

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

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Present:-

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

Matters arising:-

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1.- Spindle Mounted Front Mudguard:-

Mr. Baker reported that the parts for the new type spindle mounted front mudguard, which are being made in the toolroom, would be fitted to a machine by Friday, 6th April. Immediately this is done, the machine is to be sent to M.I.R.A. for test - by the 9th April.

2.- 750 cc Engine:-

We have had the first four production engines from Westwood, and one of these is now undergoing lubrication and power tests. The original experimental 750 cc engine has been rebuilt, and is undergoing road test in conjunction with the five speed gearbox.

3.- New Heavyweight Frame:-

It was decided that the frame should now be assembled.

4.- Silencing:-

Mr. Baker reported that production of the Number 2 Silencer is proceeding, and this type of silencer will be adopted on the Super 5 at the very earliest opportunity, and as soon as stocks permit on the Crusader Sports. Mr. Wilson-Jones stated that the Daves Noise Meter would be tried as soon as possible.

5.- Crusader 350:-

The crankpin having broken on this engine, it appeared to be a clear case of fatigue fracture starting from the drilled oil hole in the shank of the pin. After some discussion it was agreed that the oil hole should be moved  $5/32$ " away from the shoulder thus necessitating a revision of the drilling of the fly wheel. To use up those castings which have already been cast,

Mr. Baker agreed that brass should be added to make a centre boss for machining. On future supplies the castings are to be modified to take the centre.

Referring to the Outrigger bronze bush, which had shown signs of coming loose in the prototype, it was agreed that one of the main reasons for this component coming loose was that there is insufficient metal in the crankcase casting to support this bush fully. Therefore it was agreed that the originally suggested modification to the crankcase should be made - i.e. that the cored hole should be reduced in size on the casting. This will enable a thinner bush to be fitted, thus obviating, it is hoped, any chance of a recurrence of the trouble.

It was agreed to check the engine on the bench when reassembled to endeavour to ascertain whether slightly less advance could be used without affecting performance.

#### 6.- 175 cc Engine:-

Mr. Thomas reported that due to various extraneous influences, he had been unable to keep to his originally promised schedule. He however, now estimates that the drawings should be completed by 20th May. Major Mountford reiterated the extreme urgency of the 175 cc machine.

#### 7.- The Scooter:-

It was agreed to dispense with the oil measure on the filler cap.

#### 8.- Batch Tests:-

Mr. Booker recommended that we should fit a 3 HW plug on the Super 5 and Crusader Sports as soon as tests are completed with this plug in a standard Crusader Sports to ensure that no oiling takes place.

#### 9.- Over oiling on 250 cc Engines:-

In view of the number of complaints received of excessive oil consumption on 250 cc machines due to oil being thrown out of the breather, a number of tests have been carried out over the last month - starting with the assumption that if the oil was coming out of the breather there was most likely a build up in the crankcase. A number of different approaches of this were made:-

- (a) Pumps
- (b) Piston and rings
- (c) Breathing

But it now appears that there is a distinct possibility that oil is being thrown directly into the breather cavity through what is normally called the drain hole. This was found on checking to have increased in size by some 3/32" on the new Surecast crankcase. Tests have been run on one machine with this hole plugged with weld, and two drain holes drilled one on either side out of line with the big end. The results of this test have been extremely promising, and the second engine is now being dealt with similarly.

10.- Sports Airflow:-

Mr. Booker was asked to ring Mr. Dewey regarding his promises of delivery.

11.- Siba Self Starter:-

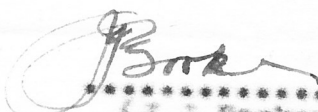
At the next Meeting a decision will be made regarding this.

12.- Molybdenum Pistons:-

Barrels for the molybdenum pistons are to be proceeded with as and when possible.

13.- Miller Lighting Set:-

Tests are to continue with this equipment.

  
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(J. J. Booker.)