Part No. 526358.

- A—Reservoir
- B—Reservoir mounting bracket
- C—Screen washer pump
- D—Tube to pump
- E—Tube to jets
- F—Jets
- G—Grommets

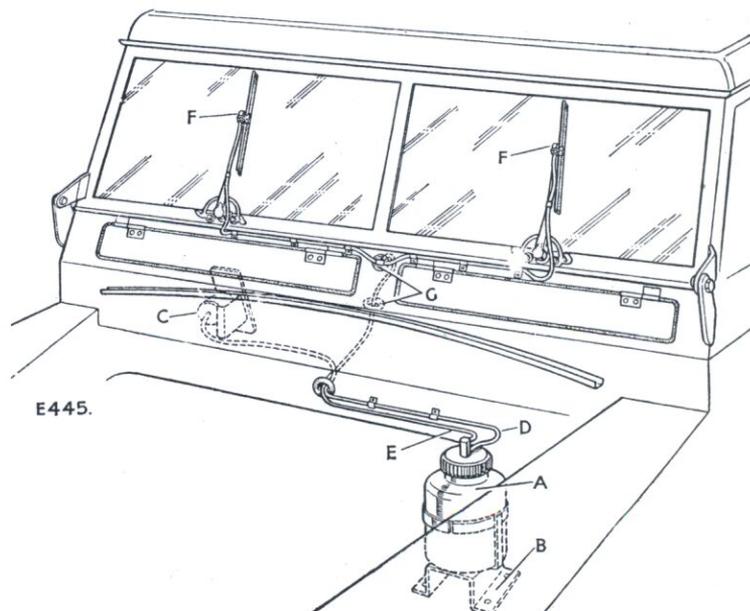


Fig. 3—Diagrammatic layout of screen washers. R.H.D. illustrated.

The kit is complete with fitting instructions, and can easily be fitted to any Series II model. See Fig. 3.

It should be noted that the jets are attached to the windscreen wiper arms, thus ensuring that water is directed on to the windscreen under all conditions.

Item 62 SUBJECT:

THERMOSTAT

MODELS:

2½ litre Petrol and 2 litre Diesel Land-Rovers.

PART NUMBERS:

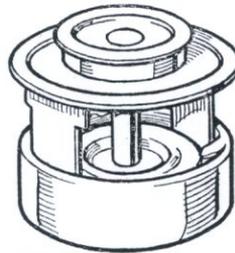
Thermostat assembly	....	....	....	....	....	1	525588
Thermostat	....	....	....	....	....	1	522651
Joint washer, thermostat	....	....	....	....	....	1	522923
Joint washer, outlet pipe to housing	....	....	....	....	....	1	522872
Water outlet pipe to radiator	....	....	....	....	....	1	522870

Important: If not already fitted, a water temperature gauge and oil pressure gauge, Part Number 525590, must be fitted to Diesel models.

REMARKS:

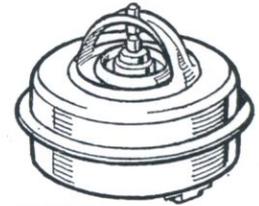
In view of certain difficulties experienced with overheating in hot climates, a wax-filled thermostat has been made available and has been fitted as standard equipment to Land-Rovers despatched since January, 1961, to the countries listed below.

There is no external identification on the engine to indicate that a wax-filled thermostat is fitted, but on Diesel Land-Rovers a water temperature and oil pressure gauge marked in red from 100°C upwards is fitted. See Item 63 in this News Letter. However, the thermostat can be easily identified on removal, as will be seen by the illustrations below:



E501.

Fig. 4—Normal type thermostat



E502.

Fig. 5—Wax-filled type thermostat

The wax-filled thermostat ensures that pressure fluctuations within the cooling system do not influence the opening or closing of the thermostat, and it is therefore important that, where in the past it has been the normal practice to remove the old type ethyl-alcohol-filled thermostat when operating the vehicle in high ambient temperatures, this **practice is discontinued**.

The wax-filled thermostat can be fitted to 2½ litre Petrol and 2 litre Diesel Land-Rovers manufactured prior to January, 1961, and operating in the countries listed below.

It is important, however, that when the thermostat is fitted to the Diesel Land-Rover a water temperature and oil pressure gauge, Part Number 525590, is also fitted.

- Aden
- Afghanistan
- Algeria
- Australia
- Belgian Congo
- Bolivia
- British Guiana
- British Honduras
- Burma
- Cambodia

- Ceylon
- Chile
- Colombia
- Costa Rica
- Cyprus
- Dominican Republic
- East Africa
- Ecuador
- Egypt
- Eritrea and Ethiopia

French Guiana	Nicaragua
Gambia	Nigeria
Ghana	Nyasaland
Goa	Pakistan
Guatemala	Panama
Haiti	Persia
Honduras	Persian Gulf
India	Peru
Indonesia	Philippines
Iraq	Portuguese East Africa
Jordan	Portuguese West Africa
Laos	Puerto Rico
Lebanon	Saudi Arabia
Liberia	Sierra Leone
Libya	Somaliland
Madagascar	South and South-West Africa
Malaya	Spanish Guinea
Mexico	Sudan
Morocco	Syria
New Caledonia	Tunisia
New Guinea	Turkey
New Hebrides	Uruguay

Item 63 SUBJECT: WATER TEMPERATURE AND OIL PRESSURE GAUGE

MODELS: 2½ litre Petrol and 2 litre Diesel Land-Rovers.

PART NUMBER: Water temperature and oil pressure gauge 1 525590

REMARKS: A water temperature and oil pressure gauge kit, with the water gauge marked in red from 100°C upwards, is now available from our Parts Department as optional equipment.

This kit is particularly for use on Land-Rover Diesel models in conjunction with the wax-filled thermostat. See item 62 in this News Letter.

It is also suitable for the 2½ litre Petrol Land-Rover. The new kit must always be used on Diesel Land-Rovers that are fitted with the wax-filled thermostat.

Item 64 SUBJECT: EDUCATIONAL AIDS, 35 mm. SERVICE FILM STRIP

MODELS: Land-Rover.

REMARKS: A film strip is now available covering the dismantling and reassembling procedure for the 2½ litre petrol engine.

Below is the revised list of film strips covering the Land-Rover.

Part Nos.		Subject
Film	Script	
4294	4295	Land-Rover Diesel engine dismantling procedure
4296	4297	Land-Rover Diesel engine reassembling procedure
4300	4301	Land-Rover transfer box dismantling and reassembling procedure
4302	4303	Land-Rover main gearbox dismantling and reassembling procedure
4304	4305	Land-Rover front axle dismantling and reassembling procedure
4308	4309	Carburettors and fuel pumps, Car and Land-Rover
4368	4369	2½ litre petrol engine dismantling and reassembling