

## SCOTT-ENGINED SILK FEATURE

The use of colour for centre-page spreads allows us to display a particular model in the Scott range. This issue is devoted to the Silk Scott, not for any favouritism, but as I own one it was easy for me to find some photographs and as I knew other owners — I think we have seven in the Club. Also, as George Silk only produced just over 20 machines at a time when 'resource' was limited, most owners have had to make their personal improvements and modifications, which are of interest.

My own short contribution is this. I got my own machine fortuitously as I was looking for an MSS Velo, my all-time favourite bike (heresy!), having ridden many makes over many years. Being a latitudinarian, many makes attract me, bikewise I am no monomaniac! This was in '92, but other things in life intervened. I only started to rebuild some months ago, and the 'slim lady sang' first kick in June, dutifully MoT'd after. The superb handling and other qualities of the marque are described by the owners with whom I have been in contact, they tell their own tales. It is a lovely bike to ride, I'm keeping it!

For continuity and comparison, it would be nice to follow with photos and writings from owners of the Silk 700S, in the next issue, and in the one after that, as I believe we have some 18 owners of Clubmans Specials in the S.O.C., a feature which would be a good contrast — so, please send your material for those two issues. I thank those members who answered my appeal for contributions for this issue, the response was so good that I have had to hold over some contributions for later publication. Thank you.

G.B.

## THE SILK SCOTT

Analysis and impressions of a beautifully engineered special (1972)

To arrange even a brief ride on a Silk Scott was not at all easy. The machine I rode was for export and was being run in with a fair amount of slave equipment on it.

I did not know what to expect. The Silk Scott is an oversize and mildly tuned Scott engine of the type familiar to Scott Flyer users for 40 years or more in a modern frame derived from a racing design originally intended for small Yamaha twins and the like. With a capacity of 636cc and a power output comparable with a racing 125, it adds up to the enthusiast's hitherto unobtainable dream of a big engine in a featherweight bicycle.

But would it be like a big-engined Yamaha tiddler or would it be a featherweight Scott? That was the big question. After riding it, my answer without reservation is that it is unmistakably Scott. There may be Scott purists who fear that the late and for ever lamented Alfred Angus Scott would turn in his grave if he saw it. I doubt if with his fertile and forward-looking brain he would have envisaged such a marriage of his old engine to a contemporary bicycle ... he would by now have been pioneering a turbine ... still I am sure he would have applauded the concept of ultra light weight and a lightly stressed engine. Though Alfred Scott was long dead before his successors produced the Flyer range of heavyweights which became heavier and heavier with the passage of years, they contrived either by accident or misplaced reverence to the founder to retain most of the weak points of the early design while adding some extra ones! Chains still thrashed around in the open, the oiling system was primitive and unreliable, the ignition and carburation systems were temperamental. (Magnetos designed for running at half engine speed on four-strokes never enjoyed being whirled around at

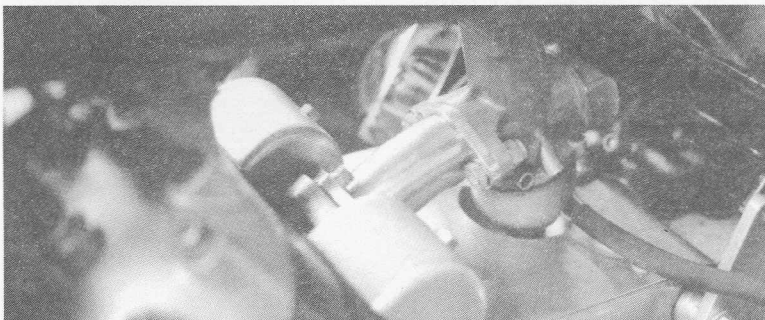
engine speed, and the vintage type Amal carburettor, though satisfactory on four-strokes, was not at its best when supplying a twin two-stroke.)

What George Silk has done is to take most of the old hoary bugs out of the Scott while still retaining its inherent charm.

The first point I applauded was the easy starting. Maurice Patey had casually leaned it against the kerb. I don't think he had bothered with the old Scott routine of turning off the fuel well before arriving at his destination but I gave one not very expectant prod and it started. The combination of modern coil ignition and a Concentric Amal seems to have laid the temperamental starting bogey once and for all. The next thing I noticed — in its absence — was the thrashing primary chain and the characteristic rattle of the Scott clutch when disengaged. I didn't really expect the clutch rattle, of course, for the Silk Scott has a Velocette Venom type gearbox and clutch, but I was surprised that enclosure of the primary chain in a glass-fibre case and positive lubrication by metered feeds to the side plates in racing fashion could silence it so effectively.

Take off presented no problem for there was plenty of flywheel weight and real torque from minimal revs. Even on the 4 to 1 top gear there was an instant surge of power from 30 m.p.h. upwards. I dare say it would pull smoothly from even lower speeds. In fact one can opt for a 3.5 to 1 top if one likes lazy high speed cruising.

In view of the newness of everything I was content with a burst up to 70 m.p.h., at which speed the Scott is beginning to yowl and vibrate. I must explain to the non-Scott initiated that this is not the high-frequency vibration associated with parallel four-strokes. Rather it is a pulsation of power impulses. One feels the power impulses through the machine as it begins to work hard. It is more like the thudding of a horse's hooves transmitted through its body when it is extended in a gallop. To me it seems a natural consequence of an engine punching out power, it is part of the oneness between man and machine which I crave, and I prefer it to the remote smoothness of a rubber-mounted engine in a car. What I don't like is the hand-tingling vibrations of other engines which seem to be a by-product of the design and not directly related to how much power is being turned out. It so happened that when I rode the Silk Scott I was fresh off the most exciting vintage Scott I have ever ridden ... an open-frame Sprint Special built by Scott expert John Hartshorne and now owned by John Griffith. Many Scott enthusiasts regard the Sprint Special model as the ultimate in the old time Scott development. And consider that all subsequent developments were retrograde. Certainly the combination of 90 m.p.h. maximum in a delicately constructed frame reminis-



**This shows the 'flutter' carb. manifold made by Ged Rumble for the Concentric Amal.**

cent of a lady's bicycle, narrow section tyres, solid rear-end and girder forks is most exciting and an experience that money will no longer buy.

When the Sprint was born only those riders with a long apprenticeship of motor cycling were likely to aspire to one. But there is a striking family reminiscence between the Sprint Special and the Silk Special in the manner of their going. With a weight of 266 lb. dry, the Silk model is really no heavier than a Sprint would be if turned out with full electrical equipment, instrumentation and large-section tyres. Proper road-test data figures might prove me wrong, but I found the road performance of my self-imposed 70 m.p.h. limit about the same. With the close-ratio three-speed gearbox of the Sprint one needs to slip the clutch in circumstances where on the Silk Special one just changes gear. The Velocette gearbox, incidentally, suits the Scott to a tee, the Venom ratios being just right for the Scott's straightish power curve. I found the operation by means of a tiny lever and an aircraft-type ball joint linkage very precise but, I thought, heavy by Velo standards, though again everything was brand new. But it is in the areas of road-holding, steering and comfort where the Silk Special excels. With the Sprint one is riding a meddlesome horse. It goes straight enough and cranks over readily but on a bumpy road one only makes contact with the top of the bumps. It's up in the stirrups and ride it cowboy when the going is rough. The Silk Special, as one would expect from a frame which is developed from a successful racing design (the racing frame built by Spondon Engineering and reminiscent, by reason of its straight line from steering head to rear fork pivot, of the Bob McIntyre special frames), steers like a racer.

The Spondon Engineering fork, which is very like a Ceriani but I am told somewhat stronger in the stanchions, seems perfect to me. It doesn't dance up and down unnecessarily, nor plunge unduly under braking, and must contribute to the rock steady feel of the machine. The front brake is another Spondon product, a massive 8 in. 2 ls racing unit which has a very easy time in such a lightweight roadster. So accustomed am I to grabbing a big handful of vintage brake and turning my knuckles white with desperate gripping that what I deemed to be light and gentle touch on the front brake nearly threw me over the top. Not so the disc rear brake, however. For roadster purposes a drum brake will be available in the future. Any more complaints? Well, yes. I would prefer more steering lock. I didn't look to see if there was any structural reason.

What does it add up to? A modern Sprint Special, I would say, with all the performance advantages of that classic vintage machine but enough sophistication to satisfy the more sybaritic rider of today. What pleased me most was the fact that although only the engine was Scott, and that somewhat revamped, the complete machine seems unmistakably Scott and one can well imagine that this is the Scott that might have evolved had the original vintage design team been commissioned.

Much of the infatuation to which two generations of Scott fans have succumbed is, I am sure, attributable to the distinctive exhaust note ... the Yowl. It has varied in volume and cadence with changes in exhaust layout but it has always been distinctive. Myself, I have always preferred the slightly metallic twang of the earlier systems with an expansion chamber close to the ports which gave a wide range of musical notes in tune with engine speed and throttle opening and deeply regretted the change over to the siamese pipe and absorption silence with its dull drone. Geoff Silk has produced a system which is perhaps half-way between the two systems. The twin exhaust pipes are siamesed farther back to secure optimum efficiency — the original Scott branch close to the ports was pretty ghastly from a gas flow standpoint — and the single pipe goes into a long silencer which is in effect the expansion

chamber developed for the road-racing Silk Scott, with an absorption element in the tail end. The result is a good compromise between efficiency and a reasonable degree of silence. Not the whispering silence of the Nipponese two-strokes or the shrill cackle of expansion chamber systems but a deep-toned note still unmistakably Scott.

Alas, the broad shouldered Scott radiator with domed end caps has gone. Freud would no doubt have seen some mammalian significance in the Scott radiator header tank to account for the unnatural love of Scott owners for the marque ... myself, I have always been turned on by the delicate crimson shade of the genuine Scott cylinder lacquer. But the Scott radiator was, aesthetics apart, as fragile as Dresden china and about as expensive, so common sense must approve the change to the functional and robust unit derived from that used on LE Velocettes. With improved water take-off points on the cylinder block it seems to do the job very well.

As for the inevitable, "Wot'll it do" query I can only be as evasive as were road-testers in the vintage era, when it just wasn't done to quote high speeds on the public road for fear of upsetting the big anti-motoring lobby. For as long as there was technically a speed limit of 30 m.p.h. on the statute books road-testers hedged by saying a machine would easily exceed the speed limit and the braver ones might go as far as to suggest that a speed of twice the speed limit was within its capabilities. Well, bearing in mind the Silk Scott was brand new I am only prepared to say that it can exceed the limit with consummate ease, in third gear too I am assured, and with the high gear option, in second as well. I asked the manufacturer and his chief road tester, Maurice Patey, what speeds they had seen on the speedo in the gears, this being the stuff of which normal road-test reports are made of but both admitted that, like me, they don't like screwing an engine to the limit in the gears and they tend to be looking where they are going and not at the instruments. Over another cup of tea we agreed to, the utter nonsense of publishing what I call valve-float figures for road machines. Far more informative, in my opinion, is the speed at which one naturally changes up in the course of sensible fast motoring. It was agreed that if one were really pressing on change-up speeds of 50-60 in second, 70-80 in third would seem natural. But, added Patey, it doesn't matter much when you change up ... it still keeps going.

As for the maximum, well that depends on the gearing and state of tune the customer prefers. In full race tune a maximum of 112 has been obtained but I cannot see that many would-be owners opting for this. A wide spread of power, easy fast cruising and moderate petrol consumption are more likely to please the experienced enthusiast. Petrol consumption is another of the variables and as far as I am concerned the only figure that matters is what I, as a user, would return. Those wonderful m.p.g. at set speed figures don't mean a thing. I didn't ride far enough to assess the figure I would get and I couldn't estimate what anyone else would get but the maker has been astonished to get around 70 m.p.g. in ordinary commuter riding and, bearing in mind the light weight, the much improved volumetric efficiency, and the high gearing plus the obvious efficiency of the Amal Concentric carburettor, that figure may not be too much to expect. Believe it or not, the early touring 532cc two-speed Scotts of the early 20s were capable of up to 100 m.p.g.

*These are excerpts from Motor Cycle Sport magazine. We acknowledge kind permission to reprint this from September 1972, a splendid appraisal by Titch Allen, with technical data, overleaf.*

## TECHNICAL DATA

*Frame:* Duplex cradle. Low seat height, high ground clearance.  
*Wheelbase:* 56in.  
*Suspension:* Front — telescopic fork. Rear (spindle fixed) — pivoted fork.  
*Wheels:* Front — WM2.300x18in, alloy rim. Rear — WM2.410x18in, alloy rim.  
*Brakes:* Front — racing Fahren, 8in, 2ls. Rear — racing disc, 9in mechanical.  
*Tanks:* Fuel — all alloy, hand-built, 3.25 gallons. Oil and tool tray — all alloy, hand-built, 6 pints.  
*Cooling system:* Radiator — square tube, 4 pints. Header tank — 2 pints.  
*Engine:* Scott Flying Squirrel (re-worked) two-stroke. bore and stroke — 74 x 76 x 72mm. Cubic capacity — 636 and 702cc. Compression ratio — 8, 9 and 10:1. Claimed output — (at 5,500 r.p.m.) 38 b.h.p.  
*Carburation:* Amal Concentric, 30, 32mm.  
*Ignition:* Twin contact-breaker (special cam), 12v battery, coil.  
*Oil system:* Integrated throttle control — Silk pump.  
*Starting:* Kick; folding crank.  
*Lighting:* 12v alternator.  
*Transmission:* Primary (nylon 66 slipper tension) — Chain  $\frac{1}{2}$  x  $\frac{1}{4}$ in. Final — Chain  $\frac{5}{8}$  x  $\frac{1}{4}$ in.  
*Gear ratios:* Variable.  
*Kerb weight:* Dry, 266 lb.

## PERFORMANCE FIGURES (Claimed)

*Top speed:* 107 m.p.h. (at 5,500 r.p.m.).

*Lb/HP:* 61/4.

*Fuel consumption:* 55-60 m.p.g.

## Roy Lambert's Silk-Scott

*Roy, Midland Section secretary, has kindly added some notes about his machine which demonstrates the variety found in the short production run of this fascinating marque. He tells us:*

I acquired GSL 103L in November 1997. The engine number is DMS 2258 and the frame number is SE6-72-004 (*this decodes as the fourth machine made, the year 1972*). Gearbox is 5-4559, an early Velo.

The bike is fairly original. The top yoke was changed by the previous owner, John Underhill, from clip-ons to a top-fitting bar, giving a more touring stance (see photo). The folding kick-starter was modified to top folding, not bottom — much easier on the ankle and less foul language.

Electrics were re-cripped and anew ignition fitted as well as a new, modern rectifier on a copper heat sink.

The front wheel bearings were a little rough and were renewed for peace of mind. The pipe and silencer were re-plated. The bike was used on Club runs and exhibited on the British Two Stroke stand.

Some minor running problems were encountered, such as a leak from the water elbow, but this brazed up OK. The drive-side swinging arm adjuster would not clamp, was bottoming out, but when clearance was increased it was OK.

It starts well from cold, reasonable when hot, but can be a pig when half-and-half.