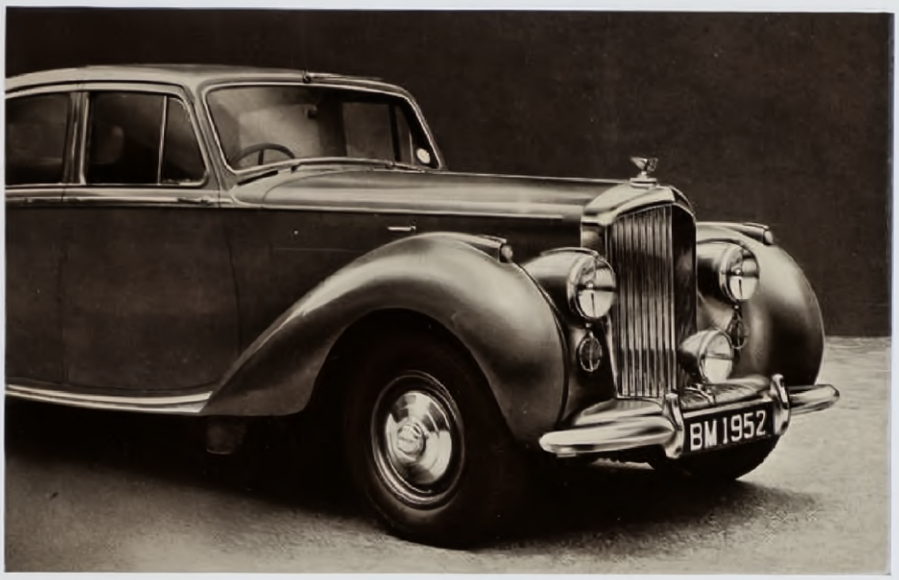
# BENTLEY

PARTICULARS OF

# BENTLEY

## The Silent Sports Car




BENTLEY MOTORS (1931) LIMITED

*Directors:* DR. F. LLEWELLYN SMITH R. N. DOREY O.B.E. D. R. McDONALD R. F. MESSERVY J. E. SCOTT

*Showrooms:* 14-15 CONDUIT STREET, LONDON, W.1

*Telephone: Mayfair 4412 Telegrams: "Bensport, Piccy, London."*

*Service Depot:*

HYTHE ROAD, SCRUBS LANE, WILLESDEN, N.W.10

*Telephone: Ladbroke 2444 Telegrams: "Benserdep, Phone, London."*

*Works:* CREWE, CHESHIRE

*Telephone and Telegrams: Crewe 3271*

# INTRODUCTION

*By* RAYMOND MAYS

PERSONALLY—and this is neither a boast nor confession—I drive my Bentley not merely as hard but harder than a racing car. On track or road circuit, the object is to win without going any faster than one has to : on the highway, at the wheel of my Bentley such inhibitions don't come into the picture: there is never enough time for all the things that will need to be done at journey's end, *ergo* " winning " means getting there as fast as is humanly possible.

Production cars that can be driven from dawn to dark without faltering, with a full passenger and baggage load, are rare. I wouldn't claim that the modern Bentley is necessarily unique in possessing that sort of stamina, but I do say this : only a Bentley takes such treatment without the ghost of a hint that it *might* register expensive rebellion. Peace of mind of that order naturally costs money, but a busy man may rate it above price.

Undiluted praise inevitably makes dull reading, but the sober fact is that I don't know where or how to fault this car. The six-cylinder engine, with its unusual combustion chamber shape, has a smoothness of power delivery unapproached by rival designs employing two or even six extra cylinders. For longevity and minimization of routine maintenance, this unit, and indeed the chassis as a whole, stands by itself. Nothing in my wide experience matches the feather-lightness of all the Bentley's controls.

Cornering power and shock-absorption under all manner of road conditions is superb. You can, if and when the whim takes you, throw the vehicle about like a racing car : alternatively, in milder moods, you can laze back and savour a restfulness of ride that would do honour to state occasions.

## FOUR-DOOR SPORTS SALOON

*COACHWORK BY BENTLEY MOTORS (1931) LTD.*

WITH an all-steel body of pleasing lines in which the needs of the owner-driver have been specially considered. There is comfortable seating for five persons while the large boot provides ample luggage accommodation, and a separate compartment for the spare wheel and tools.

*The extra large boot on the Bentley Saloon has a capacity of 17 cubic feet, sufficient space for a set of seven suitcases which have been specially designed for the car. The separate compartment affords easy access to the spare wheel and tools.*

THE ENGINE Six-cylinder mono-bloc casting with detachable aluminium cylinder head, 3⅝-in. (92 mm.) bore by 4½-in. (114 mm.) stroke, 4,566 c.c. capacity, 6.4 : 1 compression ratio, 31.5 h.p. on R.A.C. rating.

Overhead inlet valves operated by push rods and totally enclosed rockers. Side exhaust valves. This arrangement of the valve mechanism results in increased working efficiency in the combustion head, and at the same time provides for improved cooling of the exhaust valves. Aluminium alloy pistons. Engine-gearbox unit suspended at two points giving torsional flexibility. The seven-bearing crankshaft is supported in the top half of the crankcase.

IGNITION Twelve-volt battery, coil and distributor with automatic ignition control, a centrifugal governor being fitted immediately below the distributor head.

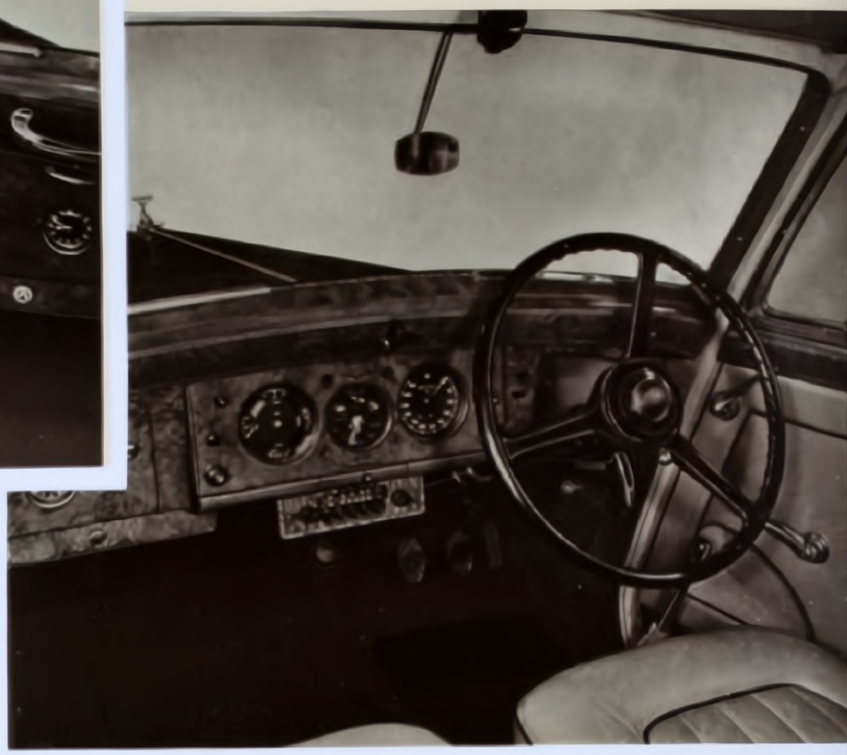
CARBURATION Two S.U. type carburetters are fitted and are interconnected in such a way that they will at all times work in perfect unison. In addition there is an automatic choke specially designed by Bentley Motors (1931) Ltd.
This system ensures automatic starting and carburation, without manual control, in the coldest weather.

ENGINE LUBRICATION Pressure feed to all crankshaft and connecting rod bearings. Positive supply to hollow rocker shaft from which valve rockers, push rods and tappets are lubricated.
1¾-gallon capacity sump with float type oil pick-up. Large capacity "full-flow" oil cleaner. 2-stage pressure relief valve accessibly located.

COOLING SYSTEM By fan and centrifugal pump. Temperature is thermostatically controlled. Temperature indicator on instrument panel.

THE CLUTCH 11-in, semi-centrifugal single plate, dry type, controlled by direct foot operation with compensating linkage between the pedal and the clutch to allow freedom of engine movement.

ELECTRICAL EQUIPMENT Twelve-volt system with automatic regulation of dynamo output by vibrator control. Separate starter motor with geared pinion providing gentle engagement. Battery of approximately 55 ampere-hour capacity.



*Above : Instrument panels of left-hand and right-hand drive Bentley cars with steering column gear change on left-hand, and conventional gear lever on right-hand drive.*

*Left : The tasteful interior of the Bentley Saloon. All the fittings illustrated are supplied with every car.*

Twin electric horns. Stop lamp and reverse light switches operated by brake pedal and gear lever respectively.

THE GEAR BOX Four-speed and reverse with positive interlock selector mechanism, synchromesh on second, third and fourth, which is direct drive. Speedometer and brake servo-motor drives included.

| | |
|---|---|
| Rear Axle Ratio | 11—41 |
| 1st Speed | 11.113 : 1 |
| 2nd Speed | 7.520 : 1 |
| 3rd Speed | 5.001 : 1 |
| 4th Speed (Direct) | 3.727 : 1 |
| Reverse | 11.767 : 1 |

TRANSMISSION The propeller shaft is of the open type, and is divided in order to obtain a lower floor. The shaft is fitted with grease-retaining, needle-bearing, universal joints.

STEERING GEAR Cam and roller follower on anti-friction bearings. Divided track rods. All joints have hardened ball-pins in phosphor bronze bearings, and are spring-loaded to minimize vibration.

FRONT SUSPENSION Independent, helical springs in conjunction with hydraulic dampers. Brake reaction taken by torque arms. Extensive rubber bushing to decrease road noises.

REAR SUSPENSION Long semi-elliptic springs in conjunction with hydraulic dampers controllable by a lever on the steering column head.

THE BRAKES Mechanical at rear, hydraulic at front. Pedal operated internal brakes: operation assisted by mechanical servo which is effective for forward and backward movement of car. Handbrake operates the rear brakes only.

CHASSIS LUBRICATION Centralised system supplied by reservoir and pedal-operated pump mounted on dash panel. System includes steering and front and rear suspension.

FUEL SYSTEM An 18-gallon tank at rear of chassis. Supply by twin electric pumps. Fuel level gauge on instrument panel. Also fuel level warning light which operates when fuel is low.

JACKING SYSTEM Side jacking system. Portable jack is provided in the tool kit. The jack operates on a slide extending under the body sill at about the centre of the chassis.

ROAD WHEELS Detachable disc wheels, 16-in. wellbase rims fitted with 6.50-in. × 16-in. India Super Tyres.

DIMENSIONS

| | |
|---|---|
| Overall Length | 16 ft. 8 in. |
| Overall Width | 5 ft. 11 in. |
| | (with rear wing fairings) |
| Overall Height Unladen | 5 ft. 6 in. |
| Wheelbase | 10 ft. 0 in. |
| Front Track | 4 ft. 8½ in. |
| Rear Track | 4 ft. 10½ in. |
| Turning Circle | 42 ft. 6 in. |

*Horse Power* *Name of Owner* *Number of Car*

The Company take precaution to ensure the application of reasonable care and skill in the selection and use of suitable materials and the best workmanship, accordingly all warranties or guarantees as to quality, or as to the fitness for the purpose for which cars or goods are sold, or as to any other matter implied by common law, statute, or otherwise are in all cases excluded. But the Company gives to purchasers from the Company a guarantee such as is set out below, namely :—

*To the Owner above named :*

IF within the prescribed period the body or chassis of the above motor car shall become defective by reason of the inclusion of unsuitable material or bad workmanship, the Company shall, as they in their sole discretion shall determine, and subject as hereinafter provided, either

(*a*) repair the defective part, or

(*b*) supply in lieu thereof a new part,

in either event free of charge to you, provided always that :

(*a*) The said motor car shall have been continuously, and still be, owned by you and in your possession.

(*b*) Such defect must not be due to fair wear and tear, dirt, misuse, negligence or accident.

(*c*) No alteration shall have been made to the car, and the same shall not at any time have been dismantled, overhauled or repaired other than through an authorised Bentley retailer, unless with the Company's written consent.

(*d*) The motor car shall not have been overloaded beyond the designed seating and luggage carrying accommodation, but shall have been properly used solely for the purpose for which it was intended.

(*e*) The motor car has not taken part in any road or track racing events, reliability trials, hill climbing or speed tests or other competitions of a similar nature except with the Company's written permission.

(*f*) The Company's responsibility hereunder shall be restricted to the free replacement or repair of such defective parts and shall not include, save as the Company may in their sole discretion otherwise determine, the cost of labour incurred either in removing the defective part or incorporating any such repaired or new parts.

(*g*) Immediately subsequent to the defect appearing, the facts thereon be reported to the Company either at their factory at Crewe, or Hythe Road, Willesden, giving the above motor car number.

(*h*) You at a date to be agreed with us, at your own expense send the car or defective parts either to our works at Crewe, or to Hythe Road, Willesden.

(*i*) THIS GUARANTEE does not extend to any proprietary articles or accessories such as tyres, batteries, lamps, etc., not manufactured by the Company, nor does it apply to such materials as cloth, leather, glass and the like over the manufacture of which the Company has no control.

(*j*) The Company shall in no circumstances be liable for any consequential loss or damage of any nature arising through any defect in its products.

(*k*) For the purpose of this guarantee the prescribed period shall in so far as relates to the body only be a period of twelve months from the date hereof, and in so far as it relates to the chassis a period of three years from the date hereof.



In the event of your having sent the motor car to our Works in pursuance of the foregoing clauses, you shall in any event be under obligation to remove the same from our premises if required to do so.

In the event of any difference of opinion arising between you and the Company as to whether or not the defect is due to defective material or workmanship the same shall be referred to the decision of an arbiter to be appointed by agreement between you and the Company, and failing such agreement to be appointed by the President for the time being of The Institution of Automobile Engineers.

*Dated this* *day of* 19

*for BENTLEY MOTORS (1931) LIMITED*

*Managing Director*

Registered Office :
NIGHTINGALE ROAD, DERBY

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HERBERT FITCH & Co LTD
MANSELL STREET, LONDON E.1