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Written by Dawn Martin

The superior was the machine of legends. It was an early superbike before the term was coined and was the "Rolls Royce" of the motorcycle world.

George Brough was also a master in the art of publicity, grabbing the best parts for his machines and truly making the whole bike greater than the sum of its parts.

Much of the legend came from performance by specific men and machines and from the showstoppers that George produced year after year for Olympia and Earls Court.

He also made machines he liked to ride, which may explain the gradual move from all out performance and total sports styling to high-speed sports tourers. There was no such thing as a Standard Superior as for the price charged, there was very individual attention.

There was a standard range, but this was really just the starting point from which the customer could refine the basic choice of SS80 or SS100 to the machine they wanted with an exact specification. It was no wonder they were so expensive.

Part of the expense came from the fact that the machine was fully assembled ensuring all aspects were correct before being plated and painted. If it was correct, it was stripped, finished and reassembled for final testing.



**1920 Mark II Brough Superior**

It is not surprising that the Brough story is full of specials for all people. The best-known owner outside the world of motorcycling was T E Lawrence. George was a perfectionist, and as a hard rider, one of the most stringent and critical inspectors of the machines that carried his name. Many of his customers were friends and all would have their needs and wishes discussed before the machine was put in hand.

Service was to the same style and standard as George knew that if you charged high prices you had to keep the customer happy.

During the 1930's, Brough used V twin JAP engines, prepared to the highest standard and the first was a relatively small one of 677cc with 70 x 80 dimensions. It was an OHV and had a fair degree of go in it, but George said it was too small to be of interest. In its basic form, it had a rigid frame and three-speed gearbox. As the Black Alpine, it was normally supplied as a springer and with four speeds.

In this form, it was finished in black and known as all weather, with the petrol tank in eggshell black with a silver line in place of the usual plating. Hence the name, although the finish with its minimal use of plated parts, it could be specified at no extra cost on any model when ordered, as could the spring frame but at a price.

The other two machines were bigger, with the SS80 being fitted with a 981cc side valve engine and the SS100 with a 995cc OHV unit, both pulled high gears.

All the machines were topped off with the famous Brough fuel tank, which gave a distinctive air. It was made from hand beaten pieces soldered together and was a Brough trademark. It was the most important feature that George contributed aside from his demand for perfection from everyone.

A smaller machine joined the range in 1931, a 500 twin, which George thought was a baby. It used a 491cc OHV JAP V twin, and was priced a little nearer to what the average was for such a size, but was still expensive by the standards of the time. It was not kept in the 1932 range.

The market was small for small deluxe machines and only nine 500s were made. It made sense for Brough to build bigger machines for more money. It was also time for another stunning special to grab the headlines. Whilst all the machines were special in one way or another, the works specials, one offs and prototypes were even more so. For many, the most interesting were the various fours.

The first appeared in 1927 and was a transverse V4 with side valves and 994cc capacity. The angle was 60 degrees, with the single camshaft in its centre, and the engine drove straight back to the clutch and gearbox built in unit with it. Bevels turned the drive for the chain to the rear wheel. The machine was a success at the show but less so on the road.

In 1928, an in line four fitted with a 900cc Swiss Mag engine appeared. It had a Bentley and Draper spring frame with the suspension spring horizontal under the saddle, the usual castle forks and twin headlamps. It was smooth to ride and covered many miles on the continent but it suffered engine problems so no more were built.

There was an interlude involving a prototype fitted with a twin cylinder two stroke Villiers engine and a one off racing machine with a single cylinder JAP, but George always came back to the need for a four if the result was to be smooth, quiet and in the Gran Turismo style he was beginning to seek.

Water-cooling was thought necessary as a means of keeping the noise level low and dealing with any cooling problems, and from there it was only a short step to using an existing car engine. The obvious choice was the Austin 7, as it was small and light, so George set to work on Sir Herbert Austin.

This was possibly the hardest part of the project, but in the end, Austin agreed to supply engines bored to the maximum oversize to raise the capacity from 750 to 800cc and fitted with an alloy cylinder head and a water pump. Attached to it was the usual clutch, gearbox and a propeller shaft, which was on the centreline of the machine.

To get around the problem, George left the mechanics where they were and moved the wheel to one side. Then to balance it, he fitted another, so there was just room for the shaft to pass between them, and declared it a sidecar only model.

With a reverse gear in the box, it was a deluxe machine for having a chair, but it was also sold as a solo. It opened up all sorts of possibilities and Brough legends. Only ten were built as they fell foul of the taxation authorities, who claimed that as it had four wheels it was a car and ignored the regulation that allowed the twin rears to count as one. All of the Austin Fours were made in 1932, but the last was not sold until two years later.

The standard 680, SS80 and SS100 all continued in the lists with the options and extras, but in essentials they were little altered except for detail improvements. The side valve gained alloy heads and quieter cam gear, the 680 had the mag-dyno shifted to make room for a foot change and the SS100 Alpine Grand Sports had its gear lever on the side of the tank and a special close ratio gearbox.

In 1933, the SS80 was redesigned to a shorter wheelbase, lower saddle and increased ground clearance, and a revised and improved JAP engine with detachable heads.

All models had the option of being fitted with interchangeable wheels held to the brake drum by a hub nut with two knock off ears. The system was the same as Norton had used in 1932 and was mainly on export models.

Brough Superior felt the pinch in the depression, so early in the year, they announced that the V twins could be bought without electrics, speedometer or number plates at a reduced price. At the same time, they introduced two more side valve models.

The first was the 11.50, which used the 1096cc JAP side valve V twin, and at just under £100 was not cheap. The second was less expensive, but still used a JAP 680cc side valve engine.

The side valve 680 failed to find much favour and few were built. The SS100 in 1934, was fitted with the 8/75 JAP V twin and was known as the "two of everything" motor. It had two carburettors, two magnetos, two double oil pumps and an abundance of power. There was a new frame, castle forks and all the carefully executed details expected from Brough. It was guaranteed to do 110mph solo and 90 with a chair, but unfortunately the engine proved troublesome and only 10 were built.



1934 SS100 8/75

In July 1935, the SS80 returned to the listing but in a new form as it now had a Matchless 982cc V twin. In 1936, the SS100 went the same way and was fitted with a Matchless engine, this time with an OHV and hairpin valve springs. It came with castle forks as standard.

By 1938, it was time for the next show special and with it came plunger rear suspension, which went on all models except the Standard SS80. The special was less spectacular than the fours, which preceded it. It was based on the SS80 with the engine set transversely across the frame. The ports and timing gear were at the front and the drive side was extended back to the single plate Austin 7 clutch. A sprocket ahead of this drove the mag-dyno mounted above the clutch housing on the machine centreline.

A three-speed and reverse Austin 7 gearbox was bolted to the back of the housing and was unusual in that second and top gears had synchromesh (common in cars but not on motorcycles). The two upper ratios were engaged by a foot pedal but first was engaged by hand.

The public were still wary of the much dreaded torque reaction inherent with the transverse engine and showed a limited interest in the new concept, so limited that only the show model was sold, which was ridden so extensively that the machine was worn out.

This distrust did not matter to George, as he had set his eyes on a dream - the Golden Dream for 1939 and this went on view at the show late in 1938.



Two were built, one in the usual black and chrome for road testing and the other in gold for the show. As usual, it was the engine that set the Dream apart, and George had chosen a flat four layout of unique type. The aim was to gain smooth power impulses, complete engine balance, no vibration and even cooling for all four cylinders.

The latter meant either water-cooling or a fan and cowling, but not to George and his team. They arranged the four cylinders as two flat twins, one above the other so all four exhausts had the same cooling draft available to them. The crankshafts lay along the machine and were geared together to rotate in opposite directions.

The first model was a 988cc 68 x 68 mm dimension and the second was 71 x 63 mm 998cc. The show model was chain driven in two stages, the first was from the top crankshaft down to the oil pump and the second ran from that shaft up to embrace the two camshaft sprockets.

Sadly, it all proved harder than anticipated to develop fully, and then war came and with it the end of Brough Superior.

Right to the last days, the three basic models continued to be listed, but from October 1939, the firm was committed to high precision work.

It was perhaps only right that the company who used the slogan "Rolls Royce of the motorcycles" should do so much work for Rolls Royce during the war and were one of the very few entrusted to machine the Merlin crankshafts.



**1925 1000cc SS100 Sprint Special**

September 2009, sees the Brough Superior name back, with the new SS101K engine, a 86 x 86.2mm, 1001.56cc engine with a compression of 8.76:1, the motorcycles are based on original designs.

For more details as they occur, visit the [Brough Superior Website](#).

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