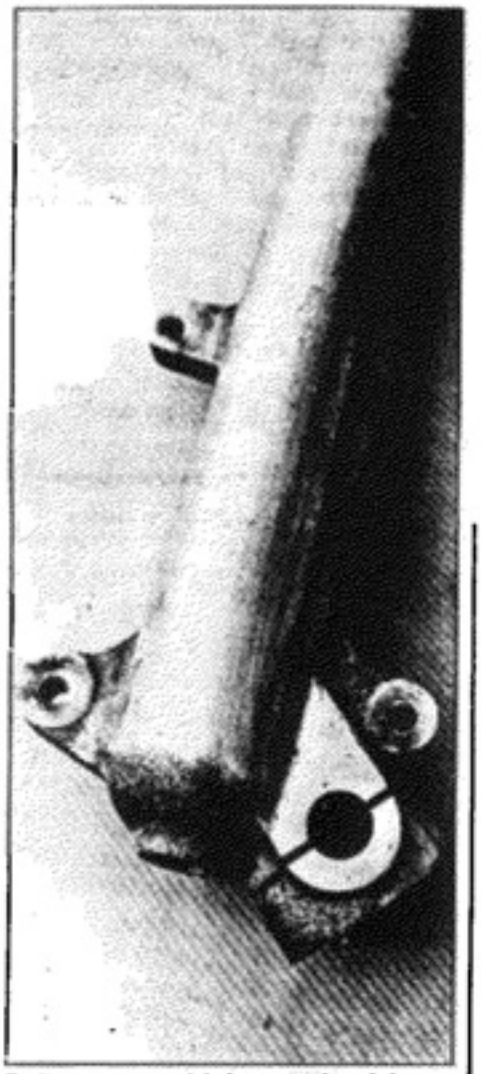
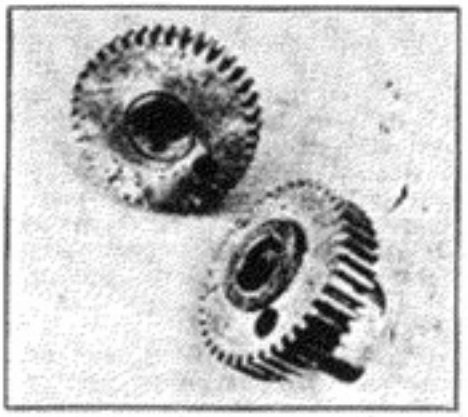
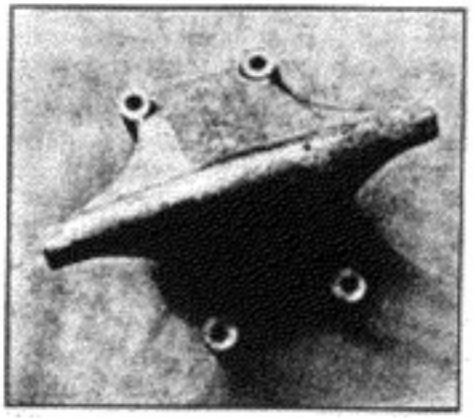


Bullets come with front forks giving varying amounts of lead, but the 1½in extension leg pictured here seems to provide optimum handling. A heavier grade of oil will also help matters, as will the installation of Girling rear strut springs.



Check you fit right type of cam: upper version has flat rear face, part on right is shouldered.



Alloy casting linking rear of engine to frame comes from post-'70 Meteors.

Hydural 5 for real reliability. Keeping the valves out of the airstream needs something a little more exotic than the steam engine units fitted, but fortunately the scrambles cams, logically marked 'S', do the job well enough. Note that there are two types of cam; one has a flat rear face, the other a shoulder, and any engine will take only one type. That gets the mixture in the right place at the right time, but to make it go bang with sufficient enthusiasm, slap in the Crusader Sport piston which gives about 9.5:1 compression in a Bullet. As it's a long stroke engine, piston speed is a drag, so relieve the non-thrust faces of the piston and chamfer the inner edge of the skirt.

All this work is a complete waste of time if the rest of the engine isn't up to scratch. Nothing finishes off a part-worn bottom end as fast as a renovated and tuned top end . . . In between all this is the connecting rod. It's a nice number in light alloy that will take anything you can hand it for about 50,000 miles, but when it lets go it'll probably cut the engine in half. Therefore, unless you know that you'll never exceed the maker's recommended rev limit and you've seen a complete absence of scratching or nicks on the rod in your engine, it's absolutely worth fitting a new rod next time you change the big end. Earlier Bullets are already eligible for certain post-vintage racing classes, and the tweak there may be to use a Velo rod, which is much the same size. Rods for Bullets are cheap and available new. Crankcases could be a problem, however.

Having done all this on the inside it's necessary to change the rigid oil pipes for flexible lines, and screwing a longer oil filler neck in will aid breathing and make topping up easier. Enfield made several lengths, but I use a plumbing fitting soldered into the original neck. Painting the engine black may seem a bit silly, but this motor does run hot and matt black does help to dissipate heat. Bearing in mind all this hard work and heat, I'd recommend Silkolene straight 50 oil for summer, and 40 for winter, or perhaps 40 and 30 respectively if you only do short runs and can't get into warming it up before turning it on.

So far we've got this gentle, somewhat overweight English tourer with an engine that'll make it go much too fast. Making it handle comes down to how much money you can spend. The top kit consists of the Norton Roadholder front end complete, as fitted to later Enfield twins, plus the alloy casting from the post-'70 Enfield Meteor that finally attaches the rear of the engine to the frame. Girlings should replace the original rear struts, and obviously Roadrunners should stick it all to the road. Save weight by throwing away all the sheet metal-work and replace it with alloy or fibre glass. The Velocette MSS tank fits well and improves the looks 200 per cent, you just have to cut it about a bit. This sort of activity may get you lynched by the local Velo owners' club and in fact the Velo people in my town have stolen my MSS tank and are hiding it. But you'll have a lot of fun riding the monster when it's finished.

It's not necessary to change the appearance to make it go better, of course. And the handling can be improved even if a Norton front end comes across as beyond the working bike sphere. The 1½in extension forks running heavier oil work OK, and although it's a somewhat crude mod you'll find that Girling rear strut springs can be used to replace the internal originals. This also allows the spring rates to be brought down. I used the Manx Norton multi-rates back in the sixties, but there is a current Girling alternative. Whether you get into modifications at this level is a personal choice, but I think it's worth it and after all, Enfield incorporated most of these mods into the models they built after the Bullet.

Certainly worthwhile, whatever your inclinations, is an improvement to the braking. I've never managed to make the single-sided seven-inch unit work, but with the six-inch double-sided number, grinding the operating cams oval increases the leverage and, providing the back plates are correctly centred, makes everything work quite well by the standards of an English brake. There are alternative linings around these days, but the originals seem to offer the best compromise. Modern linings tend to be a bit grabby for slack old English forks.

Final touches could include the standard 12-volt/zener diode electrical system, allowing for halogen headlights and groovy stuff like that. The original switches and wiring would undoubtedly vapourise immediately if subjected to that sort of experience, and the only part that you need which was not mentioned in the last issue's article on electrics is a gang switch. This is basically two Rotax type toggle switches side by side, operated by a single toggle. You run the AC down one side and the DC down the other. With a magneto this