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Rover Owners' Association Newsletter. - Volume VI, Number 3

We would like to take this time to wish all of our members and their families a happy and prosperous New Year.

We are also hoping that we will see the new Rover 2300/2600/3500 SD-1 reach our shores this year. By this time, of course, it is not really a new Rover, although it would be to us. Last year we had heard that Spring 1978 was a tentative target date, but we would be suprised to see it here then. Although the Rover 3500 V-8 has been set up to meet our emission standards and has already been certified for sale in this country we would have thought that the Triumph TR-8 (Rover V-8 version of the TR-7) would be first. And since that is still not on our shores one can only wonder. There have been a number of SD-1's in the country for testing and one of our loyal members, Jack Stoeckler of New Jersey, claims to have seen one recently when he was doing his Christmas shopping. Unfortunately, Jack was unable to get closer than passing one on a divided highway going in the opposite direction. He described his experience as a close encounter of the first kind.

We can only hope. Certainly, the SD-1 was specifically designed to meet our standards. With the engine already certified, all we can forsee as needing alterations for our market is the shock absorbing bumpers and side lights. But then only three new Rovers were reported to have emerged from their new \$56 million plant in September, 1977 due to strikes. So what is said to be the most modern plant in Europe is hardy turning over at all. Even though the specs on the new 2600 seem most appetizing to this writer, particularly in terms of price, it is unlikely that we will see that ever reach our shores. The situation makes one despair about ever seeing a Range Rover in regular sale here - it was only introduced 7 years ago. What of the V-8 engined version of the Land-Rover said to be in the works?

The pointillistic rendering of the Rover 2000 that graces our front page this issue is the work of Texas artist Tom Heaston. Ron Jones of Parthenon Motors Limited in San Antonio originally commissioned the work, Copies are available from the Association and are \$18,00 for the 18x24 print. It is a limited edition of 100. Ron Jones is doing everything he can to keep the Rovers alive in this country. Ring him up some time for an interesting discussion. He can be reached at 512-653-8000.

There is a new book off of the presses recently on the Rover, and aptly enough, it is entitled <u>The Rover</u>. It is written by Graham Robson, author of <u>Land-Rover</u>: <u>Workhorse of</u> <u>the World</u>. List price of the book is \$14.95 at this writing and we are offering them to the membership at \$11.95 including postage. The Land-Rover book isstill available at \$10.50 including postage. A back issue listing and listing of other items available from the Association appears elsewhere in this issue.

A road test of the Rover 3500 from the July 31, 1976 issue of Autocar appears below:

Few cars can have been quite such an open secret prior to their announcement as was the new Rover 3500, yet it created great interest when at last it appeared in the showrooms and on the road. In many ways it is a contrast, of advanced styling and conservative engineering, of a high standard of equipment and a moderate (by comparison with its peers) price. The first reactions of those who drove it were little short of ecstatic, but at that time there had been no chance to measure the 3500 against the yardstick of our full Road Test.

The car which is the subject of this test is the basic manual transmission 3500. Even in this form, the car is equipped with power steering, centralised locking, push-button radio and other features which would not so very long ago have been regarded as very extra indeed. There are still som options one can specify for the car: automatic transmission, of course along with electric windows and either Denovo run-flat tires, or smart alloy wheels with low-profile tires. Our test car was shod with the standard pressed steel wheels and Michelin XVS tires. (RoadTest continued in full overleaf).

Performance and economy

Compared with the old Rover 3500S, the new car's engine has a number of changes designed to improve its performance, economy and willingness. Various breathing improvements have put up the power from 143bhp at 5,000rpm, to 155bhp at 5,250rpm. It is therefore to be expected that the new 3500which weighs very little more than the old car, for all its extra size will be faster. The extra power is only one factor, however. The new car's shape is much better, which is bound to help performance at higher speeds, while the whole picture is improved by the entirely new, close-ratio five-speed gearbox with its true overdrive fifth gear.

There is no suggestion in the 3500 that the five speeds are there to provide a low first for optimum acceleration. First gear is good for 43 mph at the 6,000rpm red line, while second takes the car almost to 70mph. Third gear has a maximum of 102mph at the red line. The final drive ratio has quite clearly been chosen so that the maximum speed in this gear coincides with peak power - theoretically ideal overall gearing. We actually obtained a mean 123mph, with a best one-way speed of 126mph, just about bracketing the peak power revs.

Given this state of affairs, the car will inevitably be slower in the higher fifth gear, and so it turns out. Our mean maximum in fifth was only 115mph, corresponding to some 4,000rpm. This suggests a power deficit of some 30bhp compared with the 5,250rpm peak,

though some of that power will be absorbed by the extra gears in the transmission (fifth being indirect).

This sort of maximum speed is of course in danger of becoming purely academic, except within the confines of a test track. What is important about the high fifth gear is that it permits supremely restful cruising at 70mph, at which speed the engine is turning at only 2,500rpm or so. The benefits to fuel consumption and engine wear are obvious, not to mention the comfort of the occupants.

Equally important for many drivers is sufficient acceleration to overtake safely or rescue an awkward situation. Here it might be expected that the Rover would excel, thanks to the excellent torque of the big V8 engine. Some people might look askance at the high first and second gears, fearing they will make the 3500 difficult to move quickly from a standing start. In practice this is far from the case. Our own fear was the opposite one, of excessive wheelspin on the wet test surface, but the Rover moved off willingly with just enough wheelspin to keep the engine beautifully "on the cam". The resulting figures speak for themselves: 8.4sec to 60mph, which is faster for instance than the Jaguar XJ 4.2 in manual form, 26.5sec to 100mph, and the kilometre post passed in fractionally over the magic halfminute which is the sign of the truly fast car.

In our view, the Rover's high gearing helps to obtain such times against the stopwatch. It is certainly an advantage to reach 60mph quite easily with only one intervening gearchange, knowing that only one more is needed between there and 100mph. We found also that it paid to hang on almost to the red line to achieve the best times. Such performance is not however at the expense of flexibility. Fourth gear will pull happily enough from 10mph, and fifth will tolerate full throttle from 20mph. As our figures in each gear show, there is a decided advantage in slipping down from fifth to fourth if a burst of acceleration is needed, but fifth by no means feels the gutless overdrive that its 28.6mph per 1,000rpm might lead you to believe.

We have already said that the high gearing must help fuel economy, and so it turns out. Comparing the steady-speed consumption with that of the old 3500S is instructive. The older car was most economical at 40mph, where it managed 34.2mpg; its successor does 36mpg at both 30 and 40mph. At the other end of the scale, the old car did only 14.2mpg at 100mph, while the new one does 18.7mpg, aquite remarkable improvement, and a tribute to the shape as well as the gearing. At 70mph the figures are 24.7mpg against 26.2mpg, a 6 per cent improvement for the new car. This gives a calculated touring fuel consumption of 23.8mpg which is very good indeed for a car of this weight and performance.

Our actual overall fuel consumption was a more modest 20.5mpg which inevitably reflects the car's hard-driven life in our hands. Even at this, it is superior to all but one of the cars in our comparison table, despite having the best performance. Our best brim-to-



Main instruments are the speedometer and rev counter, with smaller gauges for fuel, battery voltage, coolant and oil pressure on the left. Press button switches on right for heated rear window, rear electric window isolator and hazard warning. Steering column levers control (left) washers and wipers, and right, horn, indicators and headlamp, dip/flash; main lighting switch on same side (hidden). Vertical heater controls beneath radio, with fresh-air inlets above. Electric window lifts alongside handbrake, with choke control on right

Specification

Front, rear

ENGINE Cylinders

Fan

ratio

Gear

Top 4th

3rd

2nd

1st

Ratio

Front

Servo

Batterv

Jack

Rear

drive in 90 deg vee 8 Main bearings Cooling Water Viscous 88.9 (3.50) 71.1 (2.80) 3.528 (215.0) Bore, mm (in.) Stroke, mm (in.) Capacity, cc (in) Valve gear Camshaft drive Chain Compression 9.35-to-1 9.35-t0-1 97 RM Two SU HIF6 155 bhp (DIN) at 5,250 rpm 198 lb ft at Octane rating Carburettors Max power Max torque 2,500 rpm TRANSMISSION mph/1000 rpm Ratio 0.833 1.000 1.396 2.087 28.62 23.84 17.08 17.08 11.42 7.18 3.321 Final drive gear Hypoid bevel 3.08-to-1 SUSPENSION MacPherson struts Front - location lower links Coil springs dampers Telescopic anti-roll bar Yes Rear - location Live axle, torque tube, trailing arms transverse Watt linkage springs dampers Coil Telescopic, selflevelling anti-roll bar No STEERING Type Power assistance Rack and pinion Yes 15½ in. x 16 in. elliptical Wheel diameter BRAKES 10.1 in. dia. disc 9.0 in. dia. drum Vacuum type WHEELS Type Rim width Pressed steel disc 6.0 in. Michelin XVS Tyres - make (on test car) Radial-ply tubeless 185-14 in. type - size EQUIPMENT 12 volt 66Ah 45 amp Four-lamp Alternator Headlamos halogen, 120 watt (total) 120/220 Standard Reversing lamp Hazard warning Standard Electric fuses 2-speed plus Screen wipers intermittent Electric Screen washer Interior heater Air blending Cloth seats and Interior trim headlining Floor covering Carpet Screw pillar 2 front, 2 rear under bumpers Jacking points Windscreen Laminated Underbody protection Bitumastic overall MAINTENANCE 14.5 Imp. galls Fuel tank (66 litres) 19.5 pints (inc. Cooling system heater) 9.5 pints SAE20W/50 2.7 pints SAE80EP Engine sump Gearbox 1.6 pints SAE90EP Final drive No points Valve clearance Hydraulic tappets, self-adjusting Contact breaker Electronic 6 deg BTDC Ignition timing
 Ignition timing
 6 deg B1DC (stroboscopic at 750 rpm)

 Spark pfug—type
 Champion N12Y 0.030 in.

 Tyre pressures
 7 26; R 26 psi (normal driving)

 Max payload
 1,243 lb (564 kg)

Grease

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N/EX	minute	गुम्म	· F	Fuel	CUIEL	Autocar formula:		MEU	encerne	
Gear Top (mean)	115	крп 185	4,020	Overall mpg: 20.5 (13.8 litres/100km)		Hard driving, difficult conditions 18.6 mpg	1000		Interval ,	
(best) 4th (mean)	120 123	193 198	4,190 5,160	(11.9 litres/100km)	Isan hanti	Average driving, average conditions 22.6 mpg Gentle driving, easy conditions	5	Change 3	,000 6,000	12,000
3rd 2nd	102 69	164 111	6,000 6,000	Constant speed:	-	26.7 mpg	ALC: NO	Engine oil C Oil filter –	heck Change Change Check	Change Change Check
1st	43	69	6,000	30 40	36.0 36.0	Grade of fuel: Premium, 4-star (97 RM) Mileage recorder: 1,3 per cent	260	Spark plugs – Air cleaner –	Check	Change Change
True	Time	S	peedo	50 60 70	33.9 30.6 26.2	over reading	ina dan series dan s	Total cost £	6.45 £17.72	£26.58
30 40	3.3 4.6		30 41	80 90	23.7	Oil Consumption (SAE20W/50)		(Assuming labour at	£4.30/hour)	
50 60 70	6.3 8.4		52 63	100	18.7	2,000 miles/ pint	norde Martin			
80 90	15.6		85 95	Fade (from 70 mph in neutral)		Test Conditions		Pa	ns Cost	
100 110	26.5 39.1		105 116	'Pedal load for 0.5g stops in start/end start/	ib end	Wind: 7-12 mph Temperature: 15 deg C (59 deg F)		Brake pads/sh	oes (2	
Standing 1	/4-mile:			1 30/30 6 2 35/35 7 3 35/35 8	35/35 35/40 30/40	Barometer: 29.55 in. Hg Humidity: 90 per cent Surface: wet asphalt and concrete	10.7204	wheels) — fi Brake pads/sh	ont oes (2	£9.94
	16.6 sec, kilometre: 30.7 sec.	82 mpl	n nh	4 35/35 9 5 35/37 10	30/35 30/35	Test distance: 708 miles		wheels) — r Exhaust system	ear N	£9.83 £55.35
1				Response from 30 mph in ne	utral	Figures taken at 1,650 miles by o	ur own	Tyre—each (typ Windscreen (la	nical advertised)	£19.60 £57.24
10-30 20-40	11.2	9.3 8.3	5.9 5.5	20lb 0.35 86ft	Jistance	staff at the Motor Industry Researc Association proving ground at Nune	eaton	Headlamp unit Front wing		£13.00 £38.88
30-50 40-60 50-70	11.4 11.8	7.6	5.1 5.0	40lb 0.70 60lb 0.80 80lb 0.90	43ft 38ft 33ft	Tell of the optical and the second second		Rear bumper		£34.56
60-80 70-90	14.6 18.0	9.3 10.6	6.8 8.0	Handbrake 0.30 Max. gradient 1 in 3	100ft	All Autocar test results are subject world copyright and may not reproduced in whole or part without	ct to t be	Warranty Peri	od limited mileage	
80-100 90-110	22.8	12.6 19.6	10.9	Clutch Pedal 32lb a	nd 5¾in.	Editor's written permission	it the		innited inneage	5.0
			0.000		<u> </u>		7	国际国际 制度	Veight	
-				OVERALL LENGTH 15	5	>		Kerb, 26.7cwt	2.989lb/1,35	6kg
	e		5.62(0)	AI THE	ZIN			(Distribution F/ As tested, 30.9	R, 55.3/44.7) ewt/3,461lb/	1,570kg
	Π.				Ī			Boot capacity	: 14.4/22.4 ct	J. ft.
	4	13				0	-	Between kerbs L. 33ft. 7in;	s: R. 33ft. 9in.	
				57 ¹ 53 ¹ 57·5 ¹	53	5		Between walls L, 35ft. 11in	n; R, 36ft. 1in.	
	143913			(TD)		ALL WALL		Turns, lock to i	UCK, 2.0	
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			1	33.	35					. 4.67
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		1	1C		1-6			COMFORT IN I DRIVERS AIDS (instruments, lights	wipers, visibility atc	. 4.00
	5	So		11 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	13 Y	CO CO		CONTROLS NOISE		4.13

STOWAGE. 4.67 ROUTINE SERVICE. 3.60 (under-bannet access: dipstick etc.) EASE OF DRIVING 4.64

OVERALL RATING..... 4.30

Comparisons	Price	max	0-60	overall	capacity	power	wheelbase	length	width	kerb	fuel	tyre
	£	mph	sec	mpg	c.c.	bhp	in.	in.	in.	weight	gall	size
Car - Rover 3500 BMW 2500 Jaguar XJ 4.2 Mercedes 280SE Peugeot 604	4,750 6,639 6,283 8,935 5,306	123 121 123 120 113	8-4 9-3 8-7 9-7 9-4	20·5 21·8 16·0 16·7 19·6	3,528 2,494 4,235 2,748 2,664	155 150 180 185 136	111 106 113 113 110	185 185 195 195 186	69 ½ 69 70 73½ 70	2,989 2,998 3,946 3,560 3,263	14.5 17.2 20.0 21.0 15.5	185-14 175-14 E70-15 185-14 175-14

REAR TRACK 4' 11-1"

GROUND CLEARANCE 6-1"

FRONT TRACK 4' 11-1"

brim figure was 21.4mpg, and the worst was 19mpg for a commuting run in heavy traffic where fifth gear was not much used. There seems no reason why 25mpg should not be achieved in ordinary brisk touring, though 30mpg will present a more difficult target.

Handling and brakes

Two significant engineering decisions contributed to the new Rover's handling. One was the choice of power steering as standard, the other was the use of Boge self-levelling rear suspension.

It might have been tempting to produce a low-priced version of the car with manual steering, but the weight, tyre size and performance would have made it something of a misery to drive in such a form. Instead the right decision was taken, and from it sprang other benefits including the choice of very high gearing with only 23 turns of the wheel between extremes of a 33ft lock (itself very reasonable for a car of this size and wheelbase). Such gearing may well frighten Americans who are convinced of the dangers of the "sneeze factor", but in our experience drivers are almost immediately enthusiastic about being able to control the car in almost any situation without any flailing of arms. As Citroen have proved, ultra-high gearing such as was employed in the SM - just two turns lock to lock - can result in over-correction and the steering of a distinctly serpentine course, at least to begin with. Rover's choice of gearing seems to fall just short of such awkwardness and nobody complained of the car feeling in any way "twitchy"

Together with the perfectly-chosen gearing, the weight and feedback of the steering have also been well judged. In the manner of some high-quality European cars, the 3500 is far from finger-light but has just the right degree of weight to convince the driver the steering wheel is actually connected to something. The excellent feel sets a new standard for British power steering, and no driver should ever be in any doubt how hard the front wheels are gripping and trying to straighten themselves.

TheadvantagesoftheBogeself-levelling rear suspension are two: it ensures much better consistency of handling because the attitude of the car remains the same regardless of load, and it removes much of the risk of sudden and unexpected reaction from a heavily-laden back end suddenly running out of spring travel in a bumpy corner. Consistent handling does not necessarily mean good handling, but here again few drivers are likely to find the Rover lacking, even on its standard tyres. Our weighbridge figures show it be be markedly nose-heavy and there is a clear tendency to understeer in normal driving, which makes the car feel nicely stable. The driver who tries harder will find that full use of

power through a corner reduces the understeer and makes the car feel much more neutral, though the back wheels are unwilling actually to slide wide except on a wet surface. The long wheelbase evidently helps the balance of the car and when the limit is exceeded it breaks away slowly, in a very ladylike way. It is possible to get the front wheels to slide straight ahead by entering a corner much too-fast. lifting off the accelerator and applying even more lock in a panic attempt to get round, though in such a case the speed is scrubbed off very quickly. The smooth driver, especially if he knows his road, will find the Rover willing to flatter his driving. In particular, it takes S-bends with no suggestion of the awkward midway lurch which was something of a speciality of its predecessor, more so when heavily laden.

The Michelin tyres fitted to the test car were notable for their grip (though the skid-pan surface caused by a heavy shower after our recent long, hot spell was too much for the back wheels on one roundabout, making us appreciate the quick steering and recovery). We also noted their reluctance to squeal until the car was cornered very hard indeed - and it is worth emphasising, if it is not already clear, that the Rover can be cornered with the most distinguished of its competitors. Those who decry the lack of independent rear suspension should drive the car before they commit themselves too far.

Another apparently retrograde step in the new 3500 is the return to drum brakes at the back, but again the proof of the system is not in the paper specification, but in how it works. A glance at our fade test results reveals no problem, and despite having to carry out our braking tests on a soaking wet surface, our best stop was still a creditable 0.9g for a pedal pressure of 80lb, with the car well-balanced and all four wheels on the point of locking. The only possible criticism voiced by some drivers was that gentle check braking requires only very light pedal pressures — the initial response is quite sharp and it took practice to avoid braking harder than intended.

One undoubted benefit of drum rear brakes is the ease with which a good handbrake may be fitted. In the Rover, it gave a stop of 0.3g unaided, on the level (and in the wet) and it held the car securely facing either way on the 1 in 3 test hill. When the restart was tried, we found we were quite close to the only limit set by the high first gear; the car made the climb well enough, but there was a smell of clutch lining by the time it had reached the top.

Comfort and convenience

The Rover design team have gone for the classic recipe for a good ride, with long suspension travel and careful, progressive damping. This is especially true of the rear suspension with its Boge self-levelling struts, which have the incidental advantage of permitting an exceptional rated payload of 1,234lb (compare 863lb for the old 3500S). The secret is of course that the springs are always working about their neutral point and so the ride, like the handling, is consistent. Allied to the long wheelbase, it means the new Rover rides better than any other British car except, perhaps, for Jaguar, Bristol and Rolls-Royce; in its firmness and lack of "wallow" it is perhaps closest to the Bristol. At low speeds there is a suggestion of harshness not met in cars with really soft springing, but it is a small price to pay for the feeling of firm rocksteadiness which passengers find so

reassuring, the more so if they are prone to be car-sick. Roll angles are small, nosedive under heavy braking is scarcely noticeable and single large bumps like level crossings are ridden serenely unless one tries to crawl across.

A lot of work has clearly gone into the front seats which are well shaped to provide proper support and so remain comfortable on journeys of three hours or more. There is ample fore-and-aft movement to cater for both large and small drivers, and the seat linkage tilts the seat slightly forward as it is moved in that direction, so raising the eye-line of the small driver. Apart from this, the steering column may be adjusted for both rake and reach: it is hard to imagine what shape of person would find it impossible to arrive at a satisfactory driving position in the 3500.

The pendant-type pedals are large and well -spaced, with room to rest the left foot clear of the clutch. The clutch and accelerator linkages are smooth and free of any suggestion of "stiction" but the clutch is heavy by modern standards, needing a 32lb shove to free it completely. The five-speed gearchange has what is now the accepted gate pattern, with the lower four gears in a conventional H, and fifth to the right and forward. Although the gear lever is short and pleasant to hold, its movements are longer than expected, especially across the gate. The change quality is smooth,



There is a drop-down locker under the facia for odds and ends; the circular duct takes air for sidewindow in-door demisting

with good synchromesh, and is aided by gentle spring-loading into the third/fourth plane. In the test car, it was difficult to be certain that fifth gear was fully engaged; most of our drivers confessed to pushing the lever doubtfully into its slot when in fact it was already safely there.

The stalk-mounted minor controls work on the same principle as those in many other Leyland cars, the pattern having first been laid down by the Marina. The left-hand stalk controls the wipers and washers, while that on the right serves the horn, dipswitch and indicators. In the Rover's case the lighting master switch is also mounted on the steering column surround, beside the right-hand stalk. Other minor switches are grouped at the right hand side of the facia - neat but not entirely easy to sort out.



Rear seat room is a vast improvement over the superceded 3500 model, with a foldaway armrest. The door handles and electric window switches are in the door pulls

The instruments are nice round, legible dials, with the speedometer and rev counter immediately ahead of the driver and clearly visible through the steering wheel. The minor dials are grouped to the left of the speedometer and are less satisfactory in that the steering wheel rim cuts across them, making the battery condition indicator and oil pressure gauge especially difficult to see. This is doubly disappointing in view of the fact that the slightly eccentric-shaped steering wheel is supposed to have been designed to give a clear view of the instruments.

The back seat is a complete contrast to the one in the old Rover. While that was narrow and shaped very much for two occupants only, the new car has a wide bench that takes three average-sized adults without straining itself. There is not, perhaps, quite as much kneeroom as one might expect from such a long wheelbase, and a very large back seat passenger may find his knees touching the back of the driver's seat if it is occupied by someone similarly large. Headroom is no problem, however, and entry and exit are easy thanks to the wide (and wide-opening) doors.

The 3500 heating and ventilation system was designed with an eye to back as well as front seat comfort, and we noted in particular that back seat passengers found their feet were kept warm by the heated air channeled down the sides of the transmission tunnel from the front. The heater itself is the "corporate" unit used also in the Princess and



The stylish wheels are stylish deepdrawn pressings, with five-stud fixing; the mudflaps are standard.

TR7, an air-blending arrangement with a very large, slow-moving fan to reduce noise to a minimum. Output is excellent, as far as we could judge from brief tries in the hot weather of the test period, and it is easy to select exactly the right temperature. Ventilation is also well taken care of with four separate inlets in the front facia.

From the driver's point of view, one of the best things about the new 3500 is the absence of serious blind spots, thanks to comparatively slender pillars and the six-light body. Against this one has to set the slight nervousness of some drivers about not being able to see the extreme tip of the drooping nose line, though one soon gets used to it and it is in any case orly a few who object at all. At the back, one soon realises how little of the car's length lies aft of the lower edge of the back window, which helps to



The V8 engine has ample room round it, and routine service points are easy to reach. Below: The spare lives beneath the boot floor, with a large locker around it for tools and more luggage; the backrest folds flat to extend load space



reverse the car with confidence. The wipers — with two continuous speeds and one intermittent sweep a very wide arc of screen, and the washers are highly effective. At night, the halogen lights defy the misgivings created by their apparent shallowness and show a good range and excellent spread, with a sharp, almost Continental cut-off when dipped. It is worth remembering that the self-levelling suspension means that headlamp aim is not easily upset.

For the most part, the 3500 is a quiet car as indeed it should be when one considers the gearing. The promise of mechanical quietness is almost completely borne out, but the test car was let down to some extent by noticeable wind noise which began at 60mph or so and became worse until it levelled off at about 100mph. It seems certain that this was the result of a door-sealing problem, because other examples tried during the 3500's introduction were found to be much quieter.

Living with the Rover 3500

Owners who have lived for so long with the cramped luggage space of the old 3500 will presumably be grateful for the colossal space provided under the fifth door of its successor. The space is notable for its depth, and for the fact that the spare wheel may be fitted flat in the bottom, or upright at either side. The only drawback to the otherwise splendid luggage accommodation is the high sill over which the luggage must be lifted. The release for the fifth door is cun-ningly and neatly concealed, and the door itself is easy and light to open or close.

The depth of the boot comes about partly because the fuel tank is housed forward of the rear axle. The space beneath the back seat is limited and although the tank holds 14½ gallons, this is on the small size for a car in this class. Still, when looked at alongside the promise of fuel economy from the high gearing, a safe range approaching 300 miles may be expected.

The luggage space may of course be extended by lowering the back seat squab forward over the cushion, thereby creating a large load platform for two people travelling heavily-laden. Another praiseworthy point about the new Rover, and one whose convenience is rarely appreciated by anyone who has not tried it, is the provision of centralised locking, so that the driver automatically locks all doors simply by locking his own. Further evidence of Leyland's determination to provide a truly well-equipped car comes in the fitting of a pushbutton radio of excellent quality.

Under the sloping bonnet, there is a great deal more room than in the older 3500 and with it, an air of greater simplicity. Most of the service points are easy to reach and in any case, some of the normal service chores are not called for the tappets are hydraulic and need no adjustment, while the use of Lucas electronic ignition means an end to resetting contact breaker points.

In conclusion

It is hard to be over-enthusiastic about the new 3500; on every score, its qualities justify any kind of enthusiasm. It would have been hard to predict, especially looking at the bald paper specification, just how well the car would perform, handle and ride. Add to that the spaciousness and aerodynamic efficiency of the body, and the attention paid to ensuring that the car will last, and it is easy to see why all competitors are casting worried glances, not only at the car but also at its price. If the 3500 can be built in sufficient numbers, if the quality can be maintained along with the price, and if the ground is not cut from under its wheels by ill-advised legislation, the new 3500 should be one of the successes of the decade.

MANUFACTURE Leyland Cars, Leyland Coventry Ho Station Square, Coventry	R: ouse,
PRICES:	the plage
Basic	£4,060.00
Special Car Tax	£338.33
VAT	£351.87
Total (in GB)	£4,750.20
Seat Belts	standard
Licence	£40.00
Delivery charge (London)	£27.00
Number plates	£6.48
Total on the Road	
(exc. insurance)	£4,823.68
Insurance	Group 6
EXTRAS (inc. VAT)	
Automatic transmission	£149.76
Dunlop Denovo tyres	£91.26
Alloy wheels and	
195/70-14 tyres	£175.50
Rear seat belts*	£35.10
Passenger door mirror	£19.89
Electric windows ^{to} Fitted to test car	. £99.45i
TOTAL AS TESTED	
ON THE ROAD	£4,958.23

<u>NEW ROVER 2200/2600</u>: Member Richard Boylan provided the following information concerning the new Rover 2200/2600. A reprint from <u>Automotive Engineering</u> magazine, December 1977, and Richard's comments follow:

An unusual single overhead camshaft layout that reduces the number of components and cuts production costs is used by British Leyland for its allnew six cylinder engines replacing the V-8 in economy versions of the top-line Rover 3500. The offset shaft operates each inlet valve directly through a bucket tappet and the exhaust by a rocker, both using the same cam.

This makes it possible to have inclined valves at the optimum 40 degrees included angle for a high-performance pentroof combustion chamber in a crossflow cylinder head, but with only one camshaft. Compared with a centrally-placed sohe it totally eliminates one set of rockers and associated shaft, and halves the number of cams required.

BL originally developed the concept for the Triumph Dolomite Sprint introduced in 1973. That engine was to have four valves per cylinder, and the single offset camshaft gave a simple solution to their operation.



All valve gear is carried on an alloy casting bolted to crossflow head with splayed valves in pentroof combustion chambers. Symmetrical cylinder block avoids head distortion. Ribbed crankcase skirt extends well below crank centerline.

The Rover design with two values is a logical follow-up. In both cases the inlet values are actuated by the tappets, which give higher lift for improved induction gas flow without having to increase value size. Springs on both values are the same, with an additional small inner coil on the exhaust to compensate for the extra inertia of the rocker.

The valve gear assembly, including the camshaft, rocker shaft and tappet slides, is carried on a detachable aluminum alloy diecasting. This is the same width as the alloy head and bolts directly to it. A toothed belt drives the camshaft, used for the first time by BL.

Displacements of the two engines are 2350 cc (143.4 cu in.) and 2597 cc (158.3 cu in.), and compression ratio is 9.25:1. Rated outputs are 123 and 136 DIN hp at 5000 rpm, with maximum torques of 134 lb ft at 4000 rpm and 152 lb ft at 3750 respectively. They have a common bore of 81 mm (3.189 in.), with strokes of 76 mm (2.992 in.) and 84 mm (3.307 in.). With the exception of the crankshaft and pistons all components of the two are common, and they otherwise differ only in the tune of the twin SU HS6 carburetors. According to the engine the new car models are designated Rover 2300 and 2600.

A four-bearing crankshaft was specified in the original design brief to minimize friction for greater economy. Large journal diameters on the steel forgings give adequate overlap and extreme rigidity even with the longer-stroke crank. The



Single belt-driven onc on new in-line six for Rover 2300 and 2600 operates inlet valves through tappets and exhaust by rockers. Distributor is geared to front of shaft. Units develop 123 and 136 hp at 5000 rpm.



Pertormance graphs for new six-cylinder engines. Efficiency is indicated by specific fuel consumption, which in each case is below 0.5 pints per hp-hr in the commonly-used 3000-4000 rpm speed band.

cylinder block is cast in chrome iron, and has equally spaced bores with full water jacketing.

Removal of ancillary drives from the block allows it to be entirely symmetrical, thus avoiding heat distortion problems. This is aided by a symmetrical bolt pattern for the cylinder head. The ignition distributor is driven off the front of the camshaft by skew gearing and a very short shaft. It is mounted horizontally on the upper casting in an easily-accessible position for servicing.

The oil pump is of the eccentric multi-lobe type coaxial with the crankshaft nose. Its external casing bolts to the front of the crankcase, with the lower face sealing against the extended foward portion of the oil pan. An unusual safety feature is a cutout switch that isolates the electric fuel pump when oil pressure drops below 3 psi to avoid fire hazard in an accident.



Member Richard Boylan also comments that the dirrences betwenn the 2300/2600 and the new 3500 are similar to those between the older 2000/2200 and the 3500S. The 2300/2600 has optional power steering and power windows, lower final drive ratio, 4 speed, no self leveling, smaller wheels and tires, and some further interior economies. A 2600 can keep up with a 3500 at any normal speed, say the tests, due to a lower final ratio. It's a bit noisier, too. However, there's supposed to be plenty of room under the hood to get at the engine. It's supposed to fill the gap left by the 2200. It's six inches longer and 100 lbs lighter. This is all academic unless they begin importing them, and it doesn't look likely. Closest is the fact that the 1978 EPA guide lists a Triumph TR8, which is the TR7 with the 3500 V-8 in it. Note the new pre-engaged starter motor - news for sheared shear-pin 200 owners. Note also the recessed water pump, which should be difficult to replace. And the unprecedented toothed-belt cam drive.

viscous coupling.

I would like some help in the identification of what appears to be a very old Landy. It still has the military plates on the front, and a Ministry of Supply plate on the dash, which reads as follows:

Chassis	06102371	Engine rebuild plate dated	59
Vehicle	06 B0 57	Cylinders bored .040	
—			

Contract

The engine is a two litre, clutch is mechanical, brake reservoir is under the driver's seat. Right hand drive. Electric fuel pump (original).

Any information on the year of this car, and an appropriate workshop manual would be greatly appreciated. Contact: Mark Fontanella, Box 741, N. Grosvenordale, Connecticut, 06255.

From U.S. NEWS & WORLD REPORT, October 3, 1977:

If you wonder how Japanese car builders can keep jolting rivals abroad - -

On one September day, <u>Honda Motor</u> workers and management agreed to <u>skip four holidays</u> the rest of 1977 - to turn out more vehicles. At about the same time, <u>British Leyland's</u> Rover auto workers rejected the idea of <u>night shifts</u>.

For Japan's Honda, it meant 24 hour, nonstop production of the Civic and Accord models. For dealers in Europe, America, other foreign markets pleading for Honda's hot-selling products, it means <u>more merchandise - faster</u>. Thousands of Honda cars and motorcycles will roll off assembly lines on the extra days.

In Britain, the Rover hands turned down the after-dark work for fear it would <u>disrupt</u> their family lives. For Rover buyers, it means that under present schedules, they may not see newly ordered cars until <u>June 1978</u>.

The Rover workers' reluctance to make special efforts not only contrasts with the Honda spirit, but also joins the strikes and other disputes that flaw Britain's auto labor record. A legacy of that troubled condition:

In August, <u>50.76 per cent</u> of the new cars registered in Britain were <u>foreign models</u>, the first time the British had been outsold on their own turf.

The 1978 Edition of the Vintage Auto Almanac, published by Hemmings Motor News is now off the press and available. It lists over 2,000 businesses, museums, clubs, and individuals devoted to old cars. In addition to the excellent directory, the editors have embellished the pages with nearly 200 short articles, including "how to tips" from the pros, anecdotes on industry pioneers, and milestones in automotive history. Price is \$5.50 from: Vintage Auto Almanac

PO Box 945, Dept. 285A Bennington, Vermont, 05201

FOURTH ANNUAL ANTIQUE & CLASSIC COLLECTOR CAR SWAP MEET - February 17, 18, 19, 1978. 500 car auction - World's largest indoor meet, 2 full city blocks. Information: Day or night 609-344-8613, B&E Productions, Inc., Box 840, Atlantic City, New Jersey, 08404.

LAND-ROVER SPARES: ABC Equipment, The Green, Clayton, Doncaster, South Yorkshire, England DN5 7DD, telephone South Elmsall 43103, can supply new, reconditioned, or second-hand parts for the Series I, IIa, or III modesl. They can ship them via air or sea freight.



GENERAL DESCRIPTION

The Station Wagon body is mounted on the standard Land-Rover chassis frame and the layout and controls are almost identical with those on the standard vehicle.

Straightforward coachwork construction is used throughout, *i.e.*, the wooden body frame, reinforced with metal gussets and cross-members, is bolted directly to the chassis frame; this framework is enclosed by metal outer panels and trimmed interior panels. The outer panels are manufactured from Birmabright BB2 (*i.e.*, the same material as the standard body).

Two front doors are provided, while at the rear, both the full-width reinforced tailboard and rear light are hinged to allow easy access to the rear compartment. The rear light may be opened from either inside or outside the vehicle, irrespective of whether the tailboard is up or down. It is fitted with spring-loaded linkage to retain it in the fully open position; finger nuts on the linkage provide means of securing it in any position.

The windscreen and rear window are fixed; drop glasses and ventilating windows are fitted to the front doors, while each side window comprises a fixed and sliding panel secured with a catch.

The front passenger's door can be locked by pulling the inner door handle backwards as far as possible; this can be done before or after the door is shut. Both the driver's door and tailboard are fitted with locking handles which can be locked by means of the ignition key.

Seats are provided for seven persons, three in bucket seats in the front and two on each wheel arch. The left-hand front seat is hinged and can be pushed forward to allow entry into the rear compartment from the front door. The four loose seat cushions in the rear are retained by straps and can be stowed vertically and secured by further straps when maximum stowage space is required.

In order to accommodate the hinged front seat on the left-hand side, a special seat box section which dispenses with the normal tool locker is incorporated. Access panels for the gearbox, petrol tank filler and brake fluid reservoir are provided in the seatbox and may be opened when the respective seat cushions are removed.



Fig. U-1. General view of Station Wagon.

Hand tools are accommodated in two boxes at the rear of the rear wheel arches (accessible with the tailboard lowered) and in clips on the rear face of the seat box; the starting handle is clipped to the dash panel.

The instrument panel and controls on the dash are identical with those fitted on the standard vehicle, but in addition, a finishing panel on the dash incorporates two glove boxes and further controls which are described below.

To reduce noise, the gearbox cover panel is carpeted and the dash panel covered with panelling, while rubber mats are fitted on the floor in both the front and rear compartments.



Fig. U-2. Body trimming.



Artist Ken Dallison got one look at a Land Rover and fell helplessly in love. We're with him. We don't know what we'd use it for, but we want one.



CAR and DRIVER

The enthusiastic automotive journaiist usually knows just what to do with whatever car happens to be at his disposal at any given moment. If he has an American sedan, he goes out and rushes around a road-racing circuit somewhere. If he gets a sports car he uses it to commute in the heaviest traffic he can find. Tiny economy sedans are always used for long trips with the whole family aboard. In these days of specificcars-for-specific-purposes, anything less than this kind of perfect editorial judgement would be disastrous.

To be confronted with a car like the Land Rover poses some perplexing problems. There are very few safaris or archeological expeditions being mounted from our offices and none of us are much for bashing through virgin forests or attempting to cross the Central Park veldt (one could handle restless natives, but muggers are something else). So, what to do with a Land Rover?

A Land Rover is at once a delightful runabout and a rolling torture chamber. It combines the best and worst features of a truck with the sprightly insouciance of an MG-TC. It is a car that every man feels compelled to buy at one time or another, but hardly anybody has any use for. It is best suited to off-the-road, cross-country adventure. Conversely, it is not specifically useful for shopping trips, or general familyhousehold use, but that's what people do with it.

Every other magazine that ever covered a car like the Land Rover spent all their editorial time in fourwheel-drive, alternately scaling sheer cliff faces or plunging through unfordable streams with murky water and alligators clear up to the windows. That, of course, is what the Land Rover was designed for. American buyers, however, tend to use the vehicle for more mundane pursuits, so we decided to examine it fit that light.

Our first long drive in a Land Rover was from Lime Rock Park to Brooklyn (you may ask why anybody would go from Lime Rock Park to Brooklyn, but it is not germane to the discussion, and it's none of your business, anyway). A nice-looking blonde lady occupied the shotgun seat and shouted route instructions to us, while a friend who suffered from too much beer and a measured height of six feet, four inches, attempted to sleep in the back. The driver was delighted, the lady was hoarse, and the sprawling passenger was uncomfortable. What's more, the violent changes of direction and velocity caused by the driver's immoderate enthusiasm resulted in some fairly painful cargo shifts. On disembarking at a pizza-to-go place in metropolitan New York, the passenger said "I've never been so miserable in my life. Wouldn't it be a ball to own one of these things?"

This is but one of several instances where perfectly reasonable people have seemed to take leave of their senses on first meeting the Land Rover. It is less a car than a state of mind. Its owners are the most partisan group imaginable and its would-be owners are legion. A friend, who was in the midst of a move from one house to another in the same community, said "All I've really used it for is hauling some stuff back and forth this weekend. and driving the family around the rest of the time, but I really don't know how I ever got along without it."

The Land Rover has another very valuable application. Ladies who cannot be impressed with Alfa Romeos and Ferraris are apt to fall madly in love with the devil-maycare aspect of the little beastie. With any luck at all, the ardent swain can then effect a transfer of this affection from the vehicle to himself. The best example we can recall is an old friend, a bit of a rake, who was casting about for some new way to delight one of this country's most beautiful models. He managed to bowl her over completely by picking her up in the middle of a roaring thunderstorm, driving her to the edge of a Central Park lagoon, and feeding her a picnic lunch and several bottles of beer in the back of the Land Rover. He could have flown her to Jamaica, fed her at Chambord, or rented a beach house for her at Malibu, and his virile grace would not have been more indelibly inscribed on her heart. Women are as perverse as Land Rovers.

Land Rovers are not accepted for racing—not at this writing anyhow —and they will never replace the limousine as a way of transporting the very rich, but they do have style and a kind of studied carelessnes. A man who rockets around the suburbs —or attempts to seduce fastidious young women—in a Land Rover. is obviously a man worth watching. He must be one who can tell society to go to hell and get away with it.

Its charms have not eluded a band of English bank robbers, and rival Presidential candidate Marvin Kitman uses one as a campaign vehicle. Lets face it, now that sports cars are being driven by just anybody, the Land Rover could well be our last automotive frontier. cp



No dog this, but it's many a driver's best friend

ROVER us, ance we'v stree

DRIVING THE ROVER 100 was, to us, like renewing our acquaintance with an old friend; a friend we've occasionally passed on the street but haven't had a chance to sit down with and talk over

to sit down with and talk over old times. It has been nine years since *Road & Track* tested the comparable model of Rover—the 75. We did have a test report on Rover's newer 3-liter model in the December 1959 issue of *Road & Track*, but that is a completely different car. Back in August 1952, Bob Dearborn reported in R&T's Rover 75 road test that he felt that ". . . (barring the Rolls Royce) there is no finer car built in the world today." He was, as he admitted, sticking his neck out, and he actually proved the strength of his convictions by buying a Rover.

The over-all appearance hasn't changed much since the 75—new front fenders and headlight treatment being the most obvious—and neither has the quality. It was, and is, excellent.

The appearance of the Rover is not something that

would cause the majority of people to make strong positive or negative judgments. There are a great many "I don't.knows." The Rover 100 doesn't have the sleek beauty of some of our contemporary auto designs and you really wouldn't expect it to—it's 10 years old. But, on the other hand, it doesn't have the overdecorated, gaudy look of certain other contemporary vehicles. And whatever it lacks in exciting contours it makes up for in quality of assembly and finish.

For those not familiar with the Rover, this model has appeared as the 60, 75, 90 and 105, each with a more powerful version of the same 6-cyl F-head engine. The Rover 100 has a new engine (still an Fhead design with overhead intake and side exhaust valves) which is a short-stroke version of the newer 3-liter engine.

The 100 engine has the same bore as the 3-liter, 3.06-in., but with the stroke shortened from 4.14 to 3.63 in., resulting in a displacement of 2625 cc (160.3 cu in.). The crankshaft is carried in 7 main bear-

ings and the exhaust valves operate directly off the camshaft, while the intakes are actuated by pushrods and short rocker arms.

The engine is an extremely rugged unit, and also very flexible in its operation. It will accelerate the car smoothly, if not briskly, from 10 mph on up in 4th gear and yet seems quite happy to buzz along at around 5000 rpm if called on to do so.

The interior of the Rover has a lush, luxurious look seen in very few cars today, custom built or otherwise. Genuine leather-covered seats, front and rear, full carpeting on the floor, polished wood instrument panel and window moldings (which require considerable care in certain climates to retain the finish) and a wondrous group of special features make the car fit for a queen.

Leather upholstery, walnut instrument panel and window frames and fully carpeted interior (the rubber mats are





Two glove compartments are built into the panel one on the passenger's side and one in the center (which is replaced by the radio if the car is so-equipped); a tidy tool kit slides out from under the panel on the passenger's side; the armrests on the front doors are adjustable for height (back door armrests are fixed); a folding armrest divides both front and back seats; pushing a button on the instrument panel causes the gas gauge to indicate engine oil level; a foot-operated windshield washer and a catch inside the trunk compartment will lock the gas filler door shut. A swing-out ash tray hides under the panel to the right of the heater controls, and was severely criticized by the smokers on the staff, for being both awkward to use and too small.

The gear-shifting mechanism looks like something out

temporary fixtures) project the quality image. Two glove boxes offer enormous capacity for odds and ends.





DIMENSIONS

Wheelbase, in	
Tread, f and r	.53.0/51.5
Over-all length, in .	178-2
width	
height	
equivalent vol, cu	ft 421
Frontal area, sq ft	
Ground clearance, i	n
Steering ratio, o/a.	
turns, lock to loci	c
turning circle, ft.	
Hip room, front	
Hip room, rear	
Pedal to seat back	
Floor to ground	

CALCULATED DATA

Lb/hp (test wt)	35.3
Cu ft/ton mile	61.5
Engine revs/mile	.2630
Piston travel, ft/mile	.1590
equivalent moh	
R&T wear index	

SPECIFICATIONS

List price	\$3695
Curb weight, lb	
Test weight	
distribution, %	.55.5/44.5
Tire size 6.0	10/6.40-15
Brake swept area	
Engine type 6 c	yl, F-head
Bore & stroke	3.06 x 3.62
Displacement, cc	
cu in	
Compression ratio	
Bhp @ rpm 1	04 @ 4750
equivalent mph.	108.5
Torque, lb-ft1	38 @ 1500
equivalent mph	

GEAR RATIOS

4th (1.00)	36
a contract of the second se	
3rd (1.38) 5.92	調約
2nd (2.21) 8.79	

SPEEDOMETER ERROR

... actual, 29.5 30 mph. 58.9 60 mph.

PERFORMANCE

Top speed (o/d), mph95
best time	1 run
3rd (4650))60
2nd (4750)
1st (4750)

FUEL CONSUMPTION

Normal range, mpg 16/22

ACCELERATION

0-30 mp	h, sec		. 5.6
0-40	States &		8.4
0-50	$\lambda \geq 2^{-1}$	A HAR CO	12.8
0-60	and a second		161
0-70	esteries.		.27.0
0-80	eres etc.		.37.6
0-100	a the second	A Press	
Standin	g 1/4 mile		21.2
		COLO C CLO	CICICIA LA

TAPLEY DATA

4th, lb/ton @	mph.	.190 () 50
3rd		.270 (2 45
2nd	See int	.410 @	D 37
Total drag at	60 mp	h; 16	180



ELAPSED TIME IN SECONDS

of Rube Goldberg but worked surprisingly well. A slight pressure is required to move the lever through the spring-loaded gate to get it up into reverse, but no one who drove the car, and most everyone on our staff did, complained of any difficulty in shifting. In fact, almost everyone who drove it commented that it seemed so easy to get used to that it was almost as though he had owned one for years.

Vision from the driver's seat is good to the front and sides but not exceptional to the rear. This car was equipped with one of those convex mirrors, which do increase the field of vision, but which we loathe.

While we wouldn't go so far as to say the loudest noise you can hear is the electric clock, the Rover is remarkably quiet at all times. In a recent road test of the 100, *The Autocar* testers commented: "The self-starter, in any case, works quietly; passengers in the car often fail to notice use of it, and are surprised when the car suddenly moves away."

And the noise level did not increase appreciably as the speed in-

creased. Normal conversation could be carried on between passengers without raising the voice. The only sour note in the well-publicized "Rover-quiet" was the transmission whine in first gear, reminiscent of certain cars built in the Thirties. The upper three gears and overdrive, however, were completely silent.

The overdrive (Laycock de Normanville) works when the shift lever is in 4th only, and is brought into play by a small lever on the right side of the steering column opposite the turn-indicator handle—and the electricallyactuated change is instantaneous. Pulling power in o/d is greatly reduced, but so are fuel consumption and noise.

Under most conditions the 100 will go as fast in 4th as it will in o/d, due to the extremely high gearing of the o/d unit. The o/d is not a maximum performance accessory, although on a long, long straight stretch of road it undoubtedly will allow the car to pick up a few odd mph. The 22.3% reduction in engine rpm increases the mph/1000



rpm from 17.8 to 22.8, which, if maximum horsepower and rpm (104) (@ 4750) could be obtained in o/d, would bring the top speed up to 108 mph.

Stopping power of the Rover is provided by Girling disc brakes on the front wheels and drum brakes on the rear, vacuum-servo assisted. We did not put the brakes to a really severe test but we did use them hard during performance checks and found no trace of fade. The pedal pressure remained light, as expected, and no tendency to pull or judder developed.

When we first picked up the car from Peter Satori's showroom in-Pasadena (the same place we got the Rover 75 nine years ago) there was a very noticeable tire squeal when negotiating corners, and the steering effort required to park in a tight spot was considerable. We checked the tire pressures, found them to be a shade on the low side and, from recommendations in the manual, increased the pressure all around by six psi to 34 front and 30 rear, which are recommended for fast motoring. This

successfully eliminated squeal, parking effort and, to some extent, the understeering characteristics. It also firmed up the ride a great deal.

Driving the Rover is a very pleasant, if not terribly exciting, experience. As stated before, it is one of the quietest cars on the road. It is also comfortable and handles well, giving the driver and passengers a feeling of security.

The Rover is obviously not a sports car *per se* and we would not rate it as a GT car. It is for the buyer who is more interested in quality, comfort and reliability than in getting somewhere in a great hurry. We picture the Rover owner as a person (we were going to say man, but the women seemed to admire our test car as much as, or in some cases, more than, the men) who likes the finer things of life and may drive a car for the sheer pleasure of going somewhere, but if he's really in a hurry will take a plane. And that's exactly the way we feel.



The Rover's trunk compartment is capacious and has a usable configuration; the spare tire is reached through opening below bumper.



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- Volume I, Number 1 5 pages Association goals
 - Oil filter cross-reference chart for Rover and Land-Rover New transmission for Rover 2000 & 3500 Range Rover introduction Manual transmission adjustment for Rover 2000 Half-shaft U-joint problems on 2000
 - Volume I, Number 2 5 pages A short Rover bibliography Rover and Land-Rover production figures Rust problems on Rover 2000 Rover durability - an overview Rover parts and service sources
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- Volume III, Number 4 7 pages Land-Rover/Shorts armored personnel carrier - pictorial Some specialised Land-Rovers Fairey overdrive for Land-Rover Land-Rover specialty sources Past Rovers - Rover 110
- Volume III, Number 6 - 16 pages Land-Rover withdrawn from U.S. market No plans to market Range Rover in U.S. Service and parts sources Land-Rover/Chevrolet engine swap Land-Rover owners comment Technical section: Rear caliper (Girling) rebuild details for Rover 2000 & 3500 Brake disc wear specs for 2000/3500 Brake pad damping shims Land-Rover carb float valve service L-R oil pressure relief valve spring L-R steering rod clips and ball joints Oil leakage from steering relay Land-Rover road springs
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- Volume IV, Number 2 16 pages Land-Rover pictorial Land-Rover ownrs comment

Volume IV, Number 2 (continued) Land-Rover exhaust manifolds Compression ratio increase for L-R 2☆ litre More Land-Rover parts interchange info Land-Rover/Fairey overdrive - test Technical section: Rover carb fast-idle adjustment 3500 exhaust manifold information 2000 Automatic trans shift adjustment Dynamo lubrication - Rover & Land-Rover Rover 2000TC spark plug details Rover 3500 engine oil sump 2000 and 3500 engine flame traps Rover 2000 clutch repairs 2000 primary pinion lubrication 2000/3500 bonnet latch information 3500 distributor contact points Land-Rover steering relay unit Volume IV, Number 3 - 16 pages Rover/BRM Turbine - pictorial L-R spin-on oil filter conversion A history of the Headquarter Club Complete listing of member clubs How tire size affects speedometer readings on the Land-Rover Some practical tips for river crossing Rover/Land-Rover parts & service sources Land-Rover owners comment Technical section: Land-Rover gearbox specs Land-Rover front crankshaft pulley Towing recommendations for Rover and Land-Rover vehicles Automatic trans dipstick information Volume IV, Number 4 - 21 pages Land-Rover pictorial Artist's line drawing of new Rover Dick O'Kane on Land-Rovers - reprint Engine block heaters for Land-Rover Negative ground conversions for L-R Land-Rover overdrive British-Leyland problems - a review Land-Rover parts interchange Land-Rover 109 rear brakes Land-Rover front hub advice Technical tips for Land-Rover owners Land-Rover suspension modifications Land-Rover/Olds V-8 engine swap - a review and pictorial Additional parts sources Land-Rover Expeditions - a new book Technical section: Rover 2000TC rotor arm in distributor 2000 Automatic gear selector housing 2000/3500 auto trans adjustment Cylinder head thread insert salvage instructions

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LAND-ROVER ACCESSORIES (Limited Supply Available)

Land-Rover	lapel badge	\$1.00	including	shipping
Land-Rover	overall patch	\$0.75	including	shipping
Land-Rover	cufflinks	\$3.50	including	shipping

BOOKS:

Land-Rover: Workhorse of the World, by Graham Robson List \$12.95 Members \$10.50 The Rover, by Graham Robson List \$14.95 Members \$11.95

ROVER LITERATURE (limited Supply Available)

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- FOR SALE: 1968 Rover 2000TC. Red exterior, black interior. Air conditioning, AM/FM radio, new radial tires, actual 62,000 miles. History available - I picked it up new at the Solihull factory. Transistorized ignition added. Generally good condition. Phone for details: 513-423-2969 after 5:00 P.M. Tom Clarke, 1540 Blair Court, Middletown, Ohio, 45042.
- WANTED: Rover diesel engine. Will consider offering 4-cylinder petrol engine as part of deal. Contact: John Kirk, 31-45 102 Street, East Elmhurst, New York, 11369.
- FOR SALE: Land-Rover parts. Contact: Steven H. Gillum, P.O. Box 3256, Lubbock, Texas, 794124
- WANTED: Five 16" wheels for Land-Rover, or will trade for five 15" wheels in absolutely perfect condition plus five tubes used with the original tires for only 16,000 miles. Contact: Thomas Gallucci, 113 Fern Street, Naugatuck, Connecticut, 06770.
- FOR SALE: 1966 Rover 2000TC. Needs Attention from the right person. Sunroof. Body, engine, transmission, clutch and rear end in excellent condition. Engine freshly rebuilt, new clutch installed. Needs rear brakes, muffler and a little love. \$400.00 firm. Much more invested. Call Neil at: business phone Wednesday through Saturday, 215-252-2635 or 201-859-2280. Leave name and number for return call.
- FOR SALE: Volvo 140 Series Factory manual and Chiltons Manual _ \$5.00 for both Austin Mini 850 Factory workshop manual \$5.00 Jaguar 2.4 and 3.4 Mks I and II and 3.8 Mk II Automatic 1956 to 1961 - \$5.00 C. Brian Kapalin, 167 Oakland Road, Maplewood, New Jersey, 07040.

ABC Equipment in South Yorkshire recently advised us that they specialize in Land-Rover parts, both new and used. Fred Booth, proprietor of ABC Equipment, indicated that he handles original factory spares as well as accessories and the like. He said that his prices are 30% to 50% less than prices for the same part in the U.S., including shipment. For example, Factory manuals run about \$17.00 via ship. Write for information at: ABC Equipment, The Green Clayton, Doncaster, South Yorkshire, DN5 7DD, England. Phone: South Elmsall 43103.

