

# Land-Rover Service Newsletter Vol. 3 No. 10



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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 83** SUBJECT: **MAJOR UNIT REPLACEMENT UNDER WARRANTY (Policy Item)**
- MODELS: Land-Rover.
- REMARKS: Distributors and Dealers are reminded that major units may not be replaced under Warranty, unless prior authorisation has been obtained from Technical Service Department, making use of the ECA form (Home Market only). In addition to engine, gearbox, axle, final drive and automatic transmission units, power steering and differential assemblies are also considered to be major units.
- New** major units should not be used for Warranty replacements, unless specific authorisation has been given by the Company or unless there is no current reconditioning scheme for that particular unit. If new units are fitted without this authority, Warranty credit will be given on the reconditioned value of the unit only.
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- Item 84** SUBJECT: **RADIATOR (Policy Item)**
- MODELS: Land-Rover, all models, Petrol and Diesel.
- MODIFICATION: Introduction of new radiator and ancillary to commonise radiator blocks.
- LITERATURE AFFECTED: Land-Rover Parts Catalogue, bonneted control models, Series I, Part No. 4107, page 162.  
Land-Rover Parts Catalogue, bonneted control models, Series II and IIA, Part No. 605957, page 377.
- PART NUMBERS AND REMARKS: Our future policy with regard to the supply of radiator blocks is summarised in the charts on the following pages. Whereas in the past complete radiator assemblies were supplied, the new scheme accommodates radiator blocks only; all additional components required to fit the radiator to the vehicle in question must be ordered separately, as indicated in the relevant chart.
- To assist Distributors and Dealers in ordering components and making the best use of their current stock holding, we have also included applicability charts covering fan cowls, shrouds and radiator hoses.

Chart I. Radiator blocks

Model	Existing Part No.	Replaced by			Remarks	
		Description	Qty	Part No.		
Series I. 80, 86 and 107	219245	No change	—	—	—	
Series I. 88 and 109 Petrol	268017	No change	—	—	—	
Series I. 86 and 107 Petrol with oil cooler	242398	Owing to lack of demand, these radiator block assemblies have been withdrawn	—	—	—	
Series I. 88 and 109 Petrol, with oil cooler	269184		—	—	—	
Series I. 2 litre Diesel	279862		—	—	—	
Series II. 2 litre Diesel with oil cooler	279847		—	—	—	
Series II. 2 litre Petrol	279848	No change	—	—	—	
Series II. 2 litre Diesel	279846	No change	—	—	—	
Series II. 2¼ litre Petrol	548073	No change	—	—	—	
Series IIA 2¼ litre Petrol 2¼ litre Petrol	568842	Block .. .. .	1	577382	With straight bottom connection.	
	568843	Cowl .. .. .	1	577342		
Drive screw (No. 6) } Fixing cowl		9	562979			
Plain washer } to radiator		4	3816			
Spring washer } block		9	564741			
Top hose .. .. .		1	577346			
Bottom hose .. .. .		1	577344			
Clip for hose .. .. .		2	603894			
No change		—	—	With angled bottom connection. Models with Lucas 2AC 12 volt AC/DC generator		
*Series IIA 2¼ litre Diesel	568845	Block .. .. .	1	577382	With overflow bottle provision	
		Cowl .. .. .	1	568916		
		Drive screw (No. 6) } Fixing	9	562979		
		Spring washer } cowl	9	564741		
		Shroud .. .. .	1	568917		
		Drive screw (No. 10) } Fixing shroud	3	78436		
		x ⅝ in. long } Plain washer	3	3816		
		Steady strip for shroud .. .. .	1	568922		
		Bolt (¼ in. UNF x ⅝ in. long) } Fixing	1	255206		
		Spring washer } steady	1	3074		
		Nut (¼ in. UNF) } strip	1	254810		
		Top hose .. .. .	1	577346		
		Bottom hose .. .. .	1	577344		
		Clip fixing hose .. .. .	1	603894		
		Balanced fan assembly, 5 bladed	1	574044		Remove and discard original parts
		Distance piece .. .. .	1	564298		
		Set bolt (¼ in. UNF x 1⅜ in. long)	4	256202		
Fan belt .. .. .	1	563132				
Series IIA 2.6 litre	562922	Radiator block assembly .. .. .	1	577383	—	
Series IIA and IIB Forward Control	568841	No change	—	—	—	

\* When fitting the latest radiator block in place of the early type, it is also necessary to replace the front engine feet, to ensure correct alignment of aperture in fan cowl.

Engine foot, LH 554434, replace with 577348

Engine foot, RH 271975, replace with 577349

**Note:** The latest radiators will be supplied less cap and retaining chain. The part numbers for these two items remain unchanged, but they must be ordered separately.

**Chart II. Fan cowls**

Model	Part No.	For use with radiator block	Remarks
1948-53 and Series I. 80, 86 and 107 Petrol	243373	219245	
Series I. 88 and 109 Petrol Series II. 2 litre Petrol	269953	268017 or 279848	
Series II. 2 litre Diesel	279863	279846	
Series II. 2¼ litre Petrol	509217	548073 577355	Early block Late block
Series IIA 2¼ litre Petrol	544848 577342	568842 or } 568843 } 577382	Early blocks Late block
Series IIA 2¼ litre Diesel	559579 568916	526772 or } 568845 } 577382	Early blocks Late block
Series IIA 2.6 litre Petrol	562944	562922 577383	Early block Late block
Series IIA and IIB Forward Control	509418	568841	

**Chart III. Shroud for fan cowl**

Model	Part No.	For use with radiator block	Remarks
Series II & IIA 2¼ litre Petrol	551714	568842 } 568843 } 548073 } 577355 } 577382 }	Early blocks Late blocks
Series IIA 2¼ litre Diesel	559580 568917	568845 577382	Early block Late block
Series IIA 2.6 litre Petrol	569212	562922 577383	Early block Late block

Chart IV. Radiator hoses

Model	Description	Part No.	For use with radiator Part No.	Remarks
Series IIA 2 $\frac{1}{4}$ litre Petrol	Top radiator hose	GRH 439	568842	Early radiator block
	Bottom radiator hose	GRH 369 or 530585		
	Top radiator hose	GRH 439	568843	Early radiator block
	Bottom radiator hose	543629		
	Top radiator hose	577346	577382	Late radiator block
	Bottom radiator hose	577344		
Series IIA 2 $\frac{1}{4}$ litre Diesel	Top radiator hose	GRH 439	568845	Early radiator block
	Bottom radiator hose	GRH 369		
	Top radiator hose	577346	577382	Late radiator block
	Bottom radiator hose	577344		

**Note:** The hoses for all other Land-Rover models remain unchanged.

It should be noted that with the new radiator the water capacities are reduced as detailed below:

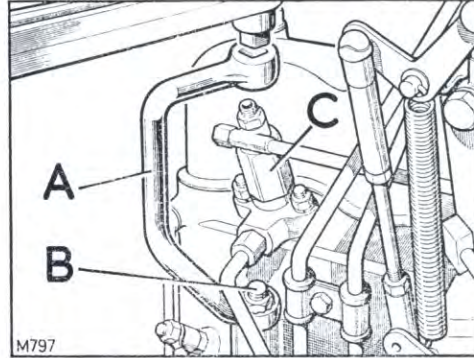
Chart V. Radiator capacities

Model	Capacity				
	Early radiator		Late radiator		
	Pints	Litres	Pints	Litres	
<b>Bonneted Control</b>					
88 and 109 2 $\frac{1}{4}$ litre Petrol ..	18	10.2	14 $\frac{1}{2}$	8.1	
88 and 109 2 $\frac{1}{4}$ litre Diesel ..	17 $\frac{1}{2}$	10.0	13 $\frac{3}{4}$	7.8	
109 2.6 litre Petrol .. ..	20	11.2	} No change		
<b>Forward Control</b>					
2 $\frac{1}{4}$ litre Petrol .. ..	19	10.8			
2 $\frac{1}{4}$ litre Diesel .. ..	18 $\frac{1}{2}$	10.3			
2.6 litre Petrol .. ..	23	13.0			

- Item 85** SUBJECT: **CYLINDER HEAD BOLTS**
- MODELS: Land-Rover 2 $\frac{1}{4}$  litre Diesel, Bonneted and Forward Control models.
- MODIFICATION: Introduction of special ring spanner for tightening cylinder head bolts.
- PART NUMBER: Ring spanner, for cylinder head bolts .. .. . 1 606445
- REMARKS: At the 1,000 miles (1500 km) free service, and after having removed and refitted the cylinder head, it is essential that the torque loading of the cylinder head fixings be checked, and if necessary reset with the engine thoroughly warm. Failure to do so may cause stresses to the cylinder head, leading to cylinder head cracking. See also News Letter Vol. 2. No. 34, item 172.

This special ring spanner has been designed to tighten the cylinder head bolts adjacent to the injectors without the need to remove the fuel injection system. Distributors and Dealers should obtain this tool, which reduces considerably the time required to carry out this operation.

The tool is available from the Parts Department at a cost of £1. 5. 0. nett.



**Fig. 1. Tightening cylinder head bolts**

- A—Special ring spanner, Part No. 606445
- B—Cylinder head bolts
- C—Injector

The time allowed for checking and adjusting the torque loading, including checking and adjusting tappets, using the new ring spanner, is 0.8 hours.

It should be noted, however, that this applies only to injectors with flange fixing. See News Letter Vol. 2, No. 30, item 143. On early engines with injectors retained by clamps, it is necessary to disconnect the pressure pipe from the injector to gain access to the cylinder head bolt.

Distributors and Dealers should note that from 1st March 1970 this will be the only accepted time for Warranty work.

**Item 86**    **SUBJECT:**                    **TOP COVER GASKET FOR ZENITH CARBURETTER**

**MODEL:**                         Land-Rover Bonneted and Forward Control, 2¼ litre Petrol, with Zenith carburetter.

**MODIFICATION:**        Introduction of improved gasket for carburetter top cover.

**LITERATURE AFFECTED:**    Land-Rover Parts Catalogue, Bonneted Control, Part No. 605957, page 75.  
   Land-Rover Parts Catalogue, Forward Control, Part No. 4862, page 35.

**PART NUMBER:**         Gasket, for carburetter top cover        ..    ..    ..    ..    ..    1    606679

**IDENTIFICATION:**     The new gasket is identified by its green colouring.

**REMARKS:**                 The improved gasket will be supplied for all Service replacements, when stocks of the early type are exhausted.

**Item 87**    **SUBJECT:**                    **OIL PRESSURE RELIEF VALVE SPRING**

**MODELS:**                         Land-Rover Series II and IIA 2¼ litre Petrol and Diesel.

**MODIFICATION:**        Clarification of the oil pressure relief valve spring lengths.

**REMARKS:**                 The difference in length of the oil pressure relief valve springs Part Nos. 265623 and 564456, fitted to Land-Rover oil pumps has been the subject of Distributor and Dealers queries.

The following remarks should clarify the situation.

**Part No. 265623:** Free length: 2.840 in. (72,13 mm) This spring was replaced by:  
**Part No. 564456:** Free length: 2.670 in. (67,82 mm) to reduce excessive oil pressure caused by the redesigned oil pump casting introduced without a change in part number.

It should be noted that the reduction in oil pressure which occurs when fitting spring part number 564456 to an early unmodified oil pump casting is not sufficient to exceed the revised oil pressure range quoted in item 89 of this News Letter.

#### Vehicles with engine oil cooler

It was found that on the above vehicles the oil pressure was still above the required figure, in spite of the new spring. To reduce the oil pressure, relief valve plug Part No. 549908 was replaced by 564455, which will be supplied for all Service requirements when stocks of the previous type are exhausted. Vehicles without engine oil cooler are not affected in respect of the plug.

- Item 88** SUBJECT: **ENGINE OIL PRESSURE**
- MODEL: Land-Rover 2¼ litre Diesel.
- MODIFICATION: Revision of oil pressure figures.
- LITERATURE AFFECTED: Land-Rover Workshop Manual, Part No. 606407, page 97-A2.
- REMARKS: In the Detail Data Section of the above publication the oil pressure at 2,000 rpm with the engine warm, is given as 45 to 65 lb. sq. (3,16 to 4,56 kg/cm<sup>2</sup>). These figures are test bed figures and do not compare directly with pressures obtained under service conditions. In service, the oil pressure should be 35-65 lb. sq. in. (2,5-4,5 kg/cm<sup>2</sup>), engine warm. Distributors and Dealers are requested to amend their copies of the Workshop Manual accordingly.
- All relevant publications will be amended at the next reprint.
- Item 89** SUBJECT: **BRAKES**
- MODEL: Land-Rover Forward Control.
- MODIFICATION: Introduction of new brake master cylinder and associated pipes to commonise with bonneted control models.
- LITERATURE AFFECTED: Land-Rover Parts Catalogue, Forward Control, Part No. 4862, pages 197, 227 and 229.
- PART NUMBERS:
- |   |    |    |   |                |
|---|----|----|---|----------------|
| Brake master cylinder GI 64068830 'CV' type       | .. | .. | 1 | 569128         |
| Packing piece                                     | .. | .. | 1 | 564944         |
| Bolt, clutch master cylinder                      | .. | .. | 2 | 255029         |
| Bolt, brake master cylinder                       | .. | .. | 2 | 256222         |
| Pipe complete, reservoir to brake master cylinder | .. | .. | 1 | 569971 RH Stg. |
| Pipe complete, brake master cylinder to servo     | .. | .. | 1 | 569972 RH Stg. |
| Pipe complete, reservoir to brake master cylinder | .. | .. | 1 | 569973 LH Stg. |
| Pipe complete, brake master cylinder to servo     | .. | .. | 1 | 569974 LH Stg. |
- COMMENCING NUMBERS:
- 2.6 litre Petrol, RHStg, Home, from 33000172 onwards  
 2¼ litre Diesel, RHStg, Home, from 33500136 onwards  
 2¼ litre Diesel, LHStg, Export, from 33800111D onwards.  
 2¼ litre Petrol, RHStg, Export, from 32600211D onwards  
 2¼ litre Petrol, LHStg, Export, from 32800038D onwards  
 2.6 litre Petrol, LHStg, Export, from 33300268D onwards
- REMARKS: The early and late brake master cylinders are not interchangeable, and both types must be stocked for all Service replacements.