

1939

# Brough Superior

"THE ROLLS-ROYCE OF MOTOR CYCLES"

*vide The Motor Cycle*



**GEORGE BROUGH**  
Designer-Manufacturer-Rider  
of the Brough Superior, who  
has won over 200 Cups and  
Gold Medals in Open Com-  
petitions, Hill Climbs and  
Races in all parts of the World

## Modern Progress.

As in the past, I propose to devote this first page of the Brough Superior catalogue to blowing my own trumpet, or, rather, the several trumpets of all who devote themselves to building "The Rolls-Royce of Motor Cycles" (*vide* "The Motor Cycle").

If this lack of modesty offends you, let me say that at one time we tried—really quite hard—to be modest. It couldn't be done. The lads who bought and rode my bikes systematically set about giving us swollen heads. Whenever we lay our trumpets down for a spell, B.S. enthusiasts take them up and blow themselves hoarse. See page 12 if you'd care to face *their* music . . .

Modesty is all very well up to a point, but one mustn't lose a sense of realities. If I, after twenty-seven years as Designer-Manufacturer-Rider, couldn't offer you something pretty exceptional in the way of fast, luxury motor cycles, the time would obviously have come for me to study the "Situations Vacant" column. You see, nobody on earth has been designing *and* manufacturing *and* riding bikes as long as yours truly, G.B. Experience docet, and all that.

A year ago the S.S. 100 and 11.50 Brough Superiors were brought bang up to date by the standardisation of a rear springing system which is still unrivalled for neat appearance, lack of lateral motion, and sheer armchair riding comfort. The S.S.80 Special, specially launched to make B.S. ownership possible for hundreds who formerly could only heave covetous sighs, is the sole member of the "Brufsup" family without rear springing.

During the past twelve months I have racked my brains in vain for some way of producing finer twin-cylinder motor cycles than the S.S.100, S.S.80 and 11.50. Press critics and ordinary riders alike have been unable to find fault with those three lusty motors; therefore they stand unchanged for 1939.

The newcomer to my range deserves and gets special literature to itself, although the preliminary introduction to the super-machine, by which this year's Show will long be remembered, will be found on pages 8 and 9. Here at last is the answer to the prayer of those fastidious idealists whose prose never ceases to adorn the "Dear Sir" pages of the technical Press. Read about this amazing new Four in my separate folder.

And don't forget that in matters of after-sales service the men who "Brough it" are the pampered darlings of motorcycling. As a customer of mine said the other day: "You know, George, I think I'd go on buying your bikes even if they were bad—it's such a pleasure to deal with you and your Haydn Road boys."

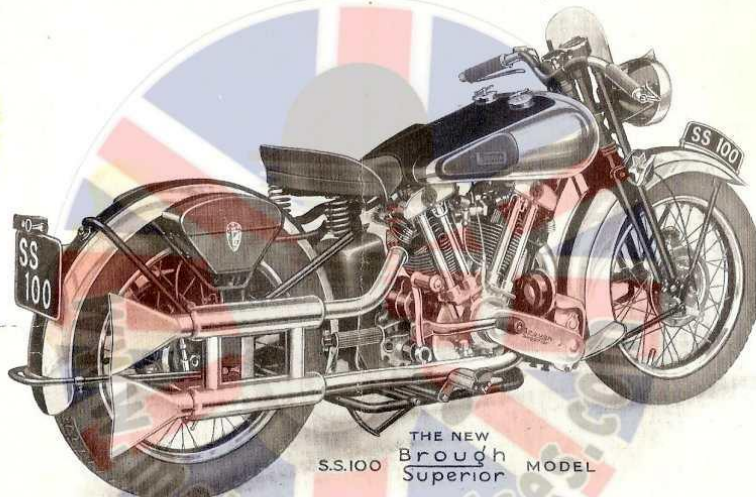
*George Brough*

**GEORGE BROUGH HAYDN ROAD NOTTINGHAM ENG.**

Telephones: 65535, 6 Nottingham

Telegrams and Cables: "Brufsup, Nottingham"





THE NEW  
S.S. 100 Brough Superior MODEL

Completely equipped with Fully Sprung Rear Wheel, Castle Forks, Special Lucas Dynamo Lighting Set, Alto Horn, Rear Wheel Driven 120 m.p.h. Speedometer with illuminated dial, Rolling Stand, Pillion Footrests, Aluminium Number Plates, Foot Gear Change, etc.

*The Fastest British-made Motor Cycle ever Built: 169.8 m.p.h. - Gyon-April, 1937 (Official F.I.C.M.)*

*All component parts fitted to Brough Superior machines are made exclusively to my designs and special requirements.*

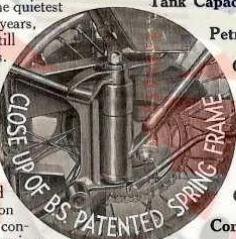
PRICE  
£ 055

2

## "S.S. 100" Specification

The very mention of the name "S.S. 100" makes the enthusiast's mouth water. He immediately thinks of the wonderful records held by this machine on road and track. It is the "Be-all" and "End-all" of the motor-cyclist's dream. I guarantee that this machine is the fastest and—with the exception of the "S.S. 80"—the quietest machine on the road. During the last sixteen years, the "S.S. 100" Brough Superior has procured and still holds the majority of British and World's Records.

**Engine.** 50° "V" Twin O.H.V. 85.5 × 85.5mm. 990 c.c. exceptionally rigid crank-shaft assembly with parallel-fitting shouldered crank pin, carried on oil-flooded bronze bearing on timing side, and three-row roller bearing on driving side. Crank pin, 1 1/2 in. diameter; main shaft, 1 1/2 in. diameter. Forked conn. rod assembly with four-row roller big-end bearing; Lo-ex alloy pistons with fully-floating gudgeon pins running in duralumin bushes in small ends of connecting rods. Enclosed valve gear, hairpin valve springs, valves automatically lubricated, dead silent valve gear and other working parts; full dry-sump lubrication, twin carburettors with single control, and mammoth bearing surfaces everywhere are incorporated in this engine.



**Frame.** The patented and original "Brough Superior" loop design fitted with the patented rolling stand and fully sprung rear wheel.

**Tank Capacity.** Petrol 4 gallons; Oil 3/4 gallon.

**Petrol Consumption.** Solo, 60 m.p.g.; Sidecar, 50 m.p.g.

**Oil Consumption.** Negligible.

**Saddle Height.** 27 in.

**Ground Clearance.** 5 in.

**Wheel Base.** 58 in.

**Gear Ratios.** 3.5; 4.4; 6.7 and 11.

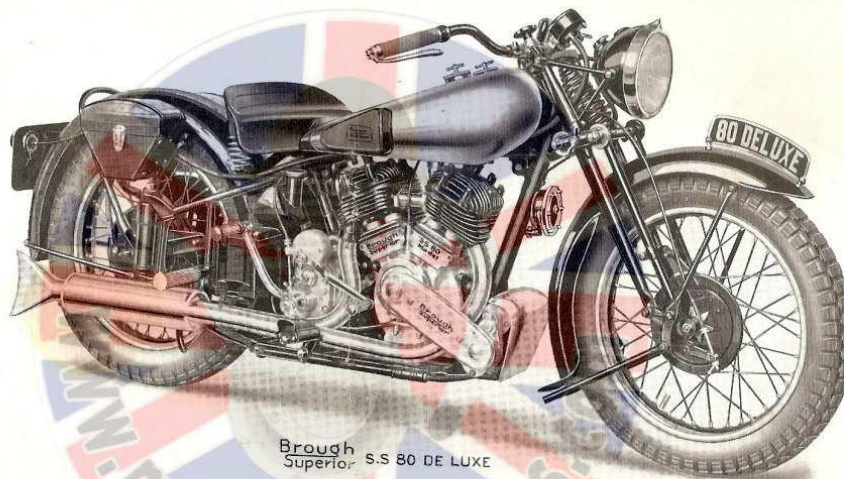
**Compression Ratios.** Touring 6.5; Racing 8.5.

**Tyres.** 27 × 4.00 Rear, 26 × 3.50 Front. "Fort."

*I guarantee this "S.S. 100," fully equipped, to lap Brooklands Track (approximately 3 miles) at 100 m.p.h. and 85 m.p.h. sidecar.*

## The Sporting Rider's Ideal!

3



Brough Superior S.S. 80 DE LUXE

"S.S.80 Special," completely equipped with Magdyno Lighting, Altette Horn and Rear Wheel Driven Speedometer with illuminated dial

"S.S.80 De Luxe Special," (as illustrated), with Fully Sprung Rear Wheel, and specification as page 5.

*All component parts fitted to Brough Superior machines are made exclusively to my designs and special requirements.*

PRICE  
45 GNS

£120

## "S.S. 80 Special" and "S.S. 80 De Luxe"

### THE NEW "S.S. 80 SPECIAL" SPECIFICATION

Despite the price at which the "S.S. 80 Special" is marketed, I am prepared to guarantee the materials and workmanship throughout this machine to be identical with the remainder of the Brough Superior range, and also justify what "The Motor Cycle" said of the original S.S. 80 model: "The Rolls-Royce of Motor Cycles." It was designed at the request of a large number of B.S. riders, who favour a reliable, silent, side-by-side valve twin, with a performance and price equal to that of the ultra-high-compression O.H.V. single. Experienced riders tell me that this "S.S. 80" is the most charming thing they have ever sat across.

**Engine.** 50" "V" Twin, 990 c.c., fitted with big side valves, totally enclosed and automatically lubricated, oversize roller and ball-bearings throughout, detachable cylinder heads, and full dry-sump lubrication to all moving parts. The engine can be decarbonised *in situ*.

**Forks.** These are specially strengthened, built to my own requirements to withstand the arduous duties when used in conjunction with the Brough Superior. A long, flexible single-compression spring is fitted, and dampers are integral with the construction. Castle Forks (Brough Superior patented) can be fitted as an extra.

The general specification of this machine includes special Lucas electric lighting and horn equipment, and rear wheel driven illuminated speedometer. Lodge Plugs and Licence Holder are fitted as standard

to this machine, and the wheel base, saddle height and ground clearance are exactly the same as the "11.50 Special."

The remaining components are the world-renowned Brough Superior patented loop frame, original bulbous-nosed saddle tank, four-speed gearbox with foot change, twist grip carburettor and ignition control, totally-enclosed primary drive, 8in. brakes, front and rear stands, ultra-large pan seat, etc., etc.

**Petrol Consumption.** 60-65 m.p.g. solo, and 50-55 m.p.g. sidecar.

**Oil Consumption.** Negligible.

**Speeds.** 80 m.p.h. solo, and 70 m.p.h. sidecar.

### "S.S. 80 De Luxe" Specification

(As illustrated on page 4)

The "S.S. 80 De Luxe" Specification includes the new Brough Superior Fully Sprung Rear Wheel, Bottom Link Type Front Forks, Patented Rolling Stand, Built-in Pillion Footrests, Aluminium Number Plates and Specially Selected Engine.

The "S.S. 80" is positively the quietest motor cycle on the road. The way it eats up the mileage with absolute absence of effort makes long journeys a thrill and a pleasure.

Still a year and a half ahead!



Completely equipped with Fully Sprung Rear Wheel, Special Lucas Magdyno Lighting Set, Altette Horn, Rear Wheel Driven Speedometer with illuminated dial, Rolling Stand, Pillion Footrests and "Fort" Tyres, (See what Mr. Speechley says on page 12)

*All component parts fitted to Brough Superior machines are made exclusively to my designs and special requirements.*

6

## "11.50 Special" Specification

This machine is specially built for the "tough guys" of the motor-cycling game, and for overseas riders' requirements the "11.50 Special" can be obtained in Colonial form with long rear-swept handlebars, twist-grip controls, foot-boards, foot-clutch if necessary, and foot-change. This machine is extensively used by Police Constabularies in all parts of the World.

**Engine.** 60° "V" Twin, 85×99, exceptionally large bearings throughout; pistons of a special alloy, detachable cylinder heads which are highly polished, including the ports. Full dry-sump lubrication is incorporated to all moving parts, lubricated by oil under pressure, including valves, tappets, and guides. This engine can be decarbonised quite easily *in situ*. The exhaust system comprises two heavily chromium-plated pipes of large diameter, leading in to a cylindrical baffled silencer. Mechanical silence and exhaust note is very quiet and pleasing.

**Frame.** This is the patented and original Brough Superior Loop Design, and the rear wheel is fully sprung to give the very acme of motor-cycling luxury. All fittings on the Brough Superior Frame are brazed on, part and parcel, there being no loose clips or lugs. A rolling stand, by means of which the machine can be lifted clear of the ground in an effortless manner, is also incorporated.

**Forks.** These are the special patented bottom link type recommended for sidecar work; large central compression spring and four shock absorbers operated by a single wing nut. This fork is very sweet in action, and helps considerably towards giving that feeling of confidence, with the wheels glued to the road, for which the "Brough Superior" machine is so well known. The patented "Castle" Forks are specially recommended for perfect solo riding and can be fitted to instructions as an extra. The steering with this latter fork is too well known to be commented upon.

**Carburettor.** A specially designed Amal carburettor is used. It has a large single float and mixing chamber. It helps to ensure very easy starting and terrific acceleration with a very high all-out speed.

**Gearbox.** This component is pivotal mounted and has four speeds (three close ratios with a low bottom), and positive foot change. The kick-starter pedal is extra long to ensure easy starting in exceptionally cold weather. Gear ratios are 4.2, 4.83, 6.13 and 10.5.

**Tank.** This is the world-renowned and much-copied original bulbous-nosed saddle tank, heavily chromium-plated with a black top panel edged with a fine gold-leaf line. It holds four gallons of petrol, and is fitted with two large filler caps, easy in operation and conveniently placed for refilling; two level petrol taps, and very comfortable and conveniently placed knee-grips. The oil tank is separate and is fitted behind the saddle tube and holds six pints of oil.

**Handlebars.** The standard bar gives a very comfortable and natural riding position, and is appreciated for long-distance touring. It is set up slightly from the lug, but is not of the "sit-up-and-beg" type. A sports handlebar, as illustrated, can be fitted to order.

**Chain Cases.** A very strong cast aluminium oil-bath chain case is used for the primary chain, and the top and bottom runs of the rear chain are effectively covered. Chains employed are  $\frac{1}{2}$ in.×3.05in. front, and  $\frac{1}{2}$ in.× $\frac{1}{2}$ in. rear—double-strength Renold.

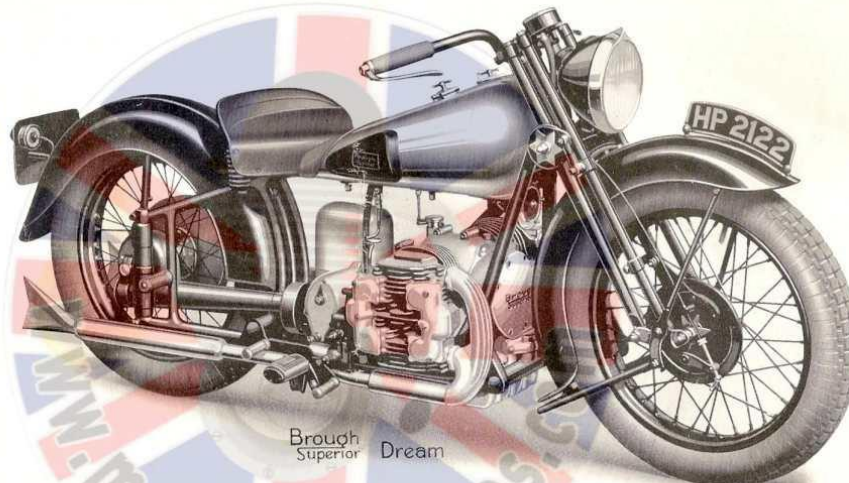
**Wheels and Brakes.** Wheels are fitted with 7 gauge butted spokes throughout, journal ball-bearings, and very effective 8in. brakes, coupled with instantaneous brake adjustment. 27×4.00 rear tyre, and 26×3.50 front tyre. Dunlop "Fort" tyres are standard.

**Saddle.** A really comfortable 18in. wide pan seat, giving armchair comfort, is fitted as standard.

**General.** Very effective and strong mudguards are fitted as standard; mudguard stays, lamp brackets, cable tube carrier, are all made of strong round section tubing. Lodge Plugs. Saddle height, 26in. Ground clearance, 5 $\frac{1}{2}$ in. Wheel Base, 57in. Petrol consumption, 65 m.p.g. solo and 50 m.p.g. sidecar. The machine is capable of 80-85 m.p.h. solo, and 65-70 m.p.h. with large touring sidecar.

## Power — out-powered! —

The machine chosen by the Australian and Canadian Mounted Police



Brough  
Superior "Dream"

Completely equipped with Electric Lighting, Alto Horn, Gear Box Driven Speedometer, "Fort" Tyres, Pillion Footrests, Aluminium Number Plates, Fully Sprung Rear Wheel.  
Golden cellulose finish, £10 extra.

£1085

## Brough Superior "Dream"

8

## The Brough Superior "Dream" Specification

This machine has been designed by the world's most enthusiastic Designer-Manufacturer-Rider in collaboration with other famous Internal Combustion Engine Experts.

It is Brough Superior manufactured throughout, and its ultra-ideal specification has cost thousands of pounds to successfully achieve the results aimed at, and its selling price by no means represents the true value of the machine.

**Engine.** Four Cylinders: Bore 71mm., Stroke 63mm.—996 c.c.—compression ratio 6.5 to 1. The Cylinders are arranged doubly opposed transversely in the Frame (one Cylinder above the other on each side). With this arrangement all the Cylinders are equally cooled, and the Exhausts, which face forward, give an uninterrupted stream of air cooling them in a manner impossible to achieve with any other arrangement. The Cylinders and Heads are not shielded from the air by the front mudguard as with other machines. The Cylinder Block is aluminium, carrying Liners of special wear-resisting material, and each pair of Cylinders (upper and lower) has its own crankshaft. They are coupled together with wide-faced Gears, the teeth of which are ground. The Crankshafts are each in two parts, the driving side member having the crankpin and driving side journal integral. The Main Bearings are

bronze, and capable of great endurance. The crankshaft arrangement permits the use of bearings of generous proportions, and the connecting rods are of light alloy, operating direct upon the crankpin in accordance with the latest racing practice. There are two camshafts chain-driven to give silent operation, and the Cams operate mushroom tappets and have a gradual take-up of tappet clearance to give quiet running. The whole of the Valve gear is totally enclosed.

**Frame.** This is specially designed to accommodate this type of engine, being welded together instead of the usual practice of brazing lugs. This Frame also comprises of the famous Fully Sprung Rear Wheel which is fitted as standard on other Brough Superior models.

**Forks.** The Brough Superior—formerly known as the "Castle"—type of Fork is fitted as standard on this machine.

**General.** The remaining specification, such as bulbous-nosed tank and its capacity, saddle height, ground clearance and wheel base, etc., is practically identical to that of my standard machines.

The "Dream" can be supplied with 3- or 4-speed Gear Box, and the final drive is by silent, underslung worm!

The rear wheel and all driving mechanism can be detached from the machine in two minutes.

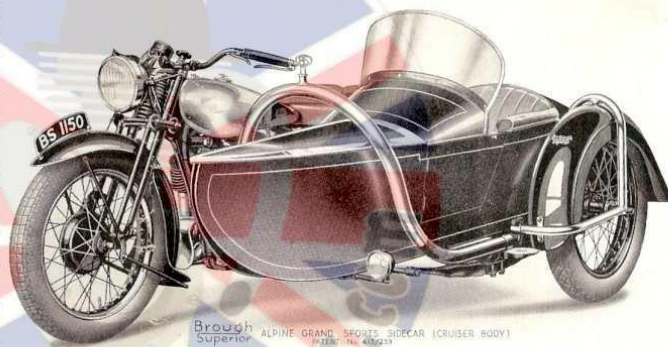
## The Engineer's last word!

9



## "B.S." Alpine Grand Sports Sidecar

This entirely new Brough Superior Sidecar is manufactured in my own factories. This masterpiece is patented throughout the world, and has been supplied in large numbers since its introduction two years ago, with every satisfaction to owners. Excellent results prove that my experience and decision in marketing this chassis, the main member of which consists of one large diameter *endless* tube, is fully justified. There are no brazed joints to cause crystallisation and consequent breakages. The body is underslung and carried on two long, flat, car-type leaf springs; the quickly detachable wheel is properly housed in a tubular cradle frame; as is also the car-type mudguard. The Single Frame Tube is utilised as a spare petrol container — it holds  $1\frac{1}{2}$  gallons — very useful on a long night journey.



Brough Superior ALPINE GRAND SPORTS SIDECAR (CRUISER BODY)  
PATENT 111,400/23

### Price

£32 "Cruiser" Body  
£30 "Sports" Body

10

## Press Comments

### "Bringing It — with George"

Send for "Motor Cycling" Reprint in which it says:—"A well-mixed weekend with a 1938 S.S.80 and a famous Banking Chair, piloted by 'Mr. Manufacturer.' By Henry Laird.

"The machine itself, one of the new S.S.80 De Luxe models, complete with sprung rear wheel and bottom link forks, looked just the job for about 800 miles in two days. This short period had to be, so that I could cover the Whit-Monday races at Donington.

"We did not need to go far for me to realize the smooth and effortless manner in which the outfit proceeded at round about 50 m.p.h. Far higher cruising speeds than this presented no difficulty, but on a 24-hour trial the object is to get there, having imposed the minimum strain on the machine. 'Plenty of time for a spot of speed work on the way back,' said my pilot.

"So far so good, no troubles experienced, the weather pretty good, and the motor running like silk. Climbing Park Rash, the Brough Superior simply romped to the top, two miles distant.

"Only 45 miles remained to the finish and it rained nearly all the way. What is more, most of that rain must have been running down the stream at the bottom of Costerton Hill; we stopped with the water up to the rear cylinder head!! Willing hands pulled us out to the 'Observed Section Starts' line, and believe it or not, the engine went first kick, so off up the hill like a flash and on to Edinburgh with a P.A. for No. 13!

"Seldom have I enjoyed a ride more, and after nearly 450 miles we were feeling fresh enough to enjoy our meal, and walk round to see some friends who had come up in a four-wheeler. This in itself speaks volumes for the silent and easy progress of the S.S.80.

"The route south lay down the Great North Road to Bawtry, where we forked right through Ollerton and round the Nottingham by-pass. A very fast road, along which the

Brough Superior sailed with the greatest ease between 55-60 m.p.h. All the hills encountered were ascended in a like manner, and in towns the job could be throttled down to 12 m.p.h. in top gear, from which speed it would accelerate without any trace of transmission snatch. A delightful machine to ride, and most gentlemanly in its manners, due to its wonderful combination of power, flexibility and silence. The brakes were efficient enough to meet all emergencies, and wavy and pot-holed roads were smoothed out by the rear-wheel springing and gave a real armchair ride.

"The measured quarter-mile was visited and some excellent results obtained, all with a passenger in the sidecar. As a strong three-quarter side-wind was blowing it was very good to obtain a mean timed speed of 71.43 m.p.h. The best run was done at a shade over 74 m.p.h. The standing quarter was covered at 43.48 m.p.h.; a very good figure. Third and second gears produced 66 m.p.h. and 53 m.p.h. respectively. During these and further acceleration tests the delightfully easy and positive foot gear change was appreciated.

"At the end of all this I would like to do the whole run again, and I cannot speak more highly of the machine than to say I would like it as my own. So far as the Navigator is concerned, may he thank the Pilot for such a pleasant introduction to chariotteering?"

### "Road Test of the Brough Superior S.S. 100—the World's Fastest Touring Machine"

Send for "Motor Cycling" Reprint, in which it says:—

"... it was most impressive to find that the handling on corners and round fast bends closely resembled that of a good 'five hundred.'"

### Extras (Relating to all Models, unless otherwise stated.)

	£	s.	d.
Fully Sprung Rear Wheel ("S.S. 80" Standard only) .. .. .	10	0	0
Large Dial Speedometer (5in.) .. .. .	4	0	0
Carrier .. .. .	1	0	0
Folding Pillion Footrests ("S.S. 80 Special" only) .. .. .	12	6	0
"Fort" Tyres (on "S.S. 80" only) .. .. . each	10	0	0
Aluminium Number Plates (standard on "S.S.100" and "S.S.80 De Luxe") .. .. .	17	6	0
Propstand .. .. .	1	5	0
Legshields .. .. .	1	5	0
Chromium Plated Mudguards, with Black Centres (Solo) .. .. .	3	15	0
Chromium Plated Mudguards, with Black Centres (Combination) .. .. .	5	10	0
Wheels, with Chromium Rims and Black Centres .. .. . per pair	1	15	0

	£	s.	d.
Wheels as above, also with Chromium Hubs and Brake Drums, per pair .. .. .	3	10	0
Large Alpine Bags, with Valises .. .. . per pair	2	0	0
Safety Bumpers .. .. .	2	5	0
"Castle" Forks (standard on "S.S. 100") .. .. .	7	0	0
"Castle" Forks, ("S.S. 80 De Luxe" only) .. .. . extra	3	0	0
Bottom Link Forks (standard on "11.50" and "S.S. 80 De Luxe") .. .. .	4	0	0
Revolution Counter .. .. .	3	10	0
Sidecar (Cruiser) Side-screens .. .. .	2	10	0
Hood .. .. .	1	15	0
Luggage Grid .. .. .	1	10	0

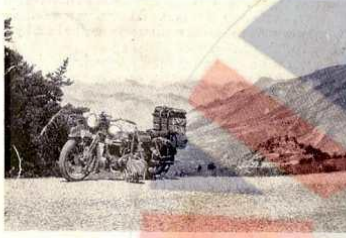
All-Weather Finish can be supplied—no extra charge. All Machines carriage paid to nearest railway station.

The Manufacturer reserves the right to modify these specifications and prices without notification.

Oil Recommendation.—"Speedwell" Sans Egal for Touring, and "Speedwell" White Ideal for Racing, are exclusively recommended for all Models. Where unobtainable, only first-class branded oils in sealed Tins should be used.



## Letters of Appreciation



Mr. Richards's Bike at the top of Galebia Pass.

Read what the Chief Constable of Nottingham says :—

"The Police Department of this City has tried out many different types of motor cycles during the past 10 years.

"It has been our experience that it is cheaper in the long run to buy the best machine available in preference to a cheaper article which cannot stand up to the work for any length of time. For that reason, I am gradually replacing all my motor cycles with Brough Superiors. My mechanical division is already equipped with Brough Superiors."

J. SPEECHLEY, 26, Holmesdale Road, Highgate, London, N., writes :

"I must again thank you and express my entire satisfaction of this machine. She is a really wonderful 'bus'."

I have chosen these expressions of appreciation at random. They are typical of the expressed opinion of hundreds of satisfied Brough Superior riders in all parts of the World.

Mr. Richards rode his third Brough Superior with passenger and baggage through the Alps without a moment's trouble. Now read what he says, on 28th September, 1938 :—

"I take this opportunity of informing you of the vast pleasure which my B.S. gave me during the recent holiday period. During the August month, I covered 4,500 miles, 2,400 of which were ticked up on a Continental, trip occupying nine days. On this trip a pillion passenger was carried and considerable luggage was attached, the mounting being behind the passenger's seat and reaching her shoulder height. Steering, however, was unaffected up to 75 m.p.h. I did not find it necessary to exceed this, and, naturally, the performance under all conditions—mountains and rough stuff—was quite up to par in spite of the heavy load. It will be of interest to note that although the route was from Calais to Nice—San Remo—Geneva—Calais (a route you know), involving many French and Italian passes and reaching 8,000-odd feet, the petrol consumption averaged 58.2 m.p.g., and oil 3,532.8 m.p.g. (exclusive of draining). I 'cruise' at 60-65 m.p.h.

The real satisfaction, however, derives from the fact that during the whole month of 4,500 and a further 700 covered in early September, the machine received no attention whatever beyond the draining. The tappets were examined once but required no adjustment. On the final run of the period in question, a speed of 80 m.p.h. was reached (with passenger and kit) without the slightest fuss or effort. That, Mr. Brough, is what I like, and have grown to expect as normal—my machine has covered 25,000 miles. I am extremely obliged to you !"

Very kind regards, Yours sincerely, H. RICHARDS.

Read what L. F. Clouder, Esq., 922, Pershore Road, Selly Park, Birmingham, says :—

"I have just taken delivery of a new S.S. 80, with which I am delighted. The machine steers beautifully, and is amazingly quiet—in fact, I can only liken the exhaust note to a venerable Bishop clearing his throat.

"Seriously though, I have been wanting a Brough for years, and you may be sure if I can persuade any of the Club chappies to 'Brough It' instead of 'rough it,' I will. Looking forward to the best year's riding ever."

## Become a B.S. owner and understand their enthusiasm !

Printed in England by Cooke & Voakes, Ltd., No