INDEX OF ILLUSTRATIONS

THE SECRET OF SUCCESSFUL RUNNING

Before a Bentley car is sold, it is very carefully tested and adjusted by experts. It will run best if no attempt is made to interfere unnecessarily with adjustments.

An owner would do well to instruct his driver as follows:—

Lubricate effectively, in strict accordance with the advice given in this book, and do not neglect *any* part.

Inspect all parts regularly, but take care not to alter any adjustments unless really necessary.

SERVICE FACILITIES FOR BENTLEY CARS

Our interest in your Bentley car does not cease when you take delivery of the car. It is our ambition that every purchaser of a Bentley car shall continue to be more than satisfied.

With this end in view, the "Special Retailer", through whom the car was purchased, has established a properly equipped Service Station, staffed by men who have been specially trained in servicing Bentley cars.

In addition, on the staff of Bentley Motors (1931) Ltd., there are experts whose sole duty it is to maintain contact with the "Special Retailers", and they are available, at all times, to be called in for consultation on any matters affecting your car.

If, therefore, you require any assistance, we ask that you should immediately contact the "Special Retailer", who will be only too pleased to place his facilities at your disposal. If necessary he will call in for consultation our expert in that area. It is earnestly hoped that this arrangement will prove of mutual benefit, as we shall thus be kept in constant touch with our Customers, who may be spared the trouble of a long journey to one of our Company's Service Stations.

In the event of it being more convenient to call on us direct for assistance, our main Service Station at Hythe Road, Willesden, London N.W.10, and the one at our factory at Crewe, will be ready at all times to help. (See maps at end of Handbook.)

LEADING PARTICULARS OF CHASSIS

Engine.

Six cylinders, $3\frac{5}{8}$" (92 m/m.) bore, $4\frac{1}{2}$" (114 m/m.) stroke, 4,566 c.c., cubic capacity.

Mono-bloc casting, detachable cylinder head, overhead inlet valves, side exhaust valves.

Aluminium alloy pistons.

Engine Lubrication.

Pressure feed to all crankshaft and connecting rod bearings.

Relief valve, providing positive low-pressure supply to the valve rocker shaft, from which the inlet valves, push rods and tappets are lubricated.

Two-gallon capacity sump.

Carburetter.

Two special type S.U.

Air intake silencer, with which is incorporated a special air cleaner element.

Fuel System.

Eighteen-gallon tank at rear of chassis. Supply by electric pumps. Fuel level gauge and warning light on instrument board. The warning light indicates when fuel is low.

Cooling System.

By centrifugal pump circulation and fan. Thermostatically controlled. Coolant temperature thermometer on instrument board.

Electrical Equipment.

Twelve-volt system with automatic regulation of dynamo output. Starter motor with reduction gear and pinion providing gentle engagement. Battery of 55 ampere-hour capacity.

Gearbox.

Four forward speeds and reverse. Synchromesh on second, third and fourth speeds. Right-hand control lever.

Gear Ratios.

Rear Axle Ratio.	1st Speed.	2nd Speed.	3rd Speed.	4th Speed. (Direct.)	Reverse.
3.73 : 1	11.11 : 1	7.52 : 1	5.0 : 1	3.73 : 1	11.76 : 1

Rear Axle.

Semi-floating type. Hypoid gears with differential. Torque and brake reactions taken by road springs.

Rear Suspension.

Semi-elliptic springs in combination with controllable hydraulic shock dampers.

Front Suspension.

Independent; open helical springs in combination with hydraulic shock dampers.

Steering.

Cam-and-roller type.

Brakes.

Hydraulic operation on front wheels, mechanical operation on rear wheels assisted by mechanically driven servo motor.

Hand brake operates on rear wheels.

Chassis Lubrication.

Centralised chassis lubrication system supplied by foot-operated pump and reservoir on dashboard.

Road Wheels.

Detachable steel wheels, fitted with 6.50″ by 16″ India Super Silent Rayon tyres.

Dimensions.

Total length overall, including bumpers	191½″	— 15′ 11½″
Width of car	69″	— 5′ 9″
Wheelbase	120″	— 10′ 0″
Track—Front	56½″	— 4′ 8½″
Rear	58½″	— 4′ 10½″
Turning circle, over front wings		46′

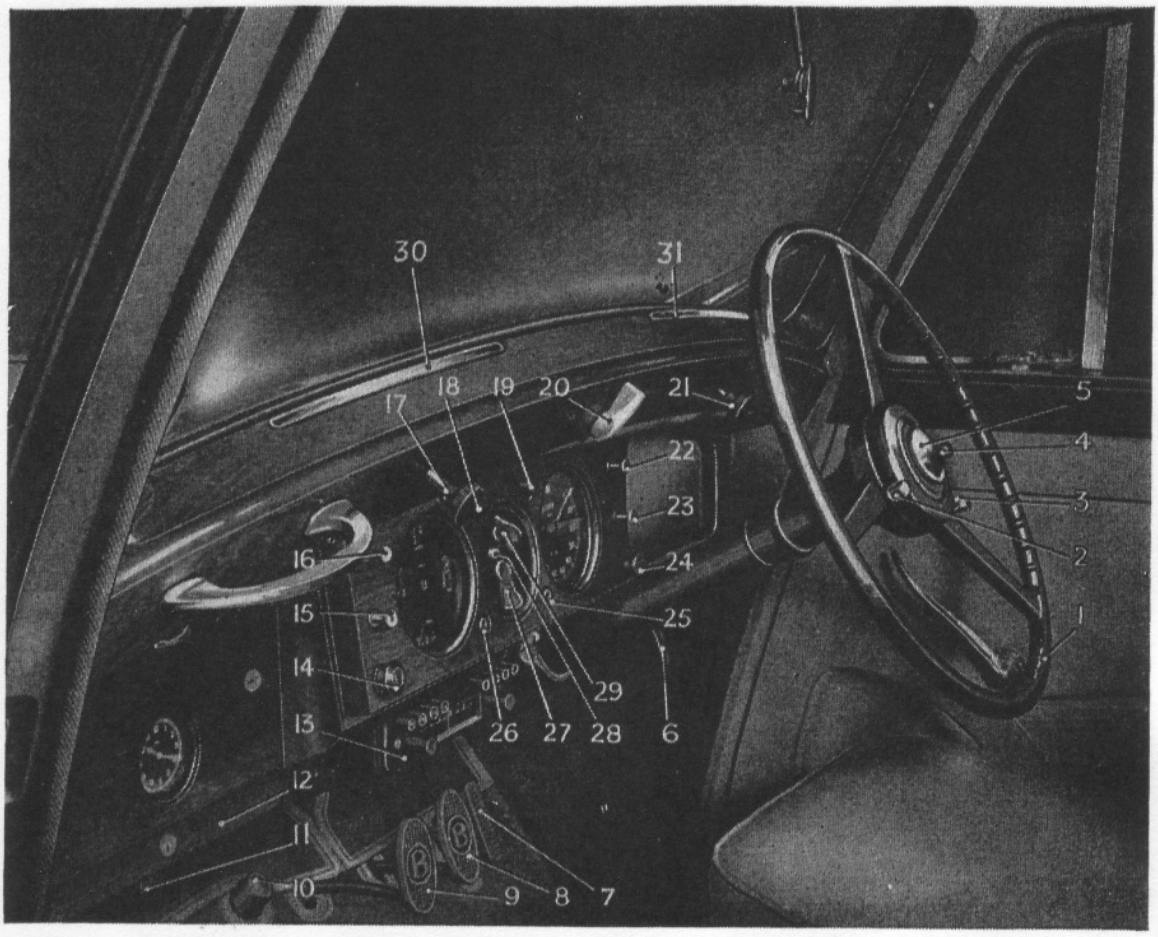

FIG. 1.—GENERAL VIEW OF DRIVER'S CONTROLS.

1. Steering wheel.
2. Throttle control.
3. Mixture control.
4. Ride control.
5. Horn push.
6. Hand brake.
7. Accelerator pedal.
8. Brake pedal.
9. Clutch pedal.
10. Dip switch.
11. Chassis lubrication pump.
12. Small tool drawer.
13. Radio.
14. Cigar lighter
15. Instrument light switch.
16. Windscreen wiper switch.
17. Windscreen wiper parking knob.
18. Fuel/oil level switch.
19. Map lamp switch.
20. Trafficator switch.
21. Windscreen wiper parking knob.
22. Fog lamp switch.
23. De-mister switch.
24. Car heater rheostat.
25. Ignition warning
26. Fuel warning light.
27. Master switch.
28. Starter motor switch.
29. Ignition switch.
30. Air vent cover.
31. Air vent cover.

CHAPTER I

Starting the Engine and Driving the Car

Starting the Engine—Throttle Control—Mixture Control—Ignition Control—Fuel Feed—Fuel Gauge—Maximum Engine Speed—Gear Changing—Controllable Shock Dampers—Battery Charging—Lighting Control and Switch—Accessories—Radiator Thermostat and Thermometer—Coolant Level in Radiator—Frost—Fitting of Snow Chains.

Starting the Engine.

Switch on the ignition by turning master and ignition switches on the instrument board to **On.**

The master switch controls all the electrical system, excepting the inspection lamp and the roof lamp, the latter being left always available for convenience when entering the car in the dark.

The action of switching on the ignition also switches on the electric fuel pumps, and a few pulsations of the latter may then be heard.

A small red warning light on the instrument board will be illuminated when the ignition is switched on, but will be extinguished when the engine speed is sufficient to cause the cutout contacts to close.

Set the mixture control to **"START";** it must not be maintained in this position. As soon as the engine starts running, gradually reset the control to **"RUN".**

With a cold engine the hand throttle control should be opened about one third of its range, but should be re-set to the closed position when the engine has warmed up.

Re-starting with a warm engine, the above is not necessary as the carburetter slow running adjustment has been set to give an adequate idling speed.

Depress the starter button firmly, *an appreciable pause must be made between the operations of switching on the ignition and depressing the starter button, especially when making a start from cold.* This is necessary in order to give the pumps time to fill the float chambers of the carburetters.

When starting the engine for the first time in the day it is a good plan to form the habit of depressing the chassis oil pump pedal once at this stage. Subsequently it should be depressed once every 100 miles. If the car is to be driven only a few miles, however, half a pump-full will be sufficient at the first starting.