

# The Motor Road Test No. 24/60

**Make:** Rover **Type:** 3-litre Saloon (with automatic gearbox)  
**Makers:** The Rover Co. Ltd., Meteor Works, Solihull, Warwicks.

## Test Data

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**CONDITIONS:** Weather: Gusty wind (up to 20 m.p.h.). Showers. (Temperature: 60°-67°F., Barometer, 29.4-29.6 in. Hg.) Surface: Tar macadam (mostly dry). Fuel: Premium grade pump petrol (approx 96 Research Method Octane Rating).

### INSTRUMENTS

Speedometer at 30 m.p.h. ... 11% fast  
 Speedometer at 60 m.p.h. ... 6% fast  
 Speedometer at 90 m.p.h. ... 1% fast  
 Distance recorder ... 3% slow

### WEIGHT

Kerb weight (unladen, but with oil, water and fuel for approx. 50 miles) ... 32 cwt.  
 Front/rear distribution of kerb weight ... 55/45  
 Weight laden as tested ... 35½ cwt.

### MAXIMUM SPEEDS

**Flying Quarter Mile**  
 Mean lap speed round banked circuit 95.0 m.p.h.  
 Best one-way time equals ... 98.1 m.p.h.  
 "Maximile" speed (Timed quarter-mile after one mile accelerating from rest.)  
 Mean of opposite runs ... 90.3 m.p.h.  
 Best one-way time equals ... 91.8 m.p.h.  
**Speed in gears (automatic upward changes at full throttle)**  
 Max. speed in 2nd gear ... 60 m.p.h.  
 Max. speed in 1st gear ... 33 m.p.h.

### FUEL CONSUMPTION

31 m.p.g. at constant 30 m.p.h. on level.  
 30 m.p.g. at constant 40 m.p.h. on level.  
 26 m.p.g. at constant 50 m.p.h. on level.  
 22 m.p.g. at constant 60 m.p.h. on level.  
 19½ m.p.g. at constant 70 m.p.h. on level.  
 17 m.p.g. at constant 80 m.p.h. on level.  
 14½ m.p.g. at constant 90 m.p.h. on level.

**Overall Fuel Consumption** for 2,264 miles, 121.1 gallons, equals 18.7 m.p.g. (15.1 litres/100 km.)

**Touring Fuel Consumption** (m.p.g. at steady speed midway between 30 m.p.h. and maximum, less 5% allowance for acceleration) ... 20.5 m.p.g.

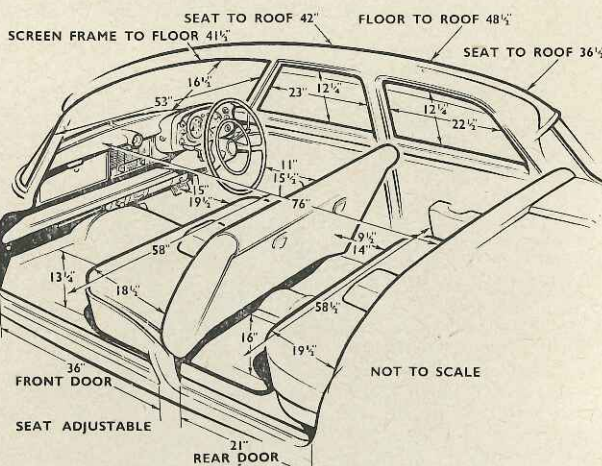
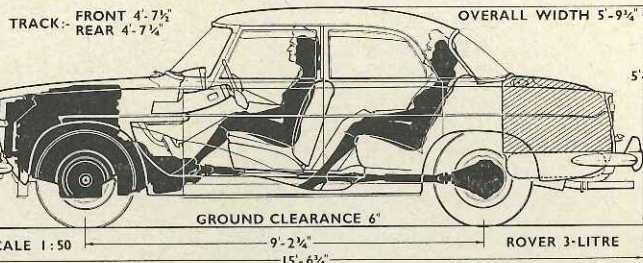
Fuel tank capacity (maker's figure) 14 gallons (including 1½ gallons reserve)

### STEERING

Turning circle between kerbs:  
 Left ... 40 ft.  
 Right ... 36½ ft.  
 Turns of steering wheel from lock to lock 4½

### HILL CLIMBING at sustained steady speeds

Max. gradient on top gear ... 1 in 9.5 (Tapley 235 lb./ton)  
 Max. gradient on 2nd gear ... 1 in 4.0 (Tapley 545 lb./ton)



### ACCELERATION TIMES from standstill

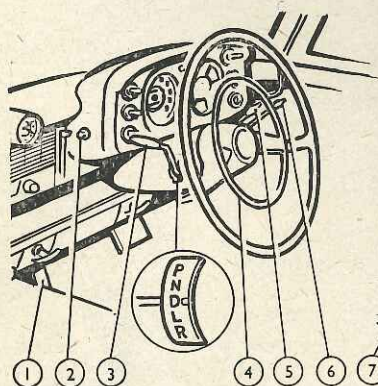
0-30 m.p.h. ...	5.8 sec
0-40 m.p.h. ...	8.6 sec
0-50 m.p.h. ...	12.4 sec
0-60 m.p.h. ...	17.1 sec
0-70 m.p.h. ...	24.4 sec
0-80 m.p.h. ...	34.3 sec
0-90 m.p.h. ...	52.3 sec
Standing quarter mile ...	21.3 sec

### ACCELERATION TIMES on Upper Ratios

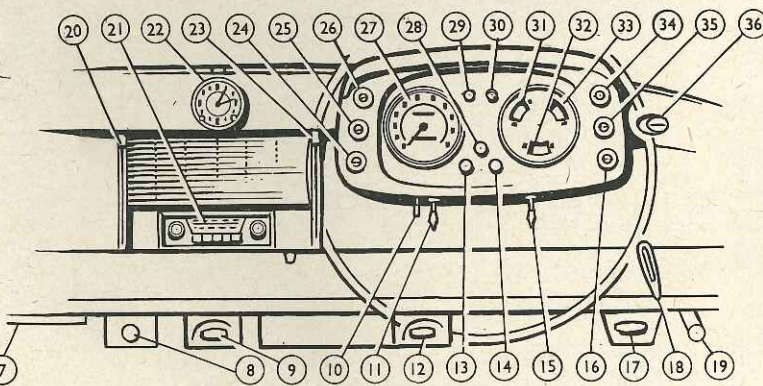
	Top gear	"Kick down"
0-20 m.p.h. ...	—	3.1 sec
10-30 m.p.h. ...	—	4.5 sec
20-40 m.p.h. ...	—	5.5 sec
30-50 m.p.h. ...	10.2 sec	6.6 sec
40-50 m.p.h. ...	11.4 sec	8.5 sec
50-70 m.p.h. ...	13.5 sec	12.0 sec
60-80 m.p.h. ...	17.2 sec	17.2 sec
70-90 m.p.h. ...	27.9 sec	27.9 sec

### BRAKES from 30 m.p.h.

0.90 g retardation (equivalent to 33½ ft. stopping distance) with 70 lb. pedal pressure.  
 0.70 g retardation (equivalent to 43 ft. stopping distance) with 50 lb. pedal pressure.  
 0.39 g retardation (equivalent to 77 ft. stopping distance) with 25 lb. pedal pressure.



1, Headlamp dip-switch. 2, Windscreen washer. 3, Transmission selector. 4, Horn ring. 5, Headlamp switch. 6, Direction indicator switch. 7, Tool drawer. 8, Cigar lighter. 9, Second gear locking handle. 10, Trip adjuster. 11, N.S. foglamp switch. 12, Choke control. 13, Oil pressure warning light. 14, Choke warning light. 15, O.S.



spotlamp switch. 16, Ignition and starter switch. 17, Bonnet catch release. 18, Handbrake. 19, Cold air controls (knob each side). 20, Heater and fan control. 21, Radio controls. 22, Clock. 23, Demister/defroster control. 24, Windscreen wipers switch. 25, Oil level indicator switch. 26, Panel light switch. 27, Speedometer and

distance recorder. 28, Dynamo charge warning light. 29, Direction indicator warning light. 30, Headlamp main beam indicator. 31, Water thermometer. 32, Fuel contents and oil level gauge. 33, Ammeter. 34, Lights master switch. 35, Fuel main/reserve switch. 36, Cold air vents (one each side).

# The ROVER 3-litre

(with automatic  
transmission)



## The Six-seat Model in a Range of High-quality Touring Cars

**O**VER an extended period of years the Rover Company Ltd. has built up an enviable reputation for the refinement and durability of its cars, but until the 1959 season they offered only a single size of coachwork, albeit with variations of four- or six-cylinder engines and synchromesh, overdrive or automatic transmissions. Since adding the 3-litre model to the range, they have become able to offer customers a car which is akin in character to the "80" and "100" saloons but is roomier generally, wide enough to be a genuine six-seater, and much better endowed with luggage accommodation.

Neither very high performance nor extreme economy of petrol has been a primary objective of the design, but with the automatic transmission we found it possible to accelerate from rest to 60 m.p.h. in 17.1 sec., merely by opening the throttle fully, to attain about 95 m.p.h. as a maximum speed on the level, and that the "touring" fuel consumption was 20½ m.p.g.; this car can satisfy a wide public by being quite fast yet not unduly expensive to run. There are aspects of its character which remind a driver that this model has not yet enjoyed as many years of detailed development as have the smaller Rovers, but its newer design brings substantial offsetting advantages.

Roomy comfort is this motor-car's great merit and, 4½ in. wider externally than the other Rover models, its internal breadth is greater by 5 in. at the front and by 5½ in. at the rear seat. The front floor is divided by a broad hump over the auto-

matic gearbox, and the rear compartment has a much smaller division in its floor, but no other reservations need be made in describing this as a six-seat car. Our test model had the bench-type front seat with folding central armrest (individual front seats are available at extra cost) and this proved very comfortable on long journeys—its mounting heights at both front and rear can be varied to suit the tastes of an owner, and a side armrest on each door can also be raised or lowered when a press-button lock is released.

This is the sort of car in which some buyers will be driven by a chauffeur, so the fact that the back seat as well as the front is roomy, very comfortable, and easy to enter or leave is especially valuable. Vision from the front seat is excellent, the curved windscreen being wide and free from distortion (in wet weather, wipers covering more of its area would be welcome) and the front wings surmounted by red sidelamp tell-tales: at the rear, a flat quarter panel placed to act as a headrest for a dozing passenger inevitably limits the field of view.

Unusually high window-sills have a padded strip below them, this continuing around the fascia in a neat sweep which extends well forward of the front passenger seat to give a pleasing air of roominess inside the body. Like other Rovers, this model has a glove box with a neat polished wood lid facing the front passenger, and a full-width shelf below the fascia is a welcome additional item, roomy door pockets

also being provided. Above the steering column, a nacelle extending back towards the driver carries the clearly legible instruments and an almost too impressive array of warning lamps and switches: if the most prominent positions could be reserved for controls liable to be needed in a hurry (the lighting and windscreen wiper switches) and other less vital controls (such as those for testing engine oil level, varying the brightness of the instrument lighting, or switching over to the reserve supply of fuel) given less prominent positions the fascia might look neater and also be more practical.

Given partial use of the choke for a mile to overcome a degree of sluggishness, the six-cylinder engine is free from temperament after starting from cold, and its fast idle is not so fast as to cause serious drag from the automatic transmission. Audible when worked hard, the engine is never noisy, and when driven with the degree of restraint which most Rover drivers exercise this car is usually very quiet. Road noise has been kept out of the body very successfully, by much use of rubber insulation below the integral steel hull, isolating it from the rear leaf springs and the front suspension sub-frame. With windows closed, wind noise also is slight, so that at say 85 m.p.h. this is a very quiet motorway car indeed, and its ventilation arrangements are so well planned that keeping windows closed is entirely

### In Brief

Price (including automatic transmission as tested) £1,315 plus purchase tax £549 0s. 10d., equals £1,864 0s. 10d.

Price with synchromesh gearbox and overdrive (including purchase tax), £1,783 5s. 10d.

Capacity ... .. 2,995 c.c.

Unladen kerb weight ... 32 cwt.

Acceleration:

20-40 m.p.h. in "kick-down" gear ... .. 5.5 sec.

0-50 m.p.h. through gears ... 12.4 sec.

Maximum direct top gear gradient 1 in 9.5

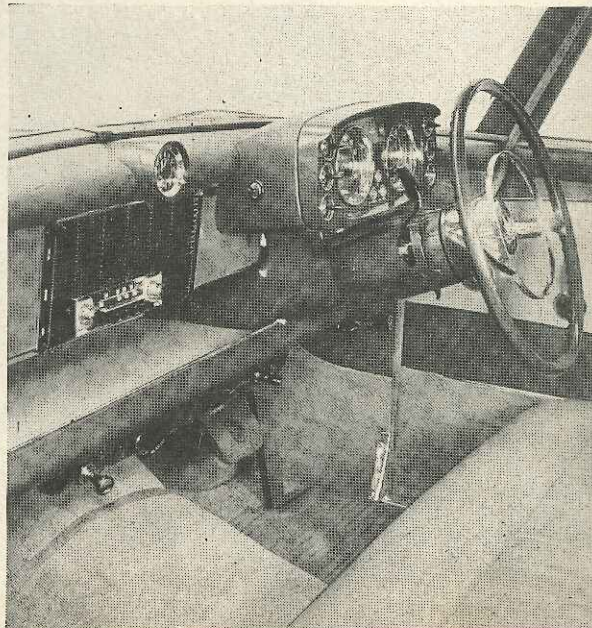
Maximum speed ... .. 95.0 m.p.h.

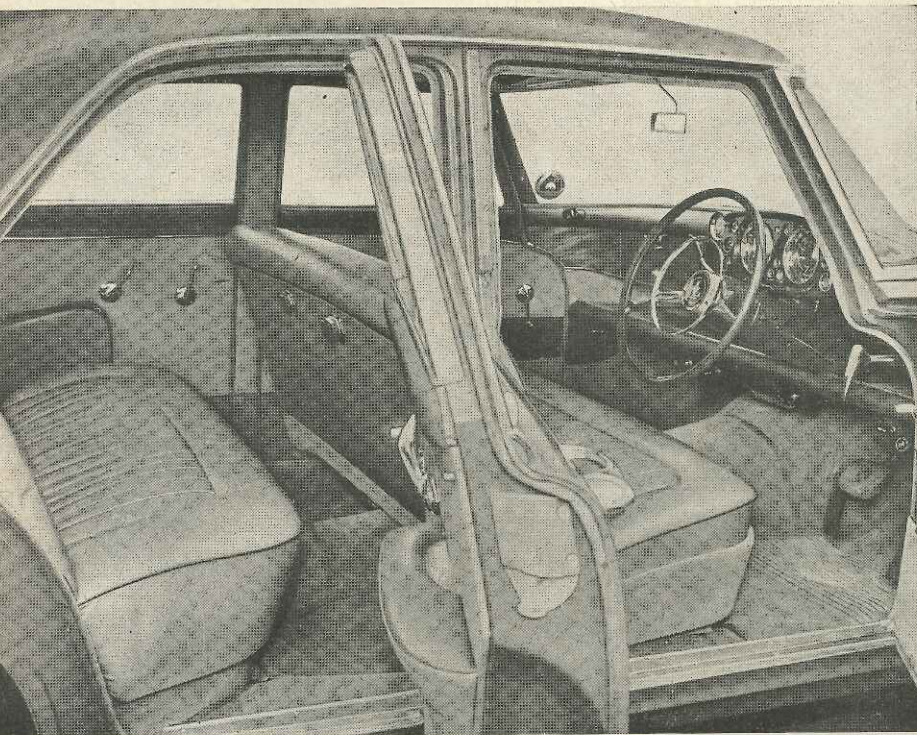
"Maximile" speed ... .. 90.3 m.p.h.

Touring fuel consumption ... 20.5 m.p.g.

Gearing: 20.2 m.p.h. in top gear at 1,000 r.p.m.; 29.3 m.p.h. at 1,000 ft./min. piston speed.

**SWITCHES**, instruments and warning lights are grouped in an impressive control panel on a nacelle over the steering column; the transmission selector projects from the column housing. Slender, organ-type accelerator and wide brake pedal are visible below the wide parcel shelf.





## The ROVER 3-litre

A GENUINE six-seater, the Rover has extremely comfortable seats and an excellent driving position with a very good forward view. Interior trim is tasteful yet smart, and despite a door handle which came adrift during our test the fittings and controls are well made.

practical even in quite warm weather.

Apart from the usual fresh-air heating system which is standard equipment, two downward-facing cold air inlets below the dashboard can be opened on very hot days, and two small but very effective cool air outlets below the windscreen can deliver fresh air to the driver's and passenger's faces. Instead of the hinged ventilator panels which are fitted to many cars, each window of the Rover has an undivided wind-down glass, with an external louvre of transparent plastic above it, this arrangement being highly successful in providing gentle draught-free ventilation without admitting rain water.

With plenty of weight, this car rides quite easily over a wide variety of surfaces, showing up to best advantage at moderate speeds rather than when hurried—fast driving on a secondary road produces rather more rise and fall of the body. The rubber-mounted front sub-frame arrangement which is very successful in suppress-

ing road noise does, however, seem to permit rather more shake of the car on awkward surfaces or at resonant speeds than is readily excusable in this price class. Whereas on some cars bouncy upholstery spoils the riding comfort which a reasonably well designed springing system could provide, the soft but well damped cushioning of the Rover plays its part in absorbing any road shock which the suspension does not eliminate.

Between unladen and fully laden conditions an unusually large change in rear tyre pressures (at the rear, from 22 to 30 lb. per sq. in.) is recommended. Whilst perhaps offering riding comfort advantages, the lowest pressures seem unsuited to even moderately fast driving, as at 80 m.p.h. in any but windless conditions the car does not feel truly stable: with 25 lb. pressure in the rear tyres this instability on the straight is overcome, without much loss of comfort, and without unduly exaggerating the understeer charac-

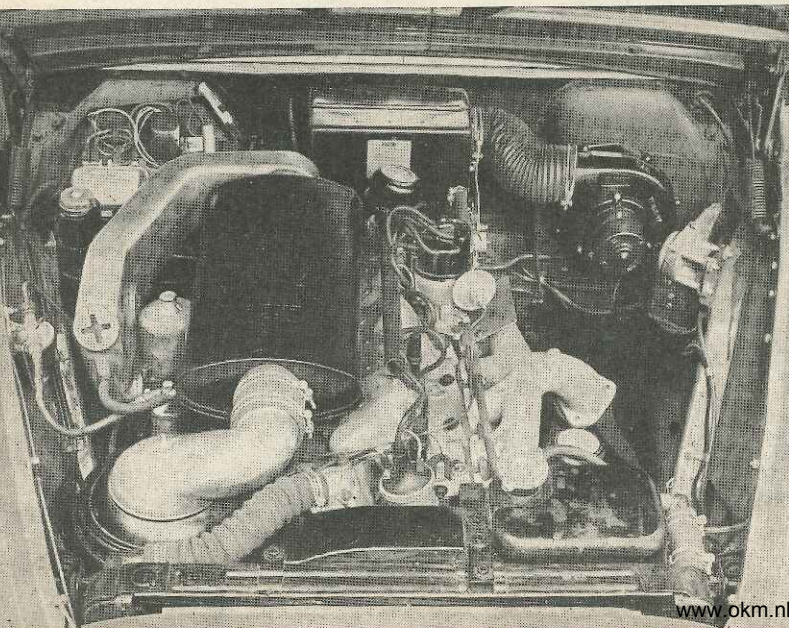
teristic which in any case becomes rather strong under cornering conditions. Tyre-squeal rather than body-roll tends to set the limit on useful cornering speeds, and with Avon tyres in good condition the test car did not lack adhesion on wet roads.

Mechanical friction in the steering mechanism is commendably slight, and only if it is necessary to turn the wheel when the car is virtually at rest in order to escape from a parking place does any complaint of heaviness become justifiable. A certain amount of flexibility in the steering mechanism prevents any road shocks reaching the driver, but on some surfaces there is movement of the wheel in his hands which although slow can be of appreciable magnitude.

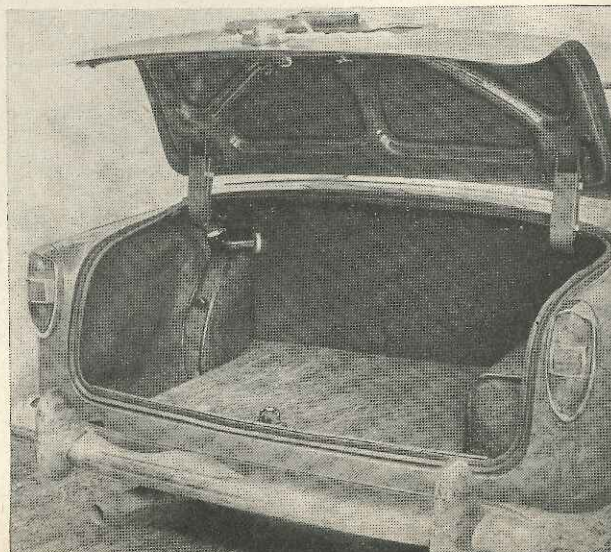
Disc type front brakes are expected to be fade free, and the Girling brakes showed no sign of weakening when worked very hard during our test of the 3-litre Rover. Complete smoothness could not however always be claimed for the brakes, which at times felt almost as if there was something equivalent to a slightly oval drum: under initial light pressure or in a crash stop, the right-hand front brake also tended to do rather more work than that on the left. In contrast to other Rovers, the 3-litre has a conventional pull-out handbrake under the fascia, conveniently placed and working on the drum-type rear brakes with an effectiveness adequate even for 1 in 3 test hills.

### Good Automatic Performance

Automatic transmission, which is optional as an alternative to four speeds (three with synchromesh engagement) and overdrive, was fitted to our test car. This Borg-Warner transmission has three automatic ratios, a torque converter working in conjunction with the lower two, and its appeal will be mainly to the less impatient type of driver although it does in fact provide deceptively good performance. To keep the car free from fuss, the automatic controls have been set so that they do not make the change down from top to middle gear at anything more than 25 m.p.h. except rather slowly if a deliberate and quite heavy "kick down" pressure is applied to the accelerator pedal, although 2nd gear is then kept in use up to a genuine 60 m.p.h. during full-throttle acceleration. Overtaking in traffic benefits from much more responsive acceleration if the "2nd gear hold" control is pulled out, but as top gear cannot then engage until 60 m.p.h. is exceeded the car becomes much less smooth and quiet. A more instantly accessible position for this control than the present one below



DOMINATED by air cleaner and silencer, the engine compartment looks well filled, but accessibility is in fact quite good. The cavernous boot is sensibly boxy in shape and has a flat floor.



HIGH-WAISTED in typical Rover fashion, the four-door body has wrap-round windows at front and rear, and effective no-draught louvres over the door windows. Exterior finish is of high quality.

the centre of the parcel shelf would be an immense improvement, and as it operates a push-pull flexible cable re-positioning could probably be contrived by an owner at the expense of losing fascia panel tidiness.

On steep hills, this transmission provides plenty of tractive effort for re-starting forwards anywhere that wheel-grip can be found: reverse gear could with advantage be lower instead of higher than 1st gear. Changes of ratio are not always as completely smooth as might be wished, but a driver with any claim to skill or sensitivity can soon learn to "handle" the accelerator pedal in a manner which almost completely avoids jerkiness. Downhill, only bottom gear is usable for braking (the 2nd gear hold control allows top gear to re-engage temporarily on the over-run) with an effective speed limit of just over 30 m.p.h., but thanks to power-assisted disc brakes this is not a cause for worry.

### Refinements

Certain of the inconspicuous details which help to distinguish a Rover from lower-priced cars can readily be appreciated even during a two-weeks' test: for example, a petrol reserve tap makes it safe to run the level in a 14-gallon tank down low enough to let 12 gallons of fuel be bought at one time, this amount sufficing for rather more than 200 non-

stop miles in most circumstances. A switch on the fascia converts the fuel contents gauge into an oil level indicator, reducing the frequency with which it is necessary to open the bonnet for routine checking, and although the engine compartment looks crowded, accessibility generally seems quite good. For anyone who uses his car daily, the fact that this Rover (like others of the make for a good many years past) needs no regular greasing, except for attention to one nipple on the propeller shaft splined coupling every 3,000 miles, represents a valuable saving of time and trouble. There are four interior lights, each with a switch operated automatically by opening the adjacent door as well as manually, and rheostat-controlled instrument panel lighting is arranged to show up the positions of switches on the fascia. The headlights are good, and a powerful dipped beam does not seem to dazzle oncoming traffic. A clock is

sensibly placed apart from the other instruments where passengers as well as the driver can readily see it. Unwisely, the "cigar lighter" is so shrouded that it will not light anything thicker than a cigarette or cheroot.

In inevitable comparison with the smoothness and silence which other Rover models have acquired as a result of development work extending over many years, the 3-litre seems as yet to represent a slight retrogression, although it has undoubtedly been improved to a very great extent since its first announcement in September, 1958. It offers such great advantages over the "80" and "100" models in respect of roominess for three-abreast seating, comfort in the rear compartment and capacity for luggage, as to ensure a substantial, distinct and expanding position in the quality-car market.

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## Specification

<b>Engine</b>	
Cylinders ... ..	6
Bore ... ..	77.8 mm.
Stroke ... ..	105 mm.
Cubic capacity ... ..	2,995 c.c.
Piston area ... ..	44.2 sq. in.
Valves ... ..	Overhead inlet (pushrod operated) and side exhaust
Compression ratio ... ..	8.75/1
Carburettor ... ..	S.U. horizontal type HD8 (2 in. bore)
Fuel pump... ..	S.U. electrical, rear mounted
Ignition timing control ... ..	Centrifugal and vacuum
Oil filter ... ..	Full-flow
Max. power (gross) ... ..	115 b.h.p. at ... ..
at ... ..	4,500 r.p.m.
Piston speed at max. b.h.p. ... ..	3,100 ft./min.
<b>Transmission (automatic)</b>	
Clutch ... ..	Hydraulic torque converter, with 2.1/1 multiplication when stalled
Top gear ... ..	3.9
2nd gear ... ..	5.6
1st gear ... ..	9.0
Reverse ... ..	7.84
Propeller shaft ... ..	Hardy Spicer divided open
Final drive ... ..	Spiral bevel
Top gear m.p.h. at 1,000 r.p.m. ... ..	20.2
Top gear m.p.h. at 1,000 ft. min. piston speed ... ..	29.3
<b>Chassis</b>	
Brakes: Girling hydraulic with vacuum servo; discs at front and drums at rear.	
Brake diameters:	
Front discs ... ..	10½ in.
Rear drums ... ..	11 in.
Friction areas: 104.9 sq. in. of lining area working on 401.5 sq. in. rubbed area of discs and drums.	
<b>Suspension:</b>	
Front: Independent by ball-jointed transverse wishbones and laminated torsion bars; anti-roll torsion bar.	
Rear ... ..	Semi-elliptic springs (7 leaves plus check leaf) and rigid axle
Shock absorbers ... ..	Telescopic
Steering gear ... ..	Burman variable-ratio recirculating-ball worm and nut
Tyres ... ..	6.70-15 tubeless (Avon on test car) or 7.10-15 optional

## Coachwork and Equipment

Starting handle ... ..	Yes
Battery mounting ... ..	In luggage locker
Jack ... ..	Bevel-gear bipod pillar type
Jacking points ... ..	4 external sockets under body sides
Standard tool kit: Jack, wheelbrace, starting handle, tyre pump, pliers, screwdriver, 3 double-ended spanners, adjustable spanner, sparking plug spanner, box spanner and tommy bar, tyre pressure gauge, luggage strap, paint touch-up pencil.	
Exterior lights: 2 headlamps, 2 side lamps, 2 stop/tail lamps, reversing lamp, rear number plate lamp.	
Number of electrical fuses ... ..	2
Direction indicators ... ..	Self-cancelling amber flashers
Windscreen wipers ... ..	Electrical two-blade self parking
Windscreen washers ... ..	Lucas electrical
Sun visors: Two universally pivoted visors of tinted transparent plastic.	
Instruments: Speedometer with total and decimal trip distance recorders, clock, fuel and oil level gauge, water thermometer, ammeter.	
Warning lights: Dynamo charge, mixture enrichment, oil pressure, turn indicators, headlamp main beam.	

Locks:	
With ignition key ... ..	Ignition/starter switch and either front door
With other key ... ..	Luggage locker, glove box and petrol filler
Glove lockers ... ..	One on fascia with lockable lid
Map pockets ... ..	One inside each front door
Parcel shelves ... ..	One below fascia, one behind rear seat
Ashtrays ... ..	One below fascia
Cigarette lighters ... ..	One on fascia
Interior lights ... ..	Four above doors, with manual and courtesy switches
Interior heater: Fresh air heater and screen de-mister; also separate cool air ducts on screen rail and below scuttle.	
Car radio ... ..	Optional extra (Smiths Radiomobile with twin speakers)
Extras available: Two-tone paintwork, individual front seats, radio, automatic transmission.	
Upholstery material ... ..	Prime quality hide
Floor covering ... ..	Carpets with underfelt over bitumastic compound
Exterior colours standardized: Ten single colours. Combinations of these at £14 3s. 4d. extra including purchase tax.	
Alternative body styles ... ..	None

## Maintenance

Sump ... ..	10 pints, S.A.E. 20W winter or S.A.E. 30 summer
Gearbox ... ..	15 pints, automatic transmission fluid (Energol type A or Esso type 55)
Rear axle ... ..	3 pints, S.A.E. 90 E.P. gear oil
Steering gear lubricant ... ..	S.A.E. 140 EP gear oil
Cooling system capacity ... ..	22½ pints (1 drain tap)
Chassis lubrication ... ..	By grease gun every 3,000 miles to 1 point
Ignition timing ... ..	3° before t.d.c., fully retarded
Contact-breaker gap ... ..	0.014-0.016 in.
Sparking plug type ... ..	Lodge HLN, 14 mm.
Sparking plug gap ... ..	0.029-0.032 in.
Valve timing: Inlet opens 17½° before t.d.c. and closes 40½° after b.d.c.; exhaust opens 52½° before b.d.c. and closes 27½° after t.d.c.	

<b>Tappet clearances (hot or cold):</b>	
Inlet ... ..	0.006 in.
Exhaust ... ..	0.010 in.
Front wheel toe-in ... ..	Zero (±½ in. tolerance)
Camber angle ... ..	2°
Castor angle ... ..	Zero
Steering swivel pin inclination ... ..	4°
<b>Tyre pressures, according to load:</b>	
Front ... ..	24-26 lb.
Rear ... ..	22-30 lb.
(Use extra 6 lb./sq. in. for sustained speeds over 80 m.p.h.)	
Brake fluid ... ..	Girling
Battery type and capacity ... ..	12 volt 57 amp. hr., Lucas type BT9A