

# Land-Rover Service Newsletter Vol. 3 No. 17



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The Rover Company Limited Service Department: Solihull, Warwickshire, England

By Appointment to  
Her Majesty  
Queen Elizabeth II



Manufacturers  
of Motor Cars and  
Land-Rovers

Item 116 SUBJECT:

## CONVERSION OF EUROPEAN VEHICLES TO U.S. SPECIFICATION (Policy Item)

REMARKS:

Our Service organisation has recently received enquiries concerning Rover vehicles sold to Americans in Europe and elsewhere, but not to U.S. specification which the owners later wish to import into the U.S.A. We wish to emphasise that our model range includes vehicles which fully comply with the U.S. Federal requirements in respect of both anti-pollution and safety standards and as conversion of non-U.S. specification vehicles to the U.S. specification is by no means a simple operation, it is our policy that conversions shall not be undertaken.

Item 117 SUBJECT:

## REAR BRAKE SHOES

MODEL:

Land-Rover 109 in.

REMARKS:

We have received reports of rear brake shoes being refitted the wrong way round, with the result that correct adjustment of the rear brakes is not possible. As shown at Fig. 1, there is a dimensional difference between the location of the shoe lining on the leading and the trailing shoes. There is also a corresponding dimensional difference in the location of the snail cams when measured from cam centre and the centre of the wheel cylinder aperture.

Distributors and Dealers are asked to bring this very important point to the notice of their Workshop staff.

It is essential that rear brake shoes are fitted correctly, as illustrated, to ensure correct operation of the adjustment mechanism.

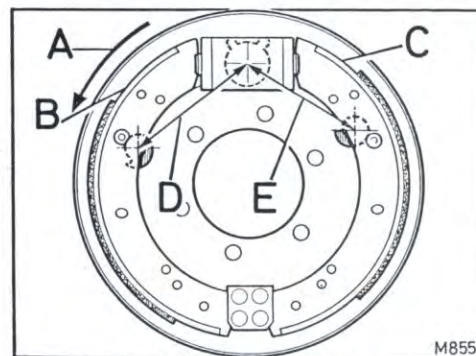


Fig. 1 Correct fitting of rear brake shoes

- A—Direction of rotation
  - B—Leading shoe
  - C—Trailing shoe
  - D—4.5 in. (114,30 mm)
  - E—4.25 in. (107,95 mm)
- Note that the leading shoe lining is a greater distance from the wheel cylinder than that of the trailing shoe

**Item 118 SUBJECT: STEERING RELAY UNIT**

MODELS: Land-Rover Bonneted Control models.

MODIFICATION: Introduction of steering relay unit oil level check at the 6.000 kms (4,000 miles) maintenance period.

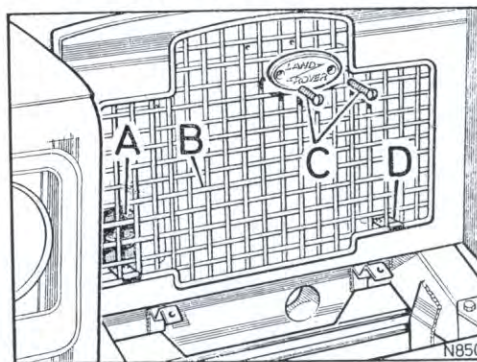
LITERATURE AFFECTED: Land-Rover Owner's Maintenance Manual, Part No. 606162.

REMARKS: Some cases of steering relay seizure have been found to be caused by lack of lubrication.

The relay unit oil level should therefore be checked every 6.000 kms (4,000 miles). The oil should be clearly visible through the bolt hole in the relay top cover. Top up, as necessary. If significant topping up is required, check for oil leaks and fit new joint washers as necessary. The lubricating oil should not normally need replenishing between overhauls. Full details of the unit overhaul procedure are given in Land-Rover Workshop Manual, Part Two, Part No. 606408, Operation G1-10.

If necessary, top-up as follows:

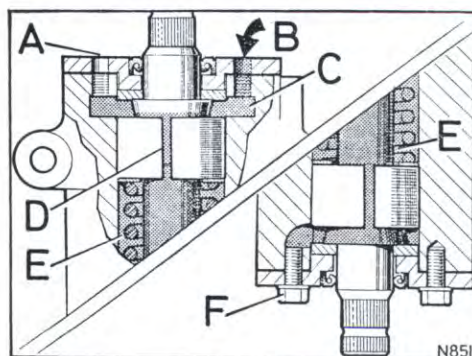
1. Remove name plate and withdraw the radiator grille.



**Fig. 2 Radiator grille**

A—Radiator grille  
B—Fixings for name plate and grille  
C—Support brackets  
D—Steering relay unit

2. Remove two of the bolts securing the relay top cover.
3. Using one of the holes as an oil filler (the other acting as a breather hole), fill the relay unit with the correct grade of lubricating oil to the bottom of the filler hole. Whilst filling, it is probable that oil will eject through the breather hole. If this occurs, DO NOT assume the relay unit is full. The oil has to creep through the channels between the two segments of the split bush, and this process is slow. Therefore, the upper chamber fills rapidly and oil escapes through the breather hole. Wait a few moments, until the breather hole is clear of oil, and then continue filling.



**Fig. 3 Steering relay unit**

A—Breather hole  
B—Oil filler  
C—Upper chamber  
D—Channel between bush segments  
E—Main chamber  
F—Drain hole

As the unit fills up, air is forced out usually in the form of an oil bubble escaping through the breather hole, again giving the impression that the unit is full. Wait for the bubble to subside, then continue filling. Continue this process, until the oil is clearly visible at the base of the breather hole and the filler hole. It takes approximately six minutes to completely fill a relay unit using this method.

4. Replace the two top cover bolts.
5. Refit the radiator grille and name plate.

**Recommended lubricants**

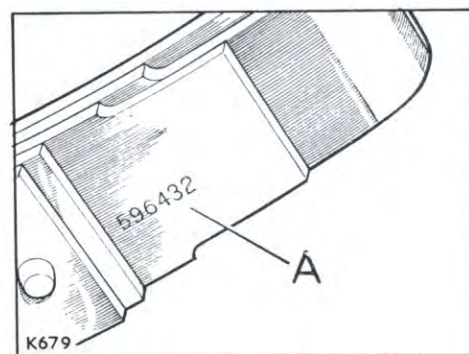
Component	SAE	BP	Castrol	Duckham's	Esso	Mobil	Regent Texaco- Caltex	Shell
Steering relay unit	90EP	BP Energol SAE 90 EP	Castrol Hypoy	Duckham's Hypoid 90	Esso Gear Oil GP 90/140	Mobilube GX 90	Multigear Lubricant 90	Spirax 90 EP

**Item 119 SUBJECT: ROAD SPRINGS**

MODELS: All Bonneted Control Land-Rovers.

REMARKS: It has been brought to our attention that some Parts Managers are experiencing difficulties with the identification of correct part numbers for road springs. All springs in current production are listed in the chart below.

The Rover part number is stamped on the underside of the third leaf and is also stencilled on the top leaf. The blue, white or green painted identification marks are manufacturers' grading identifications. They can be ignored, as they have no effect on the Rover part number. For example, Part No. 265627 may have a blue, white or green grading identification painted on it, but in each case the part number remains the same.



**Fig. 4 Spring identification**

It is not necessary, when replacing a leaf, to use a replacement leaf of the same material grading.

Dimensional details of front and rear road springs are given in Sections E and F of Land-Rover Workshop Manual, Part Two, Part No. 606408.

Model	Location		Standard type Part No.	No. of leaves	Heavy-duty type Part No.	No. of leaves
88 in. Petrol	Front	Driver	241283	9	*	—
		Passenger	242863	9		—
	Rear	Driver	517588	11	241285 265989 243127 537965	11
		Passenger	517589	11		11
88 in. Diesel	Front	Driver	265627	11	*	—
		Passenger	264563	11		—
	Rear	Driver	517588	11	241285 265989 243127 537965	11
		Passenger	517589	11		11
109 in. Petrol	Front	Driver	265627	11	*	—
		Passenger	264563	11		—
	Rear	Driver	279678	10	272967 272968 537964 537966	8
		Passenger	279679	10		8
109 in. Diesel	Front	Driver	276034	11	*	—
		Passenger	265627	11		—
	Rear	Driver	279678	10	272967 272968 537964 537966	8
		Passenger	279679	10		8
	Rear	Main leaf	501390			
		2nd leaf	501391			

\* No heavy-duty front springs are available, standard springs being fitted for all applications.

**Item 120 SUBJECT:**

**THERMOSTAT TESTER**

**MODELS:**

All Land-Rovers.

**REMARKS:**

The AC-Delco Division of General Motors Limited have produced the TT-1 Thermostat Tester. This unit gives visual evidence of thermostat failure. It is a self-contained unit with a built-in 2 Kw element and thermometer, calibrated from 54–100°C.

Used in conjunction with the AC Pressure Cap and Cooling System Tester (RCT-2), the TT-1 gives a complete check on vehicle cooling systems.

The unit is approved by The Rover Company, but will not be stocked by our Parts Department. Supplies should be obtained through the normal Trade sources.

- Item 121** SUBJECT:           **INSTRUMENT TESTER**
- MODELS:                   All Land-Rovers.
- REMARKS:                 Smiths Industries Limited have produced an automotive electrical instrument tester for tracing faults on electrical gauges and transmitters.
- The unit, known as the SR/D 380, will test all electrical, fuel, temperature and pressure indicators, covering 12 V and 24 V applications, manufactured by Smiths Industries.
- The unit is approved by The Rover Company, but will not be stocked by our Parts Department. Supplies are available through the normal Trade sources.
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- Item 122** SUBJECT:           **GEARBOX WALL CHART**
- MODELS:                   Land-Rover.
- PART NUMBER:           Wall chart, Land-Rover gearbox   ..   ..   ..   ..   ..   1   607085
- REMARKS:                 A new wall chart has been prepared showing longitudinal and cross-sections and also the power flow of the Land-Rover gearbox. The chart is an invaluable visual aid to Workshop, Servicing and Sales staff.
- Copies are available from our Parts Department, price 8/- each nett.
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- Item 123** SUBJECT:           **JOINTING COMPOUND**
- MODELS:                   All Land-Rovers.
- REMARKS:                 We have been advised by the manufacturers of Hylomar Universal Jointing Compound that their part number has changed from SQ32/M to PL32/M, following improvements made to the working temperature range and the resistance to certain fluids. Price, packaging and Rover Part No. 534244 remain unchanged.