



*BENTLEY*  
*CONTINENTAL*



## *The Bentley Continental*

The Bentley Continental is a special lightweight version of the Bentley S2, with a handbuilt body of smaller frontal area. The reduction in weight and drag enables a more direct overall gear ratio to be used, and the powerful eight cylinder aluminium engine gives rapid acceleration and makes high cruising speeds possible.

To provide extra stopping power to match the performance of the Bentley Continentals, Rolls-Royce engineers have developed four shoe brakes on the front wheels which give a more even brake application over an increased lining area. The mechanical servo keeps pedal pressures light under all conditions.

The grace and power of the Continental can best be appreciated when it is handled at speed on the open road. Power assisted steering is standard, and to deal with inferior road surfaces the electrically controlled rear shock dampers can be set to "hard" to give a more rigid ride.



# 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 bearing.

**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.

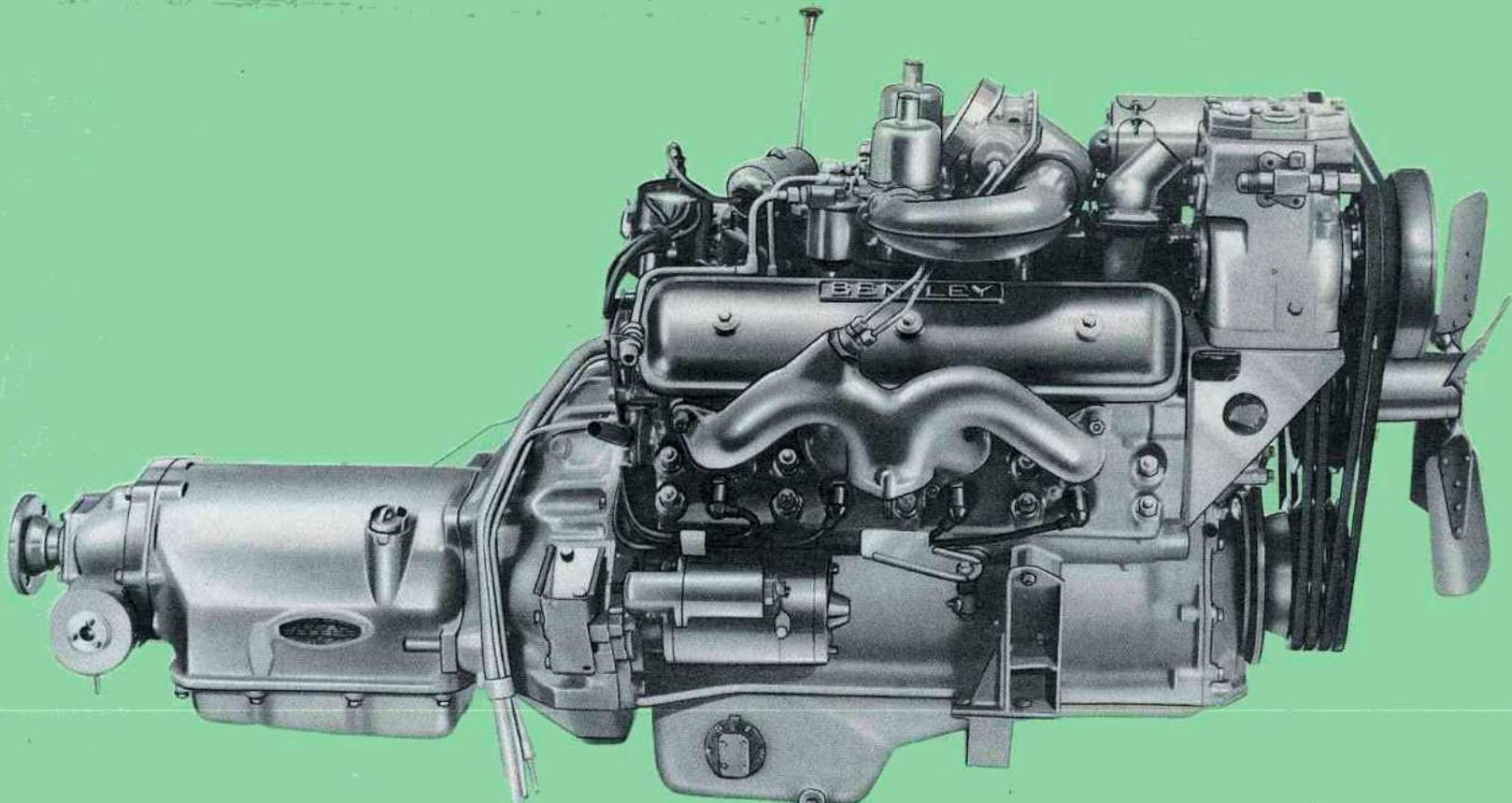
**Fuel Tank Capacity:** 18 gallons (Imp.); 21.62 gallons (U.S.); 81.8 litres.

**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.





*Bentley Continental 'Flying Spur'  
4-Door Saloon by H. J. Mulliner*

Known as the "Flying Spur" the 4-Door Saloon by H. J. Mulliner on the Bentley Continental chassis is no heavier than the 2-Door version, but has the advantage of added ease of entry. High cruising speeds can be maintained for long periods without strain, and acceleration in the higher speeds has become more rapid with the eight cylinder engine. Individual bucket front seats have a folding centre armrest with a hinged lid, and the interior appointments have been carried out with the traditional H. J. Mulliner skill and care. The long boot has a level platform with the spare wheel stowed below.

*(The car illustrated is painted Black Pearl, and upholstered in Tan hide.)*



*Bentley Continental  
2-Door Saloon by H. J. Mulliner*

The graceful and purposeful lines of the new H. J. Mulliner 2-Door Saloon are characteristic of this coachbuilder. The low weight, low drag design of the aluminium body gives full rein to the powerful eight cylinder engine. All Bentley Continentals have automatic transmission, power assisted steering, and a grease lubrication system with a life of 10,000 miles. Air conditioning systems enable all the windows to be kept closed, a necessity for comfort at high speeds. The vapour compression cycle refrigeration unit (an optional extra) can cool the inside of the car very rapidly and bring the temperature down to a pleasant level even in the hottest climates.

*(The car illustrated is painted Regal Red. The leather upholstery is Beige.)*



*Bentley Continental*

*Convertible by Park Ward*

Park Ward have applied aircraft technique to produce a body of great strength and rigidity with an alloy and steel structural framework and the outer panels also partly in light alloy and partly in steel. A wrap-round windscreen gives excellent visibility and the long backlight has a zip fastener, enabling it to be opened when the power operated hood is up. Luggage capacity can be increased by folding down the back of the rear seat and the interior is substantially padded to ensure maximum passenger safety and comfort. Bucket front seats are particularly comfortable for high speed motoring.

*(The car in the illustration has "Sand" coloured paintwork and the hood and interior upholstery are of Beige hide.)*



*Bentley Continental*

*4-Door Saloon by James Young*

James Young have designed the coachwork of their 4-Door Continental to retain the special characteristics of the Bentley Continental chassis, and weight has been kept down by careful attention to detail. This car stands some four inches lower than the normal S2 Saloon, and as on all the S2 Continentals, the radiator is canted slightly forward. The body is formed of aluminium panels over an alloy and steel framework, and the interior cabinet work is of a specially selected figured walnut. The curved windscreen and backlight give extremely wide vision. Electrically operated front door windows and electric aerial are normally fitted on all cars.

*(The car illustrated is painted in a special James Young blue. The hide upholstery is light blue-grey.)*



# The Bentley Continental 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 11.17 : 1 | 3rd 4.25 : 1  
2nd 7.69 : 1 | 4th 2.92 : 1  
Reverse 12.57 : 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 can vary the

setting of the shock dampers.

## 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: 4½.

## WHEELS AND TYRES

15-in. steel disc wheels on five studs, carrying 8.00 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. The friction lining area is 300 sq. in.

## AIR CONDITIONING

**Heating and Ventilation.** Fresh air is ducted to outlets under the scuttle and in the rear compartment floor. The system delivers hot or cold air through the

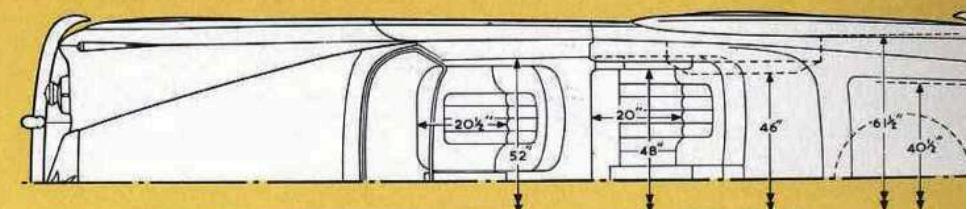
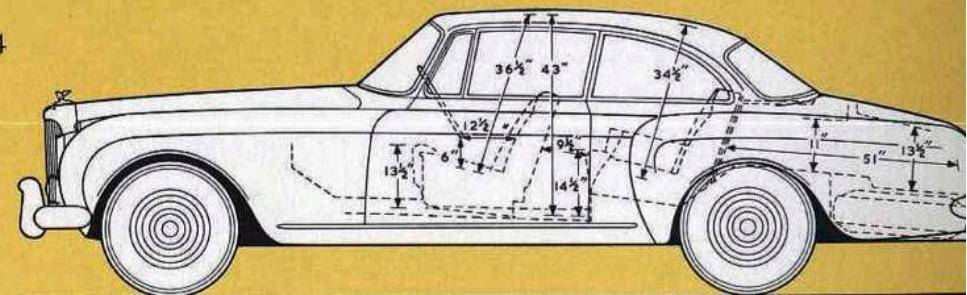
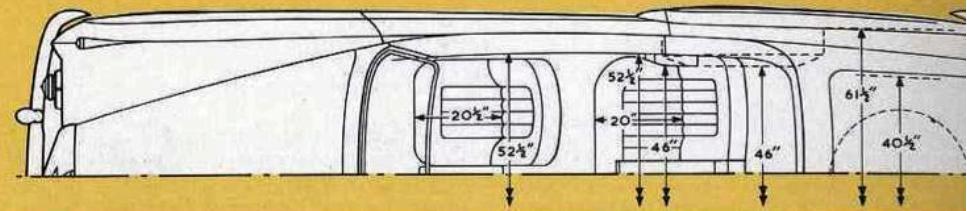
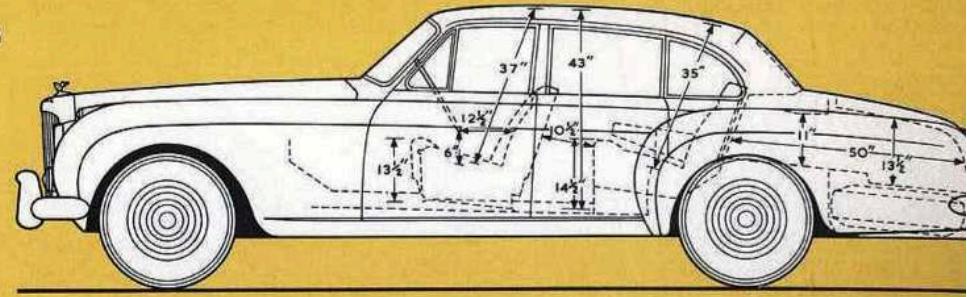
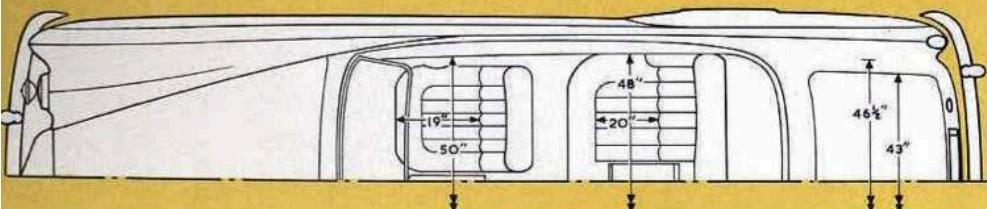
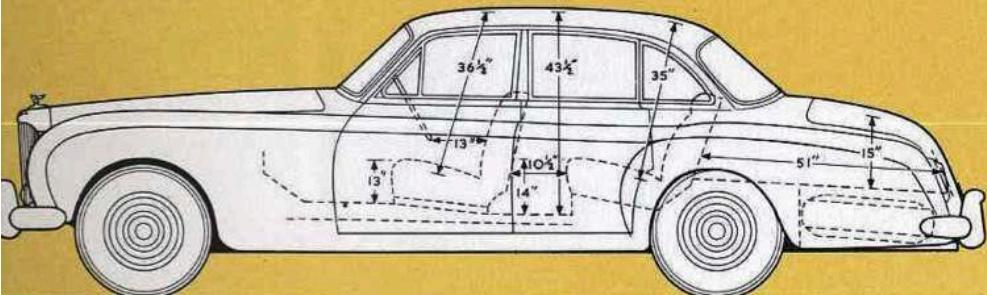
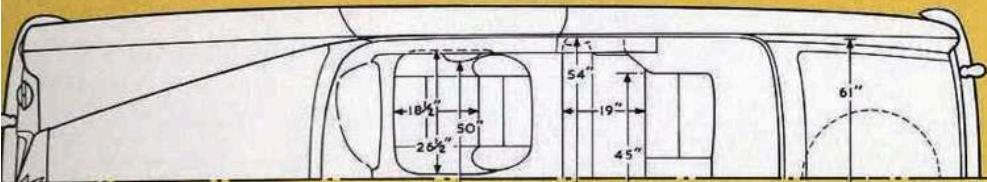
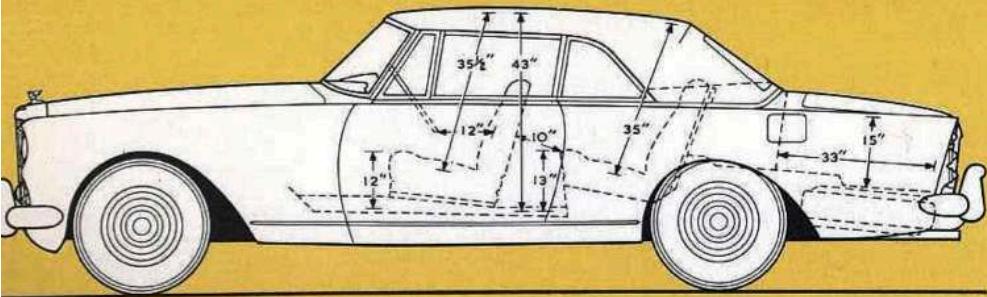
same ducts. There is ample capacity for adjustment.

**Demisting.** Hot, warm or cold air can be delivered to the windscreen. The rear window is electrically demisted by wires in the glass.

**Air cooling** (an optional extra) by a vapour compression cycle refrigeration system, with the evaporator unit under the rear parcel shelf. The cooled air enters the interior by ducts in the rear.

## 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.



Bentley Continental Chassis: Wheelbase, 123"; Turning circle, 41' 8"; Road clearance, 7"; Front track, 4' 10 $\frac{1}{2}$ "; Rear track, 5' 0"

### **Ward Convertible**

I Length ..... 17' 8"   
 Width ..... 6' 1 1/2"   
 Height (unladen) ..... 5' 0"

### *James Young 4-Door Saloon*

Length..... 17' 8" 2  
Width ..... 6' 0" 0  
Height (unladen) ... 5' 0" 0

### H. J. Mulliner " Flying Spur " 4-Door Saloon

Length..... 17' 8"  
 3 Width ..... 6' 0 $\frac{1}{4}$ "  
 Height (unladen) ... 5' 1"

### *H. J. Mulliner 2-Door Saloon*

4 Length.....  
Width.....  
Height (unladen).



## *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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