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Minutes of the Motorcycle Development Meeting
held on 2nd January, 1962.

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

Matters arising:-

1.- Bottom Link Front Forks:-

DU Bushes for Brake Anchor Arm: As tests have proved satisfactory, the schedule has now been altered so that after the completion of the first 500 machines, this type of bush will be fitted.

Spindle mounted front mudguard: This has been fitted to a machine, and will be going to M.I.R.A. for test as soon as weather conditions permit.

Top pivot pin: Mr. Thomas had produced a new design for this to facilitate assembly. Mr. Baker has details, and will report at the next Meeting. One set will be put in hand, and will be fitted to one of the machines which are due for M.I.R.A. testing.

2.- 750 cc Engine:-

It was noted from Mr. Wilson-Jones' report that the drive side big end bearing had seized, and the engine had been stripped, but no direct cause of failure could be found.

The 'O' rings referred to in the last Minutes did not prove satisfactory. It was found that the ferrules provided $1/32"$ clearance in the cylinder barrel - ferrules reducing this clearance to $.005"$ were fitted on one cylinder head, and it appeared to effect some improvement. As the engine is now to be stripped to fit the 55% balance crankshaft, the other cylinder barrel will be dealt with similarly. When the engine is reassembled, it is suggested that it is put on the bench and tested; the engine is to go into the old pattern standard frame when built into a machine.

All items of specification of the engine are finalised except for the balance factor and the method of sealing the push rod tubes.

New Heavyweight Frame: Mr. Thomas produced two sketches modifying the new frame. It was decided to make a prototype with a welded rear assembly. Mr. Thomas will let Mr. Baker have working drawings within the next fourteen days.

3.- Silencing:-

An NSU Silencer has been obtained, and this proves very effective from the point of view of silence when fitted to a machine, but the cost of manufacture is estimated to be so high that we could only adopt it if there were no other alternative. A benchtest is being carried out to determine the comparative loss of this silencer and our present standard one.

Mr. Booker reported that fitting steel wool into a silencer consisting of standard barrel and end, but with drilled baffle plates and perforated tube in the centre section, was considerably quieter than the present standard. Two machines - one fitted with the present standard and one with this experimental type silencer - were brought up during the Meeting, and it was agreed that there was a worthwhile reduction of noise by the latter. It was therefore decided that this silencer should be adopted as soon as possible as an interim measure.

The 3½" diameter silencer as referred to in the last Minutes has been fitted to a machine. Mr. Booker reported that this was no improvement on the present silencer. Mr. Baker reported that yet another silencer was being produced. Mr. Booker will report on this at the next Meeting.

4.- Heavyweight Five Speed Gearbox:-

It was noted that this gearbox has developed an oil leak, and a report was awaited from Messrs. Albions.

5.- Crusader 350:-

A schedule has been issued for 100 of these models. Mr. Baker was asked to let Major Mountford have a report on the progress of manufacture.

* Mr. Booker was still to produce the carburettor settings, and this he promised to do.

* Standard 250 cc Clutches: Further it was agreed that the DU bearing when fitted to the clutch drum and sprocket was satisfactory, and it was decided that as soon as possible on a no scrap - no delay basis we should use the 350 cc Crusader clutch on all 250 cc Crusader type machines. Mr. Thomas will let Mr. Baker have a print so that replacement clutch drums for the present ones can be machined from the malleable iron casting.

To Experimental for Test

6.- 250 cc Gearbox - 4 Speed and 5 Speed:-

Mr. Booker reported that an improvement on the gearchange on both the 4 Speed and 5 Speed was effected by dispensing with the two stops which operate on the gear pedal and fitting a stop plate which operates on an extension of one of the pawl pivots. It was that this modification should be adopted as soon as possible, and then applied to all machines before being dispatched from the works.

7.- 175 cc Engine:-

It was agreed that as soon as the drawings were ready Messrs. Dowlers would be approached to quote for patterns, and Messrs. Surecasts would be approached to quote for both the patterns and castings.

8.- The Scooter:-

This is awaiting attention from Messrs. Lucas on the ignition system. Mr. Baker will investigate how one of the existing bodies can be modified to fit the second machine, which has a modified frame.

9.- Batch Tests:-

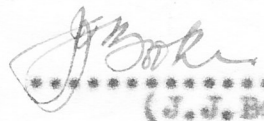
In view of the exceptionally bad conditions prevailing when the Super 5 was tested, the testing of the same Super 5 is to be repeated when weather conditions are better. If possible the machine should have additional running in before batch testing.

10.- Sports Airflow:-

This is still awaiting test as soon as weather conditions improve - the attachments having been altered. Before we go into production the holes in the cavities are to be repositioned. Mr. Booker was also requested to arrange for a cover to be produced for the front of the casquette. Mr. Baker will co-operate.

11.- Siba Self Starter:-

According to Mr. Wilson-Jones' report, this is now satisfactory to the point where it could be offered to the public. A cost is being obtained, and in the meantime similar Exide batteries will be tested. It was noted that two pistons have been sent away for molybdenum spraying. Mr. Wilson-Jones will obtain a promise for their return, and Mr. Baker is having some cylinders machined.


.....
(J.J. Booker.)



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13th December, 1961

Major F.W. Smith,
Mr. J.J. Booker,
Mr. G.H. Baker,
✓ Mr. R. Thomas,
Mr. R.A. Wilson-Jones.

Additional Items for Agenda for Motor Cycle Development Meeting.

- 1) *O* Ring for push rod on 750 c.c. Engine.
- 2) Redesign of prototype 750 c.c. Frame.
- 3) Alter position of holes in Box of 'SPORTS AIRFLOW'.
- 4) Cover for front of Casquette on 'SPORTS AIRFLOW' Models.
- 5) Molybdenum sprayed piston.
- 6) M.I.R.A. test of 'SPORTS AIRFLOW'.

*Red Topped dual seat
Thicker Fork & Plastic Covers*

*Boss Special - Tank, Dual Seat
etc*

V. T. Mountford.