



Please address your correspondence to: Readers' Letters, The Classic Motor Cycle, Bushfield House, Orton Centre, Peterborough, PE2 0UW.

Woolley v Bradshaw

I think it is a great shame that Woolley should have tainted, so early on, his most interesting article on Granville Bradshaw by allowing his avowed intent to slate Bradshaw show through in what could otherwise have been a most respectable, learned and impartial analysis of the man's work.

You see, as early as March 1986, Woolley wrote to me and stated: "One fine day someone — hopefully myself If I can pin him down — will expose Bradshaw for the charlatan and fraud that he was — who cost a lot of people a lot of money with his glib tongue, and mechanical incompetence!"

Is therefore this article an impartial investigation or indeed Woolley's life-long ambition of denouncing a man whom many who worked with considered to be a most perceptive, inventive and talented designer, patentee and engineer? Well only time will tell if Woolley has achieved his goal — but the question must remain, how impartial are his other articles?

Surely where Bradshaw went wrong was that he was such a controversial man who was prepared to stand and defend his ideas; he had no more 'failures' than many other haloed motor cycle pioneers.

It should also be remembered, and kept in perspective, that most of Bradshaw's failures occurred during the pioneering years when, unlike Woolley, there was not a great abundance of hind-sight to draw upon.

Thanks for an otherwise interesting article!

**Barry Jones,
Rye,
East Sussex.**

Sorry Barry, but your recent repetition in the Panther Owners Club magazine, of the myth that Bradshaw con-

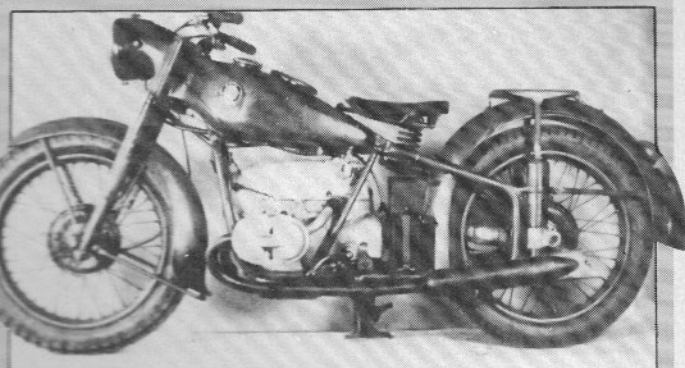
Forgotten Baby Be-ems

May I add something to your excellent article on the single cylinder 250cc Bee-em in November's issue? You wrote that it was factory policy that all machines under 500cc should be singles and this is indeed the case insofar as actual production models are concerned. What is not generally known is that twice during their history, BMW produced prototypes of horizontally opposed twins of less than 500cc.

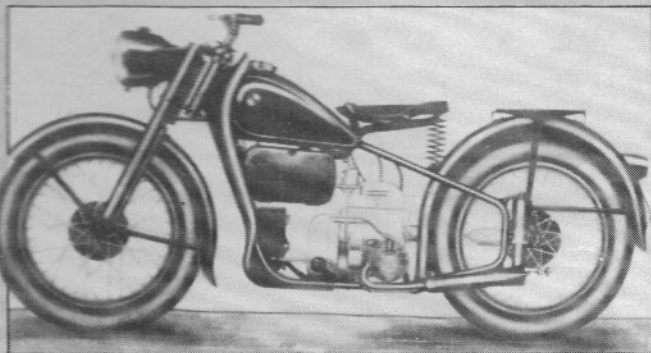
At the end of 1940, with the war apparently coming to a successful conclusion, BMW designed what would have been the basis of their post war twin cylinder range — the 345cc overhead valve R31. With a bore and stroke of 60 x 61mm, compression ratio of 6.7:1 and running on 74 octane fuel fed through a single Solex carburettor, it produced 15.5bhp at 6000 rpm. It was a conventional looking machine with teles and plunger rear suspension, but it did have one outstanding feature. There was no backbone to the frame and the integral steering head and petrol tank was a structural member which replaced it.

Access to the engine unit was gained by loosening a through bolt at the back of the tank and junction of the rear subframe, and withdrawing a similar bolt at the front end where it connected with the down tubes. The whole of the front end and tank was then swung upward in an arc from a point below the saddle; after of course disconnecting the petrol pipe.

Sufficient prototypes of the R31 were produced for BMW to include technical details of it in their con-



The final pre production version of the R31, Bee-em's smallest four-stroke twin.



A two-stroke BMW — the R10 of 1948 never went into production.

porary literature, and it was only the worsening war situation in 1942 that stopped development.

The second attempt by BMW to put a less than 500cc twin into production also came to nothing. When the Allied Control Commission announced in 1947 that production of motor cycles of less than 125cc would be allowed to recommence, BMW responded by designing the R10. This was a horizontally opposed 4bhp two-stroke twin. The engine was based on the starter motor for their 1943 type 003 axial flow jet, and it was fitted into a lightweight frame with primitive teles, plunger rear suspension and a pair of

16in wheels.

Even with these it was necessary to mount the three speed gearbox on top of the crankcase in order for the drive shaft to line up with the rear hub. This resulted in a very compact unit and when fitted into the frame the cylinders were behind the footrests. Ten prototypes were made and BMW were almost ready for production when the powers that be moved the goal posts and increased the capacity limit to 250cc, so the factory dropped the R10 and re-hashed a pre war 250cc single the R23, as the R24.

**Cliff Washington,
Upper Heyford,
Oxon.**

ceived, designed and constructed the ABC motor cycle in 11 days, only leads

me to one conclusion. And your letter confirms it; you have been taken in by his

specious claims, as so many were before you.

BW