

## THE SCOTT THAT IVAN RIDES (Part 2)

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All the winter months had, as we described in Part I been spent on the drawing board (dining table) and in the workshop (garage) salvaging the parts and building a vintage Scott road racing machine. Some of the parts had to be "borrowed" from a Scott sprint machine, but fortunately these have now all been replaced except for the radiator (any offers?) (To 61 Netherfield Rd., Sandiacre, Notts.).

The first outing for the racing machine was to the Vintage Meeting at Cadwell Park on 25th May. It was a minor disaster! The practise session showed up a lack of power and a considerable amount of vibration. The lunch break found us fitting the sprinter engine in record time. George retired when lying fourth,—this machine has an oil tap! When we despondently stripped the racer engine, we found two interesting things. The holes in the lower mounting bosses of the frame were oversize, and the carbon formation on the piston crown seemed to indicate that Alfred Scott knew best. To reduce the vibration a head steady was fitted and the holes in the frame bushed to give a good fit on the mounting bolts. The flywheel was also machined to create a balancing effect. To increase the power we fitted long reach plugs and restricted the exhaust pipe outlet.

The second outing to a Sprint Meeting at Esholt Park proved little more successful. The vibration was cured completely but the power was still missing. (With or without the exhaust restriction.) There was also a drastic fall in revs when the clutch was let in. The strip revealed that jet propulsion could probably be obtained by igniting the exhaust gas. (Alfred DID know best.)

With financial assistance from Mr. Tom Ward, who had always had more faith in the success of the project than us, we modified the patterns and obtained pistons with the Scott shape of deflectors.

Our trip to a "twisty Sprint" at Packington Park on 20th July showed an improvement. The Power was much better but the considerable drop in engine speed was due to a lack of inertia in the engine so a heavier flywheel was fitted. The inlet and exhaust timings were opened up to give timings of—Inlet 110 degrees, transfer 133 degrees and exhaust 159 degrees.

The only item to give slight trouble on the next outing again to Packington Park were the oil valves and the foot change mechanisms. The performance was much better particularly the acceleration from the line.

The following week, on 11th August at the same venue, Ivan Rhodes came second in the 1,000 c.c. class of an open meeting. The inlet timing was opened out a little and a larger choke fitted in an attempt to increase the power even further. By opening up the inlet to obtain more power at top end we found that the bottom end punch was vastly improved—this is probably the most exciting discovery so far.

At Mallory Park, in a vintage race on 25th August, we had more success. Ivan rode to third place. This placing would probably have been improved if the motor had remained cooler (it just boiled when reaching the Paddock on returning) but petrol and a 10:1 compression ratio do not make for a cool engine.

Our second visit to Cadwell Park on 7th September was almost as much a disaster as the trip in May. We decided to change to methanol to keep the motor cooler and since we had no experience of the jet size required, considerable over-fueling occurred. In the scratch race, the machine with George on board, finished fourth with ice on carburettor and the engine missing badly above half throttle. The first half mile of the handicap race, with a reduced jet size was an improvement—but then the

left hand cylinder liner failed. (Hydraulic lock caused by liquid fuel or a peak combustion pressure of 3800 LBF/sq. in.! A load in either case of 12 tons).

The failure came at the right time, if this can be said of a failure. It was the end of the season and we were beginning to get unhappy about the inlet time-area curve being flat topped because of the restriction caused by the liner retaining flange. When the engine was stripped it was found that, apart from the block and pistons, all parts were in perfect condition. A very pleasing discovery since we were sure that a similar overload would have damaged the standard crank discs.

The question of whether to replace the liners has solved itself. For three years we have searched in vain for a decent longstroke block. Our



#### **CADWELL PARK, SEPTEMBER, 1968**

The best picture received for months! Maurice Patey of Derby which should be an inspiration to all and typifies our new Club motto—"Participate".

hope has been rewarded and we now possess a cracker!! Porting is now where we want it, the only sacrifice is the head squish. We shall now also be able to test the long stroke version of our crankshafts. Still not completely satisfied with the cages, we are using standard big end assemblies initially next year.

With Ivan champing at the bit to regain his Vintage Champion title and the course record at Packington (Tony Wilmot, Manx Norton 16.97 secs.) a really great crop of road races, the cranks in production (just had to order twenty-four more forgings!)—our Scott future looks very busy to say the least.

### FURTHER SOURCES OF "SUPPLY"

Sam Pearce Motor Cycles, St. Mary's Street, Bridgnorth (Tel. 2743) inform us that they can supply most Scott spares, Cranks, Pistons, Rebores, Bearings, Con-rods, Small end bushes, and Big end assemblies. They can also undertake Scott repairs, and re-conditioning of engines and gearboxes (All with the blessing of Matt Holder).

This is an old established firm and they have been carrying out a Scott service for a very long time.

(If the very nice T.T. Replica seen at the Rally last year owned by L. Pearce is connected with this firm, and a check with the entry forms gives the same address, then that should be sufficient "advertising" for anybody. It really was superb!)

This information should be useful for Midlanders and others in the area.

Silk Engineering offer the following conversions (Sole distributors Ward Motors, 59 Wilfred St., Derby).

"Silk" cranks, mains, housings etc., flywheel balanced—fitted assembly £34 0s. 0d.

As above with full width engine sprocket, recon. rods, rollers and new plates £45 0s. 0d.

As above but rebored and hot honed block, new pistons (bushed) from new (as required extra) £59 10s. 0d.

Reboring and honing block £2 10s. 0d.

Tuning for power (Quote).

"Yowl" back numbers—still a stock back to August '63 for sale (3s. per copy) Engine drawings (exploded) and cartoon service sheets 1s. 6d. and 2s. 6d. From H. Beal.

Club Ties—Silk 22s. and Terylene 15s.—from the Badge Secretary.

### ADVERTISING

For the time being, the Committee regard advertising as a service to Club Members, so advertising from members will be carried free. Scott "bits and pieces" are still scarce, so anything that will assist in this field is welcomed.