## Engine - Repair Tv200

THIS WEEKS ENGINEERING ARTICLE - ANOTHER TV200 SORTED OUT

This is another job for one our old customers Dean Jordon. He must have been a customer for at least 25 years! Every now and then we get a phone call for his next project!

This one wasn't so bad, it had been welded before and for the first time not bad at all, but it hadn't been ground back to shape and finished it off.

Now if you're going to take your engine to someone to have it repaired, welded, machined you need to ask them do you have all the equipment to do such jobs? If they don't, then they are cutting corners or subbing out to others. So — be careful not everyone has all the equipment to do a proper job!

It doesn't look much when a casing is finally finished but unless you know, you have no idea what goes into the job.

To start you take stock of the jobs required, the first port of call is in the ultra sonic clearer to remove all the oil and crude. It's then washed off and put in the heat drier. Once dried, you can again cast your eyes over it. Usually you find some cracks or damage or some cosmetic wear marks. These need grinding out before its taken to the welding area where it's preheated by the gas welding equipment, then the magic welding with alloy TIG welder.

It's then left to cool when you can set it up in the milling machine to do some machining and set up the inserts to be fitted true. Back in to the tuning room to use all the hand tools to grind and shape the welding so its not obvious it's been repaired. This takes thousands of pounds worth of hand machine tools, burrs, polishers, files and various buffing products. Once the welding repairs are shaped its time to hide the welding even more.

All threads are checked and repaired if needed, threads are tapped out and cleaned up. You need a decent compressor to blow away the dust and rubbish that's usually in the bottom of the threads. Threads are then plugged before it goes into our bead blaster, then into our aqua blaster. Once the metal is nice and shiny, it's washed off, threads are blown out and it's dried once again.

In some cases, like this one, the side cover and mag housing was damaged so various grinders and different polishers were used to smooth out the damaged areas and flattened off before the bead and aqua blasting could be done.

Now non of this equipment is cheap! It's tens of thousands of pounds to buy, then there's the consumables and gas and electric to run a fully stocked workshop.

This is not cheap and if you want a proper job doing — time is money as they say!

All this is done in-house by MrBee.





Any comments email mark@mbscooters.co.uk