

Tuning work – MB Mugello, tune

'CAN YOU JUST DO A BIT OF JETTING FOR ME'?

The amount of times a conversation has gone like that in the last few years! Then precedes – I've just bought this Lambretta – just bought my first Lambretta – been out of it for years and just got another!

Of course again it's got one of those Italian cylinder kits I'm not a fan of. And it's got the cheapest of cheap Indian ignitions that always falls apart. This usually leads to the insides are going to be bad! We talked it through with the customer and he said okay let's strip the kit to check it out. Side cover off to check the chain, clutch and gearbox. And of course cylinder needs looking at even though it was new, the casings were badly ported, it had a cheap crank, the chain was worn, the crown wheel was sloppy and the gearbox needed shimming up and everything in-between needed sorting as well.

It's the same every time! Why can't people build engines these days? Or why do people say they can build an engine and they have no idea how to!

The more you go into it, the more you find. We try to save money and do it all fitted in the bike. But it doesn't save money – it takes longer, so now, it's always – take the bloody engine out and let's do it properly.

It's stripped, cleaned and gone through. We pick the new parts, modify some parts and throw a lot in a box to be returned to the customer proving that we do actually swap the parts and don't sell on the good bits to other people! What! Never heard that before? Oh I could shame some people!

Once a casing is already badly ported, there's only so much you can do and that's your best! Why after all these years the tooling hasn't been sorted out to actually fit where the transfer ports is on a casing – I've no idea! Check out the photos and see how close they are to breaking through. Not great but when you use a crank with a 110mm con rod you need a decent base packer which helps seal both sides even when the transfers are thin.

And again as usual, and I have no idea why these people are doing this – it's got a centre combustion chamber head with the plug on the side. And it's always the same! The plug is sunk into the head making it a bad place to ignite the fuel mixture. The compression was on the high side, so the head needed altering to put the plug right and set the compression ratio.

Once the crank is fitted, you can reset all the port timings, work out what needs doing and start the porting process to convert the cylinder to Reed to make a nicer easier drive for the customer.

But then, it's got a small block inlet port and our MB Shorty Reed manifold is a large block so rather than welding the manifold I made an alloy thread insert which was locked into the cylinder to blank off the old hole and redo

a new threaded hole.

Once tuned, the engine paint stripped, bead and aqua blasted, cleaned and rebuilt and all put back together, fired up, set up and put on the dyno. Whilst it's on the dyno we did a few tests of the exhausts we've been developing over the years.

What came to light was this Italian cylinder was down on power compared to a RT kit with the same porting spec, carb, ignition and exhaust by 1 – 2bhp across the rev range, the graph shown is with the old V1-3 MBgm Clubman! It's the same with a Rapido cylinder and the only thing in common is the transfers 2 on the RT kit 4 on the other cylinders.

With the new MB Clubman power was shifted around to give a mass of improved pulling power on the mid range just where we wanted it. With the new expansion it lifted peak power with a lovely power spread and usable low down power.

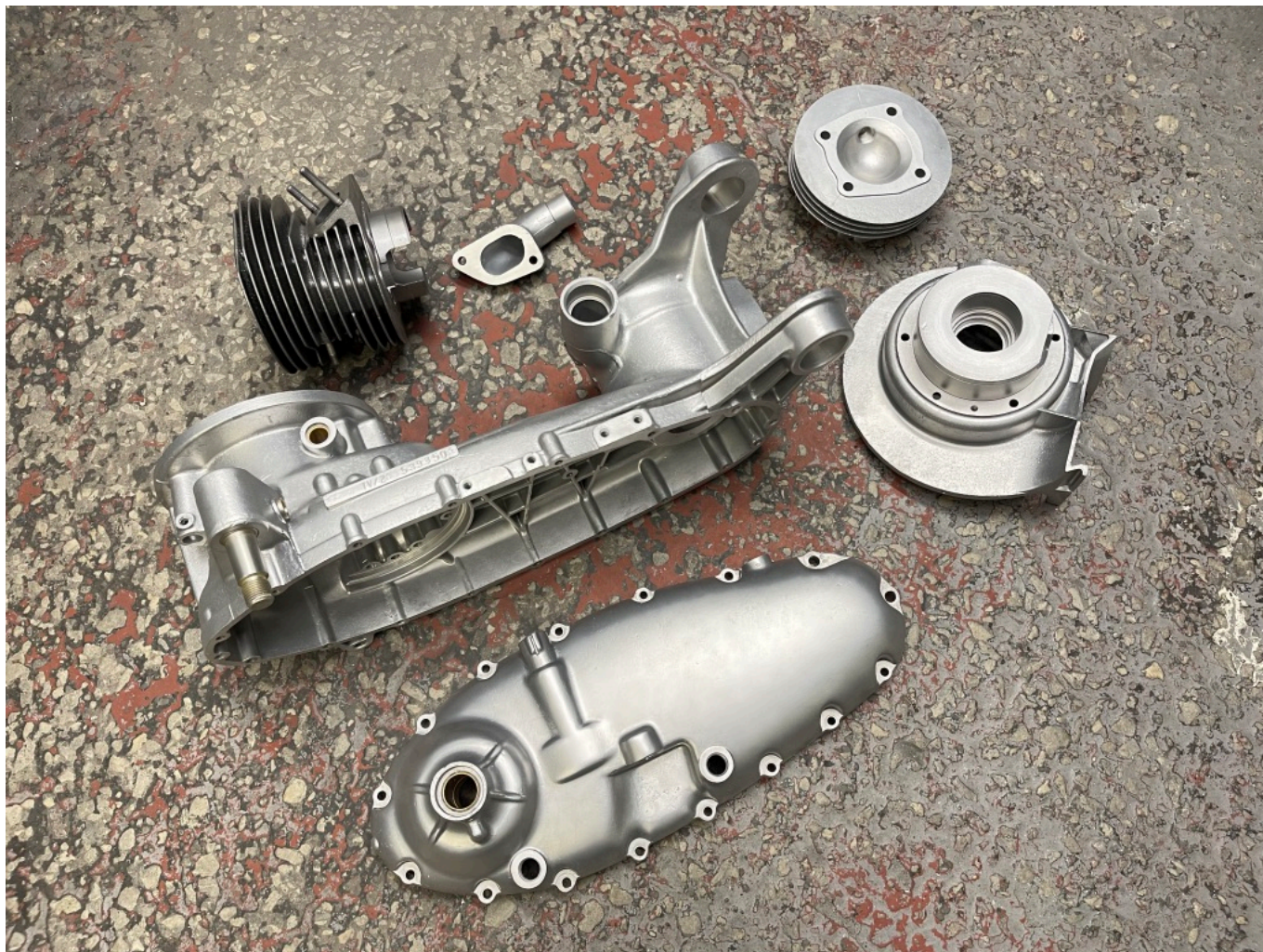
In the end it went out with his old JL pipe and 22bhp not bad from a 190 with touring tune!

Cylinder tune MRB2130!!!!

Another happy customer.









Any comments email mark@mbscooters.co.uk