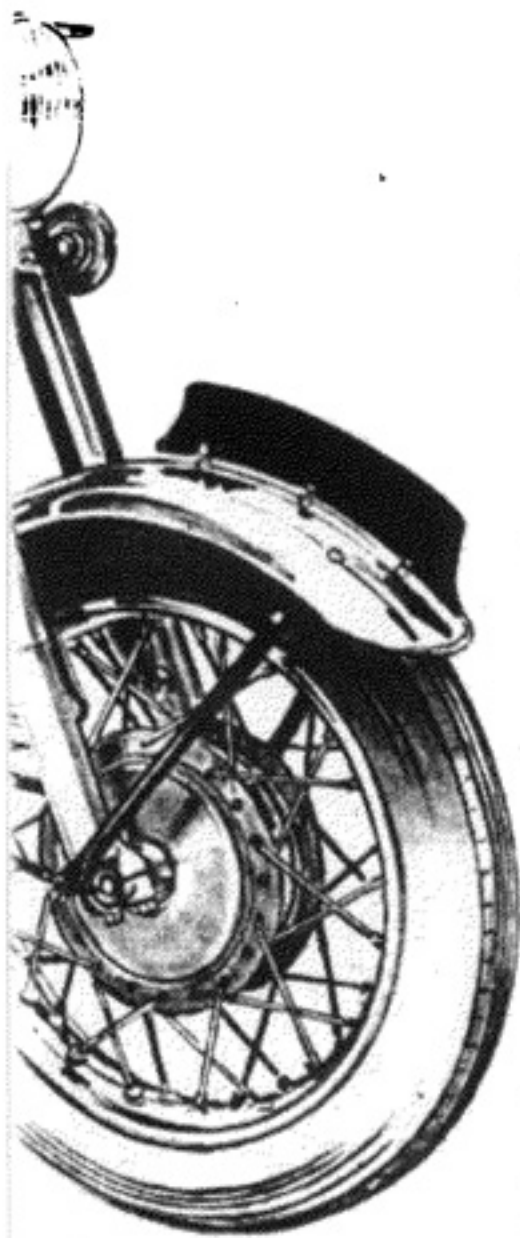


Tunable and Oil-Tight



and it's worth taking a look at them. The whole thing started in 1955 when a new version of the existing Bullet was produced. The engine was designed as a butch 500 aimed at trials and moto cross use. The 350 used the same bottom end with a scaled-down barrel and head, so obviously this means that the 350 bottom end is just about eternal. It also means that the valve gear, which is stressed to move a pair of 500 valves that are even bigger than the Velo's, can really rush those little 350 numbers about. With the right bits the Bullet will go to about 7,500, but we'll come to that . . .

The frame was a rather neat, if somewhat vestigial affair in Reynolds 531. Apart from detail changes this frame got used on every Enfield made from the 350s up, from that time on. In original trim it's a bit illogical around the rear engine mounts, but the handling generally is OK. Front forks are simple and not particularly good and the brakes of course, being English, are pretty hopeless. Models made between '55 and '58 are fitted with the world's best magneto, the Lucas SR1, a rotating magnet trip that uses car type points and capacitor. You can rewind the coil yourself, but I've never had one even falter. It's just a box that makes sparks, like these modern electronic things. Later models had coil ignition, which requires a charged battery and hence a working electrical system. Some will consider this a serious disadvantage.

The front brake varies over the years and models between a double-sided six-inch and a single-sided seven-inch unit. Both are, of course, single-leading-shoe designs. In standard form both are poor, but the double-sided unit can be tuned up and puts an even loading on the forks. These items vary considerably, and the wheel axis can be more or less anywhere from half an inch to three inches in front of the fork centre line. The one fitted to Bullets that seems to work best has 1½ inches of lead. All the models have the Lucas alternator and the standard open contact switch system. Other differences come down to cosmetics. The last Bullets were considerably flashed up, rather like the BSA Sports Star, with lotsa chrome and deep mudguards. A down-market version was called the Clipper and is about identical to the earlier Bullets in looks although it has coil ignition and the single-sided brake. Given the choice I think the nicest model would be a Bullet from early 1958, but any model from the range can be good and the differences really come down to details that you might want to knock a fiver off the price for.

Some mention has been made of the inevitable problems. Fortunately, solutions are at hand. Assuming that the thing performs well enough generally and three figure speeds are not being sought at the top end, the most irritating thing about Bullets is their reputation for leaking oil. Known variously as the 'iron horse with oily feet' and the 'Royal Oilfield', the strange thing is that of all English bikes, the Bullet is nearest to being

oil-tight. It's necessary to do only two things. The first is to fit a big breather to the oil tank. Royal Enfield simply plugged a huge pipe into the top of the tank, using a suitable union. The magneto makes this a little more awkward, but it's still quite possible. Much simpler is to stick a pipe into the filler cap: Araldite a piece of metal pipe into a hole you've drilled through the cap and slip a plastic pipe over it. The ideal size is ½in, but ¾in is OK. If you're feeling all ecological, the other end of this pipe can be led into the air filter, but tradition has it hanging over the rear wheel somewhere. That takes care of depressurising the oil system. There's already an engine breather on the nearside, at the bottom of the barrel fins. This works well, and led onto the chain will do a neat job of lubing that as well.

The other thing is a bit more major but is essential if you want oil-tightness or more performance. The cylinder head/barrel joint in standard form is a joke. The joint itself is a conventional stepped-spigot affair, and I suspect that it may have been designed as a ground joint. For some reason Enfield decided to separate the two faces with a collection of gaskets, none of which really worked. Oil running down the pushrod tunnels leaks out through the outer gasket, and any sort of hard use trashes the inner gasket. In addition the exhaust valve seat can't transfer enough heat into the barrel, so the valve burns out frequently.

The solution is clear. Remove all the gaskets and throw them away. You now have two faces which fit together pretty well. The aim is to get the inner ring to fit perfectly and the outer ring to have a minute clearance. Depending largely on luck you'll either need to have machining done, or the fit will be close enough to finish by hand. Machining is simple — just take the head and barrel to a light engineering shop, smile sweetly and ask them to cut the spigots down until there's contact on both inner and outer faces. The fit isn't critical, as you'll have to finish it by hand anyway.

The hand finishing is one of these mysterious processes known as lapping. It's easy. You put coarse grinding paste on the outer faces and fine on the inners. Then you put the head and barrel together and grind them in, just like a valve. After a while, having gone through all the trips of diluting the paste with oil and so on, you have a smooth 100 per cent