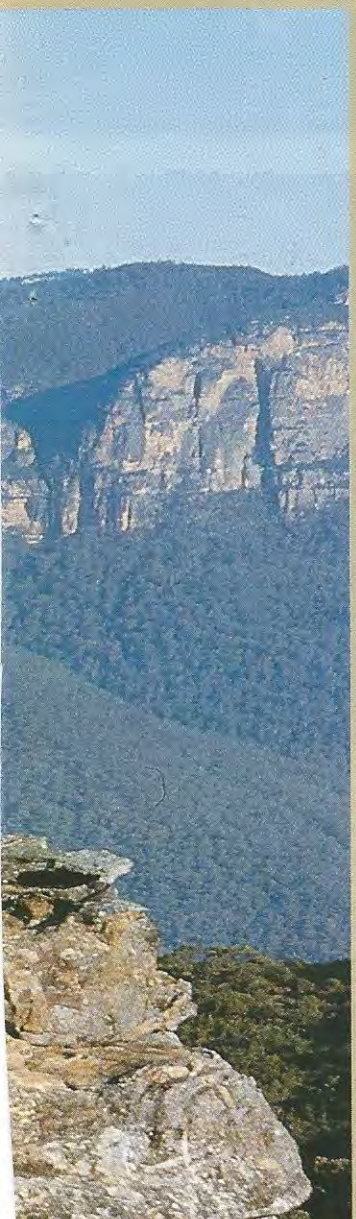
LEYLAND STRIKES BACK!

WITH A NOW MUCH MORE APPEALING PRODUCT AND A NOTICEABLE IMPROVEMENT IN QUALITY CONTROL, IT CAN TRULY BE SAID THAT LEYLAND HAVE STRUCK BACK

STORY/PHOTOS: RAY BARKER

BUSHDRIVER ORV TEST

RANGE ROVER
RROVER



RANGE ROVER
RROVER

The map said the track was there and qualified it as "four wheel drive only". I had been that way many times and had never seen any sign of a trail heading in that direction.

They say the proof of the pudding, etc . . . so we climbed aboard Leyland's new 4-door Range Rover and headed for the mountains. Even with eyes peeled, we missed the turn-off the first time. Had we not been specifically looking for the start of the track, it would have remained hidden, as it angled back off the road at "8 o'clock" and ran down an embankment before quickly disappearing into a clump of trees.

Flushed with success, we wound the Range Rover in and out of the trees and commenced to challenge the trail. It was obvious that very few vehicles had ever travelled this way. We saw a few faded trail-bike tyre prints and, in one section, someone had sawn through a few dead trees that had fallen across the trail. Further up, young saplings stood strongly erect in the centre of the "road". Branches clawed and screeched their way down the sides of the gleaming white panels. Rocky sections made the Rover tilt from side to side as the suspension gracefully manhandled boulders the size of beanbags.

Three-quarters of the way up we came to a dry creek crossing, through the centre of which had fallen a half-metre-thick tree trunk. Each side of the creek was a conglomeration of suspension-breaking rocks. What to do . . . ?

It was impossible to retreat: the narrow track left absolutely no room to turn around. The slope down the mountainside was best not looked at, and the chances of negotiating the difficult track in reverse were nil.

Incidentally, we had broken several 4WD safety rules: we were travelling unknown territory alone, without adequate recovery gear, and without telling anyone where we would be. Ric Williams will probably cancel my subscription to Underblunder just to teach me a lesson!

When you challenge a very difficult obstacle in your four wheeler, the adrenalin starts to pump. When you challenge a seemingly impossible obstacle in someone else's $25,000 pride and joy, the adrenalin pumps by the bucketful and sloshes out of your armpits.

Second gear low ratio forced the Rover forward. The vehicle shuddered as the diff housings graunched across the rocks. Everything sounded expensive. Something at the back gave a resounding thud as the Rover headed out and up the other side. A last-second change of direction saved one of the magnificent alloy wheels but resulted in a branch giving us a karate chop right into the alloy panel forward of the windscreen.

A quick under-vehicle inspection revealed very little in the way of damage. The lowest points of the diff housings were scored (thank goodness Leyland has seen the wisdom of moving the drain plugs away from B.D.C.). The towing eyes on the rear chassis rails were pushed up flush and the rear bumper was jammed tight with the timber it had shaved off the top of the log.

The passengers . . . ? They had had their eyes closed and hadn't felt a thing. So they say.

Two hours later we were whistling down the expressway; Barbara Streisand was saying something about not getting flowers, and the speedo said 110 km/h — 50 km/h short of its true potential. Everyone was asleep . . . except me. I was thinking of legends.

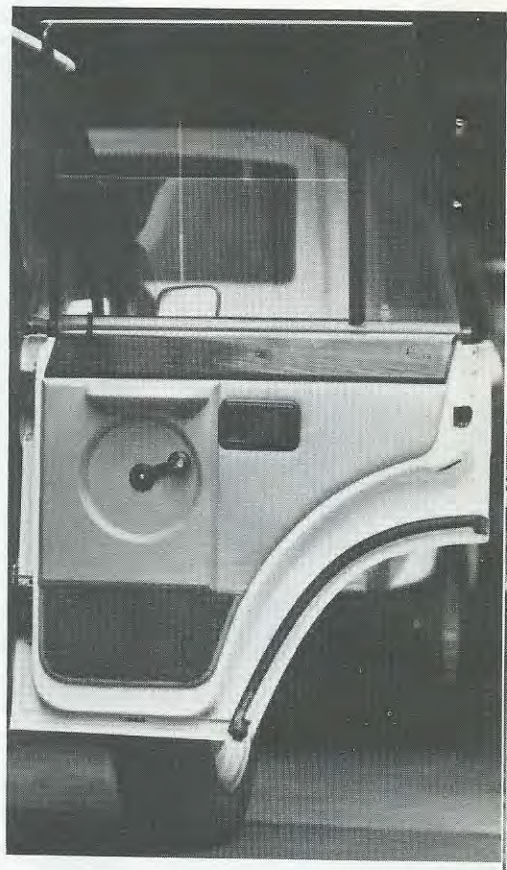
THE VEHICLE

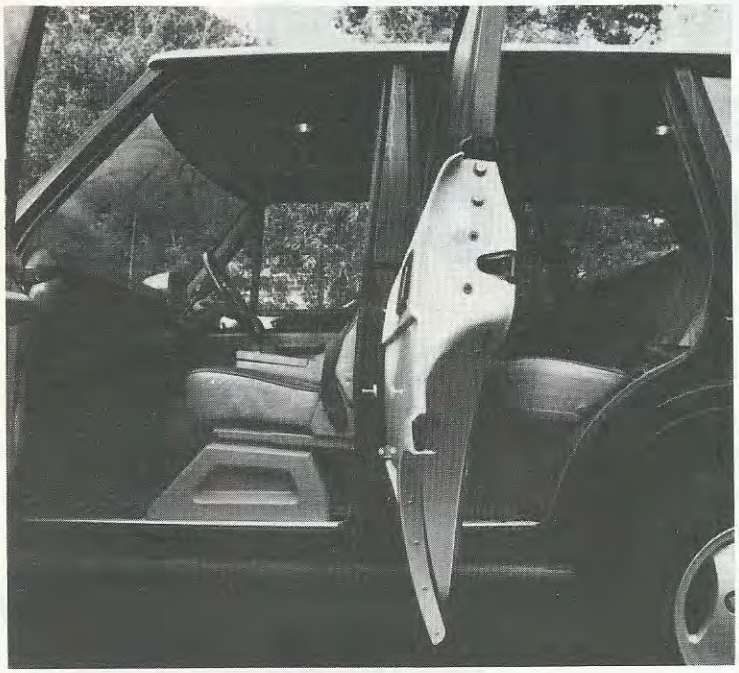
BUSHDRIVER'S test Range Rover was a fully-imported vehicle and, as such, differed a little from the standard production units being built at Leyland's factory in Enfield, NSW.

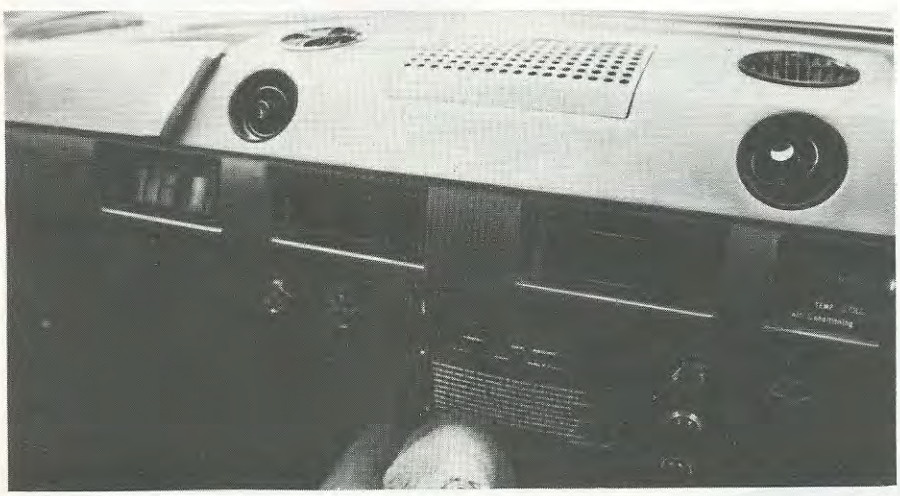
Most noticeable, of course, are the very attractive 7.00J x 16 three-spoke alloy wheels. These rims are 25mm wider than the normal 6.00J x 16 steel rims and use the same Michelin XMS 205 radials. Leyland will no doubt offer the alloy wheels as an option at some later date, and they should prove very popular. Buyers should be aware, however, that the extra 25mm of rim width means that the wheel is less protected from rock damage than is the narrower steel rim.

Other features not available on Australian models are the woodgrain door cappings and the inertia lap-sash rear belts. Aussie Range Rovers make up for the lack of those niceties by having better location of the ancillary gauges and a 12-second interior light delay which keeps the light on for a short time after the doors are closed. This enables the occupants to buckle up and find the ignition lock without difficulty.

For someone trading up from a two-door Range Rover to a four-door model, the interior is where it's all at. In one







swoop, Leyland have wiped out things that have annoyed Range Rover owners for ten years. No longer need the owner struggle with heavy doors that are so wide that they make getting out in tight parking situations occasionally embarrassing. The sliding side windows that always seemed to latch in the wrong spot are not needed on the four door. Nor is the clunky seat tilt and slide mechanism. In fact, the things that have always really irritated me have disappeared entirely.

Leyland's designers have done such a good job on the four-door that most will agree that the new model looks better balanced than the two-door. Compromises have been made, of course, but it must also be remembered that a Range Rover is a short wheelbase four wheel drive. At 2540mm, its wheelbase is 190mm shorter than Toyota's 60 Series wagons and a whopping 430mm shorter than Nissan's MQ wagons. With that in mind, it is easy to understand that by comparison to the Japanese wagons and to Jeep's Cherokee, the Range Rover offers less leg room for rear passengers and a shallower cargo area.

In an effort to maximise rear legroom, Leyland has moved the rear seat 75mm further toward the rear than it is in the two-door. Unfortunately, a good portion of the rear seat cushion's outer extremities have been done away with in order to clear the rear wheel wells. This will not worry two rear passengers, but if three adults have to ride in the back, then the two nearest the doors are going to end up with bruised backsides. The short wheelbase also means that all four doors are relatively narrow. Perhaps "tallish" is more the word for a Range Rover. Entry and exit via the front doors is quite good. The rear could be better. The rear wheel arches dispense with a fair amount of the rear door trailing edges, thus when you wind the rear window down, it goes only half way. That may annoy adult rear passengers but, at the same time, could be a good safety feature where kids are concerned.

The front seats have been slightly modified to provide better support to the lower back region. The seats do not recline and are only adjustable fore and aft. Range Rover seats are unique in that they incorporate the anchorage points for the inertia seat belts. The seat anchorage points are designed to withstand a load of 3050 kg. In the event of an accident, the front passengers are virtually located on "islands" and, because the seat belts are not attached to the door pillars, they are less likely to cause injury to the passengers in side-swipe or roll-over situ-

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ations. Over the years, there have been several horrendous head-on accidents involving Range Rovers and normal passenger cars. It is worth noting that, in most instances, the Range Rover occupants escaped with their lives while many of the occupants in the normal sedans were not so lucky.

The upright fixed front seats I find excellent for all types of driving. However, my wife admits that she is never truly relaxed in the passenger seat. On a long trip, it is difficult for the front passenger to have a sleep. The combination of upright seat back, short seat cushion and vehicle sway during cornering makes things less than ideal for a peaceful doze.

Of course, the passengers can always look at the view through the panoramic Sundym tinted windows or perhaps check out the quality of the interior fittings. The ceiling is brushed nylon and incorporates two roof lights. The lights can be operated via the steering column switch or the door switches. No separate cargo light switch is offered.

Nutmeg velvet cloth seat facings give the interior an extremely rich appearance. Deep pile carpets, which are removable for bush work, are fitted, and carpet treatment is continued on the lower door trims, the spare wheel cover and the tool flap. A heavier duty carpet covers the corrugated aluminium floor of the cargo area.

On the transmission tunnel is a large upholstered console which is also lined in matching carpet. This console replaces the normal glovebox which is eliminated when air conditioning is fitted.

Ahead of the console is a large ashtray, the "high, neutral, low" transfer case lever, a lever-action handbrake, the main gear lever and the differential lock-out switch. A vertical panel in front of the gear lever houses the heating-demisting controls, switch for tailgate window heater and cigarette lighter.

On full boost, fresh air can be drawn through the interior and out the rear vents, completely changing the air inside the vehicle every minute. The rear ventilation louvres contain one-way flaps which allow the interior air to escape but prevent dust from entering from the outside.

The demisting operation also acts on the side windows, thus making cold weather travel considerably safer.

When air conditioning is fitted, the ancillary gauges, which are normally mounted almost out of sight, are moved up to the top edge of the fascia panel. That means you not only get refreshingly cold air at the flick of a switch, you also get to see the clock, voltmeter, oil pressure gauge and oil temperature gauge without having to lean halfway across the vehicle.

Immediately in front of the driver is a large-diameter. leather-covered, four-spoke steering wheel, a binnacle housing the speedometer, tripmeter, water and fuel gauges, and a vertical bank of warning lights. Two very useful warning lights are those for the manual choke and the fuel warning light which flashes when the tank contents drop below 13.5 litres.

A left-hand stalk control looks after the blinkers, dip switch and horn, while two on the right side operate the wipers and the lights. New to Range Rover is the sophisticated wiper control which offers a two-speed wipe, intermittent wipe, flick wipe and a combined wash and five-wipe. Confused . . . ?

To the right of the steering column is a switch for the tailgate wash-wipe operation, manual choke and Pioneer AM/FM stereo cassette with touch sensitive buttons. The radio speakers are housed in the lower trim panels of the front doors.

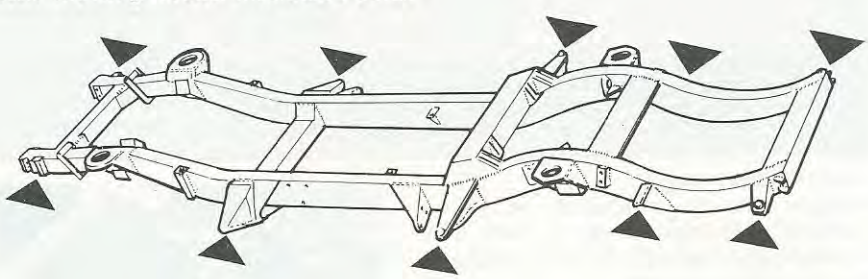
The pedal layout is excellent, although drivers with long legs will find that the big steering wheel continually brushes the tops of their legs. A slightly smaller leather-bound wheel such as Momo or SAAS would be ideal.

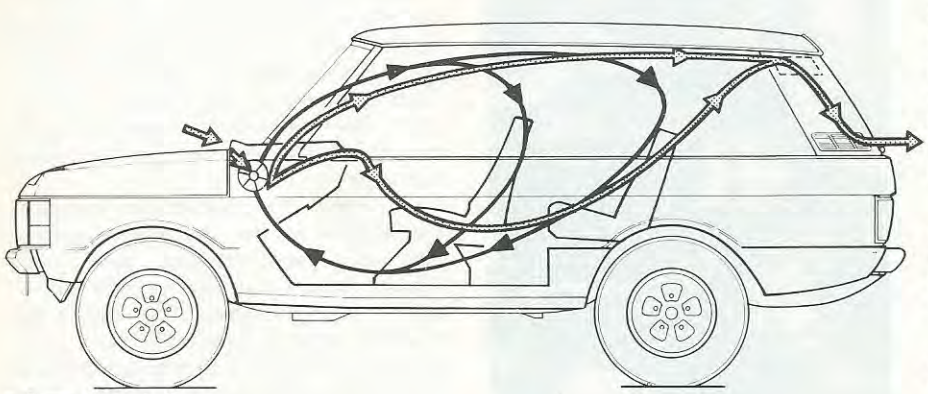
Overall, the interior exudes a feeling of comfort and elegance that few four wheel drives can match. The standard of fit and finish deserves top marks and is noticeably improved over some we encountered several years ago. Leyland say they now have a tight grip on quality control, and it shows in many of the vehicles we have inspected in the past few months.

If the interior finish was excellent, then the exterior is nothing short of superb. The paintwork and panel fit are first class.

Range Rover outer body panels are predominantly Birmabright alloy. Only the bonnet, tailgate and rear quarter panels are steel. The body panels are mostly bolted to a rigid body frame made up of pressed steel sub-assemblies. This body frame is mounted on the box frame chassis at ten rubber-insulated points. There are also four rubber buffers providing additional support for the rear floor.

Chassis showing Rubber-insulated Points.





The body is mounted on the chassis at ten rubber-insulated points. Four rubber buffers provide additional support for the rear floor. The rubber absorbs sound and vibration and, on rough ground, allows some resilience in the movement between chassis and body.

The grille, headlight surrounds and bumper bars are finished in chip-resistant satin black polyester. Under the front bumper is a lower panel made from high density polythene.

The big steel bonnet is heavy and cumbersome. It is difficult to lift and the inside edge at the front feeds on unwary fingers. Likewise, the rear drop

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Specifications Range Rover

ENGINE An o.h.v. all-aluminium high performance V8. Bore 88.9 mm. Stroke 71.1 mm. Cubic capacity 3.528 litres. Comp ratio. 9.35:1 Max. Power 92.6 kW @ 4000 rpm. Max. torque 258 Nm @ 2500 rpm. Aluminium alloy cylinder block with inserted iron liners, cast integrally with crankcase. Aluminium alloy cylinder heads with in-line valves for breathing efficiency. Separate aluminium alloy inlet manifold with two carburettors. Self adjusting hydraulic tappets. Pistons are of a special light-weight full skirt design and incorporate a shallow cirular depression in the crown. The counter-weighted crankshaft runs in five lead-bronze/lead indium overlay shell bearings and is fitted with a torsional vibration damper. A gear-driven oil pump delivers oil under pressure, to the main, big-end and camshaft bearings, the hydraulic tappets, distributor drive shaft and valve rocker gear. The cylinder bores are lubricated by a jet of oil from each connecting rod. A full-flow oil filter is fitted.

COOLING SYSTEM Pressurised type (103.3 kPa) with pump, fan, thermostat and pressurised expansion tank.

Capacity of system approximately 11 litres.

Crossflow radiator.

FUEL SYSTEM An 82 litres tank is located at the rear between the chassis frame members. A fascia warning light flashes when the fuel level drops below approximately 13.6 litres. The Bendix electric pump supplies fuel to two Zenith-175 CD carburettors.

TRANSMISSION Clutch is of the diaphragm spring, single dry plate type — 267 mm diameter. The main gearbox has four forward and one reverse speeds, manually operated with synchromesh on all forward gears. The transfer gearbox is of the two-speed reduction type on the main gearbox output. Front and rear drive are permanently engaged via a third differential which can be locked by a vacuum control switch, mounted on the gearbox. Front and rear axles are of the spiral bevel type, the front having enclosed constant velocity joints. Differential ratio for each is 3.54:1. Auto transmission now available.

OVERALL RATIOS (Final Drive)

	High Transfer	*Low Transfer*
Top	3.53 : 1	11.76 : 1
Third	5.30 : 1	17.69 : 1
Second	8.63 : 1	28.78 : 1
First	14.34 : 1	47.84 : 1
Reverse	12.91 : 1	43.08 : 1

STEERING Power assisted Burman recirculating ball, worm and nut type incorporating an A.C. safety column with security locking device. Steering wheel diameter 430 mm. Steering box ratio 20.55:1 Turning circle 11.3 m, 3.5 turns lock to lock.

FRONT SUSPENSION Coil springs. Axle located by radius arms and Panhard rod. Control is by long-stroke hydraulic telescopic dampers.

REAR SUSPENSION Coil springs. Axle located by radius arms, support rods and central wishbone assembly, incorporating a 'Boge Hydromat' self-energising ride-level unit. Control is by long-stroke hydraulic telescopic dampers.

HEATING AND VENTILATION SYSTEM The heating and ventilation system provides either fresh or recirculated air. Air is drawn through an opening below the windscreen where the intake of traffic fumes is minimised. Individual face level vents and a central vent can be adjusted as required. Extractor grilles in the rear quarter panels allow natural 'through-flow' ventilation.

WINDSCREEN WIPERS AND WASHERS Two-speed wind-screen wipers incorporating a flick-wipe facility and intermit/cut wipe are operated by a steering column switch which also actuates the electrically-operated windscreen washers. Rear screen is fitted with a single speed wiper and washer.

BASIC CONSCTRUCTION The construction makes use of a welded box section chassis frame and a steel base unit to which the skin panels are applied as separate, painted units. Most body panels are of non-corrosive aluminium alloy. A laminated windscreen is fitted.

Rear body floor is strong corrugated aluminium and has a moulded rubber mat. The lower full-width tailgate is of steel and has a single centre locking handle. The pneumatically-assisted upper tailgate is provided with a security lock.

BODY INTERIOR Individual front seats with headrests have integral lap and diagonal safety harnesses. The full width rear seat can be folded for greater payload area.

Rear seat backrest catch operated by central handle.

Spare wheel mounted on left-hand side of body, with wheel cover.

Interior appointments include: Interior roof light, operated either by opening the doors or by an independent switch which features a delay of up to twelve seconds after all doors are closed; ashtray on transmission tunnel; twin collapsible sun visors; safety spring-out interior rear view mirror; spacious glove box; stereo cassette with touch sensitive AM/FM radio; tinted windows (excluding windscreen); inertia reel seat belts; laminated windscreen; heavy duty alternator.

Instrumentation consists of a speedometer, fuel gauge, water

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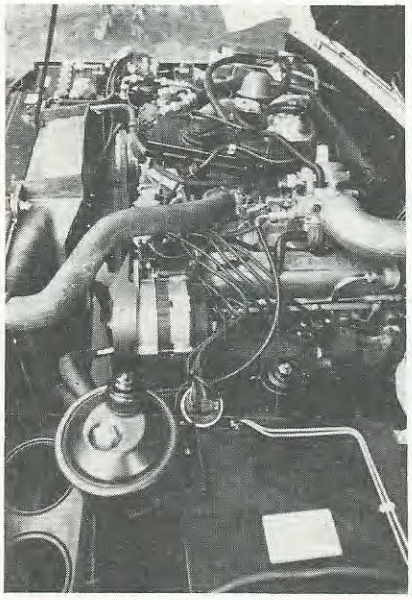
tailgate has an antiquated or "agricultural" feel that tends to spoil the sophisticated feeling that the remainder of the vehicle generates.

Beneath the bonnet is the highly regarded 3.5-litre aluminium V8 engine. This engine features a five-bearing crankshaft, twin Zenith Stromberg 175 CD-SE carburettors angled at 90° and an air cleaner that has a one-way drain valve to dispense water that may be sucked in during deep water crossings.

The compression ratio has been increased to 9.35 to 1 (previously 8.13 to 1), and the camshaft profiles have been revised, resulting in better efficiency and lower exhaust emission levels. The engine air-pump that has been standard on post-1977 "emissioned" Range Rovers has been discarded. Maximum power is 92.6 kW @ 4,000 rpm (previously 100 kW @ 4,900 rpm). Torque remains much the same — 258 Nm @ 2,500 rpm (previously 250 Nm @ 2,500 rpm).



The engine sits high in the bay and the electrical components are "high and dry". There is a second battery carrier should you wish to fit an auxiliary battery to match the standard 60 Ah unit. Two under-bonnet lights provide plenty of candlepower for late-night tune-ups.

A single dry plate clutch connects the engine to the four-speed gearbox and two-speed transfer case. New Range Rovers are now slightly "overdrive" in high range. The high range transfer ratio is now 0.996 to 1 compared to 1.113 to 1 in previous models. Final drive ratio in high fourth is 3.53 compared to 3.94 previously. Low range ratios are unaltered.

temperature gauge, battery voltmeter, oil pressure gauge, oil temperature gauge, nine warning lights and an electric clock.

OVERALL DIMENSIONS AND DATA Wheelbase 2540 mm; Track 1490 mm; Ground clearance (under axles) 190 mm — (under c/l vehicle) 320 mm; Turning circle 11.3 m; Overall length 4470 mm; Overall width 1780 mm; Overall height 1780 mm.

WEIGHTS

	Front Axle kg	*Rear Axle kg*	*Total kg*
Unladen plus 22.5 litres fuel			
2-Door	862	862	1724
4-Door	956	906	1862
Gross weight	1070	1650	2720
Total payload			
2-Door			966
4-Door			858

NOTE: These figures include an allowance of 100 kg for the fitting of a winch (or auxiliaries) which is restricted to the front of the vehicle only. Maximum axle loadings must not be exceeded.

Towing Capacity

	Trailer weight	**Trailer weight & vehicle**
'Off-road' trailer	1000 kg	3504 kg
'On-road' 2-wheel trailer (over-run brakes)	2000 kg	4504 kg
4-wheel road trailer with power brakes	4000 kg	6504 kg
Limited use, emergency purposes only. Max. road speed 30 km/h	6000 kg	8504 kg

Subject to State Legislation.

OPTIONS
Air-conditioning, Cloth Seats, Metallic Paint.

BRAKES Lockheed disc brakes are fitted front and rear and are servo-assisted for easy pedal operation. A dual line piping system ensures emergency braking to individually piped calipers on the front discs. The hand-brake is of internal expanding drum type, operating on the transfer box rear output shaft.

WHEELS AND TYRES Pressed-steel enamelled wheels, five stud fixing — size 6.00 JK × 16. Tyres: Michelin radials XM + S205 × 16 (tubed).

LIGHTING Headlamps sealed beam. Main beam 75 watt, dipped beam 50 watt. The head/side lamp switch and the combined headlamp flasher, dip, direction indicator and horn switch are mounted on the steering column nacelle below the steering wheel. A similar switch is provided for fog and spot lamps (optional extra). Sidelamps and indicator lamps are mounted on the front body corners and the rear tail/stop-indicator lamp unit incorporates a reversing lamp. A hazard warning system is standard and is operated by a switch on the fascia.

LOAD VOLUMES

(MAXIMUM USABLE)	2 door	4 door
Rear seat up	11751 (41.48 cu. ft.)	10251 (38.18 cu. ft.)
Rear seat down	20051 (70.80 cu. ft.)	20051 (70.80 cu. ft.)

(Based on SAEj1100a, less allowances for intrusions)

TOWING CAPACITY

(2 AND 4 DOOR)	Trailer Weight kg (lb)	Trailer Weight & Vehicle (gross) kg (lb)
'Off-road' trailer	1000 (2204)	3510 (7736)
'On-road' 2-wheel trailer (over-run brakes)	2000 (4408)	4510 (9940)
4-wheeled trailer with power brakes	4000 (8816)	6510 (14348)
Limited use, emergency purposes only, max. road speed 30 km/h (18 mph)	6000 (13224)	8510 (18756)

WEIGHTS

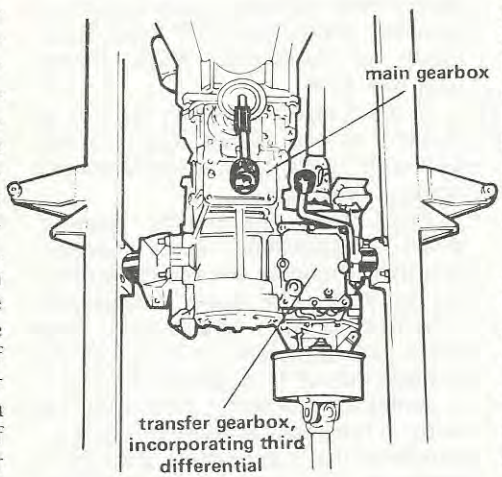
	Front Axle kg (lb)	Rear Axle kg (lb)	Total kg (lb)
2 DOOR			
Unladen	893 (1968)	869 (1915)	1762 (3883)
Kerb	912 (2010)	983 (2167)	1895 (4177)
Gross	1000 (2204)	1510 (3328)	2510 (5532)
4 DOOR			
Unladen	909 (2003)	884 (1948)	1793 (3951)
Kerb	928 (2045)	999 (2201)	1927 (4246)
Gross	1000 (2204)	1510 (3328)	2510 (5532)

N.B: Unladen weight is for minimum specification vehicle. Kerb weight equals unladen weight plus full tank of fuel plus driver. Net payload is dependent on equipment fitted to particular vehicle.

Measurements with driver's seat in central position. Total adjustment of driver's seat fore and aft is 186 mm (7.313 in), 189 mm (7.438 in) for passenger's seat.

Range Rovers use a full-time four wheel drive transmission. In other words, the vehicle is always in four wheel drive – even at high speed on the highway. To eliminate drivetrain "wind-up" during cornering, i.e. when the front tailshaft turns at a slightly different speed from the rear tailshaft due to the wheels travelling through different arcs, a third differential is used. This third differential works fine in most situations but, in some extreme off-road conditions it will allow the power to be transmitted to the pair of wheels that are losing traction. In other words, you could be stranded with a pair of wheels spinning at one end of the vehicle while the pair at the other end were on tractable terrain but could not receive any drive.

Those situations are thwarted by using the "diff-lock". The diff-lock switch



enables you to cancel the differential action of the central differential. When the lock is used, equal amounts of power are distributed to both front and rear tailshafts. The diff-lock does not lock the front or rear differentials as many Range Rover owners believe. In fact, with the central differential locked the Range Rover transmission is similar to most other part-time four wheel drive vehicles when they are in 4WD.

What no other locally available four wheel drive has is four wheel disc brakes. The Range Rover uses servo assisted discs with a pressure reducing valve to prevent lock-up in the rear under hard braking and an independent hydraulic system that ensures that the front brakes will work even if the primary hydraulics fail.

Disc brakes are superior to drum brakes in wet conditions and do not fade as quickly when used repeatedly.

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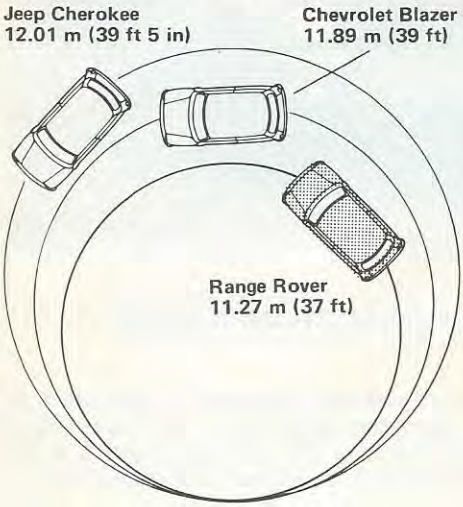
none that can do it and cushion the occupants to the same degree, and I think that that is where a lot of the Range Rover magic lies – in its ability to carry people through harsh conditions without subjecting them to the jolting, jerking and general discomfort that is standard equipment in most "traditional" four wheel drives.

When the Range Rover was first introduced in 1971 it became an instant sales success and a socially prestigious asset. For many years they were difficult to obtain "off the showroom



floor" and, in fact, late model vehicles frequently changed hands at figures over the recommended list price.

Since the late seventies, Toyota, Nissan and Jeep have deadened some of the demand for Leyland's product by offering well-equipped, reasonably comfortable 4WD wagons. And the challengers all had four doors. Toyota and Nissan also carried an ace in that they had diesel versions that could satisfy the short-lived "boom" in oil-burning vehicles.

With the four-door Range Rover, the pendulum should start to swing back in Leyland's direction. Demand for the new model is running at fever pitch and the dealers are quoting a six to eight weeks for delivery.

Of course, at around $25,000 ($30,000 for a fully-fitted automatic), Range Rover isn't about to topple the Japanese for number of sales. But, with a now much more appealing product and a noticeable improvement in quality control, it can truly be said that Leyland have struck back.