

Outwardly the R series is little different from the current 541. Overriders are standard, and the horizontal moulding in the front wing is repeated more noticeably at the rear



## Autocar ROAD TESTS 1669

## Jensen 541 R

THE latest addition to the Jensen range—the R Series 541 introduced at the London Show last October—has distinguished itself by achieving in the hands of *The Autocar* the highest maximum speed of any car with more than two full-sized seats, so far provided for test. After quickly reaching 106 m.p.h. in normal top, the 541 went on in overdrive to a mean maximum of 123.5 m.p.h. and a best speed of 127.5 m.p.h., all this with the ambient temperature below freezing point and with a stiff diagonal breeze. The disc brakes fitted as standard all round, previously available on the de luxe 541, proved splendidly capable of bringing the car to a standstill repeatedly from very high speeds and, in conjunction with a high degree of stability, gave the green light for really fast travel on the open road.

The R series differs from the standard 541 in a number of respects. The engine is still 3,993 c.c. and, like a number of other components, is of Austin manufacture, but the R series employs the latest addition to the Austin range of power units, the D.S.7. This differs considerably from the engine used in the standard 541, having a completely redesigned head, with twin carburettors on the right side instead of three (as used by Jensen) on the left. The compression ratio is 7.6 to 1 instead of 6.8 (or 7.4 for the de luxe version of the standard 541). A long-dwell camshaft is used, and the crankshaft is of stiffer construction. Sump and oil pump have also been changed.

From the bulkhead forward, the R series chassis is of completely new design; the whole structure is stiffer, steering is by rack and pinion, and Armstrong piston-type dampers have been fitted instead of the telescopic units used on the standard 541.

It is the policy of this journal to provide impressions of new models without delay, frequently using prototypes for the purpose, but to await the normal production model before undertaking a full test. However, when the manufacturer produces cars in relatively small numbers, it is reasonable to stretch a point and take the factory demonstrator *cum* prototype. The Jensen provided was standard in all important respects affecting the chassis, but was non-standard

in certain details. The production instrument layout is a little different, the car tested had single-speed wipers instead of two-speed ones, and whereas the production model has a one-piece gear lever, that on the car tested was in two sections (and it snapped).

The prowess of the R series in speed and acceleration is worthy of closer study, during which it is inevitable that some comparison be made with the standard 541, even though the R is a more expensive stablemate. On a Continental motorway the car reached 100 m.p.h. from a standing start in 30.2 sec.; on a still day it seems almost certain that the figure could be reduced to under half a minute. When 100 m.p.h. has been passed overdrive continues to accelerate the car, but naturally at a slower rate, 110 m.p.h. being reached in 45.6 sec. Few opportunities occur in England to cruise for long at speeds in excess of 80 m.p.h. However, this figure is frequently seen, as it can be reached in 18.5 sec. The standard 541 took 21.6 sec to 80 m.p.h., and 35.5 to 100. The performance is provided in very dignified fashion.



The upper part of the bonnet lid is changed, and between the fore-and-aft mouldings thereon is a rearward-facing louvre permitting warm air to flow back to the windscreen. In normal driving the panel in front of the radiator remains closed



## Jensen 541 R . . .

The bumpers wrap well round, particularly at the rear. Outlets for underbonnet air are visible behind the upper and lower front wing mouldings. Disc brakes are standard, with spoked wheels and knock-off hub caps

The R series may be distinguished from the rear by the twin exhaust outlets being on the right instead of on the left, owing to the porting of the latest engine being reversed



Ratios of the Moss gear box are a great improvement upon those of the last car tested; first and second particularly are still rather low, but will permit speeds of 25 and 50 m.p.h. at the 4,500 r.p.m. maximum and third gives 77 m.p.h. On the last car the maxima were only 25, 38 and 60 m.p.h. The gear change has been improved by the incorporation of a wider gate. On the car tested the synchromesh mechanism provided on second, third and top was weak, and it could easily be beaten even in normal driving. The overdrive switch protrudes from the fascia, where it can be flicked easily without removing a hand from the wheel. In the medium speed range it is necessary to ease the throttle slightly when changing into overdrive to avoid holding it out of engagement. At high speed the change is instant and smooth under full throttle. The overdrive works only on top, and the change at speeds in excess of a true 100 m.p.h., and the immediate surge of further power as the new ratio engages are, to say the very least, exhilarating. Although called overdrive the ratio is, in effect, approximate to the normal top which one would expect to find on a car of this type.

Part of the restfulness of the 541 is owed to the quietness of the engine and almost complete absence of boom from the exhaust. At about 3,500 r.p.m. (over 100 m.p.h. on overdrive) the unit becomes less sweet and a little more obtrusive, but even at maximum revs there is no feeling that serious overstressing is taking place.

The number of motorists who have driven at more than a true 120 m.p.h. is inevitably small—which may perhaps be no bad thing. In discussing the Jensen's stability at this pace, and even 130 m.p.h. when on the down grades of the motorway's occasional undulations, it may be mentioned that the little bushes on the centre strip are to the driver no more than a blur seen out of the corners of eyes focused on the horizon; and that the roadway, straight rarely for more than a mile or two at a time, develops an almost liquid aspect, for at maximum speed more than two miles are passing under the wheels every minute.

Yet even at such a pace the R Jensen remains firmly on the road, develops no tendency to veer to either side, and the

brakes may be applied firmly without ill effect on directional stability. When one bears in mind that the car had to contend with a strong diagonal breeze during the Continental testing, the maintenance of this steadiness is the more impressive.

The rack and pinion steering adopted for the R series car is to be commended. Much more precision is at hand than in the last car tested, with the result that a more delicate line may be taken and held on corners. A certain amount of shock is carried back from the road to the wheel, but this amounts to no more than most drivers like to have by way of feel. From the car's maximum down to manoeuvring speeds the steering remains quite light. The column length is adjustable, and with the wheel set as far forward as possible minor controls are easily reached and the driver of average height enjoys a comfortable reach.

Suspension of the R car is affected by the stiffer construction of the forward part of the chassis. The degree of wallow exhibited on corners by the front wheels, described in the test of the standard 541, is now almost entirely absent, and the nearly tiresome degree of tyre squeal has been substantially reduced. There is no harshness in the suspension, yet it is firm enough to maintain stability at speed on corners in normal road driving. Some oversteering remains; that is, the tail has a readiness to swing out on corners taken fast. This can be corrected quickly by the usual opposite lock procedure. This characteristic is more noticeable on wet roads, but its extent is not enough to worry the skilled driver once used to it, and the less experienced are unlikely to drive so fast as to induce it. Nevertheless, more neutral steering characteristics would improve the car.

Dunlop disc brakes, fitted all round as standard, accounted for themselves with great credit during even the most severe sections of the test. They are servo-assisted, and the pedal effort called for, while not particularly light,

Access to the luggage locker has been greatly improved by hinging the lid at the top instead of at the bottom. Tools are housed in a separate compartment on the left; the spare wheel is secured under the floor, and can be removed without disturbing luggage





Despite its low build, the Jensen is simple to enter at front and rear. The rear seat is specifically intended to carry no more than two adults, and is partially divided by the intrusion of the final drive casing. All the controls fall conveniently to hand. To the left of the adjustable steering column can be seen the slim arm of the overdrive switch. Door handles and window winders are recessed into the doors themselves

is progressive and was considered just about right for this type of car. Incidentally, the large tubular frame members are sealed on the left side to serve as a substantial emergency reservoir for the brake servo system. Sufficient pedal pressure is required to give feel, but no woman driver would find the brakes hard work. These brakes have the distinction of being the first discs encountered on a Road Test car to be silent when applied gently or hard, hot or cold, at any speed.

After the maximum retardation of 94 per cent is reached, all four wheels will lock rather easily, but this did not occur inadvertently at any time during the test, even in the wet. The balance of the brakes remained impeccable, and no perceptible deterioration in efficiency or increase in pedal travel was noticed even during acceleration tests calling for repeated stops from very high speeds. A robust hand brake lever is mounted beside the gear box housing; it is easy to reach and positive in action.

The driving compartment is well tailored; the front seats are divided by the massive intrusion of the gear box housing, they are shaped for comfortable support, and covered in high quality hide. The car tested had a commodious, easily-reached ashtray between the seats; it is understood that production models will have a pull-out tube on the fascia instead. Below the fascia to the driver's right is the lever controlling the radiator grille shutter. With the D.S.7 engine the shutter is left in the closed position all the time in temperate climates; surprisingly, even with the shutter closed, the engine takes a long time to warm up, and the choke must be used at least partially for a mile or two after starting from cold.

Pedal arrangement is not ideal, the clutch and brake being a little close, and the throttle placed where it is not easy to effect heel-and-toe gear changes. There is room for the left foot off the clutch, where it can rest on the dip switch. The driver is well served by the range of instruments laid out directly in front of him; the speedometer and rev counter can be seen through the businesslike, three-spoked steering wheel, and he has in addition a fuel gauge with reserve switch and warning light, water temperature and oil pressure gauges—but no ammeter. The head lamps are not up to the standard appropriate to the car's performance. At night, even in favourable conditions, about 70 m.p.h. top speed is about the safe maximum.

The rear seats are partially divided by the axle casing. They are comfortable, but headroom for occupants has been sacrificed to achieve a smooth sweep of the roof line.

Screenwash equipment is standard—it works automatically when the control button is pressed, squirting water for a predetermined period; on the car tested the spray lasted much too long. The heater, also standard, proved only just adequate at temperatures down to freezing point; in very

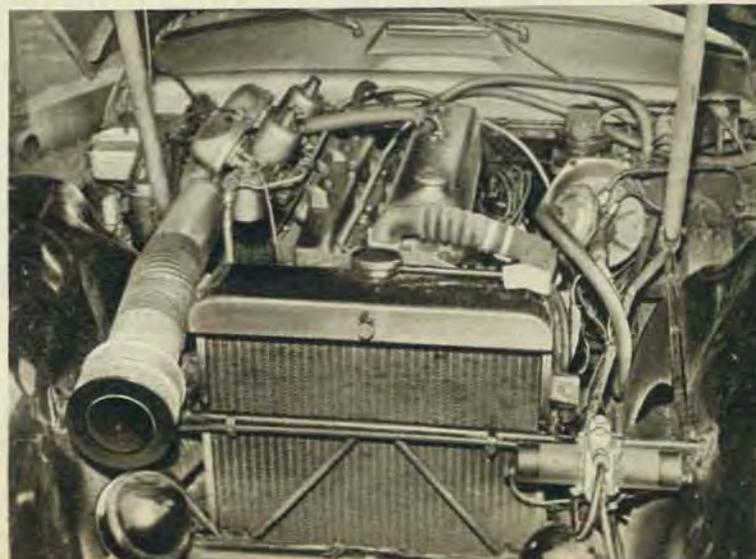
cold climates it would not be quite satisfactory. The fresh air intake for the heater is incorporated low down in the left front "underwing"—the wheel covering under the bonnet assembly which keeps mud off the engine—and was quick to pick up exhaust fumes from other traffic in town driving.

Visibility is not quite as good as the appearance of the car would suggest, for the top of the windscreen frame sweeps down at the sides too near to the driver's eye-level. The mirror, attached to the screen itself, is too small to take full advantage of the rear window size. Above the screen is the familiar Jensen "crash pad," now incorporating sun visors of ingenious design—made of transparent green plastic, they slide down from behind the pad. They are effective, but have the disadvantage that two hands are usually required to pull them into position satisfactorily. The three windows round the rear seats are of plastic in the interests of weight saving, the remainder of safety glass. A good feature is that the winders for the two main side windows are recessed into the doors; the winding mechanism is very low geared, however.

Swivelling ventilator windows are fitted, but in a car which gives rise to so little wind noise with the windows shut, one would like to see more attention paid to the swivelling of the ventilators into the air stream. When open they cause considerable wind roar.

The glass fibre body is of a high standard of construction,

The new Austin D.S.7 4-litre engine has twin carburettors on the right-hand side. The earlier unit had induction on the left-hand side, with three carburettors fitted by Jensen. On the right of the engine are the servo mechanism for the disc brakes and, in the foreground, twin electric fuel pumps. Accessibility of the engine compartment is particularly good; the complete bonnet assembly is securely supported when raised

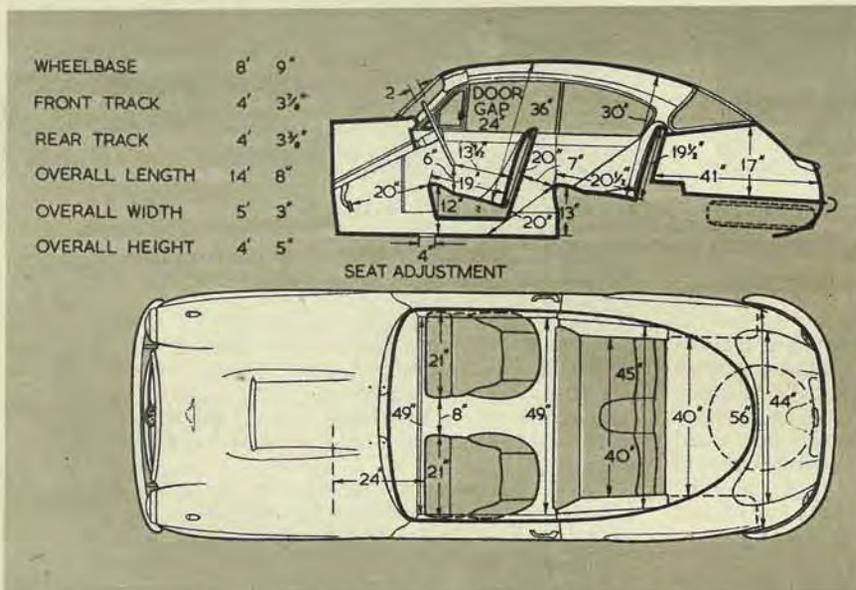


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well finished and completely rattle-free. The luggage locker lid is now hinged at the top, greatly facilitating access to the locker itself. Suitcases of orthodox shape may be stowed. The spare wheel is held below the floor in a tray whose anchorage is a little crude when compared with the standard of other fittings.

For all its outstandingly high potential speed and surging acceleration, the R Series Jensen remains a gentleman's carriage. It has a naturally effortless gait which permits very high journey speeds to be achieved without constant use of the gears or of high r.p.m. While stable and safe at speed, the car is yet comfortable, and the whole conception, choice of materials and workmanship are of high quality. The model is as desirable as it is exceptional, and price is not out of keeping with character.

## JENSEN 541 R



Measurements in these 1/4 in to 1 ft scale body diagrams are taken with the driving seat in the central position of fore and aft adjustment and with the seat cushions uncompressed

### DATA

**PRICE** (basic), with saloon body, £1,910. British purchase tax, £956 7s. Total (in Great Britain), £2,866 7s.

**ENGINE:** Capacity: 3,993 c.c. (244 cu in). Number of cylinders: 6. Bore and stroke: 87 x 111 mm (3.4 x 4.38in). Valve gear: o.h.v., pushrods. Compression ratio: 7.6 to 1. M.P.H. per 1,000 r.p.m. on top gear, 23.3. M.P.H. per 1,000 r.p.m. on overdrive, 30.0.

**WEIGHT:** (with 5 gals fuel), 29 1/2 cwt (3,262lb). Weight distribution (per cent): F, 53; R, 47. Laden as tested: 32 1/2 cwt (3,598lb). Lb per c.c. (laden): 0.9.

**BRAKES:** Type: Dunlop disc. Disc dimensions: F, 11in diameter; 254.5 sq in swept area. R, 11in diameter; 254.5 sq in swept area. Friction area: F, 15.88 sq in. R, 15.88 sq in.

**TYRES:** 6.40—15in. Pressures (lb per sq in): F, 24; R, 24 (normal). F, 30; R, 30 (for fast driving).

**TANK CAPACITY:** 15 Imperial gallons. Oil sump, 17 pints. Cooling system, 30 pints (plus 2 pints if heater is fitted).

**TURNING CIRCLE:** 34ft 6in (L and R). Steering wheel turns (lock to lock): 2 1/2.

### PERFORMANCE

**ACCELERATION:** from constant speeds. Speed Range, Gear Ratios and Time in sec.

| M.P.H. | *2.57 to 1 | 3.53 to 1 | 4.53 to 1 | 6.56 to 1 | 11.2 to 1 |
|--------|------------|-----------|-----------|-----------|-----------|
| 10—30  | —          | 6.9       | 4.9       | 3.5       | —         |
| 20—40  | —          | 6.6       | 4.9       | 3.4       | —         |
| 30—50  | 9.2        | 6.6       | 4.6       | 3.5       | —         |
| 40—60  | 9.8        | 6.8       | 4.7       | —         | —         |
| 50—70  | 10.1       | 6.8       | 5.5       | —         | —         |
| 60—80  | 10.4       | 6.9       | —         | —         | —         |
| 70—90  | 10.9       | 9.4       | —         | —         | —         |
| 80—100 | 13.0       | 10.6      | —         | —         | —         |

\* = overdrive.

**DIMENSIONS:** Wheelbase: 8ft 9in. Track: F, 4ft 3 1/2in; R, 4ft 3 1/2in. Length (overall): 14ft 8in. Height: 4ft 5in. Width: 5ft 3in. Ground clearance: 7in. Frontal area: 18.4 sq ft (approximately).

**ELECTRICAL SYSTEM:** 12-volts; 68 ampere-hour battery. Head lights: Double dip; 48-watt bulbs.

From rest through gears to:

| M.P.H. | sec. |
|--------|------|
| 30     | 3.7  |
| 50     | 7.6  |
| 60     | 10.6 |
| 70     | 13.3 |
| 80     | 18.5 |
| 90     | 24.9 |
| 100    | 30.2 |
| 110    | 45.6 |

Standing quarter mile, 17.5 sec.

**TRACTIVE EFFORT:**

| Pull (lb per ton) | Equivalent Gradient |
|-------------------|---------------------|
| O.D. 257          | 8.6                 |
| Top 340           | 6.5                 |
| Third 463         | 4.8                 |
| Second 585        | 3.6                 |

**BRAKES** (in neutral at 30 m.p.h.): Efficiency Pedal Pressure (lb)  
57 per cent 25  
85 per cent 50  
94 per cent 75

**FUEL CONSUMPTION:** 18.0 m.p.g. overall for 767 miles (15.7 litres per 100 km). Approximate normal range 15.0-24.0 m.p.g. (18.8-11.8 litres per 100 km). Fuel, premium grade.

**WEATHER:** Freezing; strong diagonal breeze. Air temperature 30 deg F. Acceleration figures are the means of several runs in opposite directions. Tractive effort obtained by Tapley meter. Model described in *The Autocar* of 18 October, 1957.

**SUSPENSION:** Front, independent, coil springs and wishbones. Rear, semi-elliptic leaf springs.

### SPEEDS ON GEARS:

| Gear | M.P.H. (normal and max.)     | K.P.H. (normal and max.) |
|------|------------------------------|--------------------------|
| O.D. | (mean) 123.5<br>(best) 127.5 | 198.7<br>205.1           |
| Top  | —106                         | —170.6                   |
| 3rd  | 65—77                        | 104.6—123.9              |
| 2nd  | 40—50                        | 64.4—80.5                |
| 1st  | 20—25                        | 32.2—40.2                |

### SPEEDOMETER CORRECTION: M.P.H.

| Car speedometer: | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 127 |
|------------------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| True speed:      | 11 | 20 | 30 | 38 | 48 | 57 | 67 | 77 | 87 | 97  | 106 | 110 | 120 |

