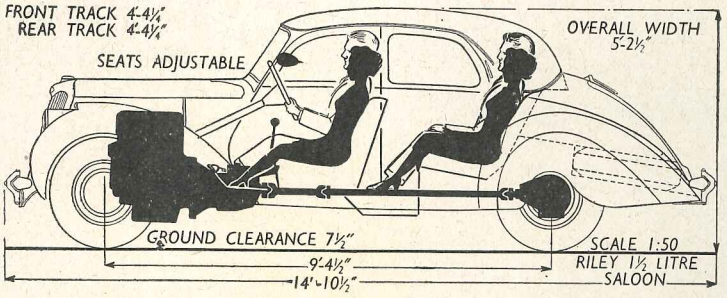
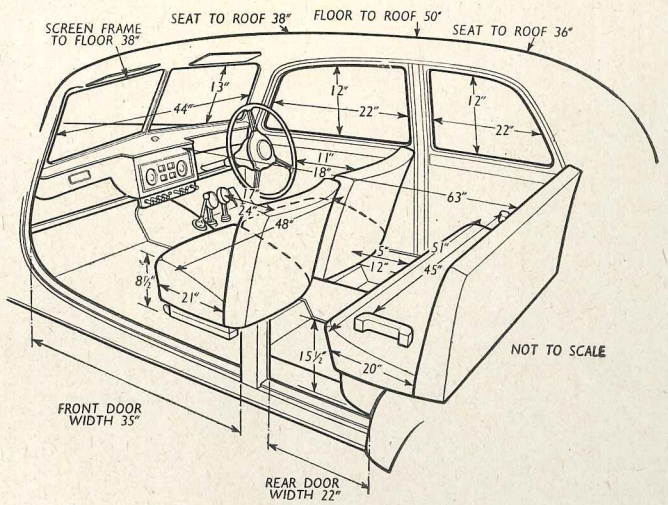
The Motor Road Test No. 17/54

Make: Riley **Type:** 1½-Litre Saloon

Makers: Riley Motors Ltd., Cowley, Oxford





Test Data

CONDITIONS. *Weather: Fine, Warm, little wind. Surface: Dry tar macadam. Fuel: Premium grade.*

INSTRUMENTS

Speedometer at 30 m.p.h.	2% fast
Speedometer at 60 m.p.h.	6% fast
Distance recorder	Accurate

MAXIMUM SPEEDS

Flying Quarter Mile

Mean of Four Opposite Runs	74.7 m.p.h.
Best Time equals	76.3 m.p.h.

Speed in Gears

Max. speed in 3rd gear	53 m.p.h.
Max. speed in 2nd gear	36 m.p.h.

FUEL CONSUMPTION

39.5 m.p.g. at constant 30 m.p.h.
36.5 m.p.g. at constant 40 m.p.h.
33.0 m.p.g. at constant 50 m.p.h.
26.0 m.p.g. at constant 60 m.p.h.
Overall consumption for 1186.5 miles, 46.6 gallons, equals 25.4 m.p.g.
Fuel tank capacity 12½ gallons.

ACCELERATION TIMES Through Gears

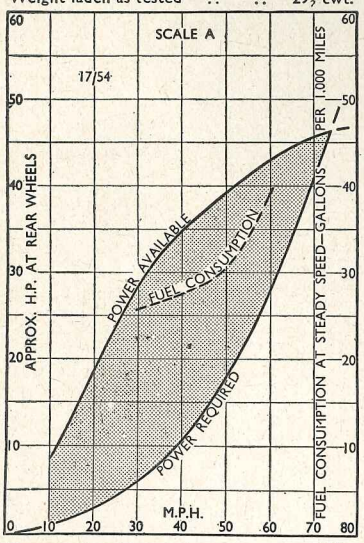
0-30 m.p.h.	7.2 sec.
0-40 m.p.h.	11.7 sec.
0-50 m.p.h.	18.6 sec.
0-60 m.p.h.	31.8 sec.
0-70 m.p.h.	59.5 sec.
Standing Quarter Mile	24.3 sec.

ACCELERATION TIMES on Two Upper Ratios

	Top	3rd
10-30 m.p.h.	11.8 sec.	8.1 sec.
20-40 m.p.h.	12.2 sec.	9.3 sec.
30-50 m.p.h.	14.7 sec.	12.0 sec.
40-60 m.p.h.	21.6 sec.	—
50-70 m.p.h.	40.9 sec.	—

WEIGHT

Unladen kerb weight	26 cwt.
Front/rear weight distribution	49/51
Weight laden as tested	29½ cwt.



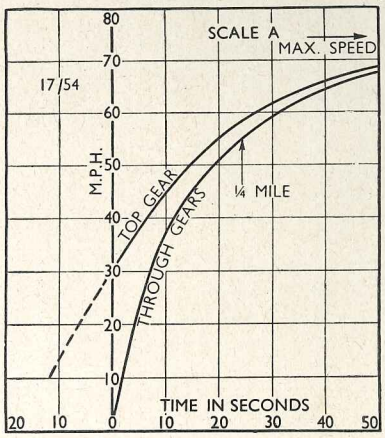
Drag at 10 m.p.h. .. .. .. 40 lb.
Drag at 60 m.p.h. .. .. .. 170 lb
Specific fuel consumption when cruising at 80% of maximum speed (i.e., 59.8 m.p.h.) on level road, based on power delivered to rear wheels .. .. .. 0.68 pints/b.h.p./hr

HILL CLIMBING (At steady speeds)

Max. top gear speed on 1 in 20	55 m.p.h.
Max. top gear speed on 1 in 15	47 m.p.h.
Max. gradient on top gear	1 in 11.1 (Tapley 200 lb./ton)
Max. gradient on 3rd gear	1 in 7.6 (Tapley 290 lb./ton)
Max. gradient on 2nd gear	1 in 5.5 (Tapley 400 lb./ton)

BRAKES at 30 m.p.h.

0.94 g retardation (= 32 ft. stopping distance) with 140 lb. pedal pressure
0.82 g retardation (= 37 ft. stopping distance) with 100 lb. pedal pressure
0.63 g retardation (= 48 ft. stopping distance) with 75 lb. pedal pressure
0.42 g retardation (= 72 ft. stopping distance) with 50 lb. pedal pressure
0.26 g retardation (= 116 ft. stopping distance) with 25 lb pedal pressure

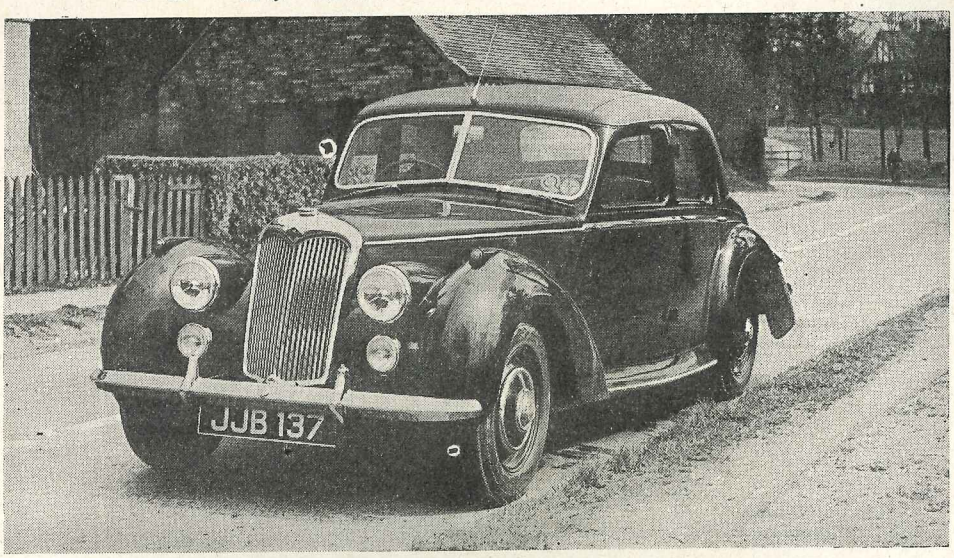


Maintenance

Sump: 10 pints, S.A.E. 30. **Gearbox:** 2 pints, S.A.E. 90 (hypoid). **Rear Axle:** 2½ pints, S.A.E. 90 (hypoid). **Steering gear:** Grease. **Radiator:** 13 pints (2 drain taps). **Chassis Lubrication:** By grease gun every 1,000 miles to 13 points. **Ignition timing:** 8° B.T.D.C. (with hand-control at full advance). **Spark plug gap:** 0.025 in. **Contact breaker gap:** 0.014-0.016 in. **Valve timing:** Inlet opens 7° B.T.D.C. and closes 48° A.B.D.C. Exhaust opens 48° B.B.D.C. and closes 20° A.T.D.C. **Tappet clearances:** (Hot) Inlet 0.015 in. Exhaust 0.015 in. **Front wheel toe-in:** Nil. **Camber angle:** 1°. **Castor angle:** 3°. **Tyre pressures:** Front 22 lb. Rear 24 lb. **Brake fluid:** Girling. **Battery:** Lucas 12-volt, 51 amp./hr. **Lamp bulbs:** Head lamps, 42/36 watt (Lucas No. 354); side, tail, stop and roof lamps, 6 watt (Lucas No. 207); reversing lamp, 36 watt (Lucas No. 57); fog lamps, 48 watt (Lucas No. 162); ignition, panel and fuel gauge lamps, 2.2 watt (Lucas No. 987); trafficators, 3 watt (Lucas No. 256).

The RILEY 1½-litre Saloon

A Well-built and Excellently-finished 1½-litre Car with Notably Good Handling Qualities



MODERNIZED by the removal of running boards and the fitting of new front wings and spatted rear wheels the Riley 1½-litre nevertheless retains its classic outline.

In Brief

Price: £850 plus purchase tax £355 5s. 10d. equals £1,205 5s. 10d.	
Capacity	1,496 c.c.
Unladen kerb weight ...	26 cwt.
Fuel consumption... ...	25.4 m.p.g.
Maximum speed	74.7 m.p.h.
Maximum speed on 1 in 20 gradient	55 m.p.h.
Maximum top gear gradient	1 in 11.1
Acceleration:	
10-30 m.p.h. in top ...	11.8 sec.
0-50 m.p.h. through gears	18.6 sec.
Gearing: 15.4 m.p.h. in top at 1,000 r.p.m.; 58.3 m.p.h. at 2,500 ft. per min. piston speed.	

WHILST the latest 1½-litre Riley was recently in our hands for an extended road test, we were approached by a stranger who pointed to his own identical model standing a few yards away and informed us that it was his sixteenth Riley. This fact (which we were subsequently able to check from another source) seems singularly apposite as an introduction to this road test report, because it epitomizes the user-enthusiasm and affection that has for so long been inspired by the marque Riley.

There are 1½-litre cars that are livelier, or roomier, or more economical, but the Riley couples a happy mean in these respects with such a sterling blend of all that is in the best British traditions of good engineering, excellent finish, good looks and notably roadworthy behaviour that its appeal is not hard to understand.

The 1954 model represents the latest example of a type which was one of the first completely new post-war designs to be launched in this country. Subsequent experience in the hands of the public has suggested the need for no major changes, although various detail improvements have been incorporated from year to year. The latest of such changes (incorporated for the London Motor Show last year) took the form of new wings and the elimination of running boards to provide a more modern appearance without disturbing the good lines of the car as a whole; these changes also enabled the twin fog lamps to be built in at the front and wheel spats to be introduced at the rear.

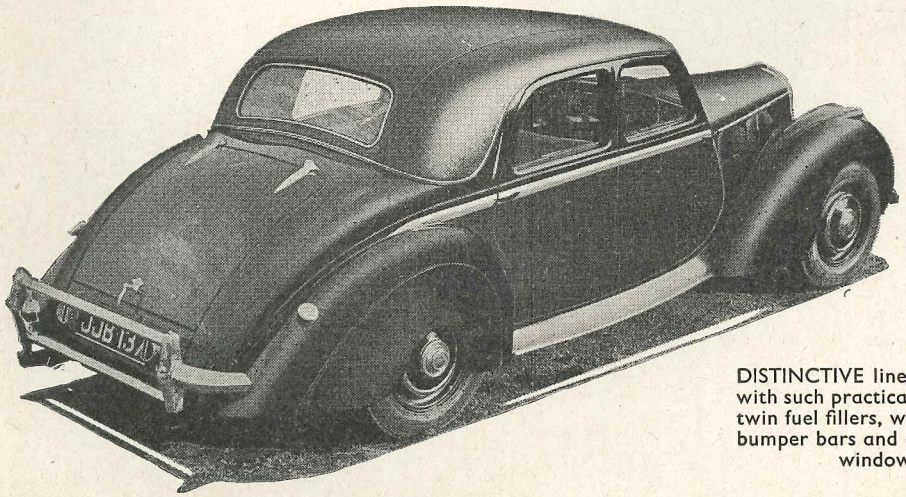
The full mechanical specification is reproduced in a data panel, but one or two characteristically Riley features should be mentioned here. The engine, for example, is notable for the use of hemispherical combustion chambers with inclined valves operating from a pair of highly placed camshafts, one on each side of the block, to give many of the advantages of twin overhead camshafts without any timing complications during top overhauls. This car was also one of the first British makes to employ independent front suspension embodying torsion bars and the now-widely-used wishbones of unequal length. Also notable in this age of quantity-produced pressed-steel bodies, is the retention of coachbuilt construction.

As one would expect, the performance of this latest Riley is closely on a par with that of the 1953 type tested (on Pool petrol) a little over a year ago, the maximum speed of 74.7 m.p.h., in fact, differing by a mere 0.1 m.p.h. The latest model did, however, show distinct gains in constant-speed fuel consumption recordings, confirmed by an improvement of 5% in the overall figure, despite the fact that the latest test was taken over a high mileage which included not only the performance tests but also a considerable distance over hilly West Country roads.

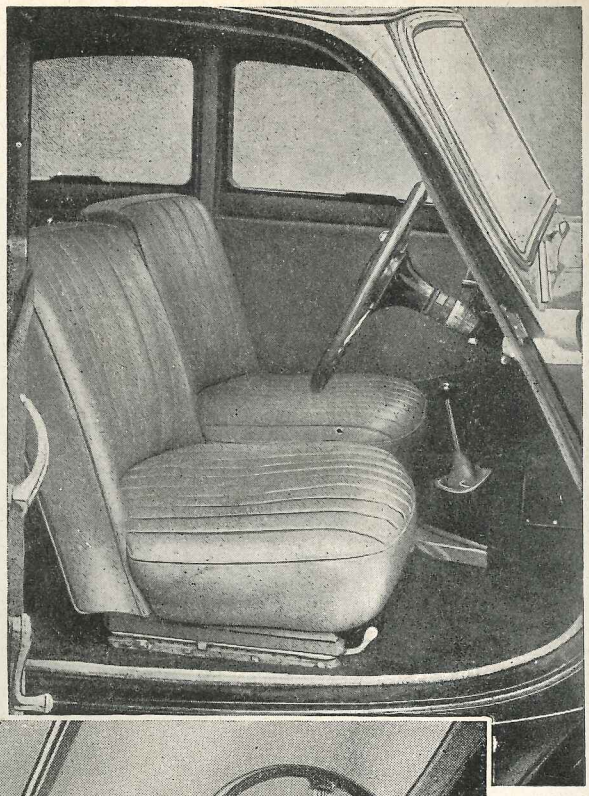
In the main, it is true to describe the 1½-litre Riley performance as lively rather than startling, but the combination of its response to the accelerator and its essential roadworthiness makes it a car in which good averages can be put up over long distances with a pleasing absence of strain.

More will be said of handling qualities later. So far as the engine is concerned, the Riley unit has always been a willing performer and the current example proved no exception. A genuine 60 m.p.h. seems to suit the car particularly well and the engine is, in fact, quieter at this speed than at 50-55 m.p.h., at which the noise level —never high—is at its maximum. At low speeds there is a very reasonable degree of flexibility for a four-cylinder unit and it is notable that there is no trace whatever of pinking or running-on when premium fuel is used; it was never found necessary, in fact, to use the ignition control, but this now-rare feature should be a useful adjunct where, through choice or necessity, low-grade fuels are used.

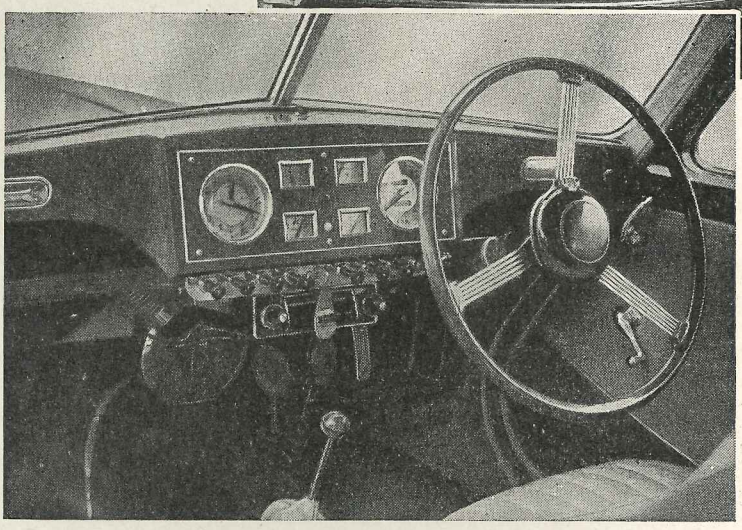
Reference has already been made to the improvement in fuel consumption and, in the light of the points just mentioned, the engine obviously takes well to the present economical setting; for those who place more importance on performance than economy, however, alternative settings giving more emphasis on the top end of the range might prove an advantage as shown by the fact that, on the model tried, the acceleration tailed off noticeably above 65 m.p.h. in top gear, whilst 53 m.p.h. was maximum



DISTINCTIVE lines are allied with such practical features as twin fuel fillers, widely spaced bumper bars and a large rear window.



HIGH-GRADE leather is used for the seats and this combined with the real wood used for facia and fillets gives the interior an air of quality and refinement. Notable points are the centre and side armrests at the rear, the very adequate roof lights and a telescopically adjustable steering column.



CLEAR, plain-faced instruments, a central gear lever and efficient heater make for driving ease, but not so good is the use of eight identical knobs at the base of the facia panel which are open to confusion.

in third, with 40 m.p.h. as a natural changing-up speed. For those who use their cars in competitions, a twin-carburetter induction system is available.

Starting at all times proved easy, but the engine is not so sweet as some at tick-over speeds. A very good point is the way hard driving produced very little rise in engine temperature, and it was noticeable that the tops of both Porlock and Countisbury hills were reached with the needle still at 175 degrees F., on a warm spring day.

Access to the engine for routine maintenance via the centrally split bonnet top is quite good, and a sensible point is that both hinged portions can be opened together and retained in the open position by convenient catches.

The Riley 1½-litre Saloon

Central Gear Lever

There is a very positive action about the clutch but it is, nevertheless, sufficiently smooth for easy starts to be made in second gear on the level. The pedal travel is comparatively long and, on the car tried, it was necessary to depress it fully to free the drive completely. Provided this was done, the gear change proved both easy and straightforward, and the neat central control lever is of the type which so many enthusiasts prefer. Competition-minded drivers will find snatch changes comparatively easy between first and second and between third and top; the through-the-gate movement between second and third makes this technique a little more difficult in this instance, but still quite possible. Upward changes are, however, pleasantly rapid in any case without resort to trick tactics. Gear noise is commendably low.

Owing to the transmission tunnel, there is no room for the driver's clutch foot at the side of the pedal, but this difficulty has been partially overcome by shaping the casing of the tunnel to form a rest which takes the weight of the driver's foot off the pedal. There could, however, be more room for the pedal itself with advantage, the present spacing being barely adequate for those wearing wide-fitting shoes.

As will be seen from the accompanying data, the brakes provide good stopping power with moderate pedal pressures, and to this comment may be added the information that Porlock hill was deliberately descended in top gear in order to throw all the work of this two-mile descent on to the brakes; no signs of fade were apparent when the car was brought to a standstill on the still-steep gradient below the bottom corner.

The hand-brake is of the pistol-grip type to the right of the steering column and, whilst it is quite satisfactory, a pull-up lever between the seats and close to the gear lever would obviously offer greater convenience.

Suspension on the current models is rather softer than on the original 1½-litre type with a corresponding improvement in general riding comfort. There is very little roll on corners and damping is normally very satisfactory, but fast drivers might prefer slightly more restraint for fast cornering on bad surfaces. The Riley remains, however, a car which inspires very notable confidence on give-and-take roads, the steering being accurate and the general cornering qualities above average. The effort required on the wheel is moderate rather than light and there is some road reaction through the wheel. A much-appreciated refinement is an extensible steering column.

From the driver's angle, the general layout of the controls and seating gives instant confidence, but the array of identically shaped knobs beneath the facia requires learning before one's hand automatically finds the right knob at the right moment—especially at night when the instrument lighting provides no help. The instruments themselves are comprehensive and clear-faced, with black markings on a gold background. At night they are illuminated by rheostat-controlled indirect lighting which, even when dimmed to the maximum, is rather bright for some tastes, the more so as the illumination of the central group is augmented by escaped light from the warning lamps for

the heater and the headlight main beam.

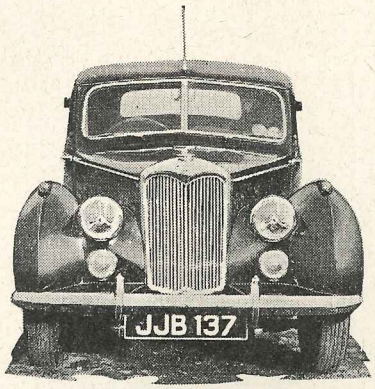
The confidence which the 1½-litre Riley inspires is undoubtedly augmented by the excellent view of both front wings obtained from the driving seat and a useful detail is the provision of transparent ruby "pips" on the tops of the side lamps. All-round visibility is also good, although the top of the screen causes some restriction of upward view for a very tall driver and the tapered upper portions of the screen pillars are also slightly obtrusive in such cases. In wet weather, larger areas of wiped screen would be welcome.

Rearward, the back window gives a good view and the anti-dazzle mirror is appreciated at night. Those who like to drive with an elbow on the door sill or to put their heads out of the window for reversing will note with approval that the windows disappear completely into the doors. A neat detail is the provision of a pair of flush-fitting vizors which give protection from a head-on sun.

An adequate heater and demister of the recirculating type is provided as standard in countries where it is considered necessary, but the provision of draughtless ventilation in cold weather calls for a rather careful adjustment of windows because hinged ventilating panels are not part of the normal equipment. In hot weather, side ventilators in the scuttle are a distinct aid to a cool interior. The Riley is, incidentally, commendably free from excessive wind noise.

The front bucket seats are well shaped to give support on corners and their high squabs provide a restful but fairly alert position. At the rear, the seat cushion might be shaped to give a little more support to the thighs with advantage, but, even so, the general standard of comfort is very good and is aided considerably by fixed arm rests on the doors as well as the usual central folding arm rest.

In general finish and appointments, the Riley reaches a high standard, and the provision of what the Americans have been known to call "genuine tree wood" for the main portion of the facia board and the window mouldings and door cappings, is a most pleasing feature, whilst the use of beautifully trimmed high-grade leather for the seats is in keeping with the whole. Both interior and exterior, in fact, have that distinct air of quality which is so satisfying to motorists who want more from a car than mere transport.

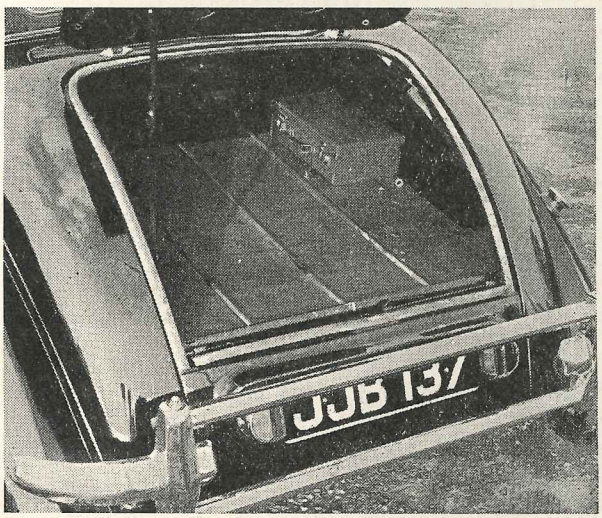


TWIN fog lamps are built into the revised front of the latest 1½-litre car

On the electrical side, the headlamps provide a very good range and are supplemented by a pair of built-in fog lamps, whilst a good interior detail is the provision of roof lamps which are really adequate for map reading. An unusual detail is a push-button dipper on the facia, which is quick, although not particularly comfortable, to use and gives no indication of whether the lamps have been left dipped or otherwise. The radio equipment, when provided, is notable for the use of two speakers.

Stowage space for luggage and oddments is well planned, with useful parcel shelves under the facia and behind the rear squab, map pockets in the front doors and a really excellent boot offering a clear floor for luggage, with tool receptacles in the wing recesses and a separate compartment for the spare wheel below.

With its many traditional British features, its good road manners and its excellent build and finish, this latest 1½-litre Riley will continue to appeal to discerning drivers whose tastes run to an individual car of very pleasing up-to-date, but not ultra-modern, line.



A FLAT FLOOR and plenty of unobstructed room make the stowage of luggage an easy task in the Riley, the spare wheel being housed separately beneath and being extracted between the bumper bars.

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Mechanical Specification

Engine

Cylinders	4
Bore	69 mm.
Stroke	100 mm.
Cubic capacity	1,496 c.c.
Piston area	23.2 sq. in.
Valves	Pushrod o.h.v. (2 camshafts)
Compression ratio	6.8/1
Max. power	55 b.h.p.
at	4,500 r.p.m.
Piston speed at max. b.h.p.	2,960 ft. per min.
Carburetter	S.U. horizontal
Ignition	Coil
Sparking plugs	Champion L10S
Fuel Pump	AC mechanical
Oil filter	Vokes external full-flow (throw-away element)

Transmission

Clutch	8-in. Borg and Beck
Top gear (s/m)	5.125
3rd gear (s/m)	7.585
2nd gear (s/m)	11.736
1st gear	20.372
Propeller shaft	Divided Hardy Spicer, open
Final drive	Hypoid bevel
Top gear m.p.h. at 1,000 r.p.m.	15.4
Top gear m.p.h. at 1,000 ft./min. piston speed	23.3

Chassis

Brakes	Girling hydraulic (2LS on front)
Brake drum diameter	10 in.
Friction lining area	131 sq. in.
Suspension: Front	Torsion bar
Rear	Semi-elliptic
Shock absorbers: Front and rear	Telescopic hydraulic
Tyres	5.75-16

Steering

Steering gear	Rack and pinion
Turning circle: Left	30 ft.
Right	30 ft.
Turns of steering wheel, lock to lock	2⅞

Performance factors (at laden weight as tested):

Piston area, sq. in. per ton	15.7
Brake lining area, sq. in. per ton	88.8
Specific displacement, litres per ton mile	2,000

Fully described in *The Motor*, October 14, 1953, and October 15, 1952.

Coachwork and Equipment

Bumper height with car unladen: Front (max.) 20 in., (min.) 12 in. Rear (max.) 23½ in., (min.) 11¾ in.	
Starting handle	Yes
Battery mounting	On scuttle
Jack	Bevelift
Jacking points	Four (below bumper over-riders)
Standard tool kit: Pump, grease gun, 3 double-ended set spanners, 3 double-ended box spanners, tommy bar, brake bleeding tube, adjustable spanner, hammer, screwdriver, 2 tyre levers, pliers, type valve spanner, distributor screwdriver, and gauge.	
Exterior lights: Two headlamps (double dipping), two built-in fog lamps, two side lamps, two combined tail, number plate, reversing and stop lamps.	
Direction indicators	Semaphore type, self-cancelling
Windscreen wipers	Electric, two blades
Sun vizors	Two, flush fitting
Instruments: Speedometer (with total trip mileage), clock, ammeter, water thermometer, fuel gauge and pressure gauge.	
Warning lights	Ignition, headlamp main beam, heater fan
Locks:	
With ignition key	Driver's door and boot
With other keys	None
Glove lockers	None
Map pockets	In front doors
Parcel shelves	Below facia and behind rear squab
Ashtrays	Four (two in facia and two in rear doors)
Cigar lighters	None
Interior lights	Two (above rear doors)
Interior heater: Re-circulating type with screen demisting, fitted as standard in territories where required.	
Car radio	Optional extra
Extras available: Rev. counter, ventilating air scoops to front windows, badge bar, H.M.V. radio.	
Upholstery material	Leather
Floor covering	Carpet
Exterior colours standardized: Black, maroon, green, blue, grey and ivory.	
Alternative body styles	None