



*BENTLEY*

'S' 2



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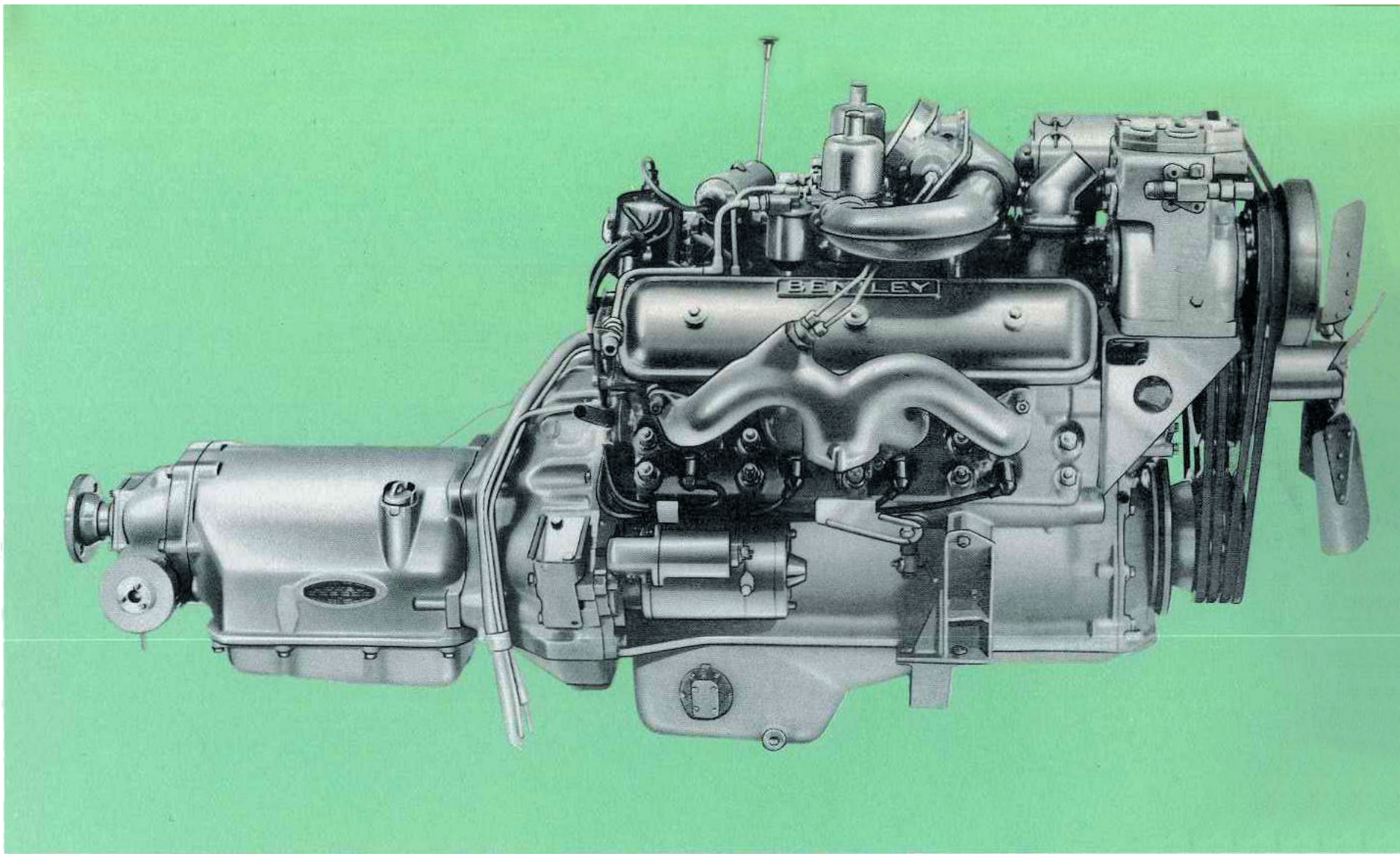
## *The Bentley 'S' 2*

The Bentley S 2 is designed by the same engineers who make the Rolls-Royce, and is powered by the new eight cylinder vee engine of 6230 c.c. Developed over the past five years, this compact unit is over square (Bore 4.1" Stroke 3.6") and is made almost entirely in aluminium. It weighs no more than the 6 in-line engine which it replaces, delivering greater torque over the entire speed range.

A fully automatic gearbox and power assisted steering are fitted as standard. Whether being manoeuvred in the city at low speed or cruising on the open road at 80 to 90 m.p.h., the Bentley can be handled with effortless ease. A comprehensive heating and defrosting system has been redesigned to give a greater volume and flexibility of control of the air inside the car, and a refrigeration unit is available if required.

The Bentley is built by craftsmen whose skill and careful attention to detail has produced a graceful motor car which meets the highest demands of the motoring enthusiast.





## The Engine

**Engine Type:** Eight cylinder 90° vee unit with overhead valves, hydraulic tappets, and cast aluminium block and heads.

**Bore and Stroke:** 4.1" x 3.6" (104.14 mm. x 91.44 mm.).

**Cubic Capacity:** 380 cu. in. (6230 c.c.).

**Compression Ratio:** 8.0 : 1.

**Firing Order:** A 1, B 1, A 4, B 4, B 2, A 3, B 3, A 2. (A = offside bank)

**Cylinder Block:** High silicon content aluminium alloy with "wet" cylinder liners of cast iron.

**Cylinder Heads:** Aluminium alloy with austenitic steel valve seats.

**Crankshaft:** Chrome molybdenum steel with integral balance weights running in five main bearings.

**Camshaft:** Monikrom cast iron shaft driven by helical gears.

**Lubrication System:** Oil pump with helical displacement gears and integral relief valve. Full Flow oil filter. Sump capacity: 12.5 pints (Imperial); 15 pints (U.S.); 7.1 litres.

High pressure feed to camshaft, connecting rods, crankshaft bearings and hydraulic tappets. Reduced feed to engine gears and the hollow valve rocker shafts.

### Fuel System

**Fuel Pumps:** Twin electrically operated independent pumps mounted externally on right-hand side of chassis frame.

**Fuel Tank Capacity:** 18 gallons (Imp.); 21.62 gallons (U.S.); 81.8 litres.

**Carburetors:** Twin S.U. automatic choke for cold starting.

**Air Cleaner:** Impregnated paper filtration. Mounted on bonnet.

**Cooling System:** Coolant circulation maintained by a centrifugal pump mounted in tandem with the fan and V-belt driven. Capacity: 21 pints (Imp.); 25.2 pints (U.S.); 11.9 litres.

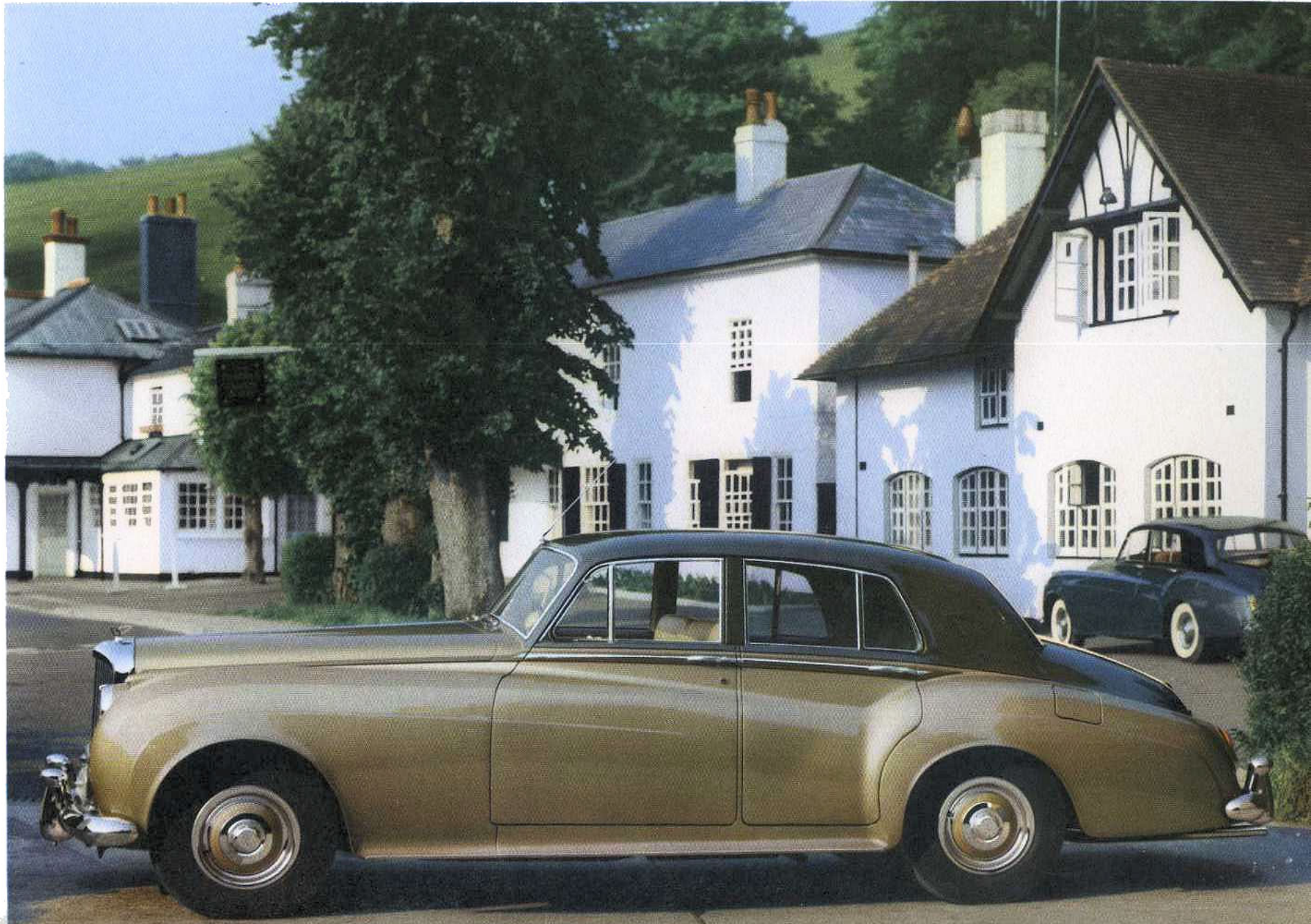
**Exhaust System:** Straight through large diameter pipe, with three acoustic silencers in series, each tuned to absorb a different range of frequencies.





## *The Bentley 'S' series*

The beautiful finish of the Bentley 'S' reflects the painstaking care taken by the craftsmen who build this fine looking motor car. The clean, modern lines help to achieve a remarkable degree of silence at speed, even when motoring at more than 100 m.p.h. Power assisted steering and superlative brakes create complete confidence in handling the Bentley on the road, while the engine and automatic gearbox put effortless power at the motorist's command.





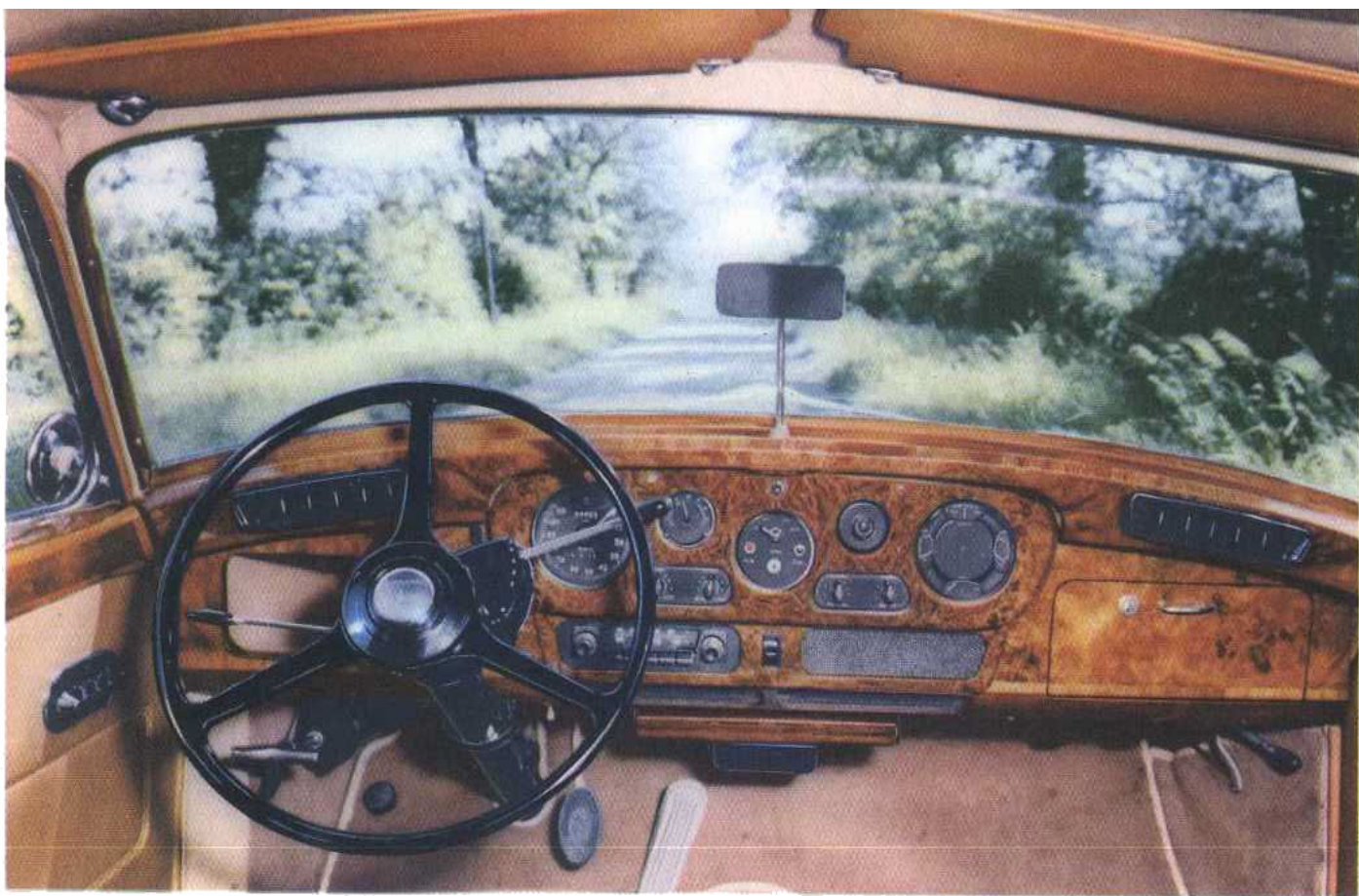


## *The Bentley 'S' series*

There are many detailed refinements on the 'S' Series Bentley, all designed to promote comfort and safety. Road-holding is enhanced by a ride control switch which varies the setting of the rear shock dampers to deal with exceptionally rough roads or heavy loads. The entire hydraulic brake system is duplicated, and the rear brakes are also partially operated mechanically.







## *At the Wheel*

Presentation of instruments and controls is comprehensive yet simple. The fascia is finished in walnut veneer. The radio is a standard fitting and the lever to the right of the steering column is the manual over-ride control of the automatic gear box.



## *Luggage Compartment*

The spacious luggage compartment is clear of obstructions and it will take all the cases shown here. A light is fitted on the inside of the balanced lid to facilitate loading at night.



## Colours

The range of colours given below is that of the standard paints with which the car body can be finished. These paints are weatherproof tested to the most rigorous standards under every extreme of climate. As can be seen from some of the illustrations in this Catalogue, the design lends itself particularly well to a two-tone colour scheme.

*Black*  
*Black Pearl*  
*Midnight Blue*  
*Velvet Green*  
*Sage Green*  
*Dawn Blue*  
*Sable*  
*Burgundy*

*Porcelain White*  
*Tudor Grey*  
*Steel Blue*  
*Smoke Green*  
*Metal Grey*  
*Shell Grey*  
*Sand*  
*Opal*

Upholstery is in English hide, hand finished throughout, and is available in the following colours :

*Beige · Blue · Tan · Green · Brown · Grey · Red*

Head linings and carpets can be matched to individual taste.





Driver and passenger can adjust the rake of the front seat independently. Elbow rests on the doors are adjustable and the centre armrests fold away if a third person is carried in front. Also visible in this view is the ride control switch on the steering column. A picnic tray and ashtray pull out from under the fascia panel.



The interior of the saloon body has wide luxurious seats giving ample room for five or six people. Upholstery is in English hide with fitted pile carpets in matching colours, and inlaid woodwork is finished in polished walnut. Vanity mirror, cigar lighter, picnic trays and cornering strap are other detail refinements shown in this photograph.





## The Bentley 'S' 2 with Division

A long wheelbase Bentley 'S' 2 with a division between front and rear compartments has been introduced to meet the dual purpose requirements of the executive who uses his car on business during weekdays and as a family car at other times. The chassis is four inches longer than that of the normal Bentley 'S'. The dual purpose 'S' 2 has the same specification features as the standard car—automatic gearbox, servo-assisted brakes, ride control, and long life chassis lubrication. The conversion of the coachwork on the steel saloon is carried out by Park Ward.

*An increase of 4 inches in the wheelbase measurements gives improved access through the larger rear doors, and extra leg room in the rear compartment. The switch to raise and lower the electrically operated division is in the centre panel, with duplicate switches for the radio and air heating control.*







# The Bentley 'S' 2 Specification

## CHASSIS

Closed box-section frame of welded steel construction with cruciform centre bracing pierced for propeller shaft and forming a very stiff structure. Long life grease lubrication by nipples at 21 points.

## TRANSMISSION

Rolls-Royce automatic gearbox providing four forward speeds and reverse through epicyclic gears. Divided propeller shaft with universal joints connecting the two halves. Hypoid bevel final drive with four-star differential and semi-floating half-shafts.

Overall Transmission ratios:

|         |           |           |          |
|---------|-----------|-----------|----------|
| 1st     | 11.75 : 1 | 3rd       | 4.46 : 1 |
| 2nd     | 8.10 : 1  | 4th       | 3.08 : 1 |
| Reverse |           | 13.25 : 1 |          |

## SUSPENSION

Independent front suspension by wishbones of unequal length with coil springs. Opposed piston hydraulic dampers and torsional anti-roll bar. Rear suspension is by half-elliptic springs with rubber bushed shackles. Single radius rod and electrically controlled piston-type dampers.

A ride control switch on the steering column varies the setting of the shock dampers to deal with rough roads or heavy loads.

## STEERING

Cam and roller with hydraulic power assistance. Degree of assistance varies automatically from about 50% for normal motoring to 80% for parking. Turns of steering wheel from lock to lock:  $4\frac{1}{4}$ .

## WHEELS AND TYRES

15-in. steel disc wheels on five studs, carrying 8.20 x 15 broad base tyres.

## BRAKES

Servo-assisted brakes with hydraulic operation at the front and combined hydraulic and mechanical operation at the rear. The hydraulic systems are duplicated, with two master cylinders, for safety. Pull and twist handbrake operating on rear wheels. Cast-iron drums with peripheral cooling fins 11 in. diameter, 3 in. wide.

## BODYWORK

5/6 seater, 4 door saloon body of

stressed steel skin construction. Full width front seat with independently adjustable backrests. Upholstery in English hide. Pile carpets throughout. Fascia and garnish rails finished in French walnut veneer. Heating and ventilation control. Rear window electrically demisted. Refrigeration unit and power operated windows are extra if required.

## ELECTRICAL SYSTEM

12-volt negative earth. Automatic regulation of dynamo current and voltage. Starter motor with pre-engagement solenoid. 67 ampere-hour battery. Twin electric fuel pumps. Double dipping headlamps operated by foot switch. Direction indicator switch on steering column. Twin fog lamps, which also incorporate flashing filaments for direction indicators. Combined stop and tail lamps, with amber stop light lenses also functioning as flashing direction indicators. One switch operates both the two-speed windscreen wipers and windscreen washers. Another switch operates the flap covering the petrol filler cap, so securing it completely from the outside.

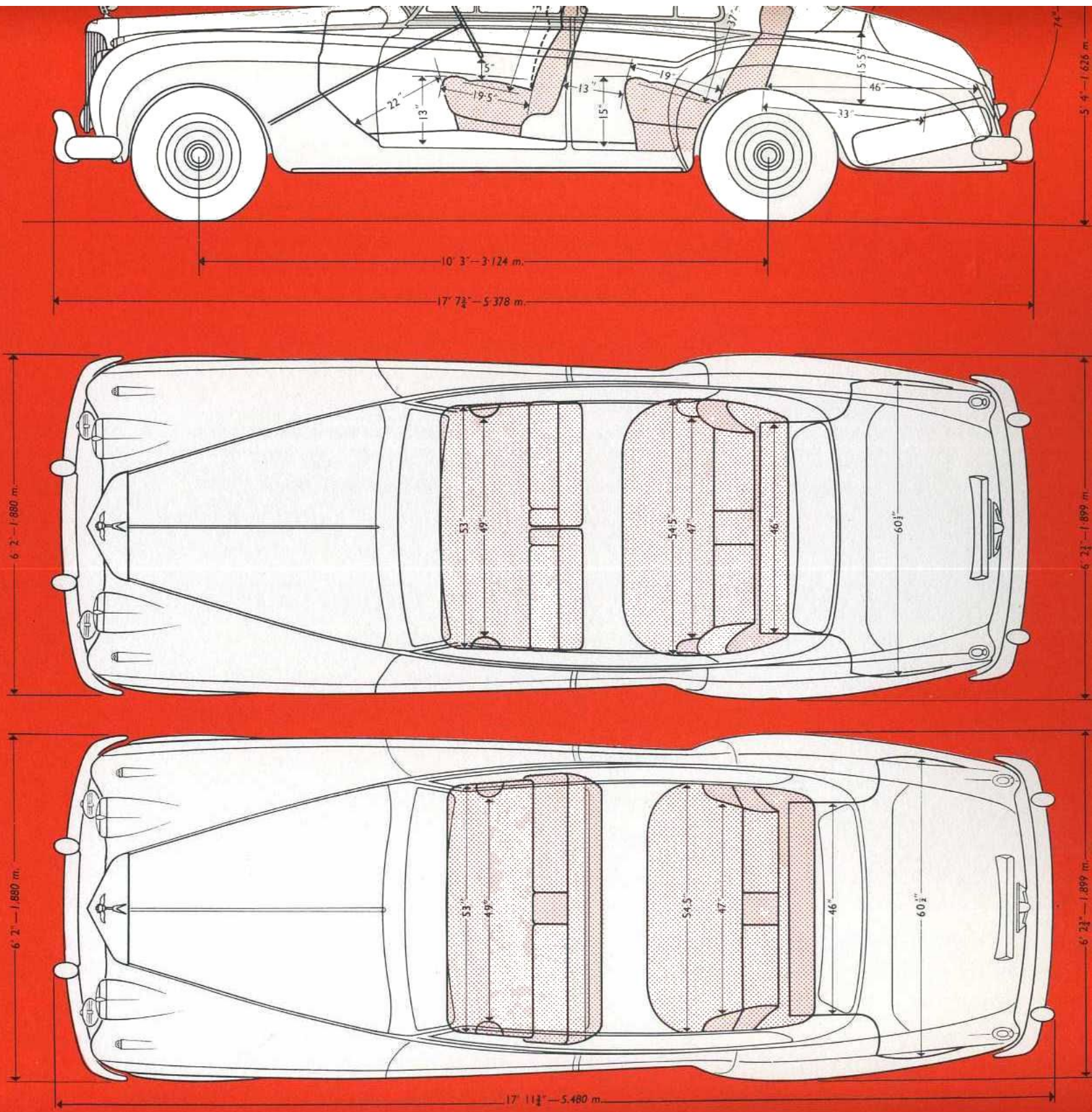




Side Elevation : 'S' series.

Plan : 'S' series.

Plan : Long wheelbase  
'S' series with  
Division.







### *Guarantee*

Bentley Motors (1931) Limited give a comprehensive 3-year guarantee with every new engine and chassis sold by them.

### *Service Facilities*

All officially appointed retailers throughout the world have Rolls-Royce trained engineers available to provide skilled servicing. There is also an organised system of regular inspection of cars at owners' residences in Great Britain during the period of the guarantee.

### *School of Instruction*

To help owners or their drivers to become proficient in the handling of Bentley and Rolls-Royce cars, the Company has arranged special courses of instruction on maintenance and driving. The school is at the Hythe Road Service Depot in London and full details can be obtained on application.

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