

ROVER OWNERS' ASSOCIATION

OF NORTH AMERICA



167 Oakland Road
Maplewood
New Jersey 07040

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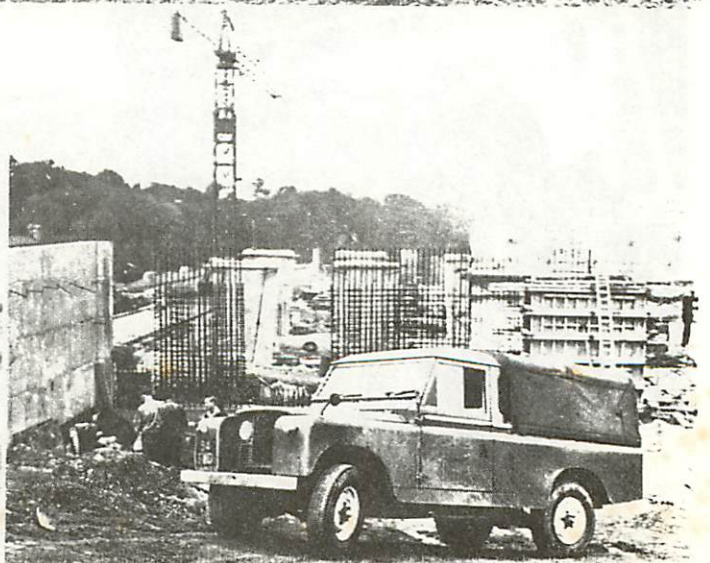
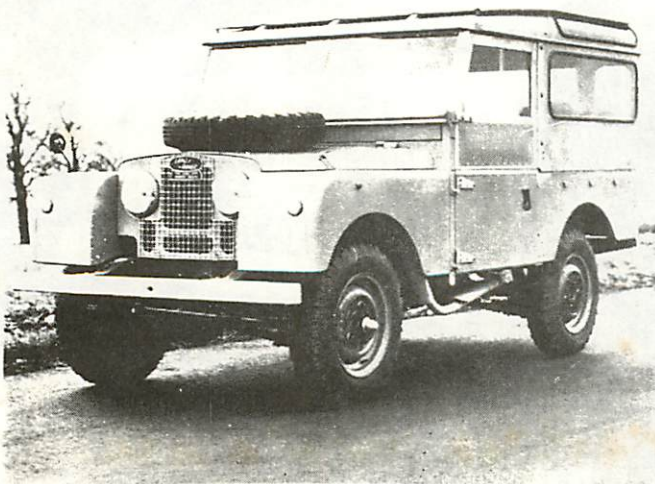


We would like to wish a Merry Christmas and Happy New Year to all of our members and their families. We thank you for being so patient in waiting for this issue of the newsletter. Our next issue should start off the new year close on the heels of this issue.

We would like to remind members that there are still some rover/Land-Rover personal accessories available for those who wish to purchase them. Additionally, we still have an enormous amount of the Rover Owners' Association of North America patch which we detailed in the last issue of the newsletter. We feel that it represents very good value for the money and urge the membership to purchase at least one each. They are only \$1.00 plus \$.10 postage for each one. Member J. Clarence Stoekler spent considerable time and money to have these made up for the membership and thus far we are unhappy to report that only 40 of the 200 patches have been sold. And even these were purchased by members often wanting more than one. Where is the spirit of the rest of the membership?

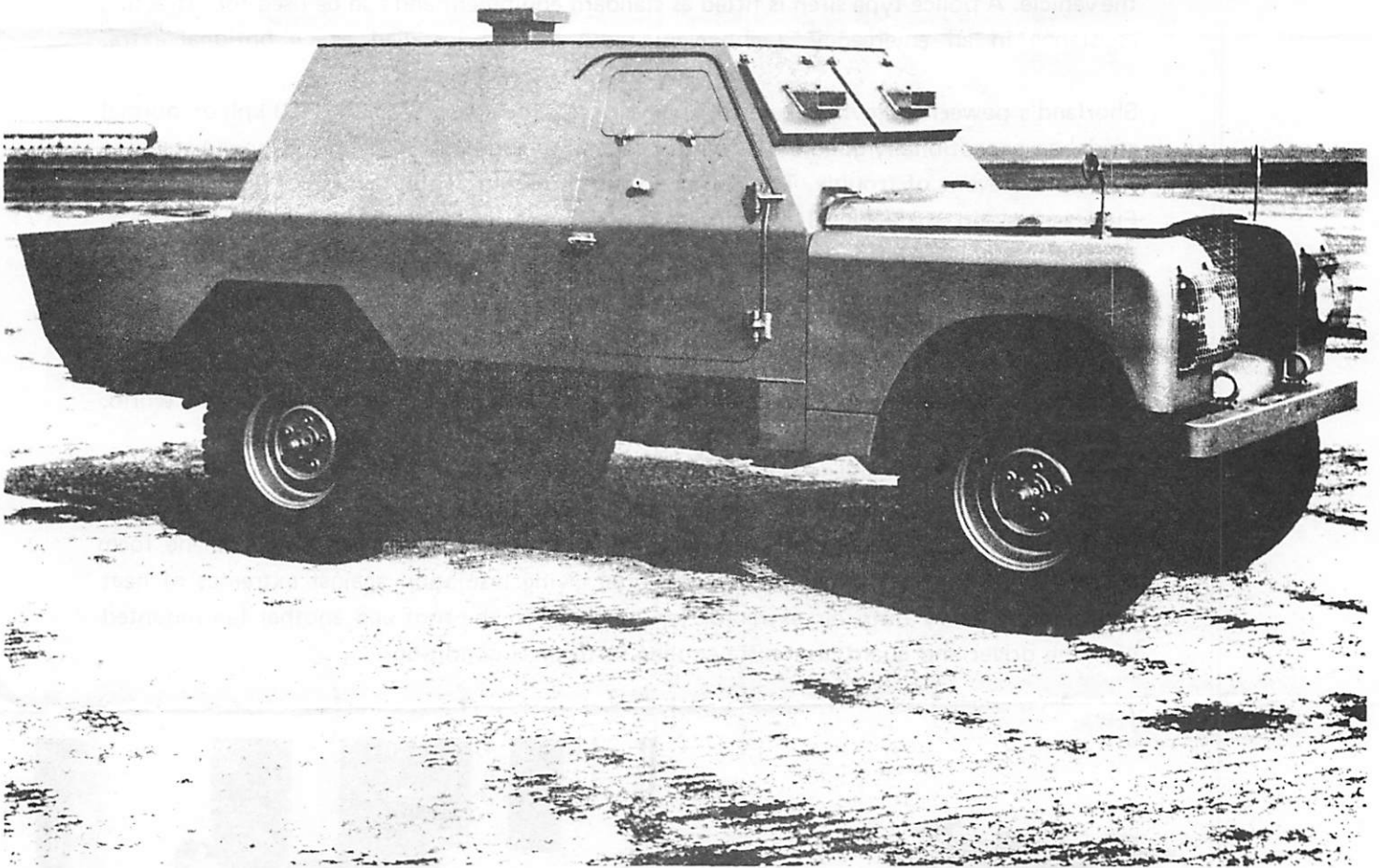
We feel that participation by purchasing a patch and occasionally writing some copy for the newsletter is a small way to help out. Particularly when so many other members carry the burden of the work. The same type of poor response occurred when we spoke of sponsoring a club meet or meets. Literally, a handful of members responded. No one is going to invest the time and trouble of setting up a meet without a reasonable indication of how much participation there will be by the membership.

Let's all help out!



SHORTS

Shorland security vehicle



Armed raids on cash and bullion transporters are now common throughout the world. The gun has replaced the cash as the principal weapon of attack and, in consequence, any vehicle operating in the cash and/or bullion carrying role must be bullet-proof in addition to being secure against unauthorised entry.

The Shorland Security Vehicle meets the demand for a compact, secure and well-protected cash and bullion carrier. It is based on the well-proven military version of the 109in (2.77m) wheelbase Land-Rover chassis which has been specially strengthened to support the weight of the armour plate.

Crew and contents are carried in a fully-armoured compartment resistant to penetration at point-blank range by the standard NATO round fired by high velocity weapons such as the 7.62mm self loading rifle and the general purpose machine gun, firing at right angles to the plate at a temperature of 20°C.

Two mild steel lockable cash boxes are installed internally along each side of the vehicle giving a total capacity of 9 cubic feet (0.255cu.m) and a payload of approximately 230kg.

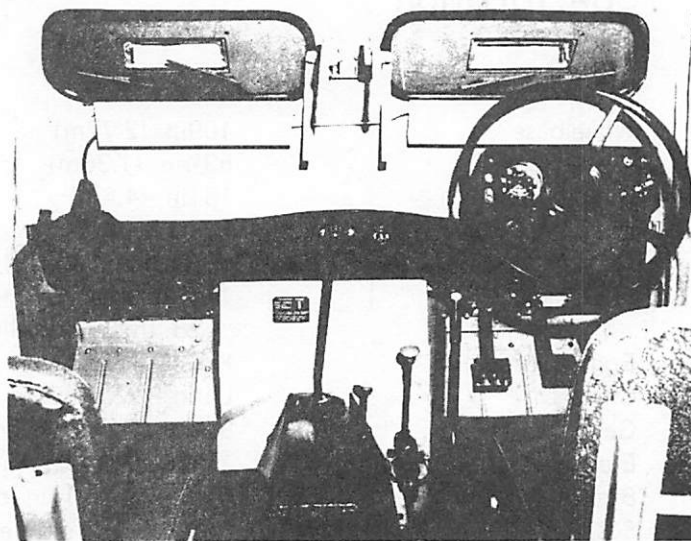
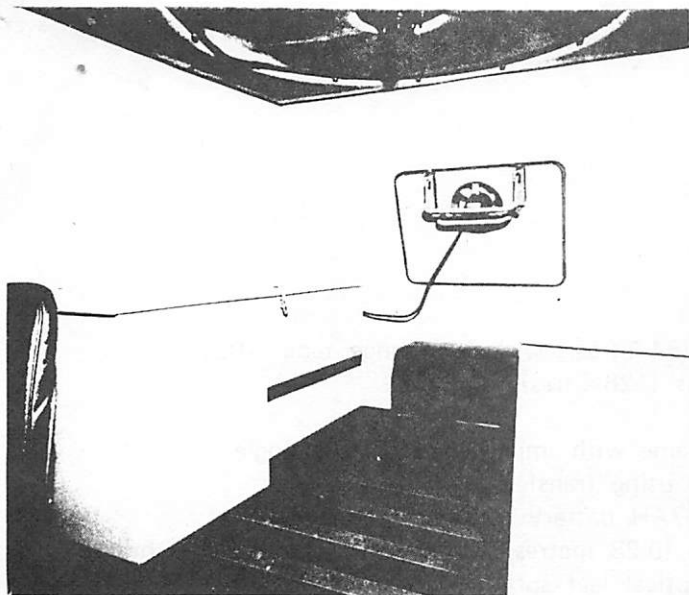
The internally locked emergency exit at the rear is a convenient point for loading. Alternatively the drop-down visors fitted to the side doors can be used for transfers into or out of the vehicle. A police-type siren is fitted as standard equipment and can be used for attracting assistance in an emergency. Lightweight radio can be installed as an optional extra.

Shorland's powerful 6-cylinder petrol engine gives a top speed of nearly 100 kph on normal roads, an exceptionally good cross-country capability and brisk acceleration from a standing start in the event of trouble. The power unit is armoured at the front, sides, rear and top. Fuel tanks and spare wheel are carried in a separate, isolated compartment at the rear. A specially designed floor provides very good protection against mines of the Claymore type.

The vehicle is handled, serviced and maintained as a standard 1-ton 6-cylinder Land-Rover. Spare parts are immediately available from approved Land-Rover agents all over the world.

Shorland operates effectively with a two-man crew because the vehicle entrances and emergency exits can be locked from the interior. In this condition no intruder can gain access to the interior or its contents. The crew compartment is lined with polyurethane foam covered with tough, washable plastic material giving insulation against extremes of heat and cold. A heavy duty air extractor fan mounted in the roof and another fan mounted near the driver and guard give extra cooling in tropical conditions.





- Shorland's all-round armour and internal locking systems give maximum protection to its crew and contents.
- Shorland mounts two internal security lockers of mild steel with a total capacity of 9cu ft (0.255cu m).
- Shorland's twin windscreens are protected by drop-down armoured visors with laminated glass inserts to give good forward visibility.
- Shorland is both economical to purchase and operate. Servicing and maintenance operations are as easy as those carried out in the standard Land-Rover.

Shorland's over 80 per cent commonality of spares with the standard Land-Rover means ready availability in the majority of countries.

Shorland has the same driving controls as a standard Land-Rover and no driving instruction or conversion training is necessary.

Shorland has a cross-country performance equal to that of the standard Land-Rover.

Shorland is the proven security vehicle. The latest version gives increased traction for use in topographical extremes, with adequate cross-country performance at hot and high altitudes.



The Shorland Security Vehicle is based on the well-proven Shorland Armoured Patrol Car Mk.3 which has been supplied in quantity to the Ministry of Defence and to para-military and police forces on four continents. Both versions of the vehicle are fitted with the powerful Land-Rover 6-cylinder engine which enables them to operate effectively in the most exacting terrain and climatic conditions.

Specification

Wheelbase	109in (2.77m)
Track	53½in (1.36m)
Overall length	181in (4.6m)
Overall width	70in (1.78m)
Turning circle	58ft 3in (17.75m)
Fuel capacity	14 Imperial gallons (64 litres); with long-range tank fitted – 28 Imperial gallons (128 litres)
Engine type	Rover petrol
Chassis	Land-Rover 109in frame with improved departure angle
Gears	8 forward, 2 reverse using transfer box
Electrical equipment	12v negative earth 57AH battery capacity
Brakes	Land-Rover 11in dia (0.28 metres) fitted with servo assisted brakes
Suspension	Heavy duty semi-elliptical leaf springs with telescopic shock absorbers and anti-roll bars front and rear
Tyres	9.00 x 16
Steering (RH or LH)	Recirculating ball, worm and nut variable ratio, from 15.6 : 1 straight ahead to 23.8 : 1 on full lock

Performance Data

Weight	Kerb weight 6,450lb (2931kg), Operating weight including crew (2 @ 200lb) 7,400lb (3360kg)
Engine size	160.3cu in (2625cc)
No. of cylinders	6
Gross bhp	91bhp at 4,500rpm
Maximum torque	130lb/ft (17.9mkg) at 1,750rpm
Maximum speed (average)	Road 60mph (96.00km/h), Cross-country 30mph (48.28km/h)
Range of action (At average operating speed)	Standard tank 160 miles (257.2km) Long-range tanks 320 miles (514.4km)
Gross power weight ratio	28.75hp/ton
Maximum tractive effort in low gear	1.172lb/ton
Maximum climbing ability	1 in 1.7
Maximum gradient for stop and restart	1 in 1.7

SHORTS

Queen's Island, Belfast BT3 9DZ, N. Ireland
Telephone: 0232 58444
Telex: 74688 Telegrams: Aircraft Belfast

London Office: Berkeley Square House, Berkeley Square
London W.1. Telephone: 01-629-9541
Telex: 24393 Telegrams: Broshort.

ROVER 2000 AND THREE THOUSAND FIVE FRONT ROAD SPRINGS

Part No.	Model	Vehicle Nos.	Total No. of Coils	Free Length	Identification
534898 Replaced by 570492*	Rover 2000	—	8.625	16.5 in. (419 mm)	½ in. blue stripe, entire length.
534865 Replaced by 565305	Rover 2000 and Automatic	—	9.72	17.56 in. (445 mm)	None
565305	Rover 2000 SC and Automatic	Suffix Letters B to E	9.72	17.56 in. (445 mm)	None (1 in. Yellow stripe on centre three coils denotes direction of maximum bow)
	Rover 2000 TC	Up to Suffix Letter B			
565763	Rover 2000 Automatic	From Suffix Letter F onwards	8.85	17.12 in. (436 mm)	½ in. green stripe, entire length
	Rover 2000 TC	From Suffix Letter C onwards			
570492	Rover 2000 SC	Suffix Letter A and from F onwards	8	16.281 in. (414 mm)	½ in. white stripe, entire length
	Rover Three Thousand Five All Models	—			

*When supplying spring Part No. 570492 in lieu of 534898,
supply also 2 shims .128 in. thick, Part No. 560270.

ROVER 2000 AND THREE THOUSAND FIVE REAR ROAD SPRINGS

534944*	Rover 2000 SC Home RH Stg.	Up to cars numbered 40013716B	7.125	13.250 in. (336 mm)	½ in. green stripe, entire length.
	Rover 2000 SC Export RH Stg.	Up to cars numbered 40100502B			
	Rover 2000 SC Export LH Stg.	Up to cars numbered 40303874B			
553829 Replaced by 565326	Rover 2000 SC and TC	—	7.125	13.562 in. (344 mm)	½ in. red stripe, entire length.
565326	Rover 2000 SC Home RH Stg.	From 40013717B onwards	7.125	13.562 in. (344 mm)	½ in. red stripe, entire length.
	Rover 2000 SC Export, RH Stg.	From 40100503B onwards			
	Rover 2000 SC Export, LH Stg.	From 40303875B onwards			
	Rover 2000 Automatic	All Models			
	Rover 2000 TC	All Models			
570475 Replaced by 572967	Rover Three Thousand Five.	—	7.025	13.312 in. (338 mm)	½ in. green and blue stripe entire length.
572967†	Rover Three Thousand Five. All Models	—	7.025	13.038 in. (331 mm)	Two ½ in. white stripes entire length

*Can be replaced by road spring Part No. 553829, but must be fitted in pairs.

†Rover Three Thousand Five type springs. Approved fitting under certain operating
conditions. See Car Service News Letter Vol. 3 No. 6 item 88.

Item 96 SUBJECT: CONNECTING ROD BEARING NIP

MODELS: Land-Rover 2½ Litre petrol and diesel, Bonneted and Forward Control.

MODIFICATION: Increase of the connecting rod bearing nip limits.

LITERATURE AFFECTED: Land-Rover Workshop Manual, Part One, Part Number 606407, Pages 73-A1 and 74-A2.

REMARKS: The connecting rod bearing nip figures have been revised to 0.004 in. to 0.008 in. (0,10 mm to 0,20 mm). The bearing nip can be corrected by selective assembly of the bearing shells. These are available in slightly varying thicknesses. Do not file or machine the caps or connecting rods to obtain the correct bearing nip, as such action would necessitate the replacement of the connecting rod assembly.

Item 97 SUBJECT: EXHAUST MANIFOLD

MODELS: Land-Rover, Bonneted and Forward Control models with 2½ litre petrol or diesel engines.

MODIFICATION: (a) Introduction of a new exhaust manifold for the 2½ litre petrol engine to reduce the possibility of cracking or distortion.
 (b) Introduction of plain washers for manifold fixings on 2½ litre petrol engines to replace the previous 'bowed' washers, which restrict expansion and contraction.
 (c) Introduction of improved manifold clamps on 2½ litre petrol and diesel engines, which overcome the problem of the clamps digging into the manifold.

Land-Rover Parts Catalogue, Forward Control Models, Part Number 606407, Page 74

PART NUMBERS:	Exhaust manifold	1	574721	} Part of 2½ litre petrol engine
	Exhaust manifold heat shield	1	587095	
	Exhaust manifold fixing kit	1	606988	
	Stud	1	564574	
	Manifold clamp	2	564308	
	Plain washer	5	574645	
	Bolt (5/16 in. UNF x 2 3/4 in. long)	4	256029	
	Bolt (5/16 in. UNF x 1 1/8 in. long)	2	255029	
	Nut	3	254831	
	Plain washer, fixing heat shield	1	2550	
	Manifold clamp	2	564308	

COMMENCING NUMBERS: Engine Serial numbers:
 Land-Rover 88 and 109 Regular and Station Wagon 2½ litre petrol models, 8:1 compression ratio, from 24124251A onwards.
 Land-Rover 88 and 109 Regular and Station Wagon 2½ litre petrol models, 7:1 compression ratio, from 25108508K onwards.
 Land-Rover 110 Forward Control 2½ litre petrol models, from 32500515B onwards.
 Land-Rover 88 Regular and Station Wagon 2½ litre diesel models, from 27160240K onwards.
 Land-Rover 110 Forward Control 2½ litre diesel models, from 33500407B onwards.

REMARKS: The improved exhaust manifold, Part No. 574721, with fixings is completely interchangeable with the earlier exhaust manifold and fixings. It will be supplied for all service replacements on 2½ litre petrol engines. It will be necessary either to fit a new exhaust manifold heat shield, Part No. 587095, or to modify the existing heat shield. The modification consists of elongating one fixing hole, whereupon the heat shield can be fitted using the plain washer, Part No. 2550, in addition to the fixings employed before modification.

The exhaust manifold fixing kit, Part No. 606988, contains all the fixings necessary for the improved exhaust manifold, including the newly introduced plain washers. All items included in the kit, Part No. 606988, are available individually under the appropriate part number.

The manifold clamps, Part No. 564308, which are of improved design, are interchangeable with the earlier type and may also be fitted to existing 2½ litre petrol and diesel engines.

Item 64 SUBJECT: FROST PRECAUTIONS (Policy item)

MODELS: Land-Rover Bonneted and Forward Control models.

MODIFICATION: Introduction of frost precaution instructions for the Winter 1969 70.

REMARKS: With effect from 1st October, 1969, and for the duration of the winter months until the end of March, 1970, all Land-Rovers destined for the Home market will be despatched with the cooling system filled with a 33 $\frac{1}{3}$ % solution of anti-freeze mixture, giving frost protection down to -25°F (-32°C).

At the same time a 25% solution of methylated spirit or industrial alcohol is added to the windscreen washer reservoir, where fitted.

Each Land-Rover so treated can be identified by a blue and white disc which is attached to the engine, and a blue and white sticker which is fixed on to the inside of the windscreen at the right-hand side.

Certain Export Land-Rovers are drained at the docks before despatch.

In the case of N.A.D.A. vehicles, a 50% solution is used, and these Land-Rovers are identified by a blue, red and white disc and label in place of the blue and white ones.

The 50% solution affords frost precaution down to -60°F (-51°C).

At a percentage of 33 $\frac{1}{3}$ the following quantities of anti-freeze and water are required.

Model	Cooling system capacity		Anti-freeze required	
	Pints	Litres	Pints	Litres
Bonneted Control				
2 $\frac{1}{4}$ litre Petrol } Early models	18	10.2	6	3.5
2 $\frac{1}{4}$ litre Diesel } Early models	17 $\frac{1}{2}$	10.0	5 $\frac{3}{4}$	3.4
2 $\frac{1}{4}$ litre Petrol } Current Production	14 $\frac{1}{4}$	8.1	4 $\frac{3}{4}$	2.7
2 $\frac{1}{4}$ litre Diesel } models	13 $\frac{3}{4}$	7.8	4 $\frac{1}{2}$	2.6
109 in. with 2.6 litre } All				
6 cylinder Petrol Engine } models	20	11.2	6 $\frac{2}{3}$	3.7
Forward Control, all models				
2 $\frac{1}{4}$ litre Petrol	19	10.8	6 $\frac{1}{3}$	3.6
2 $\frac{1}{4}$ litre Diesel	18	10.2	6	3.5
2.6 litre 6 cylinder Petrol Engine ..	23	13.0	7 $\frac{2}{3}$	4.3

The quantities required to bring a 33 $\frac{1}{3}$ % solution up to 50% are detailed in the chart below.

Model	Anti-freeze required for 50% solution		Anti-freeze required to raise 33 $\frac{1}{3}$ % solution to 50%	
	Pints	Litres	Pints	Litres
Bonneted Control				
2 $\frac{1}{4}$ litre Petrol } Early models	9	5.1	4 $\frac{1}{2}$	2.5
2 $\frac{1}{4}$ litre Diesel } Early models	8 $\frac{3}{4}$	5.0	4 $\frac{1}{2}$	2.5
2 $\frac{1}{4}$ litre Petrol } Current Production	7	4.0	3 $\frac{1}{2}$	2.0
2 $\frac{1}{4}$ litre Diesel } models	6 $\frac{3}{4}$	3.9	3 $\frac{1}{2}$	2.0
109 in. with 2.6 litre 6 cylinder Petrol Engine	10	4.6	5	2.8
Forward Control, all models				
2 $\frac{1}{4}$ litre Petrol	9 $\frac{1}{2}$	5.4	4 $\frac{3}{4}$	2.6
2 $\frac{1}{4}$ litre Diesel	9	5.1	4 $\frac{1}{2}$	2.5
2.6 litre 6 cylinder Petrol Engine	11 $\frac{1}{2}$	6.5	5 $\frac{3}{4}$	3.2

Item 102 SUBJECT: SPARKING PLUGS (Policy item)

MODELS: All Land-Rover Petrol models.

REMARKS: Complaints have been received of new Land-Rovers arriving at Distributors and Dealers with non-standard sparking plugs fitted.

All vehicles leaving the factory are fitted with the correct sparking plugs, and it can therefore be assumed that if a vehicle is delivered with incorrect sparking plugs fitted, this change has been made by the delivery firm or their personnel.

The delivery companies have had this brought to their attention, but Distributors and Dealers are reminded that their delivery contract is with the delivery firm, and NOT the Rover Company.

Distributors and Dealers should include a sparking plug check in their Acceptance Check of new vehicles, and claims for sparking plugs or damage caused by the use of incorrect sparking plugs should be made against the delivery firm, and not the Rover Company. This should be done at the time the vehicle is received.

The only sparking plugs currently fitted to Land-Rover models are as follows:

2½ litre (7:1 compression ratio) Champion N8
(8:1 compression ratio) Champion UN12Y
2.6 litre Champion N5

Item 40 SUBJECT: IGNITION SETTING

MODELS: Land-Rover 4 cylinder and 6 cylinder Petrol.

REMARKS: As there are widely differing qualities of fuels in terms of Research Octane number available in world markets, the following chart is issued to show not only the standard ignition settings and the quality of fuel required but also the lowest grade fuel which can be used, together with the appropriate ignition setting. When set to these figures the engines should give 'knock-free' performance.

Model and Compression Ratio	Standard Ignition Setting	Use Fuel of Research Octane No.	Intermediate Ignition Setting	Use Fuel of Research Octane No.	Lowest Permissible Ignition Setting	Use Fuel of Research Octane No.	Speed Restriction
Land-Rover, 4 cylinder 7.0:1	6° BTDC	90 2 star grade UK	3° BTDC	83	TDC	75	None
Land-Rover, 4 cylinder 8.0:1	TDC	90 2 star grade UK	—	—	3° ATDC	85	None
Land-Rover, 6 cylinder 7.0:1	2° BTDC	90 2 star grade UK	TDC	83	2° ATDC	78	None
Land-Rover, 6 cylinder 7.8:1	2° ATDC	90 2 star grade UK	—	—	6° ATDC	85	None
Land-Rover, 6 cylinder 8.8:1 Models for USA only	6° BTDC	95 4 star grade UK	95 octane is the lowest grade that may be used				None

Item 19 SUBJECT: CLUTCH

MODELS: Land-Rover Bonneted Control and Forward Control with 2½ litre Diesel engine.

MODIFICATION: Introduction of additional identification feature for clutch driven plate with stronger centre.

See Land-Rover News Letter, Vol. 2, No. 32, Item 168.

REMARKS: During a subsequent spraying operation, the manufacturers are obliterating the colour code on the damper springs. It is therefore necessary to use the diameter of the centre for identification purposes.

See chart below.

Clutch driven plate

	Part No. 561536 (early)	Part No. 571712 (late)
Diameter of centre, inside lining	6½ in. (155 mm)	6⅜ in. (162 mm)

Item 246 SUBJECT: BRAKE DISC WEAR

MODELS: All Rover cars with disc brakes.
Range Rover.

MODIFICATION: Introduction of revised information with regard to brake disc wear limits, originally issued in Car Service News Letter Vol. 3, No. 7, item 102. The Range Rover has also been included in the model applicability.

REMARKS: The chart below gives the original brake disc thickness and the minimum permissible thickness, with the disc centralised in caliper below which a disc must not be used.

Model	Type of brakes	Nominal thickness of new brake disc		Minimum thickness of worn brake disc		
		mm	in.	mm	in.	
2000 SC, early models	Dunlop	Front	9.52	.380	8.38	.325
		Rear	9.65	.380	8.38	.330
2000 SC, late models. All 2000 TC and Automatic 3500 and 3500 S	Girling	Front	12.7	.505	11.43	.455
		Rear	9.65	.380	8.38	.330
Rover 80, 95, 100, 110, 3 litre MKI, II, III. 3½ litre	Girling	Front only	14.4	.568	13.16	.518
Range Rover	Lockheed	Front	14.23	.560	12.95	.500
		Rear	12.7	.500	11.43	.450

It should be noted that brake discs should only be machined where excessive corrosion is evident.

ITEM: 323

SUBJECT: EXHAUST MANIFOLDS

MODELS: Rover 3500 and 3½ litre Saloon and Coupe, Morgan Plus 8. For Range Rover See Item 326

MODIFICATION: Introduction of revised fitting procedure for exhaust manifolds.

LITERATURE AFFECTED: Rover 3500 Workshop Manual, English edition, Part No. 606495, Operation AAL - 11.

Rover 3½ litre Workshop Manual Supplement, English edition, Part No 605358, Operational - 11.

REMARKS: When fitting the exhaust manifolds the following procedure should be adopted.

The fixing bolts should be evenly tightened to a torque figure of 2.0 mkg. (15 lb ft). Do not turn up the locking tab washers at this stage.

Run the engine for at least five minutes, and re-check the torque settings.

Finally, turn up the locking tab washers so that they make full and close contact with the engaging hexagon face of the head of the set bolt.

Failure to follow this procedure could result in cracked or blowing manifolds.

The Workshop Manuals will be amended at the next available reprint.

Item 310 SUBJECT: CHECKING FRONT WHEEL ALIGNMENT

MODELS: Rover 2000 SC, Automatic and TC.

MODIFICATION: Revised setting for front wheel toe-in.

LITERATURE AFFECTED: Rover 2000 Workshop Manual, Part No. 605028, Operation G2.
Rover 2000 Owner's Manual, Part No. 607038, Section 7 and Data Section.

REMARKS: The car must be on a flat and level surface for carrying out this operation.

1. Rectify any wheel defects and ensure tyre pressures are correct.
2. The adjustment may be made either dynamically or after the car has been pushed forward a few feet with the wheels in the straight-ahead position (never after a rearward movement).
3. **The correct setting is 3,0 mm (0.125 in.) toe-in plus or minus 1,5 mm (0.062 in.)**
4. **To adjust – Early models.**
Slacken the locknuts of the steering track rod adjuster at rear of engine and turn adjuster to obtain the correct alignment.
To adjust – Late models.
Slacken the locknuts at each end of the steering track rod at rear of engine and turn rod to obtain the correct alignment.

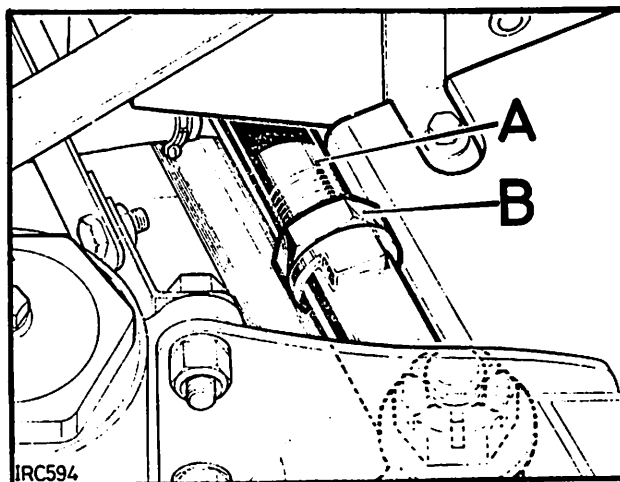


Fig. 8. Track rod adjustment, later models illustrated

A—Track rod B—Locknut

5. After each adjustment of the track rod, retighten the locknuts and rotate the wheels before rechecking. It will be necessary to repeat this check three times to ensure accuracy of readings.
6. Owing to the fact that the camber of the front wheels is 0° with a tolerance of $\pm 1^\circ$ the bottom of the wheels may splay out slightly.

Distributors and Dealers are requested to amend the literature in their possession accordingly. The Owner's Manual and Workshop Manual will be revised at the next available reprint.

Item 14 SUBJECT: ENGINE OVERHEATING

MODELS: Rover Three Thousand Five and Rover 3½ litre.

REMARKS: If the engine of one of the above vehicles is persistently losing water and overheating, it is suggested, that before any expensive rectification work is carried out that a check be made of the by-pass hole in the water pump, as there is a possibility that this hole may be restricted or blocked by a flash of aluminium.

Proceed as follows:

1. Remove the water pump.
2. Inspect by-pass hole.
3. If there is any obstruction this should be removed with a sharp instrument, ensure that any material removed is cleaned from the pump body.
4. Replace pump, top up with coolant.

Item 110 SUBJECT:

AUTOMATIC TRANSMISSION OIL LEAKS (Policy item)

MODELS:

Rover 2000 Automatic, Rover 3½ litre and Rover Three Thousand Five.

REMARKS:

Our attention has been drawn to the considerable number of automatic transmission sump pans that have been removed in order to rectify suspected oil leaks. Oil leaks in the vicinity of the sump pan should be carefully examined to determine the exact source, before removing the pan.

Oil leaking from the manual valve lever control shaft seal will frequently run down on to the sump pan, and then around it, giving the impression that the sump pan is leaking.

It is not necessary to remove the sump pan, to replace the manual lever control shaft seals.

To replace the seals, proceed as follows:

1. Remove lever for manual valve detent.
2. Prise old seal out of gearbox casing, using a small screwdriver or suitable tool.
3. Fit new seal and replace lever.

Note: On 2000 Automatic models there is a second seal on the opposite end of the shaft; this can be simply prised out of the gearbox casing and a new seal pushed in. It should be noted that on Warranty Claims for leaking manual control valve seals, a labour allowance of 0.5 hours only will be accepted.

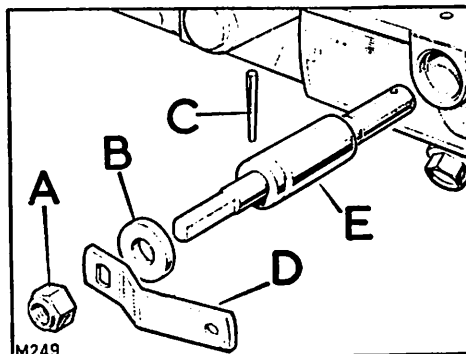


Fig. 1. Shaft and oil seal for manual valve lever control shaft

A—Self locking nut for lever B—Oil seal C—Taper pin, retaining shaft D—Lever
E—Control shaft

Item 88 SUBJECT:

ROAD SPRINGS

MODELS:

Rover 2000 SC, 2000 TC and 2000 Automatic.

MODIFICATION:

Approved fitting of Rover Three Thousand Five type rear road springs and shock absorbers under certain operating conditions. See also under 'Remarks' below.

LITERATURE AFFECTED:

Rover 2000 Parts Catalogue, Part No. 606128, Page 397.

PART NUMBERS:

Road spring, rear	2	572967
Shock absorber, rear	2	563684

REMARKS:

Under rough road conditions as they are found in certain overseas territories, or when cruising at high speeds, particularly with a laden car, or towing a caravan, boat trailer, etc. a slight stiffening up of rear suspension may be desirable. This can be achieved by fitting the rear road springs and shock absorbers specified for the Rover Three Thousand Five.

Item 85 SUBJECT:

BRAKE MAINTENANCE

MODELS:

All cars.

REMARKS:

Owing to the increasing amount of salt and grit used on the road during the winter months, and the corrosive nature of this substance, the condition of brake pipes and hoses must be thoroughly checked at regular intervals from this point of view.

These checks should be made at least every six months, preferably at the beginning and end of the winter.

All brake components which show signs of corrosion must be replaced immediately to ensure complete safety of the braking system when subjected to pressure.

Item 84 SUBJECT: PRIMARY PINION LUBRICATION

MODELS: Rover 2000 SC and 2000 TC.

MODIFICATION: Lubrication of primary pinion and clutch plate splines on reassembly.

LITERATURE AFFECTED: Rover 2000 Workshop Manual, Part No. 605028, Operation C-1.

REMARKS: Reports received from our Service Representatives indicate that it is general practice to assemble the clutch driven plate to the primary shaft without the use of a lubricant.

As a result of this dry assembly, the corrosion of the splines on both primary shaft and clutch plate hub, which very often is the reason for dismantling the clutch in the first instance, will progressively impair the free movement of the clutch driven plate, which will eventually seize on the shaft.

In order to prevent subsequent seizures of this kind involving the time consuming and therefore costly removal of the engine and gearbox assembly, Distributors and Dealers are asked to apply a molybdenum-based grease, such as 'Copaslip', to the splines on the primary shaft and on the clutch plate centre before assembly.

The Workshop Manual will be suitably amended at the next reprint, but in the meantime Distributors and Dealers should alter item 2 of Operation C-1 on page 6C as detailed above.

Item 309 SUBJECT: REAR BRAKE HOSE

MODELS: Rover 2000 SC and TC.

MODIFICATION: Introduction of rear brake hose assembly with detachable banjo union replacing hose Part No. 538815 which has been withdrawn from service, owing to supply difficulties.

P.C.M.I. TRANSPARENCY: The information detailed in this item will be incorporated in the next available transparency.

LITERATURE AFFECTED: Rover 2000 Parts Catalogue Part No. 606128, Page 167.
Rover 2000 Workshop Manual, Part No. 605028, Section L.

PART NUMBERS:

Rear brake hose assembly	..	..	..	..	1	607381
Rear brake hose	..	..	..	..	1	562451 Part of 607381

APPLICABILITY: Rover 2000 SC models up to vehicle serial suffix 'D' fitted with Dunlop type brakes.
Rover 2000 TC models with vehicle serial suffix 'A' fitted with Dunlop type brakes.

REMARKS: When stocks of rear brake hose Part No. 538815 are exhausted, only rear brake hose assembly Part No. 607381 will be supplied for service requirements.

Once rear brake hose assembly Part No. 607381 has been fitted to a car, the rear brake hose Part No. 562451 only need be used for future replacements, as a result of the inclusion of the detachable banjo union.

Care should be taken to ensure that the appropriate washers are in sound condition and correctly fitted.

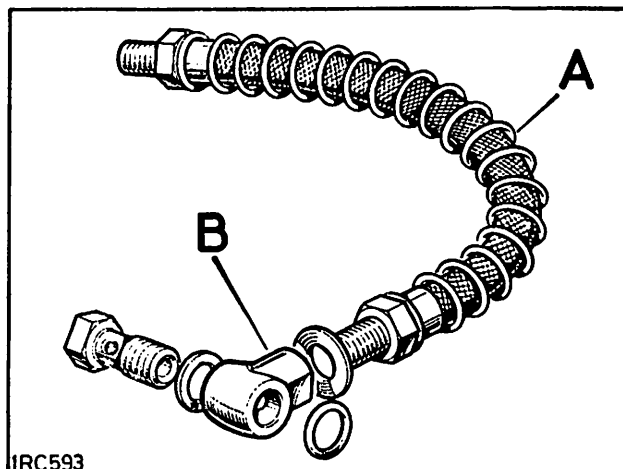


Fig. 7. Identification of Brake hose
A--Brake hose B--Banjo

Land-Rover Manufacture and Assembly In Countries Other Than UK

Angola: Uniao Commercial de Automoveis Sarl (concessionaire)
C.P.1236, Luanda (assem. L-R, 88 and 109 Regular)

Australia: BLMC of Australia, Rover Division (associated
company), P.O.B.6, 893-931 South Dowling Street,
Waterloo (manuf. L-R)

Cameroons: R. & W. King (concessionaire), B.P.4022, Douala
(assem. L-R)

Costa Rica: Ensambladora Autometríz S.A. (concessionaire)
P.O.B.10306, San Jose (assem. L-R and Range
Rover)

Ecuador: B. Aviles Alfaro and Cia. (concessionaire), P.O.B.
354, Avda de las Americas, Guayaquil (assem. L-R)

Eire: British Leyland Ireland (Jaguar, Rover, Triumph) Ltd.
(associated company), Cashel Road, Dublin 12 (assem.
L-R)

Ethiopia: AMCE-Share Company (concessionaire), P.O.B.461,
Addis Ababa (assem. L-R)

Ghana: UAC Motors (concessionaire), P.O.B.1642, Accra (assem.
L-R 109 Regular and 88 Estate Car)

Indonesia: Java Motor Import Corp. N.V. (concessionaire),
P.O.B.161, Kramat Raya 17, Djakarta (assem. L-R)

Iran: Sherkat Khass Sanaati Towlidi Morratat (concessionaire)
P.O.B.1508, Teheran (manuf. L-R)

Kenya: Leyland Albion (E.Africa) Ltd. (associated company),
P.O.B.18502, Nairobi (assem. L-R and Range Rover)

Madagascar: Landis Madagascar (distributor), Boite Postale
633, Tananarive (assem. L-R)

Morocco: Aetco-Lever Maroc (concessionaire), B.P.519, Casa-
blanca (assem. L-R)

Mozambique: Compania Distribuidora de Automotive Sarl
(concessionaire), C.P.2510, Lorenzo Marques
(assem. L-R)

New Zealand: The British Leyland Motor Corp. of New Zealand
Ltd. (associated company), P.O.B.2179, Auckland
(manuf. L-R and Rover cars)

Nigeria: Bewac Limited (concessionaire), Trans Amadi Industrial
Estate, Port Harcourt (assem. L-R 88 and 109 Regular
and Estate Car)

Philippines: Amalgamated Motors Inc. (concessionaire), P.O.B.
P.A., 413 Port Area, Manila (manuf. L-R)

Portugal: Sociedad Electro Mecanica de Automoveis Ida.(con-
cessionaire), Rua Nova de S Mamede 30, Lisbon
(assem. L-R)

(continued)

(2)

Singapore: Champion Motors (S) Ltd. (concessionaire),
P.O.B.627, Singapore 9 (assem. L-R)

South Africa: Leyland Motor Corp. of South Africa Ltd.
(associated company), P.O.B.1, Blackheath,
Cape Town (manuf L-R and Rover cars)

Spain: Metalurgica de Santa Ana S.A. (concessionaire),
Apdo 13170, Madrid (manuf. L-R)

Tanzania: The Cooper Motor Corp. Ltd. (associated company),
P.O.B.1852, Dar-es-Salaam (assem. L-R)

Thailand: Butler & Webster Ltd. (concessionaire), 1539
New Petchburi Road, P.O.B.13, Bangkok 10
(assem. L-R)

Trinidad: Amalgamated Industries Ltd. (concessionaire),
Tumpuna Road, Arima (assem. L-R and Rover cars)

Turkey: BMC Sanayi Ve Ticaret A.S., PK.260, Izmir (manuf.
L-R)

Venezuela: Mack de Venezuela C.A. (concessionaire), Apdo
168, Caracas (manuf. L-R and Range Rover)

Zaire: Industrie Nationale Zairoise des Automobiles (con-
cessionaire), B.P.7121, Kinshasa (assem. L-R)

Zambia: Rover Zambia Ltd. (associated company), P.O.B.
SK6, Skyways, Ndola (assem. L-R and Range Rover)



Land-Rover Information: New member Glyn Thorman of Champaign, Illinois would like to share the following tips with the membership:

Armor All is a great product for convertible tops, tires, upholstery, and even paint. It gives tires and tops an unbelievable sheen which preserves and beautifies. I've tried many products to brighten-up tires, but this works the best of any. It's made in California by Very Important Products, Newport Beach, California, 92660 and is available in a 16 oz. bottle with spray nozzle for around \$5.00 in most auto stores.

Pyramid Rubber Co. of Minneapolis, Minnesota make an exact replacement guide for the Land-Rover sliding windows. About \$5.00 worth will do both windows in the front. The new guides are easily cut with snippers and punched for holes. They stop a lot of rattles as well as rain coming in.

Be very careful if you are hooking up auxiliary horns to the present horn button on the Landy. The original horn is not fused and any short will burn wires (at least on my 1967 IIA Landy). If you want to be safe add a line fuse to the horn system or re-connect it through the fuse box.

The hole for the PTO shaft in the rear bumper makes a great place for a back-up light.

Baldwin filters are available for all Landys for \$1.98 at stores which handle that brand.

Because of the bumper/fender configuration on the Landy the front fenders often get dented toward the rounded top edge from brush, etc. I picked up a brace from the local power company for \$1.00 which remedies the situation. Cut it in half and bolt it on to the corner of the bumper. It comes heavily galvanized and makes the Land-Rover look like a staff car. The braces are L-shaped and about four feet long before cutting and are used on high line poles.

Want to make your Landy look "like a million"? Clean the paint off of the top of the radiator, polish it, then coat it with a clear finish. That brass really shines.

A handy item to carry in one's spare parts/tool kit is a suction oil pump with a flexible tube at the end. It looks like a grease gun and by means of its push-rod it sucks the oil from a container and pushes it out the tube end. That plastic tube is great for getting in tight spots. Did you ever try to replace oil in the front spindle in the middle of nowhere? It costs about \$7.00 at any auto parts store.

There are few products on the market which can be used safely to clean and make sparkle galvanized metal. A good one, however, is Brookstone's All Purpose Metal Polish and Protectant. It's great for use on aluminum as well as galvanized metal. It costs \$2.00 from: The Brookstone Company, Peterborough, New Hampshire, 03458.

Some Additional Parts and Service Centers:

One of the largest Land-Rover parts and service operations in the U.S. is: Harrell Motor Sales, 1101 North Main, Waynesville, N.C., 28786. Phone: 704-456-8603, ask for David in parts.

Tibbetts Auto, Inc. of Hamden, Maine

Mr. William Vallarand of Greene, Maine reportedly does excellent service work.

WANTED: A diesel engine and any other necessary equipment for its installation for my 1971 Land-Rover 88, Series IIA. Contact: James J Leons, Star Route 1, Box 2300, Clearwater, Washington, 98399.

FOR SALE: 1972 Land-Rover Model 88 Series III. 22,300 miles, no dents, excellent condition. Options: luggage rack with tool boxes, fog lights, rear light, bush guards, compass, altimeter, trailer hitch, bonnet-mounted spare. Price \$3,500.00. Contact: G.W. Newman, Route #1, Box 38, Buras, Louisiana, 70041. Phone 504-657-7726. No collect calls please.

FOR SALE: 1970 Land-Rover 109 Carawagon 3 door. 4WD, Warn hubs, 302 Ford V-8, Fairley overdrive, 3.9:1 differentials, 36,000 miles. Excellent condition. Stove, propane bottled gas, dresser, bed, top raises when camping and lowers when driving. Over \$6000 invested. Offers over \$3800. Contact: Randolph D. Fox, 2726 Croasdaile Drive, Durham, N.C., 27705. Phone 919-383-3263.

FOR SALE: 1967 6 cylinder, 2.6 litre Land-Rover engine. Included also are 3 almost complete decarbonizing gasket sets. Engine has one scored cylinder wall. It was not run very far and is an excellent source of parts. Contact: Jack Sloanaker, 65 Bow Road, Belmont, Massachusetts, 02178. Phone: 617-484-8633.

FOR SALE: Two Series I Land-Rover parts catalogues, two Land-Rover optional equipment parts catalogues, three 2.6 litre supplements, two Series IIA supplements to USA specs, one Series III parts catalogue supplement. \$75.00 takes all or write your needs and I will price individually.

Have available parts catalogues and workshop manuals for Rover 3-litre sedan. Parts catalogues - \$25.00; workshop manuals - \$20.00.

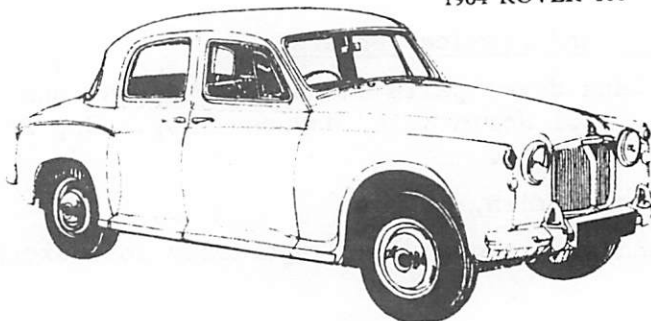
All parts, either new or used for Rover 2000 and 3500s series. Vast inventory of parts cars and new parts - call or write your needs.

Numerous restored Rover 2000's and 3500s's.

Contact: Ron's Automotive Sales and Service, 204 Dinn Road, San Antonio, Texas, 78218. Phone 512-653-8000 evenings.

FOR SALE: Land-Rover 88. It became junk when someone didn't pay a parking bill for a year; it was then towed away and the owner was told that it was destroyed by fire. Two months later it is a parts car. The owner was bankrupt at the time and I haven't told him about it. I believe all leaf springs and differentials are on it. Engine, transmission, top, and controls are gone. Contact: Mark Fontanella, c/o Bradway, R.R. #2, Southbridge, Massachusetts, 01550.

1964 ROVER 100



RENEWAL MEMBERS:

James H Barnett	166 Cushing Street Providence, Rhode Island, 02906	1970 3500s, 1967 2000TC
Fred Bader	175 Foote Street Hamden, Connecticut, 06517	1972 Land-Rover 88, Series III
William D. Burk	827 13th Street Hermosa Beach, California, 90254	1969 Land-Rover 88, Series IIa
Floyd Coleman	Box 204 Richmond, Kentucky, 40475	1969 2000TC
Pat DeEsposito	274 Brighton Avenue East Orange, New Jersey, 07017	1960 Rover 100
Creighton Dennis	769 Cypress Walk, Apt. M Goleta, California, 93017	1968 Land-Rover 109 Doormobile
John Finken	3500 Fernwood Avenue Los Angeles, California, 90039	1969 2000SC
Ray Forgit	P.O. Box 597 Lakeport, California, 95453	1973 Land-Rover 88, Series III
James H Gibbs	1947 West 19th Avenue Vancouver, British Columbia, Canada	1970 3500s
Keiller Haynie, Jr.	3601 Sunset Farmington, New Mexico, 87401	1967 Land-Rover 88, Series IIa
J. Thomas Henry	730 Gilpin Street Denver, Colorado, 80218	1969 2000TC
Stephen Hill	2645 Church Lane San Pablo, California, 94806	1973 Land-Rover 88, Series III
Matthew Israelson	82-44 249th Street Bellerose, New York, 11426	1974 Land-Rover 88, Series III
John Keienburg	P.O. Box 1312 College Station, Texas, 77840	1968 Land-Rover 88, Series IIa 1956 Land-Rover 88, Series II
Gary Landes	205 West Hilltop Road Baltimore, Maryland, 21225	1967 Land-Rover 88, Series IIa
Richard Le Fevre	1517 Forcastle Avenue Manahawkin, New Jersey, 08050	1967 Land-Rover 109, Series IIa
James J Leons	St. Rt 1 Box 2200, Kalaloch Ranger Station Clearwater, Washington	1971 Land-Rover 88, Series IIa
Don McCarthy	85 Parnassus Avenue San Francisco, California, 94117	1972 Land-Rover 88, Series III
William P Miller	3256 South Hoyt Way Denver, Colorado, 80227	1971 3500s
James Perry	3238 Main Street Rocky Hill, Connecticut, 06067	1972 Land-Rover 88, Series III
Mr. & Mrs. C. Pixley	43 Moulton Street Springfield, Massachusetts, 01118	1969 Land-Rover 88, 1951 80 1953 80, 1963 109, 1959 109
Charles E. Ritts	107 Mills Avenue Braddock, Pennsylvania, 15104	1963 Land-Rover 88 V-8
Richard M. Roberts	1643 Blue Hill Avenue Mattapan, Massachusetts, 02126	1970 3500s (2), 1960 2000TC
Jack Sloanaker	65 Bow Road Belmont, Massachusetts, 02178	1967 Land-Rover 109 Series IIa
Ernest Thompson	3754 Shasta Street, Apt. H San Diego, California, 92109	1972 Land-Rover 88, Series III
Richard Wentling	29 Overlook Road West Haverstraw, New York, 10993	1973 Land-Rover 88, Series III

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RENEWAL MEMBERS (cont'd):

Earl Whitmore	715 Creghan Avenue Swarthmore, Pennsylvania, 19081	1973 Land-Rover 88, Series III
James A. Williams	P.O. Box 67 Van Wyck, South Carolina, 29744	1967 2000TC

NEW MEMBERS:

James Beckham, Jr.	936 Mountain Creek Road, Apt. X-255 Chattanooga, Tennessee, 37405	1970 3500S
Thomas Coffey, Jr.	226 East 10th Street Oswego, New York, 13126	1974 Land-Rover 88, Series III
Willie DeGray	3640 West Pioneer Parkway Arlington, Texas, 76013	1973 Land-Rover 88, Series III
Verl Dotson	3144 Blue Mountain Way Colorado Springs, Colorado, 80906	1970 3500S, 2000TC
Joseph R. Graham	16424 North 29th Street, #51 Phoenix, Arizona, 85032	1974 Land-Rover 88, Series III
Alfred R. Haas	2026 Pinto Lane Las Vegas, Nevada, 89106	1960 Land-Rover 88, Series II
Brian Johnson	Box 866 Kelowna, British Columbia, Canada	1963 Land-Rover 88, Series II
Walter C. Johnson	7900 Bellaire Blvd., #109 Houston, Texas, 77036	1973 Land-Rover 88, Series III
T.H. Leist	1809 E. Johnson Road Shelby, Michigan, 49455	1969 Land-Rover 88, Series IIa
Walter Meissner	1163 Krameria Street #2 Denver, Colorado, 80220	1972 Land-Rover 88, Series III
Gerald W. Newman	Route #1, Box 38 Buras, Louisiana, 70041	1972 Land-Rover 88, Series III
Tom Reid	4022 South Avenue West #32 Missoula, Montana, 59801	1970 Land-Rover 88, Series IIa
Leonard Roseman	2419 Hunt Drive Baltimore, Maryland, 21209	1970 Land-Rover 88, Series IIa
R.P. Saldamando	16518 Wilton Place Gardena, California, 90247	1970 Land-Rover 88, Series IIa
C. Edward Seward	4 Mardrew Road Baltimore, Maryland, 21229	1973 Land-Rover 88, Series III
Donald A. Sick	23 Cemetery Road Forge Village, Massachusetts, 01828	1969 Land-Rover 88, Series IIa
Jim Stanek	6059 S. Kildare Avenue Chicago, Illinois, 60629	1973 Land-Rover 88, Series III
Nick Sutter	P.O. Box 137 Shingletown, California, 96088	1957 Land-Rover
Glyn Thorman	2107 W. White Champaign, Illinois, 61820	1967 Land-Rover 88, Series IIa
J.H. Van Vleck	989 Memorial Drive Cambridge, Massachusetts, 02138	1967 3-litre Automatic
Dennis J. Walden	8222 Kingsbrook #469 Houston, Texas, 77024	Land-Rover
Daniel A. Wasmund	R.R. #1, Box 90C Harrisville, West Virginia, 26362	1966 Land-Rover 109 2½ Diesel
Prentiss Willson	Apda 5-37, Guadalajara 5, Jalisco Mexico	1968 2000TC