A BRIEF GUIDE TO
ROLLS-ROYCE
AND
BENTLEY CARS

1925 — 1955

ERRATA

Table I. Silver Cloud and SI. R.A.C. rating should read 33.7 h.p.

Illustration 1937 4½ Bentley. Delete 3½, insert 3½.

Rolls-Royce Enthusiasts Club - revised address

General E. B. Barrass, O.B.E., T.D., Lincroft, Montacute Road, TUNBRIDGE WELLS, Kent.

ADDITIONS

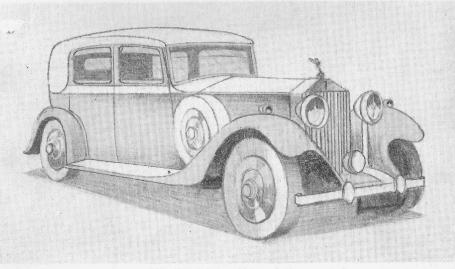
The last of the MK VI Bentleys were fitted with the 4½ litre Type 'R' engine. These cars are described as "large bore small boot". In 1939 the 4½ litre model was supplied with overdrive top gear, direct third gear, and internal thermostat in place of opening radiator shutters.

All pre-war Bentley models were fitted with twin SU carburettors and 550×18 tyres, later changing to 600×17 in 1939.

A BRIEF GUIDE TO ROLLS-ROYCE AND BENTLEY MOTOR CARS

This booklet is humbly ascribed to those who value individuality and quality in motor cars, and who seek some further guidance through the clouds of mystery which have gathered around the name Rolls-Royce and Bentley.

3rd Edition November 1965



1933 20/25 Owner Driver Saloon

INTRODUCTION

The motorcar has become a utilitarian, but there are many who wish it to remain more than a purely functional object. This is as well. In our homes and their furnishings, in entertainment, the arts, and music, the old and the new stand alongside each other in a perfectly unselfconscious relationship, and we are able to exercise our interests and the choice which governs taste despite the forces which seek to stereotype all things. In the world of the motorcar, these forces have been particularly strong. Many have sought to make the older car, the car with individuality or quality, or both, an object of curiosity, and even contempt.

The cars associated with the names Rolls-Royce and Bentley have always been conceived as more than objects of pure utility, and by a paradox, also to be found in connection with other subjects, the utility aspect has endured far beyond the measure of years attributed to more mundane vehicles. The services of our organisation are mostly offered to those who run or restore such cars. We hold a tremendous range of spare parts and are experienced in carrying out all forms of repairs and overhaul. We also have a variety of cars for sale, and run a long term hire scheme for overseas visitors.

J. B. M. ADAMS, Adams & Oliver Ltd.

Ramsey Road, WARBOYS, Hunts. Telephone Warboys 488 GREAT GIDDING, Hunts.

Telephone Winwick 216

PART I

The first car made by Frederick Henry Royce took to the road in 1904: the excellence of Royce's cars attracted the attention of the Hon. Charles Stewart Rolls, and in 1906 Rolls-Royce, Ltd. was incorporated. At first several models were manufactured, but in 1908 it was decided to concentrate on one chassis only, the incomparable Silver Ghost, which was produced from 1906 to 1924; it was then replaced by the Phantom I. The smaller Rolls-Royce, the "Twenty", was introduced in 1922. Front wheel brakes were added in 1924/25, and so for practical purposes, only cars made in or after 1926 need be considered. Both the larger and the smaller range of vehicles were continued until the outbreak of war in 1939.

In 1931 Rolls-Royce Ltd. took over the company which made Bentley cars, and in 1933 the first of the "new" Bentleys appeared. The old Bentleys, though very fine sports cars in their day, have by now become collectors' pieces.

Table I gives some details of the models available, and there is a brief bibliography on the opposite page.

The following factors are relevant in assessing the advantages of running a Rolls-Royce or Bentley motorcar:

Cost

Reliability and durability.

Comfort.

Safety.

Miscellaneous.

Cost is probably the first factor and the most significant one for most of us.

COST

Table II shows the performance figures for each model. These figures are, of course, for guidance only, and depend largely on each driver's methods, and condition of the vehicle.

Depreciation

Depreciation is only a minor element in the running cost of an old Rolls-Royce or Bentley motorcar. Lack of depreciation more than compensates for added running costs.

Petrol

The low compression ratio on earlier models makes the Standard or Commercial grade of petrol a wise choice. The mixture control fitted on many Rolls-Royces helps reduce petrol consumption. On post-war models it is wiser to use mixture or premium grade fuel.

Oil

Consumption is very variable, and will seldom be less than 1 pint every 250 miles; it may rise to 1 pint every 80 miles (on a run) without giving cause for alarm. Piston slap, rather than oil consumption indicates the need for a rebore, for heavy oil consumption is often due to worn valve grummets, piston rings, or leaks from a rear oil seal.

Oil pressure is likewise misleading. On all models a pressure of 15 p.s.i. or more at normal cruising speed is quite safe; a lower pressure should be investigated.

Note that high pressures may occur in an engine with poor bearings due to partial sludging of the oil ways.

Tyres

We hold tyres for all models from 1926 onwards. Tyres are not cheap but tyre wear is moderate.

Insurance

If you have a reasonably good driving record, Third Party, Fire and Theft Insurance may be obtained without any difficulty.

We can insure for you at normal rates through the Eagle Star Insurance Co. Ltd.

Repairs

We offer a full and economic spares and repairs service. In the case of large expensive parts which do not wear out, but which might be damaged in an accident, we can often supply carefully inspected second-hand components at a great saving in price. We carry a tremendous range of spares, both new and second-hand. It is impossible to list these parts, but our branch at Great Gidding will always give you prices and a prompt quotation. Repair work is not cheap, but in the long term complete and thorough repairs and overhaul are a sound investment due to the long life of the components.

Reliability

A Rolls-Royce is utterly reliable; rarely indeed does a Rolls-Royce interrupt your arrangements by a breakdown or a mechanical failure. There are very few unpredictable failures even in the vehicles in the lower price range.

The life of a Rolls-Royce or Bentley motorcar which has been properly treated is almost indefinite.

Comfort

There is simply no more comfortable way of travelling than in the back of a Rolls-Royce. It is true that a certain "knack" has to be acquired before one can enter the driver's seat without getting the gear lever inside one's trouser-leg! It is also a family car, especially the limousine, as there is plenty of room for push-chairs, carry-cots, and (later on) the paraphernalia inseparable from teenagers on holiday.

Safety

Anyone who doubts the validity of this claim should look at the chassis of a Rolls-Royce and compare it with that of other motorcars. A well-maintained Rolls-Royce satisfies the requirements of the Ministry of Transport's test by a wide margin.

Miscellaneous

The engines of these cars are not and never have been sealed. The mascots fitted are not made of silver as commonly believed. They are, however, frequently stolen and are expensive to replace. It is as well to remove the mascot if the car is left standing, or to have it fixed on with a small grub screw.

The pre-war cars are not fitted with heaters, but heaters can be installed. Many cars have already had heaters fitted. The same applies to flashing indicator signals.

A Rolls-Royce motorcar is built for perfection, but it is not always practicable to maintain it in that state of perfection. For example, a slight purr is noticeable when the little end bushes are slightly worn, or a piston-slap may be heard when the engine is idling, but it is unnecessary, and wasteful to rectify faults like these. The car will probably run for another 20,000 miles by which time more servicing may be needed, e.g. decarbonising. Then is the time to attend to everything which requires attention.

The preceding paragraph is not intended to lower the standards of the enthusiast, but to hearten the average owner or prospective owner.

From time to time certain "modifications" are made, for example the conversion to solid tappets in the Phantom III, and the "full flow" oil system in the post-war Rolls-Royce and Bentley motorcars. The importance of these modifications has been exaggerated. Because a car is improved by an alteration, it is not necessarily true that the earlier design was inefficient or defective. Provided that the unmodified car has been properly maintained, the owner will be at no disadvantage.

In the case of the "full flow" oil modification, the "full flow" system ensures that there is less likelihood of the engine being damaged by indifferent maintenance. The excessive wear of some unmodified examples is caused simply by failure to change the oil regularly.

The original concern, founded by W. O. Bentley, was bought up by Messrs. Rolls-Royce Ltd. in 1931. The firm was then given the title Bentley Motors (1931) Ltd. The first car was brought out to their own design in 1933. From the start the main features were very similar until the two cars are now virtually identical machines.

The Bentley will be smaller, faster, and more economical if driven at equivalent speeds, but it will lack the stamina of the Rolls-Royce. The price of a Bentley is usually lower than that of the equivalent Rolls-Royce, and a well-kept Bentley, though harder to find, is very good value, especially for those who do not want a roomy car.

Repair charges are comparable.

Details of the principal models manufactured are given in the following pages.

TABLE I—SPECIFICATION

	R.A.C.	Engine	Number of		Year of Intro-
	Rating	Capacity	Cylinders	Arrangement	duction
Rolls-Royce			1	0	GGC GGI
Phantom I	43.3	7,668	6	O.H.V.	1925
Phantom II	43.3	7,668	6	O.H.V.	1929
Phantom III	50.7	7,340	V.12	O.H.V.	1935
"Twenty"	21.6	3,127	6	O.H.V.	1922
20/25	25.3	3,669	6	O.H.V.	1929
25/30	29.4	4,257	6	O.H.V.	1936
Wraith	29.4	4,257	6	O.H.V.	1939
Silver Wraith	29.4	4,257	6	O.H.I. S.E.V.	1946
Silver Dawn	29.4	4,257	- 6	O.H.I. S.E.V.	1949*
Silver Dawn	31	4,566	6	O.H.I. S.E.V.	1952
Silver Cloud	31	4,887	6	O.H.I. S.E.V.	1955
Bentleys					
$3\frac{1}{2}$ litre	25.3	3,669	6	O.H.V.	1933
4¼ litre	29.4	4,257	6	O.H.V.	1936
Mark VI	29.4	4,257	6	O.H.I. S.E.V.	1946
"R"	31	4,566	6	O.H.I. S.E.V.	1952-
SI	31	4,887	6	O.H.I. S.E.V.	1955

TABLE II
APPROXIMATE PERFORMANCE FIGURES

Rolls-Royce	Consumption Petrol	Speed Cruising	Speed Maximum
Phantom I	10-12	55	70
Phantom II	10-12	65	85
Phantom III	12-14	80	100
"Twenty"	18-22	48	58
20/25 to 1934	18-22	50	68
after 1934	17–19	57	72
25/30	17–19	60	80
Wraith	16-18	65	80
Silver Wraith	16–19	70	80
Silver Dawn	16-19	75	90
Silver Cloud	14–20	85	100
Bentley			
3½ litre	18-22	60	85
4¼ litre	17-21	65	90
Mark VI	16-21	70	95
"R"	15-19	80	95
SI	14-20	85	100

*Early models nearly all exported

Coachwork

Before the war, Rolls-Royce, Ltd. made only chassis. The construction of the coackwork was left to specialist firms. After the war, it was decided to offer the Bentley as a complete car as well; and in 1949 this policy was extended to Rolls-Royce. (The first complete car, on a Silver Wraith chassis, was known as the Silver Dawn.) Almost all pre-war bodies were of aluminium, a metal which does not rust.

The style of coackwork exerts considerable influence on the value of the car. The following list is designed to give some idea of the relative values of various styles compared with a normal saloon.

Tourer

A completely open car, with sides, screens and a hood. Plus 200%.

Drophead Coupé

A "Convertible", with retractable hood and "wind-up" windows. Plus 180%.

Sedanca Coupé

Like a drophead, except that the hood can be retracted so as to open the front compartment only. Plus 100%.

Fixed Head Coupé

Like a drophead coupé in appearance, but with a fixed roof. Plus 73%.

Sports Saloon

A more compact and "rakish" version of the saloon—often appears to be younger than its true age. Plus 50%.

Sedanca

A limousine or saloon, the driver's compartment of which may be opened. Plus 75%.

Saloon

Smaller than a limousine, with a luggage boot after about 1934; sometimes with a partition. Normal.

Landaulette

A limousine, the rear compartment of which may be opened. Plus 40%.

Limousine

A large saloon, with a partition and (usually) occasional seats in the rear compartment. Was less 30% but is now "normal". Post-war seven-seater limousines are very expensive.

GENERAL

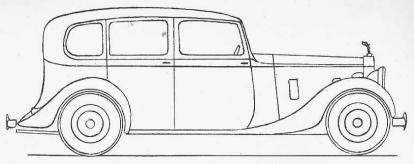
These relative values of course depend on the old economic law of supply and demand. Open cars are rare. Any exceptionally elegant or interesting car will command a premium. It is worth remembering that the most hearse-like limousine will lose something of its solemnity if its colour is changed from black.

Moreover, it is a capital mistake to condemn a Rolls-Royce at first sight. Just as good vintage wine needs savouring to the full and one's appreciation of good music is increased by steady concentration, so a Rolls-Royce with perhaps a little initial charm may in due time have considerable appeal.

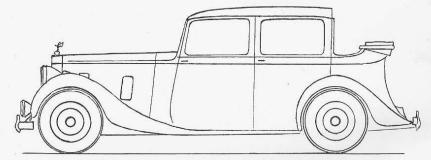
The following pictures illustrate the main styles of coachwork which are associated with many different coachbuilders, the chief of which are as follows:

Arnold	Mann Egerton	Rippon
Barker	Mayfair Carriage Co.	Salmons
Cockshoot	Thrupp and Maberley	Windover
Lancefield	Arthur Mulliner	Vanden Plas
Freestone & Webb	H. J. Mulliner	James Young
Gurney Nutting	Offord	
Hooper	Park Ward	

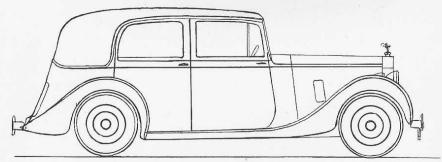
Note: The term "Replica" means that the body is mounted on an earlier chassis. The car must be judged on its merits; it may be better or worse than a car with a contemporary body.



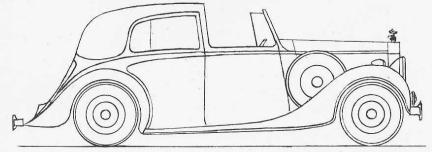
Limousine



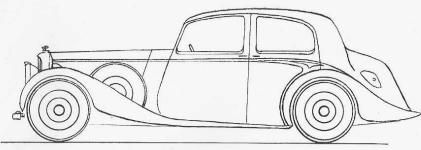
Landaulette



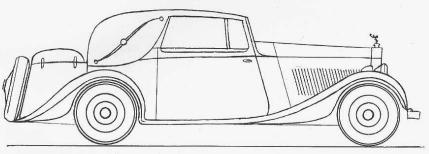
Owner Driver Saloon



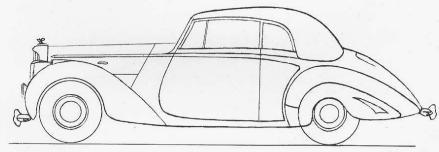
Sedanca de Ville



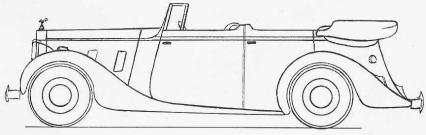
Sports Saloon



Sedanca Coupe



Fixed Head Coupe



Tourer

SPECIFICATIONS

20 H.P.

ROLLS-ROYCE CAR

CHASSIS SERIES (In order of Issue)

GPK	GZK	GHI	GXL	GKM	GEN
GSK	GUK	GAÏ	GYL	GTM	GVO
GCK	GYK	GRÏ	GWL	GFN	GXO
GOK	GMI	GUÏ	GBM	GLN	

Engine

Six cylinders, 3" (76 mm.) bore, $4\frac{1}{2}$ " (114 mm.) stroke, 3,127 c.c. cubic capacity.

Mono-bloc casting with detachable cylinder head, overhead valves operated by push rods.

Carburettor

Rolls-Royce automatic expanding type, incorporating two jets controlled by a lever on the steering wheel. Auxiliary carburettor provided for starting purposes only.

Fuel System

Fourteen-gallon tank at rear of chassis.

Supply by vacuum feed system with vacuum service tank mounted on the dashboard. Fuel level gauge mounted on the tank at rear.

Cooling System

By centrifugal pump circulation and fan, with hand-controlled shutters in front of radiator.

Coolant temperature thermometer and warning light mounted on the instrument board.

Electrical Equipment

Twelve-volt system with automatic regulation of dynamo output.

Separate starter motor with Bijou coupling, providing gentle engagement.

Battery of 50 ampere-hour capacity approximately. Twin ignition system, battery and magneto.

Clutch

Single dry plate type.

Gearbox

Either three forward speeds and reverse, or four forward speeds and reverse, depending on date of chassis, non-synchromesh. Right-hand control lever.

Rear Axle

Full floating type. Spiral bevel drive.

Road Springs

Semi-elliptic front and rear.

Brakes

Internal expanding, servo operated, on all four wheels.

Independent hand brake operating on rear wheels.

Road Wheels

Either Dunlop detachable wire wheels, with 32" by $4\frac{1}{2}$ " straight side cord tyres.

Or Dunlop detachable well-base wire wheels, with Dunlop cord, wired type tyres, $5\frac{1}{4}$ for 21 rim.

Or 6" for 20" rim \ Or 6" for 19" rim \ depending on date of chassis.

Dimensions

Wheelbase	 0	=	5*70*	 	129"
Track—Front	 			 	56"
Rear	 	// :		 	56"

20-25 H.P.

ROLLS-ROYCE CAR

CHASSIS SERIES (In order of Issue)

GXO	GOS	GHW	GTZ	GNC	GFE	GOH
GGP	GPS	GRW	GYZ	GRC	GAF	GEH
GDP	GFT	GAW	GBA	GKC	GSF	GBJ
GWP	GBT	GEX	GGA	GED	GRF	GLJ
GLR	GKT	GWX	GHA	GMD	GLG	GCJ
GSR	GAU	GDX	GXB	GYD	GPG	GXK
GTR	GMU	GSY	GUB	GAE	GHG	GBK
GNS	GZU	GLZ	GLB	GWE	GYH	GTK
	GXO GGP GDP GWP GLR GSR GTR GNS	GGP GPS GDP GFT GWP GBT GLR GKT GSR GAU GTR GMU	GGP GPS GRW GDP GFT GAW GWP GBT GEX GLR GKT GWX GSR GAU GDX GTR GMU GSY	GGP GPS GRW GYZ GDP GFT GAW GBA GWP GBT GEX GGA GLR GKT GWX GHA GSR GAU GDX GXB GTR GMU GSY GUB	GGP GPS GRW GYZ GRC GDP GFT GAW GBA GKC GWP GBT GEX GGA GED GLR GKT GWX GHA GMD GSR GAU GDX GXB GYD GTR GMU GSY GUB GAE	GGP GPS GRW GYZ GRC GAF GDP GFT GAW GBA GKC GSF GWP GBT GEX GGA GED GRF GLR GKT GWX GHA GMD GLG GSR GAU GDX GXB GYD GPG GTR GMU GSY GUB GAE GHG

Engine

Six cylinders, $3\frac{1}{4}''$ (82 mm.) bore, $4\frac{1}{2}''$ (114 mm.) stroke, 3,669 c.c. cubic capacity.

Mono-bloc casting with detachable cylinder head, overhead valves operated by push rods.

Carburettor

Rolls-Royce automatic expanding type, controlled by a lever on the steering wheel. Early models are provided with an auxiliary starting carburetter.

Fuel System

Fourteen-gallon or eighteen-gallon tank at rear, depending on date of chassis.

Supply by vacuum feed system with vacuum service tank mounted on the dashboard. Fuel level gauge mounted on the instrument board.

Cooling System

By centrifugal pump circulation and fan, with thermostatically-controlled shutters in front of radiator. Hand control for early models.

Coolant temperature thermometer, with warning light mounted on the instrument board on early models.

Electrical Equipment

Twelve-volt system with automatic regulation of dynamo output.

Separate starter motor with Bijur coupling, providing gentle engagement.

Battery of 50 ampere-hour capacity approximately. Twin ignition systems, battery and magneto.

Clutch

Single dry plate type.

Gearbox

Four forward speeds and reverse, synchromesh depending on date of chassis. Right-hand control lever.

Rear Axle

Full floating type. Spiral bevel drive.

Road Springs

Semi-elliptic front and rear.

Brakes

Internal expanding, servo operated, on all four wheels.

Independent hand brake operating on rear wheels.

Road Wheels

Dunlop detachable well-base wire wheels, with Dunlop cord, wired type tyres, 6" for 19" rim.

Chassis Lubrication

Centralised chassis system. Separate axle systems on early models.

Dimensions

Wheelbase		 	 	132" or 129"
Track—From	nt	 	 	$56\frac{5}{16}$ " or 56 "
Rea	r	 	 	$56\frac{5}{16}$ " or 56 "

25-30 H.P.

ROLLS-ROYCE CAR

CHASSIS SERIES (In order of Issue)

GUL	GRM	GAN	GRO	GRP	GAR
GYL	GXM	GWN	GHO	GMP	GGR
GHL	GGM	GUN	GMO	GLP	GZR

Engine

Six cylinders, $3\frac{1}{2}$ " (89 mm.) bore, $4\frac{1}{2}$ " (114 mm.) stroke, 4,257 c.c. 29.4 H.P. on R.A.C. rating. Unit construction with gearbox, monobloc with detachable head, overhead valves operated by pushrods, Rolls-Royce battery ignition with automatic advance, forced lubrication, cooling pump circulation, downdraught carburettor.

Electrical Equipment

Twelve-volt Rolls-Royce dynamo, starter motor, and other units. Approximately 60 ampere-hour battery.

Clutch

Single dry plate.

Gearbox

Four-speed and reverse, side control; speedometer and brake servo-motor drives incorporated.

Rear Axle

Hypoid gears, full floating, road wheels entirely carried on axle tubes.

Brakes

Internal expanding, servo operated, on all four wheels. Independent hand brake operating on rear wheels.

Road Springs

Semi-elliptic, front and rear.

Wheels

Wheels with 19" well-base rims and Dunlop C type, size 6.00" \times 19" are fitted.

Wheelbase

132".

Track

 $56\frac{5}{16}$ ".

Turning Circle

Centre of outside front tyre:

R.H., 47' 5" diameter; L.H., 42' 0" diameter.

Over wings above centre line of front axle:

R.H., 48' 6" diameter; L.H., 43' 1" diameter.

Fuel Tank

Eighteen gallons capacity, at rear of chassis. Supply by electric pumps.

Chassis Lubrication

Centralised system, pedal-operated pump.

Weight

Chassis complete with tyres, battery, fuel, oil and water, but excluding spare wheel, lamps and other accessories—approximately 2,930 lbs.

WRAITH

25/30 H.P.

ROLLS-ROYCE CAR

Engine

Six cylinders, $3\frac{1}{2}$ " (89 mm.) bore, $4\frac{1}{2}$ " (114 mm.) stroke, 4,257 c.c. 29.4 H.P. on R.A.C. rating. Cylinders cast in one block. Detachable cylinder head with overhead valves operated by pushrods. Pistons of Rolls-Royce patented aluminium alloy. Engine-gearbox unit rubber mounted in frame.

Engine Lubrication

Pressure feed to all crankshaft and connecting rod bearings. Dual relief valve providing a positive low-pressure supply to valve rocker shaft, thence to rockers, push rods, and tappets, etc. Gear-type pump suction strainer, and by-pass filter on delivery side accessibly located at side of engine.

Ignition System

Battery ignition with automatic timing control.

Carburettor

Down-draught pattern with accelerator pump, economiser jet and efficient provision for starting and idling. Air intake silencer, with which is incorporated a special air

cleaner element.

Cooling System

By centrifugal pump circulation and fan, with thermostatically controlled shutters in front of the radiator. Water temperature thermometer on instrument board.

Electrical Equipment

Twelve-volt, approximately 60 ampere-hour battery; constant voltage control dynamo of Rolls-Royce manufacture; starter motor, also Rolls-Royce manufacture.

Clutch

Single dry plate type, direct foot operation.

Gearbox

Four forward speeds and reverse; side control; direct drive on top; synchromesh on second, third and top gears. Speedometer and brake servo-motor drives incorporated.

Gear Ratios

Rear Axle	1st	2nd	3rd	4th Speed	
Ratio	Speed	Speed	Speed	(Direct)	Reverse
8:34	13.17:1	8.46:1	5.70:1	4.25:1	13.17:1

Propeller Shaft

Large diameter, open; fitted with needle-bearing universal joints.

Rear Axle

Hypoid gears, full floating road wheels entirely carried on axle tubes.

Rear Suspension

By long semi-elliptic springs enclosed in leather gaiters and lubricated from the chassis system. Controllable hydraulic dampers.

Front Suspension

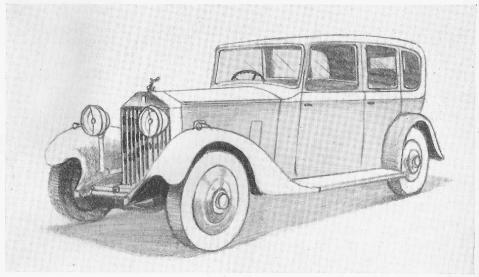
Independent; enclosed helical springs in combination with controllable hydraulic dampers.

Hydraulic Shock Dampers

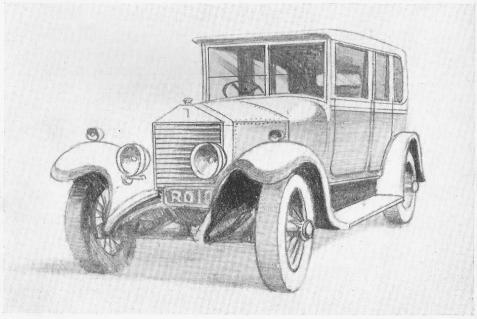
Of Rolls-Royce design and manufacture; degree of damping automatically controlled to suit speed by governor and pump mounted on gearbox; over-riding hand control on steering wheel.

Steering

Cam-and-roller type.



1935 20/25 Limousine



1927 '20' Limousine

Brakes

Pedal-operated, internal expanding, on all four wheels operation assisted by mechanical servo which is equally effective for both forward and backward movement of car. Handbrake lever operates on rear wheels.

Frame

Box section side members with special "X" crossbracing member.

Chassis Lubrication

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

Lifting Jacks

Permanently fitted, hydraulic jacks, controlled by hand-pump conveniently situated for operation from front seat.

Road Wheels

Wire type, 17" well-base rims, provided with self-locking, knock-off type hub caps and Dunlop 6.50" by 17" tyres.

Dimensions

Total length overall, including:

Rear Bumper	 	 	203'' = 16' 11''
Width of car	 *65*2	 	$74'' = 6' \ 2''$
Wheelbase	 	 	136" ==11' 4"
Track—Front	 • (6)	 	$58.5'' = 4' \cdot 10\frac{1}{2}''$
Rear	 	 	$59.5'' = 4' 11\frac{1}{2}''$
Turning Circle		 	46′ 6″

Weight

Chassis complete with tyres, battery, fuel, oil and water, but excluding spare wheel, lamps and other accessories: approximately 3,082 lbs.

40-50 H.P.

ROLLS-ROYCE CAR

("New Phantom")

Engine

Six cylinders, $4\frac{1}{4}$ " bore by $5\frac{1}{2}$ " stroke, 7,668 c.c. or 468.14 c.c. total piston displacement, 43.3 H.P. on R.A.C. rating. Cylinders cast in two groups of three, one-piece detachable head, overhead valves operated by push rods, Rolls-Royce battery ignition controlled in synchronism with magneto by a Rolls-Royce governing device. Forced lubrication, cooling by pump circulation, Rolls-Royce automatic expanding carburetter.

Electrical Equipment

Twelve-volt Rolls-Royce dynamo, starter motor and other units. 75–80 ampere-hour accumulator.

Clutch

Single dry plate, totally enclosed in casing bolted to crankcase.

Gearbox

Four-speed and reverse, side control; speedometer and servo motor drives incorporated.

Propeller Shaft

Enclosed to torque tube. One universal joint completely enclosed within spherical torque tube anchorage.

Back Axle

Spiral bevel drive, full floating, road wheels entirely carried on axle tubes.

Brakes

Internal expanding, servo operated, on all four wheels. Independent hand brake operating on rear wheels.

Road Springs

Full cantilever, rear; semi-elliptic, front.

Wheels

Dunlop detachable wire wheels, 33" by 5" straight-side cord tyres.

Wheelbase

Long model, 149.7"; short model, 143.2".

Track

Front, 57"; rear, 56".

Petrol Tank

18 gallons capacity, at rear of chassis. Vacuum feed.

Weight

Chassis complete with tyres, battery, petrol, oil and water, but excluding spare wheel, lamps, and other accessories: approximately 4,000 lbs.

40-50 H.P.

ROLLS-ROYCE CAR

("Phantom II")

CHASSIS SERIES (In order of Issue)

WJ	GX	AMS	RY
ХĬ.	JS	MY	SK
GN	AJS	MW	TA
GY	MS	PY	UK

Engine

Six cylinders, $4\frac{1}{4}$ " bore by $5\frac{1}{2}$ " stroke, 7,668 c.c. or 468.14 c.c. total piston displacement, 43.3 H.P. on R.A.C. rating. Unit construction with gearbox; cylinders cast in two groups of three, one-piece detachable aluminium head, overhead valves operated by push rods. Rolls-Royce battery ignition control in synchronism with magneto by a Rolls-Royce governing device. Forced lubrication, cooling by pump circulation, Rolls-Royce automatic expanding carburettor.

Electrical

Twelve-volt Rolls-Royce dynamo, starter motor and other units. 75/80 ampere-hour accumulator in two 6-volt units placed in rear of frame.

Clutch

Single dry plate, totally enclosed in an extension of the gearbox bolted to crankcase.

Gearbox

Four forward speeds and reverse, side control; speedometer and brake servo motor drives incorporated.

Rear Axle

Hypoid gears, full floating, road wheels entirely carried on axle tubes.

Brakes

Internal expanding, servo operated, on all four wheels.

Road Springs

Semi-elliptic, front and rear.

Wheels

Dunlop detachable well-base wire wheels, with Dunlop cord wired type tyres, either 7.00" by 21", 7.00" by 20" or 7.00" by 19", depending on date of chassis.

Fuel Tank

Either 20 or 28 gallons capacity, depending on chassis series, at rear of chassis. Vacuum feed by engine driven vacuum pump.

Chassis Lubrication

Centralised chassis lubrication system.

Dimensions

		I	Long model	Short model
Wheelbase	• •		12' 6"	12' 0"
Turning Circles-	–R.H.		55′ 10″	53′ 10″
	L.H.		50′ 6″	48′ 8″
Track—Front			58	3.5"
Rear			6	0"

40/50 H.P.

ROLLS-ROYCE CAR

("Phantom III")

Engine

Twelve cylinders, $3\frac{1}{4}$ " bore by $4\frac{1}{2}$ " stroke, 7,340 c.c. or 448 c.c. total piston displacement, 50.7 H.P. on R.A.C. rating. Cylinders in two rows of six, forming 60° vee, one-piece detachable aluminium heads, overhead valves operated by push rods. Rolls-Royce dual battery ignition controlled by a Rolls-Royce governing device. Forced lubrication, cooling by pump circulation, duplex downdraught carburettor. Thermostatic control of cooling.

Electrical Equipment

Twelve-volt Rolls-Royce dynamo, starter motor and other units. Approximately 80 ampere-hour accumulator placed in rear of frame.

Clutch

Single dry plate, totally enclosed in a two-part casing bolted to crankcase.

Gearbox

Four speed and reverse, side control; speedometer and brake servo-motor drives incorporated, mounted separate from engine unit.

Front Suspension

Independent, helical springs in combination with controllable hydraulic dampers.

Rear Road Springs

Semi-elliptic, with automatic lubrication.

Rear Axle

Hypoid gears, full floating, road wheels entirely carried on axle tubes.

Brakes

Internal expanding, servo operated, on all four wheels. Independent hand brake operating on rear wheels.

Wheels

Dunlop detachable 18'' well-base wire wheels, with Dunlop cord wired type tyres, $7.00'' \times 18''$.

Wheelbase	Track	Turning Circle
11' 10".	Front, 60.60".	R.H. and L.H., 48'0".
	Rear, 62.60".	

Fuel Tank

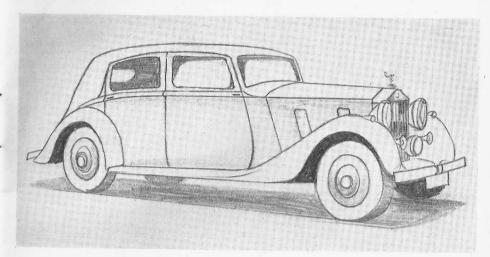
33 gallons capacity, at rear of chassis. Feed by electrically-operated duplex pump.

Chassis Lubrication

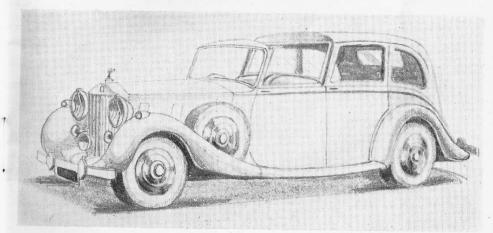
Centralised chassis lubrication system.

Weight

Chassis complete with tyres, battery, fuel, oil and water, but excluding spare wheels, lamps, and other accessories—approximately 4,050 lbs.



1939 'Wraith' Sports Saloon



1937 P.III Sedanca de Ville

SILVER WRAITH, SILVER DAWN, BENTLEY, Mk. VI, "R" TYPE

EN	TOT	BITT	١.
E.I	1 2	P	

Type Six cylinders, in line, with overhead inlet and

side exhaust valves.

SILVER WRAITH

			WTAll-WME-67	WOF-1 and onwards	
Bore			 3.500" (88.9 mm)	3.625" (92 mm)	
Stroke			 4.500" (114.3 mm)	4.500" (114.3 mm)	
Cubic	capaci	ty	 260 cu. ins. (4,257 c.c.)	279 cu. ins. (4,566 c.c.)	

Compression Ratio

WTA-1-WSG-101 ... 6.4:1 (Cylinder head RE.10429) WVH-1- and onwards 6.4:1 (Cylinder head RE.10429) 6.75:1 (Cylinder head RE.19451)

SILVER DAWN

			SBA-2-SDB-200	LSFC-2 and onwards
Bore			 3.500" (88.9 mm)	3.625" (92 mm)
Stroke			 4.500" (114.3 mm)	4.500" (114.3 mm)
Cubic	capaci	ty	 260 cu. ins. (4,257 c.c.)	279 cu. ins. (4,566 c.c.)

Compression Ratio

SBA-2-SHD-60 6.4:1 (Cylinder head RE.10429) SKE-2 and onwards . . 6.4:1 (Cylinder head RE.10429) 6.75:1 (Cylinder head RE.19451)

BENTLEY

	B-2-AK-B-401-LH	B-2-HD and onwards
Bore	3.500" (88.9 mm)	3.625" (92 mm)
Stroke	4.500" (114.3 mm)	4.500" (114.3 mm)
Cubic capacity	260 cu. ins. (4,257 c.c.)	279 cu.ins. (4,566 c.c.)
Compression Ratio		
B-2-AK-B-301-PU	6.4:1 (Cylinder head	RE.10429)
B-2-RT- and onwards	6.4:1 (Cylinder head	RE.10429)
	6.75:1 (Cylinder head	RE.19451)
BC-1A-BC-57B	7.27:1 (Cylinder head	RE.16876)
	7.20:1 (Cylinder head	RE.19451)

SILVER WRAITH Commencing at chassis WCB-31, short "Bricrome" inserts $(2\frac{1}{4}" \text{ long})$ are pressed into top

of cylinders.

Commencing at chassis WAB-14, phosphorbronze replace cast iron exhaust valve guides.

SILVER DAWN

"Bricrome" inserts (21" long) are pressed into top of cylinders. Phosphor-bronze exhaust

guides.

BENTLEY

Commencing at chassis B-144-DA, short "Bricrome" inserts $(2\frac{1}{4}" \text{ long})$ are pressed into top

Commencing at chassis B-26-CF, phosphorbronze replace cast iron exhaust valve guides.

CYLINDER HEAD:

Type .. Detachable.

Material

Aluminium alloy, with nickel chrome steel inlet

valve seats and cast iron guides.

LUBRICATION SYSTEM:

General High pressure feed to crankshaft, connecting

rod and camshaft bearings and the distributor drive skew gear. Dual oil relief valve providing a positive low pressure oil supply to engine gears and to the hollow valve rocker shaft from which valve rockers, push rods, tappets and cams are

lubricated.

Type Pressure throughout. High pressure supply... 25 lbs./sq. in. (approx.).

Low pressure supply ...

5 lbs./sq. in. (approx.).

Oil pump Oil pressure relief valve

Spur gear type with floating intake strainer. Dual type, controlling both high and low

unit pressure feeds.

FUEL SYSTEM:

Carburettor Types

Make and type

SILVER WRAITH

R.H. and L.H. drive chassis WTA-1 to WSG-5, Stromberg type AAV-26M, Dual Downdraught pattern. WSG-7 and onwards, Zenith type. DBVC.42, Single Downdraught pattern.

SILVER DAWN

R.H. and L.H. drive chassis, SBA-2 to LSFC-100, Stromberg Type AAV-26M, Dual Downdraught pattern. LSFC-102 and onwards, Zenith Type DBVC.42, Single Downdraught pattern.

BENTLEY

* Twin S.U. Type H.4 (14" choke).

Chassis B-2-AK to B-81-HP, R.H. drive cars only.

Twin S.U. Type H.6 ($1\frac{3}{4}$ " choke). Chassis B-83-HP to "R" series, R.H. drive

chassis.

Stromberg Type AAV-26M, Dual Downdraught pattern, L.H. drive chassis to "R" series.

Twin S.U. Type H.6 Fully Automatic, "R" Type and onwards.

Continental Series BC-2-LA to BC-60LA, Non-Automatic.

BC-8-LA, Fully Automatic.

Air Cleaner ..

Mesh or Oil Bath.

Fuel pumps ..

S.U. Twin Electric, Type L.

Fuel tank capacity ...

18 gallons (Imperial).

Fuel gauge Electric. Registers when the master and ignition switches are "ON".

COOLING SYSTEM:

SILVER WRAITH, SILVER DAWN, BENTLEY

Cooling system capacity

4 gallons (Imperial).

Type Pump

Pressure. Centrifugal.

Radiator shutters ...

SILVER WRAITH - Thermostatic operated.

SILVER DAWN - Fixed. BENTLEY - Fixed.

GEARBOX (Automatic):

General

Optional on later series L.H. drive cars. A manual control lever on the steering column allows selection of desired ranges to suit operating conditions.

Three forward speed ranges are provided also neutral and reverse. Control lever quadrant

marked N, 4, 3, 2, R.

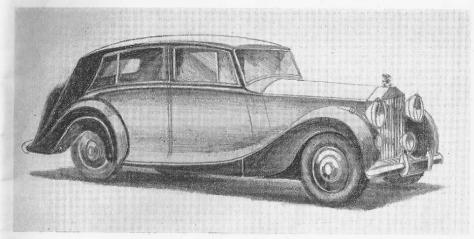
Gearbox Ratios

1st speed - 3.82:1

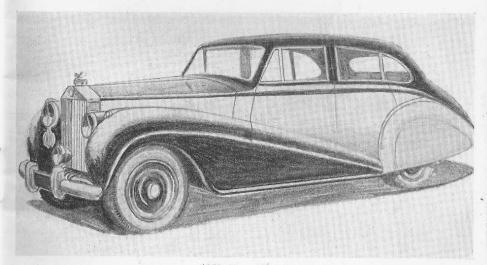
2nd speed - 2.63:1 3rd speed - 1.45:1

4th speed - Direct

Reverse - 4.30:1



1948 Silver Wraith



1952 Silver Wraith

BRAKES:

General

Hydraulic operation on front wheels, mechanical operation on rear wheels assisted by a mechanically driven servo motor. The foot pedal operates the front brakes and also engages the servo. The servo, which operates the front brakes through the medium of a balance lever and a hydraulic master cylinder, at the same time augments the direct application of the rear brakes. With the leverages provided, about 55% of the total braking is imposed on the front wheels to conteract the greater weight thrown upon the front wheels when braking. The hand brake operates directly on the rear brakes only.

WHEELS AND TYRES:

Wheels, type ...

Bolted on pressed steel wheels with balance weights and covering discs.

Rim-wheel and tyre ...

SILVER WRAITH Well-base rims, $5.00'' \times 17.00''$ or $6.50'' \times 16.00''$. Dunlop Fort 'C' tyres, $6.50'' \times 17.00''$ or $7.50'' \times 16.00''$ may be fitted to standard wheelbase chassis. On cars for U.S.A., Canada, Australia and Egypt, 7.50"×16.00" tyres are fitted. Also to all long wheelbase chassis.

SILVER DAWN Well-base rims, $5.00'' \times$ 16.00". Dunlop Fort 'C' tyres, 6.50" × 16.00". BENTLEY Well-base rims, 5.00" × 16.00". India Super Silent Rayon tyres, 6.50" × 16.00", except Continental chassis, which are India Speed Special, $6.50'' \times 16.00''$.

Independent front wheel suspension by means

SUSPENSION:

Front ..

of coil springs controlled by hydraulic dampers. Side sway is checked by an anti-roll torsion bar. Rear .. Semi-elliptic leaf springs controlled by hydrau-

lic shock dampers.

Later model Silver Dawn and Bentley incorporate spring leaves that are longer, wider and reduced in number. The rear shackle brackets have been turned through 90°, the shackle eves being above instead of below the side member. Hydraulic double acting.

Front shock dampers... Rear shock dampers . .

Controllable hydraulic double acting.

The shock damper consists of a piston assembly operating in an oil filled cylinder; the oil being displaced from one end of the cylinder to the other, past spring-loaded valves. The loading of these valves and hence the degree of damping, is controllable through the "Ride Control" lever by means of a small gear type oil pump carried in a casing bolted to the gearbox, which maintains a pressure of oil in a system of piping coupled to each rear damper. This pressure is

variable and is controlled through a relief valve operated by the hand lever; pressure being applied to the damper through the medium of a metallic bellows which isolates the pressure oil from the damper oil.

CHASSIS LUBRICATION:

System

Luvax Bijur centralised chassis lubrication system supplied by a pedal operated oil pump mounted on the dashboard.

CHASSIS FRAME:

Type ..

Both front and rear portions have box section members and rigidity is further increased by a special cruciform stiffening member.

DEMISTER AND DEFROSTER:

General

The normal system consists of directing preheated air through suitable vents in the capping rail on to the windscreen, assisted by a blower motor.

An electrically heated element was incorporated

on the driver's side on early cars.

Later models incorporate a hot and cold air

demisting system.

CAR HEATER:

A hot water heater is normal equipment under the front passenger's seat. Extra heaters can be fitted as required.

WINDSCREEN WASHER:

General

Later models are fitted with the Trico Vacuum operated windscreen washer, the pump reservoir being installed on the front of the dashboard and operated by a push button on the facia board.

10' 7" (322 58 cms)

43′5″ (1,323,34 cms)

R.H. and L.H. locks.

COACHWORK:

Wheelbase

SILVER WRAITH

Dimensions (Short Wheelbase chassis)

vviiccibase	 10 / (322.30 CIIIS)
Track, front (with $6.50'' \times 17.00''$ tyres)	 56. 9" (144.53 cms)
Track, front (with 7.50"×16.00" tyres)	 57. 9" (147.06 cms)
Track, rear (with 6.50" × 17.00" tyres)	 59. 8" (151.9 cms)
Track, rear (with 7.50" × 16.00" tyres)	 60. 8" (154.43 cms)
Overall length, including bumpers (approx.)	 17'6" (533.4 cms)
0 11 111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 6′3″ (190.5 cms)
	front and rear
Overall height, unladen (approx.)	 5'8" (172.7 cms)

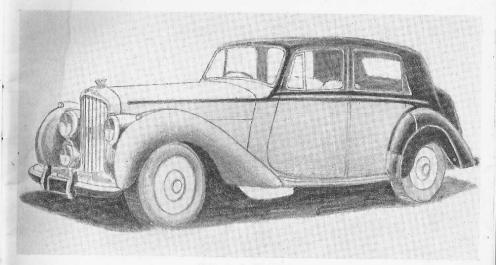
Dimensions (Long Wheelbase chassis)

Turning circle diameter (to outside edge of tyre)

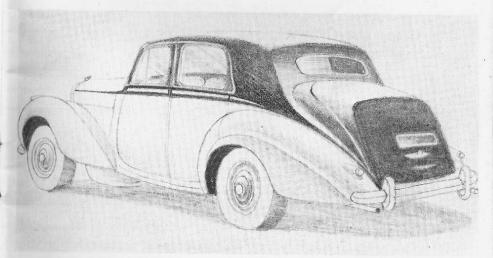
(
Wheelbase		11'1" (337.82 cms)
Track, front (with 7.50"×16.00" tyres)		57. 9" (147.06 cms)
Track, rear (with 7.50" × 16.00" tyres)		64" (162.56 cms)
Overall length, including bumpers (approx.)		18'0" (548.64 cms)
		6′5″ (195.5 cms)
		front and rear
Overall height, unladen (approx.)		6'0" (182.8 cms)
Turning circle diameter (to outside edge of ty	re)	45′ 5″ (1,384.30 cms
		R.H. and L.H. lock

COACHWORK: SILVER DAWN

D			1 (1 1	11 (1	1 17				
Dimensions (With St	anda	rd Saloor	n all S	teel B	ody).	Seri	es A, B,	C & :
Wheelbase	1.					10'	0"	(304.80	ems)
Track, front						4'	83"	(144.14	cms)
Track, rear								(148.90 d	
Overall length Breedon type	, includ	ling	bumpers		mot-		0"	(487.68	
Overall length,								(499.11	
Overall width (over wi	nos) ·	mpero (± ,	, rene t) Pc)	10	1 2	(133.11 (1115)
Front						5′	9"	(175.26 c	ms)
Rear						5′1	0"	(177.8	
Rear, with re		cove	r panels	• •		5′1	1"	(180.34c)	ms)
Overall height: Unladen						Ten Var	-		
Laden	1:					5′ 5′		(167.64 c (163.83 c	
Turning circle o	liameter			lge of t		41′		(1,254.76	
		(1000	raibiae ce	ige of i	yrc)			d L.H. 1	
Dimensions (No. 1) Series E and on	With Sta	andar	d Saloon	all St	eel Bo	ody)			
Overall length,		ling	humnana	/XA7:1.					
Breedon type)	inig	bumpers	(VV 111	not-	16'	71"	(506.73	cmc)
Overall length,	includin	g bur	nners (Pa	rene t	une)			(516.89	
Overall length,	with he	avv e	vport typ	a hum	ypc)		6"		
	ttl IICE	avy C	rborr ryb	c built	pers			(533.4	cms)
						ann			
COACHWORI				all Ste	eel Bo	app dy). C		sis Series	A to
COACHWORI Dimensions (Vinclusive.	Vith Sta	ındar	d Saloon	all Ste	eel Bo	dy). C	Chass		
COACHWORI Dimensions (Vinclusive, Wheelbase	Vith Sta	ındar	d Saloon			dy). C	Chass	(304.80	cms)
COACHWORI Dimensions (Vinclusive. Wheelbase Track, front	Vith Sta	ndar	d Saloon			dy). C 10′ 4′	Thass 0" 8 <u>3</u> "	(304.80 (144.14	cms)
COACHWORI Dimensions (Vinclusive. Wheelbase Track, front Track, rear	Vith Sta	ndar	d Saloon 			dy). C 10′ 4′	Thass 0" 8 <u>3</u> "	(304.80	cms)
COACHWORN Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length.	With Sta	indar	d Saloon coumpers	 (Wilr		dy). C 10′ 4′ 4′	0″ 8¾″ 10¾″	(304.80 (144.14 (148.90	cms) cms) cms)
COACHWORI Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type	With Sta	indar	d Saloon oumpers	 (Wilr	 not-	dy). C 10' 4' 4' 16'	Chass 0" 8¾" 10¾" 0"	(304.80 (144.14 (148.90 (487.68	cms) cms) cms)
COACHWORI Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type Overall length, i	Vith Sta	indar	d Saloon oumpers	 (Wilr	 not-	dy). C 10' 4' 4' 16'	Chass 0" 8¾" 10¾" 0"	(304.80 (144.14 (148.90	cms) cms) cms)
COACHWORN Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type Overall length, i	Vith Sta	indar	d Saloon coumpers npers (Py	 (Wilr	 not-	dy). C 10' 4' 4' 16'	0" 8¾" 10¾" 0" 4½"	(304.80 (144.14 (148.90 (487.68 (499.11	cms) cms) cms) cms)
COACHWORI Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type Overall length, i Overall with (Front Rear	With Sta	indarding l	d Saloon coumpers npers (Py	 (Wilr	 not-	dy). C 10' 4' 4' 16' 16'	0" 8¾" 10¾" 0" 4½"	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26	cms) cms) cms) cms) cms)
COACHWORI Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type Overall length, i	With Sta	indarding l	d Saloon coumpers npers (Py	 (Wilr	 not-	dy). C 10' 4' 4' 16'	0" 84" 108" 0" 4½" 9"	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26 (177.8	cms) cms) cms) cms) cms)
Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type Overall width (Front Rear Rear, with re	With Sta	indarding l	d Saloon coumpers npers (Py	 (Wilr	 not-	dy). C 10' 4' 4' 16' 16' 5'	0" 84" 108" 0" 4½" 9"	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26	cms) cms) cms) cms) cms)
COACHWORI Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type Overall width (of Front Rear Rear, with recoverall height: Unladen	With Sta	ing l g bum ngs): 	d Saloon	 (Wilr	 not-	dy). C 10' 4' 4' 16' 16' 5' 5' 5'	0" 8¾" 10¾" 0" 4½" 9" 10" 11" 6"	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26 (177.8 (180.34	cms) cms) cms) cms) cms) cms)
COACHWORI Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type Overall width (of Front Rear Rear, with recoverall height: Unladen Laden	With Sta	ing l g bum ngs): cover	d Saloon coumpers npers (Py r panels	(Wilr	not- vpe)	dy). C 10' 4' 4' 16' 5' 5' 5' 5'	Chass $ 0'' \\ 8\frac{3}{4}'' \\ 10\frac{3}{8}'' \\ 0'' \\ 4\frac{1}{2}'' \\ 6'' \\ 4\frac{1}{2}'' \\ 6'' \\ 4\frac{1}{2}'' \\ 6''$	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26 (177.8 (180.34 (167.64 (163.83	cms) cms) cms) cms) cms) cms) cms) cms)
COACHWORI Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type Overall width (of Front Rear Rear, with recoverall height: Unladen	With Sta	ing l g bum ngs): cover	d Saloon coumpers npers (Py r panels	(Wilr	not- vpe)	dy). C 10' 4' 4' 16' 5' 5' 5' 41'	0" 8\frac{3}{8}" 0" 4\frac{1}{2}" 6" 4\frac{1}{2}"	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26 (177.8 (180.34 (167.64 (163.83 (1,254.7	cms) cms) cms) cms) cms) cms) cms) cms)
COACHWORN Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type, Overall width (office) Front Rear Rear, with recoverall height: Unladen Laden Turning circle d	With Sta	ing l	oumpers (Py	(Wilrorene ty	not ype) yyre)	dy). C 10' 4' 4' 16' 16' 5' 5' 5' 41' R.H	0" 8\frac{3}{8}" 0" 4\frac{1}{2}" 6" 4\frac{1}{2}"	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26 (177.8 (180.34 (167.64 (163.83	cms) cms) cms) cms) cms) cms) cms) cms)
Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, Breedon type Overall width (Aront Rear Rear, with rear Overall height: Unladen Laden Turning circle d Dimensions (Vinclusives) Control of the	With Sta includ) ncluding over win ar wing iameter With Sta wards.	ing l	d Saloon coumpers compers (Py r panels utside ed	(Wilrorene ty	mot ype) yre) eel Bo	dy). C 10' 4' 4' 16' 16' 5' 5' 5' 41' R.H	0" 8\frac{3}{8}" 0" 4\frac{1}{2}" 6" 4\frac{1}{2}"	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26 (177.8 (180.34 (167.64 (163.83 (1,254.7	cms) cms) cms) cms) cms) cms) cms) cms)
Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, i Overall width (o Front Rear Rear, with rear Overall height: Unladen Laden Luning circle d Dimensions (Vinclusions) Overall length.	With Sta	ing l	oumpers (Py panels utside ed	(Wiln		dy). C 10' 4' 4' 16' 16' 5' 5' 17 7 8.H	0" 83" 0" 4½" 9" 10" 11" 6" 4½" 2" . and	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26 (177.8 (180.34 (163.83 (1,254.7 d L.H. le	ccms)
COACHWORN Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, i Overall width (o Front Rear Rear, with rear Overall height: Unladen Laden Laden Curning circle d Dimensions (V R Series and on Overall length, Breedon type)	With Sta	andardardardardardardardardardardardardard	d Saloon coumpers compers (Py c panels utside ed d Saloon coumpers	(Wiln	mot ype) eel Bo	dy). C 10' 4' 4' 16' 16' 5' 5' 41' R.H dy)	0" 8\frac{3}{4}" 0" 4\frac{1}{2}" 2" . and 7\frac{1}{2}"	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26 (177.8 (180.34 (163.83 (1,254.7 d L.H. 16	ccms)
Dimensions (Vinclusive. Wheelbase Track, front Track, rear Overall length, i Overall width (o Front Rear Rear, with rear Overall height: Unladen Laden Luning circle d Dimensions (Vinclusions) Overall length.	With Sta	andardardardardardardardardardardardardard	d Saloon coumpers compers (Py c panels utside ed d Saloon coumpers apers (Py	(Wiln and Steel (Wiln and Stee	not ype) yre) eel Bo	dy). C 10' 4' 4' 16' 16' 5' 5' 41' R.H dy)	0" 83" 1038" 0" 4½" 11" 6" 4½" . and 7½" 1½"	(304.80 (144.14 (148.90 (487.68 (499.11 (175.26 (177.8 (180.34 (163.83 (1,254.7 d L.H. le	ccms)



1949 Mark VI Bentley



1953 'R' Type Bentley (The Silver Dawn Rolls is similar)

BENTLEY TYPE SI and

ROLLS-ROYCE SILVER CLOUD I

Engine

Number of cylinders			6	
Bore			33"	95 mm.
Stroke			$4\frac{1}{2}''$	00 1111111
Capacity			298.2 cu. ins.	114 mm.
R.A.C. rating			33.7 h.p.	4887 c.c.
Compression ratio			6.6:1	
Firing order			1, 4, 2, 6, 3,	5.
Tappet clearance:			, , , , , , , , ,	- 3
Inlet			.006" (cold)	.15 mm.
Exhaust				
Contact breaker gap			.019″–.021″	
Sparking plug			Lodge CLNP	
			Champion R	
Sparking plug gap			.025"	65 mm.
Oil sump capacity			16 pints	
Coolant capacity (en	gine	and	*	
radiator			$3\frac{1}{2}$ gallons (Ir	nperial)

Gearbox

Rolls-Royce automatic type, incorporating four forward speeds and reverse with over-riding hand and "kick-down" change speed control.

Overall gear ratios:

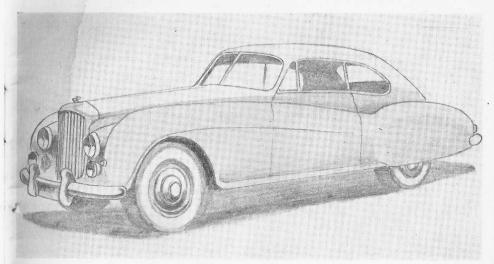
1st speed		 	13.06:1
2nd speed		 	9.00:1
3rd speed		 	4.96:1
4th speed (d	lirect)	 	3.42:1
Reverse		 	14.72:1

Rear Axle

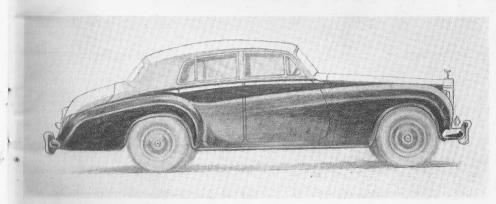
Semi-floating type, hypoid bevel drive.
Ratio 12/41 3.42:1

Brakes

Servo assisted hydrostatic brakes, hydraulic operation on front wheels, hydraulic and mechanical operation on rear wheels. Handbrake operates on rear wheels only.



1954 Bentley 'Continental'



1955 Silver Cloud (The SI Bentley is the same)

Steering

Cam-and-roller type.

Suspension

Independent front wheel suspension incorporating coil springs hydraulic shock dampers and torsion rod stabiliser.

Rear suspension by semi-elliptic springs in combination with controllable hydraulic shock dampers. An axle control rod is fitted which, together with the road springs, takes the torque and brake reaction.

Tyres

 $8.20'' \times 15''$.

Wheels

Pressed steel, 6L×15" well-base rims.

Dimensions

Overall length		 17′8″	539.5 cms.
Overall width	·	 6'2\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	190.5 cms.
Overall height		 $5' 4\frac{1}{4}''$	163.0 cms.
Weight (kerbside)		 39 cwts.	1953 kgs.
Wheelbase		 10'3"	312.4 cms.
Track—Front wheels		 4' 10"	147.31 cms.
Rear wheels		 5'0"	152.4 cms.
Turning circle		 41'8"	12.7 m.

Fuel System

Carburettors Twin S.U.

HD.6 Diaphragm Type. Special automatic control

for starting.

Fuel tank capacity 18 gallons 81.8 litres

Jacking System

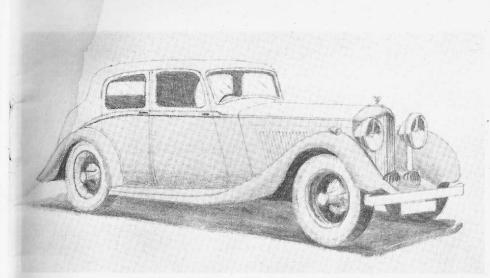
The wheel jack is carried in the boot, and is fitted into slotted brackets on either side of the car as required.

Tools

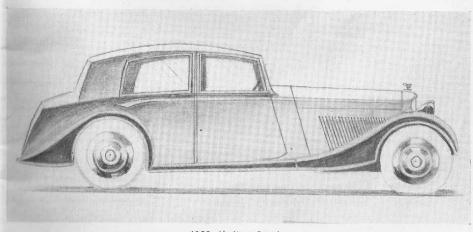
The tools are carried in a special compartment in the floor of the boot, and are accessible on lifting the carpet on the lefthand side, and removing the lid covering the tray.

Battery

This is carried in a special compartment at the rear of the chassis frame and is accessible on lifting the boot carpet on the right-hand side and removing the lid.



1937 $4\frac{1}{4}$ litre Bentley (a 1935 $3\frac{1}{4}$ litre might be similar)



1939 41 litre Bentley

GENERAL ADVICE

Advice is often sought, frequently given, and seldom taken! Nevertheless, demand for this commodity justifies the inclusion of that which follows.

Buy what you can afford after adding a margin of 25% for unknown contingencies. You will enjoy your purchase more if you can permit yourself to spend something on it.

Use a combination of heart and mind—instinct and reason—impression and fact in choosing a car. The man who uses one or the other usually comes unstuck. Oddly enough the former of each pair is usually more reliable than the latter. The long, long list of things to look for, religiously checked and ticked off, all too often leads to disaster. People using this approach seem to miss the great things and—it is hard to say why—end up with something they regret.

Generally, judge a car on its merits, without undue regard to its history.

Many cars have been allowed by their original owners to degenerate over the years, either through carelessness or deliberately because the car was considered to be near the end of its service. Other cars have passed from one enthusiast to another, and have been beautifully preserved in the process.

Usually a car which has been brought back from a state of neglect ultimately reveals what it has suffered, unless it has been restored with consumate skill.

The fact that a previous owner held a title is irrelevant to the condition of any car!

Post-War Developments

The post-war car shows considerable advances which can be summarized:

The brakes are more effective for a lighter pedal pressure, due to the use of a fluid system in conjunction with the mechanically operated servo.

The use of an umbrella type handbrake is a sad regression, however.

Coil springing with i.f.s. has noticeably improved the smoothness of ride without loss of tautness.

Speed and acceleration are improved without great increase in petrol consumption or mechanical noise.

Clutch, steering and control in general are lighter.

The use of thin wall bearings and standard clutch mechanisms, to name only two items, has lowered the cost of overhaul.

All this has not occurred without some losses.

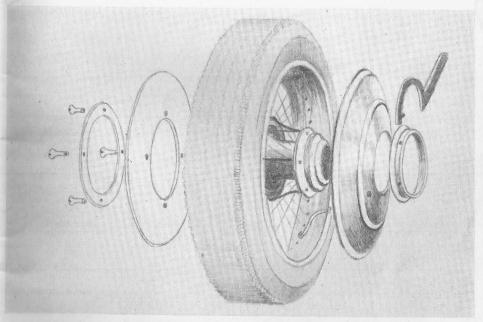
Coachwork is less "solid" and bodies are larger.

Some refinements such as the beautiful wheel locking mechanism have been lost.

With the introduction of standard bodies much individuality has been lost.

Other than in regard to appearance, distinction between the Rolls-Royce and Bentley have disappeared.

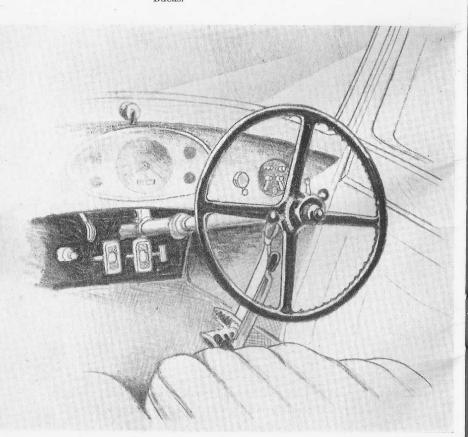
For the series of drawings in this guide we are greatly indebted to Mr. Philip Proctor who shares our love for, and interest in these cars.



Pre-war wheel showing detachable disc assembly

NAMES AND ADDRESSES OF CLUBS

1474	WILS AND ADDRESSES OF CLUBS
20-Ghost Club President Vice-President Chairman Hon. Secretary	S. E. Sears A. J. Belsey J. C. Dymock-Maunsell W. F. Watson, Aldwick Hundred, Aldwick, BOGNOR REGIS, Sussex
The Midland Rol	ls-Royce Club
President	Sir Francis Knowles, Bart.
Vice-Presidents	
Chairman	P. Taylor
Secretary	D. Stretch, 6, Low Brook Lane, NORTHFIELD, Birmingham 34
The Rolls-Royce	Enthusiasts Club
	Col. E. B. Barrass, O.B.E., T.D., 5, Halland Road,
The Vintage Spor	ts-car Club
Hon. Secretary	E. E. Turner, The Malt House, BEWDLEY, Worcs.
Bentley Drivers (
Secretary	Miss Barbara Gunstone, Bentley Drivers Club Ltd., 76A High Street, LONG CRENDON, Aylesbury, Bucks.



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SUPPLEMENT TO BUYER'S GUIDE

Summary of Repair Charges							
Data de la contraction de la c	£						
Reboring, fitting new pistons, new rings, new bearings, etc.	110 - 145						
Top and bottom overhaul, including new rings, big end bearings, little end bearings, decarbonising and regrinding valves. Clearing water ways and crankshaft sludge traps. 68 – 88							
Decarbonising and regrinding valves	16 - 20						
Replacing king pins and resetting steering joints to maker's loading.	25 – 30						
Relining and overhauling clutch	18 – 24						
Renewing Silencer	14						
Renewing rear axle pinion bearings	18						
Relining front brakes	12						
Supplying reconditioned dynamo — Exchange Price	£12 10 0						
Relining brake servo motor	5						
Supplying second-hand starter motor	6						
Supplying reconditioned water pump	5						

These charges may at first seem high: but once a replacement is made it will probably be good for 100,000 miles.

Coachwork repairs must be assessed separately: as before the war Rolls Royce, Ltd. supplied only chassis, and coachwork varies greatly from car to car.

The Long Term Hire Scheme

A schedule of current charges is given below:-

Price of Car	For one Month	For Two Months	For Three Months	For Four Months	For Five Months	
	£	£	£	£	£	
Up to £300	24	44	61	76	89	
£300 $-$ £400	28	52	73	92	109	
£400 $-$ £500	32	60	85	108	129	
£500 $-$ £600	36	68	97	124	149	

Thus a lower priced car will cost only about £4 a week over the full period.

Costlier cars and longer periods are subject to special arrangements. A hirer who decides to buy the car will receive the whole of the first month's hire charge, as a credit towards the purchase price.

The Guaranteed re-purchase scheme

The schedule below shows the percentage under purchase price at which the car is re-purchased, at the end of the period of leave.

Price of Car	After one month	After two months	After three months	After four months	After five months
£100 - £200	_	18%	22%	26%	30%
£200 - £300	_	16%	20%	24%	28%
£300 - £400	_	14%	18%	22%	25%
£400 – £500	()	12%	16%	20%	22%
Over £500		10%	14%	18%	20%

On 1st March a car costing £250 is purchased. On 1st June the minimum re-purchase price £250 less (20% of 250) i.e. £250 less £50 i.e. £200. Longer periods are subject to special arrangements. Under this scheme the car may, if desired be sold privately.

Customers can be met at air or seaports on arrival if a particular car is chosen prior to arrival and reserved by payment of a 10% deposit. Should the choice prove unsuitable it may be exchanged for another selected from stock.

Please note that certain rare cars have to be excluded from both special schemes.

Arrangements can usually be made to meet prospective customers travelling by rail at Peterborough Station. There is a good service from London (King's Cross).

Those who travel by road will find us a few miles off A.1 the Great North Road, on B.660.