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Minutes of Motorcycle Development Meeting
held on 29th November, 1960.

Present: Major V.T. Mountford
Mr. J.J. Booker
Mr. G.H. Baker
Mr. R.A. Wilson-Jones
Mr. R. Thomas ✓

Matters arising:

1.- SILENCERS:

(a) Since the last meeting held on 6th October tests have been carried out on the present standard silencer with the single spiral baffle located in different positions on the centre rod. It would appear that somewhat improved silence with no loss of power is obtained when the baffle is fixed ^{9 1/2} from the forward end of the rod. This should be done as soon as possible on current silencers. ✓

(b) A series of tests have been run with silencers having alternative types of baffle in the centre section. These tests are being carried out to find a suitable silencer which will conform to possible future M.O.T. requirements. Detailed results of these two sets of tests will be prepared by Mr. Wilson-Jones.

2.- A set of front forks having the heavy gauge tubing is to be made up. Mr. Thomas reported that the drawings were ready to be passed to Mr. Baker. It should be possible to have the forks on test within 7 - 14 days. It was suggested that the forks were tested in conjunction with the frame tests at present being carried out, but as the stiffer fork might alter frame stress this suggestion will not be adopted.

3.- Mr. Baker brought up the matter of our having a separate alloy fork slider for solo and sidecar machines and asked for opinions as to the necessity of this refinement. It was decided to carry out tests with new box carrier sidecar outfit and arrive at a decision at an early date.

4.- The design for a deeply valanced rear mudguard for 250 cc machines similar to that fitted to the Constellation was discussed. A mudguard, reduced in width, is in the works as is a narrower dual seat, and Mr. Baker has drawings for the mudguard carrier. It should be possible to assemble a prototype in the very near future.

5.- A sample casting of the alloy fork crown for use with separate headlamp is machined and a fork is to be built incorporating this and the heavy gauge fork tubes as soon as these are ready.

6.- The lubrication of 700 cc engines was discussed again; no real progress has been made since the last meeting. Louvred plates extending from the well up to the cylinders at the back of the engine, and pierced plates similarly mounted have been tried, and whilst there did seem to be less smoke from the exhaust system at high speeds the contents of sump and consumption were not appreciably improved.

The engine sent from Westwood with the large diameter breather attached to the side of the crankcase and enlarged sump did not unfortunately give the results which preliminary reports had promised.

After running in the new cylinders and pistons this engine was tested and smoked excessively. The return pump was checked and refaced, but it was not possible to stop the overoiling so the engine was returned to Westwood for examinations. It has not yet been returned for further testing.

It was suggested that shortening of the piston if it protrudes into the crankcase at the bottom of the stroke might assist in preventing the collection of oil; also that a continuous plate from the well to the cylinder bores at the back with a scraper near to the cylinder bores, and an orifice to collect oil would possibly assist in clearing the crankcase of oil. The plate would have clearance between the inside of the crankcase to allow any oil collected in the orifice to drain back to the well at the bottom of the crankcase.

Both these suggestions will be tried as soon as possible.

7.- The LM.4 250 cc cylinder barrel castings are in the works and one will be machined for experimental use with the Extectic piston which we already have.

8.- Albion Clutch as used on Super Meteor and latest Constellation machines:

It has been arranged that three J.17 friction plates are fitted to this clutch; this enables slightly weaker springs to be fitted, also a clutch lever having $1 \frac{1}{8}$ " centres will be used. As there appears to be some spring in the clutch back plate, a clutch having a cast iron

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back plate as used on the Enfield type clutch is to be tried as soon as possible. This should help to reduce the tendency to slight clutch drag which is noticeable with this clutch.

9.- Oil filter 250 cc machines: Two prototype filters have been made and are at the moment being tested on machines.

10.- It was suggested that because of some trouble with cracked cast iron heads on 250 cc machines, and also in the interests of standardization, it would be beneficial to fit the aluminium head to all 250 cc machines.

Upon investigation it was found that although the relative costs would have made such a change possible, too many parts for the cast iron head were in store or production. It has been decided to retain the cast iron head on the 250 cc Clipper model.