It's been a long time getting here. Design studies for Rover's 3500 SD1 date back to 1969, and it was unveiled in Britain in mid-1976. Now Leyland has finally deigned to release it in Australia – and, despite the 20-grand price tag, the wait has been worthwhile . . .

Rover is no dog

SEEMINGLY much more at ease in its new, smaller *(and profitable)* role as an importer rather than a manufacturer of motor vehicles, Leyland Australia is delighted with the arrival of the latest Rover.

Delighted because the 3500 SD1 is a fine car that should sell itself, even at $20,000 (give or take a taxi fare).

Restricted by the quota system to 3000 cars annually (and that number includes the Triumph TR7 and the Jaguar/Daimler range), Leyland Australia is reckoning on selling 1200 to 1400 Rovers during 1979 — that's provided sufficient numbers are available for export from Britain, remembering that it has been a huge success on the home market.

Australia received its allocation after begrudgingly agreeing to take only the automatic version; asked whether we'll ever get the desirable five-speed manual, Leyland executives merely shrug their shoulders and raise their eyes towards the heavens . . .

Rover designer David Bache says he has aimed at an exotic but long-lasting style with the SD1 and he unashamedly admits that Maserati and Ferrari were strong influences in the early stages.

Of course, there had to be some compromises, the Rover being a practical hatchback sedan and not a sporty grand tourer. Nevertheless, it is an eye-catcher, even if the bulky rear doesn't win many friends on the basis of style. But forgetting aesthetics, that chunky tail is going to please plenty of practicality-minded motorists.

As different as the SD1 is from its predecessors, what with its Ferrari-like front-end styling, sporty character, the addition of a fifth "door" and the return to a more conventional suspension, it still shouldn't alienate the traditional Rover buyer. There are many good reasons why.

Well-endowed with creature comforts such as power-steering, air-conditioning (standard on the Oz version), electric windows, brushed-nylon seat coverings, cut-pile carpets, AM/FM radio-cassette, central door-locking system and tinted side and rear glass, the new arrival continues a long reputation for luxury.

There's enough of the traditional comforts to satisfy the solid citizenry who have supported the marque for decades, but this Rover could also steal sales from rivals such as the Peugeot 604, Audi 5E, Citroen CX, Volvo 264, the smaller BMWs and Mercedes, and even the up-market Fords and Holdens.

The biggest danger to the Rover's success here is Leyland's perennial Achilles' heel — the dreaded industrial lurgy. But provided the workmanship matches the high standards set by the stylists, the fully-imported Rover should worry the daylights out of the opposition . . .

In terms of design and application, there is little to criticise and in its proper environment — fast city-to-city motoring — the Rover is hard to better.

It simply chews up the distance so effortlessly and relentlessly, with a minimum of fuss, that few sedans could match it under these conditions.

A trip along the notorious, twisting Pacific Highway from Sydney to Surfers' Paradise on a wet weekend demonstrated the Rover's truly magnificent highway capabilities.

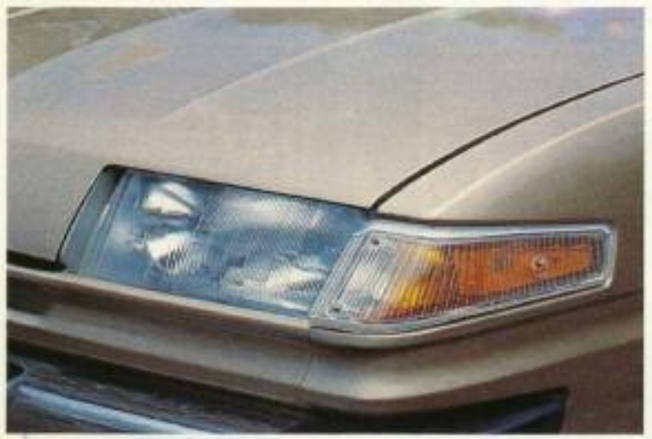
The 900-kilometre return journey, with four adults and luggage aboard, was accomplished in 10 hours, including three stops for fuel and refreshments. It rained virtually non-stop and from Taree on we scored the unwanted quinella — rain and fog.

These statistics are related for no other reason than to emphasise what a superb touring car the Rover SD1 is: quick and surefooted.

Leave the gear-stick in drive and the car shows some reluctance to get back up to speed after negotiating a slow corner, but this tardiness is forgotten if the driver chooses to use second slot and work the engine a little harder.

The idea is to drive the Rover rather than just sit back — it certainly copes with tight corners better if the driver kicks back to second on entry and powers through.

MOTOR Test



Some experimenting during *Modern Motor's* regular acceleration testing confirmed that the Rover, though lazy under normal circumstances, can be coaxed into smart performances . . . with the help of the gearshift.

With the Borg-Warner in drive, it logged the very slow time of 15-plus seconds for the 0-100 km/h dash. But revving it out to the 6000 rpm redline in the gears brought an amazing response, the times tumbling down to a best of 12.4 seconds.

The driver who enjoys his motoring will soon discover that expansive use of the accelerator whilst cornering tends to negate the understeer, not that front-end "push" is ever a real problem.

The Rover reacts disagreeably — though not dangerously — to the untidy driver, and a smooth behind-the-wheel technique is the passport to fast point-to-point times on the open road.

Even when pushed hard, the Rover remains on an even keel, the HR-rated Michelins barely squealing, with the driver knowing exactly how much the car has in reserve.

During our whirlwind Surfers' run, with its absolutely magnificent halogen lights showing the way, the Rover made a mockery of the advisory speed signs, actually doubling them on some occasions without a suggestion of bad manners.

Its wet-weather performance was just as commendable, the Michelins knifing through the puddles to grab a firm grip on the bitumen.

The Rover remains relatively silent inside right up to the 174 km/h (185 km/h indicated) achieved in the test car, with two exceptions — one annoying, one pleasing:

- At high speeds, rear-seat passengers complained of a forever-present whistling sound emanating from somewhere near the tailgate; and
- Under acceleration, the sporty throb of the 3.5-litre V8 engine intrudes — but not unpleasantly so — on the cockpit area.

The SD1 does not have the independent rear suspension of the earlier Rover 3500, but its self-levelling Boge-type damping arrangement works admirably. It ensures a greater consistency under cornering conditions because the car remains much the same, regardless of load. Also, it removes a lot of the risk of an unexpected reaction from a solidly-laden rear-end suddenly running out of spring travel in a bumpy corner.

The SD1 offers a beautifully smooth, firm ride (better, it has been suggested, than any other British car, barring the Jaguar, Bristol and Rolls-Royce), thanks to the lengthy suspension travel and progressive damping.

The self-levelling of the rear suspension is achieved not by separate units, but by making use of the heat *(energy)* normally dissipated in the shock absorbers as they move. The SD1's dampers always return to the centre-stroke position, whatever the static load, so it follows that the springs and shocks are always operating about the optimum point, and the coils can be made much softer.

The springs are mounted directly on to the axle, but the telescopic shocks operate on the main trailing arms, a little forward of the coils.

The axle is tied down fore and aft by two trailing arms with a Watts linkage locating the rear-end laterally.

The rear suspension is designed to reduce dive and squat to a minimum, while wheel-tilting is barely discernable.

The power-assisted rack-and-pinion steering combines the right degree of sensitivity with an agreeable dose of response, allowing the driver to park with ease while still retaining plenty of road "feel" on the open highway.

But a light touch is necessary, for the steering is very positive and direct, with just two and three-quarter turns from lock to lock.

The turning circle of 10.4 metres is most acceptable for a vehicle of this size.

The power-boosted brakes — discs up front, drums at the rear — do all asked of them without a trace of fade or lock-up, the absence of the latter also attributable to the firm suspension: pitch, nose-dive and body-roll is minimal, so all four corners of the car are stable under most conditions.

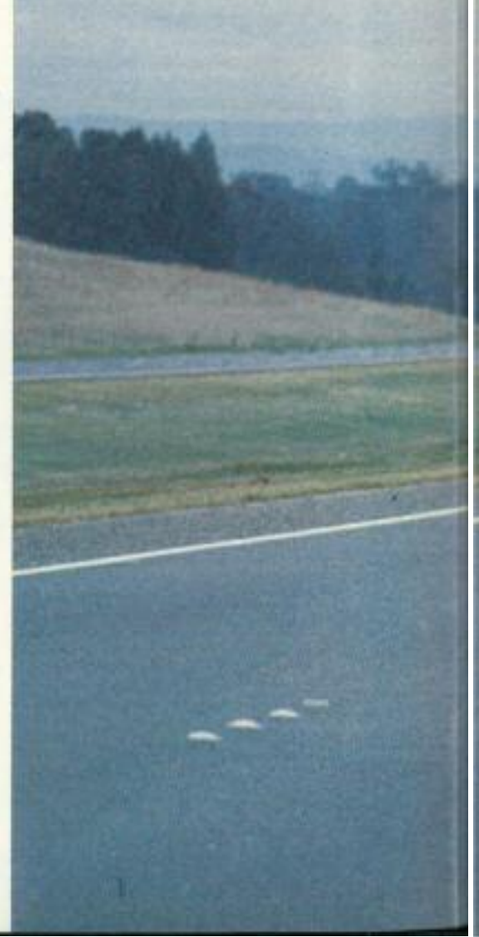
The Buick-based 3528 cc aluminium V8 engine in the latest Rover is peppier than its predecessors, thanks to engineering improvements in several areas. The original General Motors unit had a rev limit of 4750 rpm, which was lifted to 5200 for the earlier Rover 3500. Now it has been raised to 6000 by altering the valving in the hydraulic tappets, fitting slightly larger valves with revised springs, and by making improvements to the cylinder-head porting and manifolding. Other extensive modifications were made to the electrical system.

Always smooth and reliable, the engine now revs easier and produces more power than ever before — 120 kW at 5000 rpm. And engine overheating, a problem area on the old Rover 3500s, doesn't appear to be a weakness on this car, even with the air-conditioning working at full tilt.

Despite the usually-thirsty combination of an eight-cylinder engine, automatic transmission and a heavy right foot, the Rover returned a relatively economical fuel-consumption figure of 14.9 litres per 100 kilometres on the Surfers' trip. Not bad for nine-tenths motoring . . .

There are two obvious reasons why the SD1 is not a gas-gulping ogre: first, its little V8 engine is a willing, highly efficient worker. Secondly, the Rover is a very slippery customer, slicing through the air with a drag coefficient of 0.39.

The absence of a normal grille, the aerodynamic design of the nose section, the sympathetic shape of the headlights, the steeply-raked windscreen and the siting of the air-intake passage low below



the front bumper have minimised drag and turbulence.

The Rover has a number of innovative design and engineering features not immediately obvious to the casual observer. One of the more interesting, and effective, is a new anti-corrosive measure involving the use of forced ventilation in the body sills. Whenever the car is in motion, air from the heater air-intake chamber is fed into the sill-box members and out at the rear, preventing the build-up of corrosive damp in the inaccessible corners of the bodywork.

Leyland has looked carefully at rust prevention, and other anti-corrosion measures include careful underbody design to avoid mud-packing, full underseal protection, and the utilisation of zinc-coated steel for the outer sill panels. As well, the exhaust system has been aluminiumised in the areas that may be affected by corrosion, and the bumpers are stainless-steel.

Driver comfort has been carefully looked at, and the front bucket-seats have been well-shaped to provide for adequate back-support even on long journeys. In addition, the seat has fore-and-aft movement, tilt control and rake adjustment. And if this isn't enough, the midget or giant driver can tailor the steering-column position to suit his needs: it can be adjusted for both rake and reach.

Alas, effective front and rearward vision is reduced because both the screens are heavily canted. The huge rear glass area, because of the angle of the hatch door, becomes quite small when viewed from the driver's seat.

However, the SD1 pilot does get an unobstructed vista of the road ahead and only those who sit tall in the saddle can see anything of the sloping bonnet. One must be careful to remember that there is, indeed, a couple of metres of expensive metal forward of the glass area . . .

There's an absence of serious blind-spots out the sides, due to designer Bache's insistence on skinny pillars: that means ducking and weaving can be attempted in heavy traffic without risking scrapes on that no-cost-option metallic paintwork.

A very stiff accelerator on our test car left the driver with an aching right leg. However, Leyland justified this, and several other faults, with the declaration that it was a vehicle hurriedly "slapped together" principally to star in television commercials and press advertisements, and that it was only seconded for duty on the press fleet because of a shortage of models.

When it came into *Modern Motor's* hands, the interior rear-view mirror was rather tentatively affixed to its mounting, and there was a suggestion from the engine compartment that a manifold gasket was giving up the ghost. However, Leyland assured us these problems were not representative of the SD1s going to the public.

The rear windows wouldn't retract either, but that wasn't the fault of the car . . . we discovered after several days that the funny button on the dash was the safety over-ride switch!

However, towards the end of our test programme, the overload switch cried enough — while all four windows were in the 'down' position.

According to the Rover owner's manual, the system could be re-activated simply by depressing a little red button. The little red button, said the manual, was to be found in the passenger-side glove compartment. Not so. A telephone call to Leyland . . . "It should be in the glovebox," we were told.

There is no happy end to our tale: the Rover went back after the test with the windows still down (and with the heater on the maximum setting).

Later, we were advised that the evasive overload switch had been moved because the air-conditioning ducting in the Australian-specification models obscured it. Where is it? Behind the glovebox . . .

New to Rover with this model is a central door-locking system, in which all five doors are simultaneously secured from either of the two front doors, thus protecting against the risk of a door being left unlocked. It's also a damn sight easier than checking them all individually . . .

Designer Bache has cleverly conceived an "ambidextrous" fascia, which can be used in either left- or right-hand form. The passenger-side air vent doubles as the steering-column shaft, and the instrument binnacle, likewise, can be mounted to the right or left, depending on the market destination.

The instruments themselves are legible and, in the main, positioned well. The tachometer and speedometer are directly behind the steering wheel and are visible most of the time, but four lesser dials, grouped to the left, are partially obscured by the slightly-rectangular wheel. In particular, the oil-pressure gauge and battery-condition indicator are difficult to see.

The controls follow in the Leyland tradition of the wipers and washers on the left-hand steering-column stalk, with indicators, dip-switch and horn on the right stalk. But in the Rover's case, the lighting master-switch — a hard-to-find-if-you-don't-know-where-to-look toggle, is also mounted on the steering-column surround, near the right stalk.

A gaggle of five switches, some coded with barely-decipherable insignia, is mounted in a cluster to the right of the fascia. It includes switches for fog lights, an over-riding lock for the rear windows, and hazard flashers.

The electric-window switches and the cigarette lighter are situated near the handbrake on the centre console.

Once the driver unravels the mysteries of the fully-integrated air/heater system, it is a simple matter to dial your own climate inside the SD1.

What's more, fresh-air ventilation — often a disappointment on European cars — is hard to fault, and we particularly liked the face-level vents directly in front of the driver and his passenger.

Additional vents in the sides of the transmission tunnel direct hot air under the front seats to the feet of the passengers in the rear.

A very nice touch is provided by the side-window demisters which operate by means of air ducted into the front doors and up to the glass.

The largest heated rear window ever supplied by British glass manufacturer Triplex is fitted to the SD1, but Leyland insists it isn't necessary to have c rear washer/wiper due to the "stay-clean" design.

The tailgate, which is supported by gas-filled struts, opens (lifting the parcel shelf with it) to reveal a luggage space of substance. When the gate is lowered, the parcel shelf returns with it, thus protecting the contents of the boot area from prying eyes. However, the shelf can also be removed to maximise luggage volume.

The near-cavernous luggage area, upholstered throughout and accessible through a wide opening vacated by the upswinging fifth "door", takes an enormous load. And if this isn't enough, the rear seat folds down in an instant, doubling the space available. In fact, a six-footer can stretch out and grab some shut-eye . . .

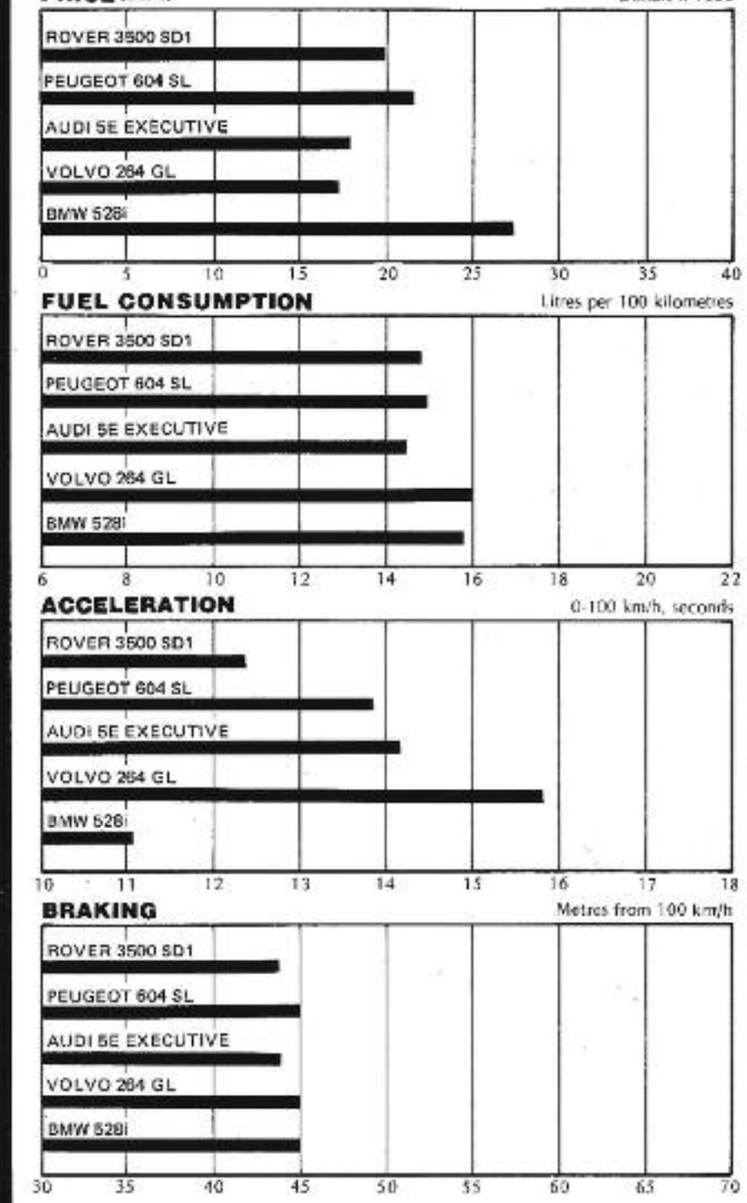
Only the high boot-lip mars an otherwise excellent arrangement.

The smallish 66-litre fuel tank is tucked away safely out of harm's way, in front of the rear axle and under the back seat. Apart from allowing more room in the luggage compartment (where the tanks are usually slotted), the positioning of the fuel load, low down amidships, means it has little effect on the car's handling.

One of the Rover's many interesting safety items is the Triplex Ten-Twenty laminated windscreen, which has been bonded into place and actually carries a proportion of body torsional stress. Leyland claims a reduction of 99 percent in facial injuries in frontal collisions for the thick-interlayer laminate.

Reservations about quality control aside, the Rover is a fine motor car, and it's priced on the right side of $20,000. It should find a comfortable niche in its sector of the market, in the same way that Jaguar and Daimler attract buyers in the luxury-car category.

Rover is ready to cock a leg on those detractors who have judged Leyland on the basis of the Marina and P76 . . . *Sick 'em boy!* □



ROVER 3500 SD1 ROAD TEST DATA

(As tested)

ENGINE

Location	Front
Cylinders	8
Bore x Stroke	88.9 x 71.1 mm
Capacity	3528 cc
Carburation	Twin Zenith-Stromberg
Compression Ratio	8.13 to 1
Fuel Pump	Electrical
Valve Gear	OHV
Claimed Power	132 kW at 5000 rpm
Claimed Torque	245 Nm at 3000 rpm

TRANSMISSION

Type	Three-speed automatic
Driving Wheels	Rear
Gearbox Ratios	
First	3.38
Second	1.45
Third	1.00
Final Drive Ratio	3.08

SUSPENSION

Front	Independent by MacPherson struts with anti-roll bar
Rear	Live axle, torque tube, trailing arms and Watts linkage
Shock Absorbers	Telescopic
Wheels	6J x 14
Tyres	195/70HR x 14 Michelin

BRAKES

Front	258 mm discs
Rear	229 mm drums

STEERING

Type	Power-assisted rack and pinion
Turns, Lock to Lock	2.75
Turning Circle	10.4 metres

DIMENSIONS AND WEIGHT

Wheelbase	2815 mm
Front Track	1500 mm
Rear Track	1500 mm
Overall Length	4698 mm
Overall Width	1758 mm
Overall Height	1354 mm
Ground Clearance	155 mm
Kerb Weight	1428 kg

CAPACITIES AND EQUIPMENT

Fuel Tank	66 litres
Cooling System	11 litres
Engine Sump	5.4 litres
Battery	12 V 68 Ah
Alternator	55 A

CALCULATED DATA

Weight to Power	11.9 kg/kW
Specific Power Output	34.0 kW/litre

FUEL CONSUMPTION

Average for Test	14.9 litres/100 km
Best Recorded	13.5 litres/100 km

ACCELERATION

0-80 km/h	6.0 seconds
0-80 km/h	8.8 seconds
0-100 km/h	12.4 seconds
0-110 km/h	14.9 seconds
0-120 km/h	17.5 seconds
0-130 km/h	21.6 seconds

OVERTAKING TIMES (Drive)

50-80 km/h	5.9 seconds
80-100 km/h	7.6 seconds

STANDING 400 METRES

Average	18.7 seconds
Best Recorded	18.5 seconds

SPEEDS IN GEARS

First	85 km/h
Second	138 km/h
Third	174 km/h

THE FIVE-STAR TEST

Comfort	★★★★
Handling	★★★★
Brakes	★★★
Performance	★★★★
Quietness	★★★★
Luggage capacity	★★★★★

CHECKLIST

Adjustable steering	Yes
Carpets	Yes
Cigarette lighter	Yes
Clock	Yes
Day/night mirror	Yes
Hazard flashers	Yes
Heated rear window	Yes
Laminated screen	Yes
Petrol filler lock	Yes
Radio	Yes
Tachometer	Yes
Intermittent wipers	Yes
Rear window wiper	No