

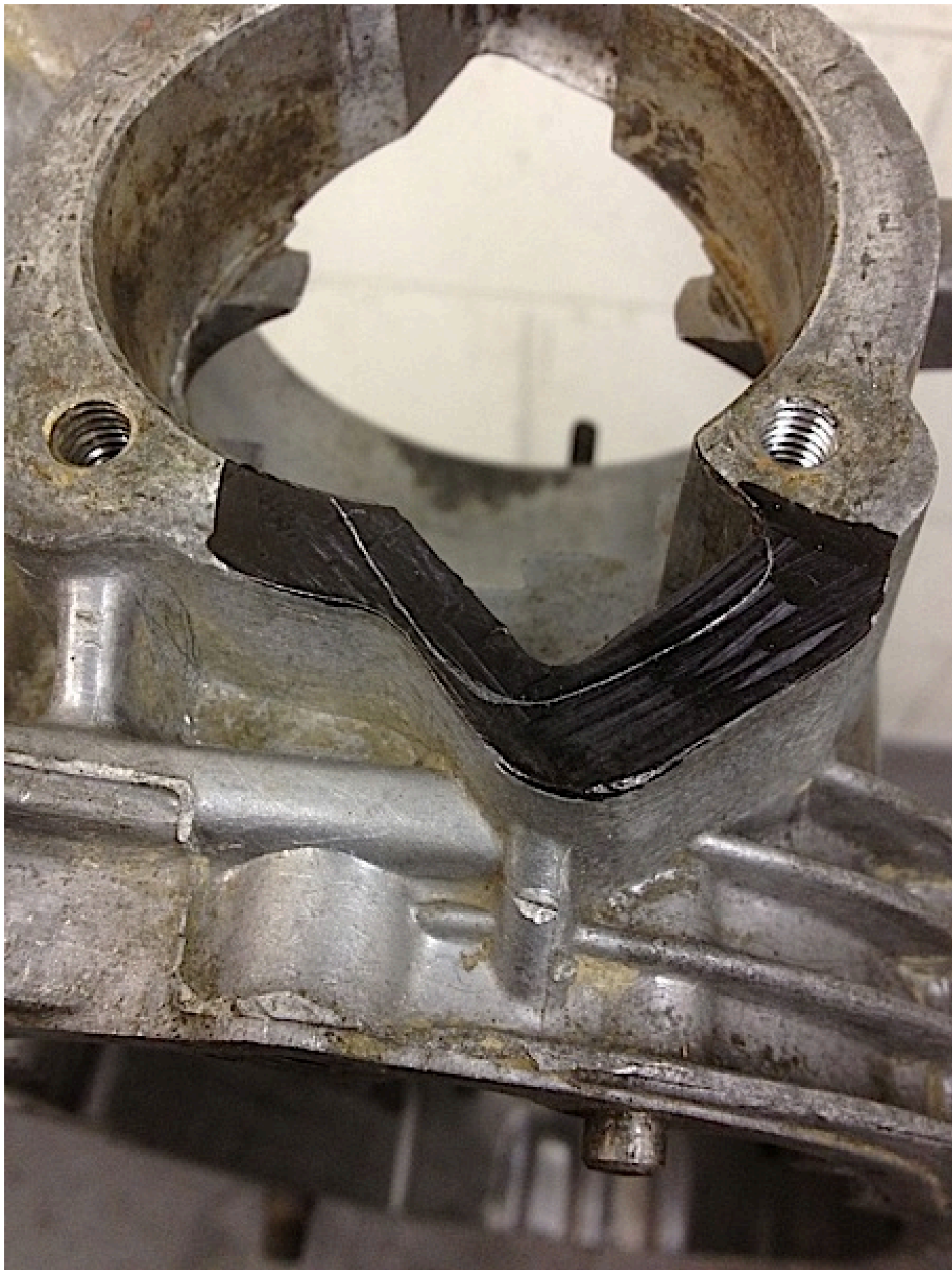
Engine – Con rods 110mm

IS IT WORTH USING 110mm CON RODS?

I LOVE 110mm rods? Why? Well they make engines so versatile with so much adjustment to set the all important port timings. You can adjust the cylinder base with varying packers and varying the head gaskets. Take a TS1 engine using a 110mm con rod, you can set the cylinder one day for race spec and another day for mild road touring two up with the missis on. This is a something I've developed and worked on since 1986-7 and it's become a good standard over the years with certain dealers also choosing this route.

There's theories about con rod lengths, Lambretta seem to have it wrong at 107mm but we all know it works, 110mm is not much longer to change the theory but it makes the engine better to set up AND there is one more advantage. Take this engine, the cylinder comes from Italy, every one I see seems different and you never know what's going to turn up when the phones goes asking the same question. All I can say is 'send or bring it in and I can look and see what I can do'. The last one I did when you scribed a line to cut out the transfers was open to thin air! Open the casings to the cylinder transfer feeds on this one and it becomes very thin. So thin I've seen casings crack in the old days of lots of stage 6 tunes. Use a gasket as this cylinder is designed for and they fall apart and the motor will draw air and go bang! And we come to it use a cylinder packer and you can tune the casings, tune the cylinder and match the packer, it may produce a step in flow but it will seal. Always seal it with silicone sealer and the motor becomes, safe and reliable in the is area!

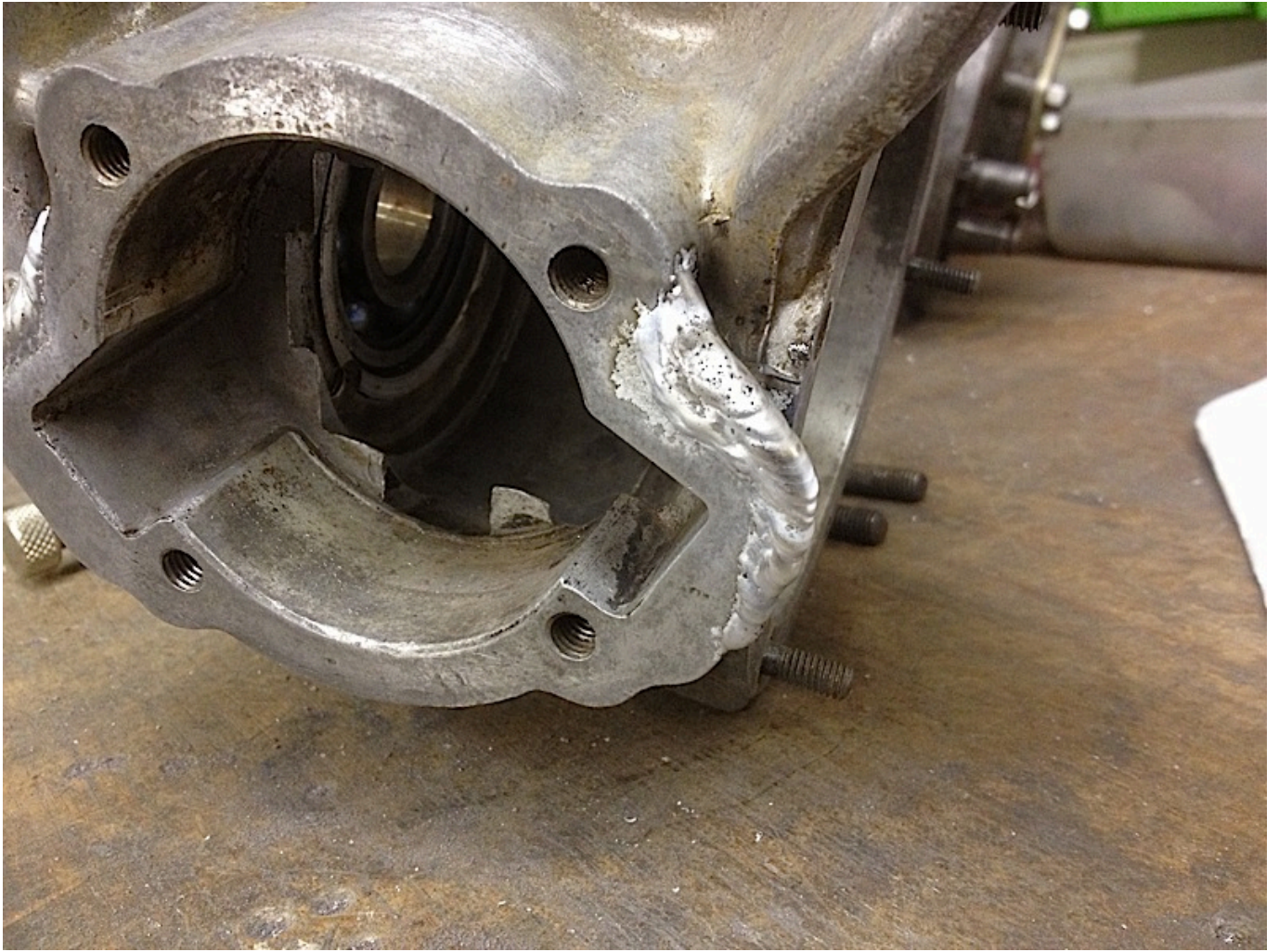
Now when the RT kits comes people will see I didn't over tune the transfer feed area but I designed it so if you have stage 6 style transfer ports on the casings, Joe Bloggs with a Dremil type tool can finely tweak very easily and you get the best of both worlds a cylinder which works with standard transfer feeds and one which has been race ported in the past. Here's photos of start to finish on a Series 1 casings matched and matted to an Italian Reed type cylinder, with that all important packing plate for the very excellent 110mm con rod.



Some Imola's get this close to the casing and thin air



Opened to the cylinder this engine would blow up, especially if used with a paper style gasket



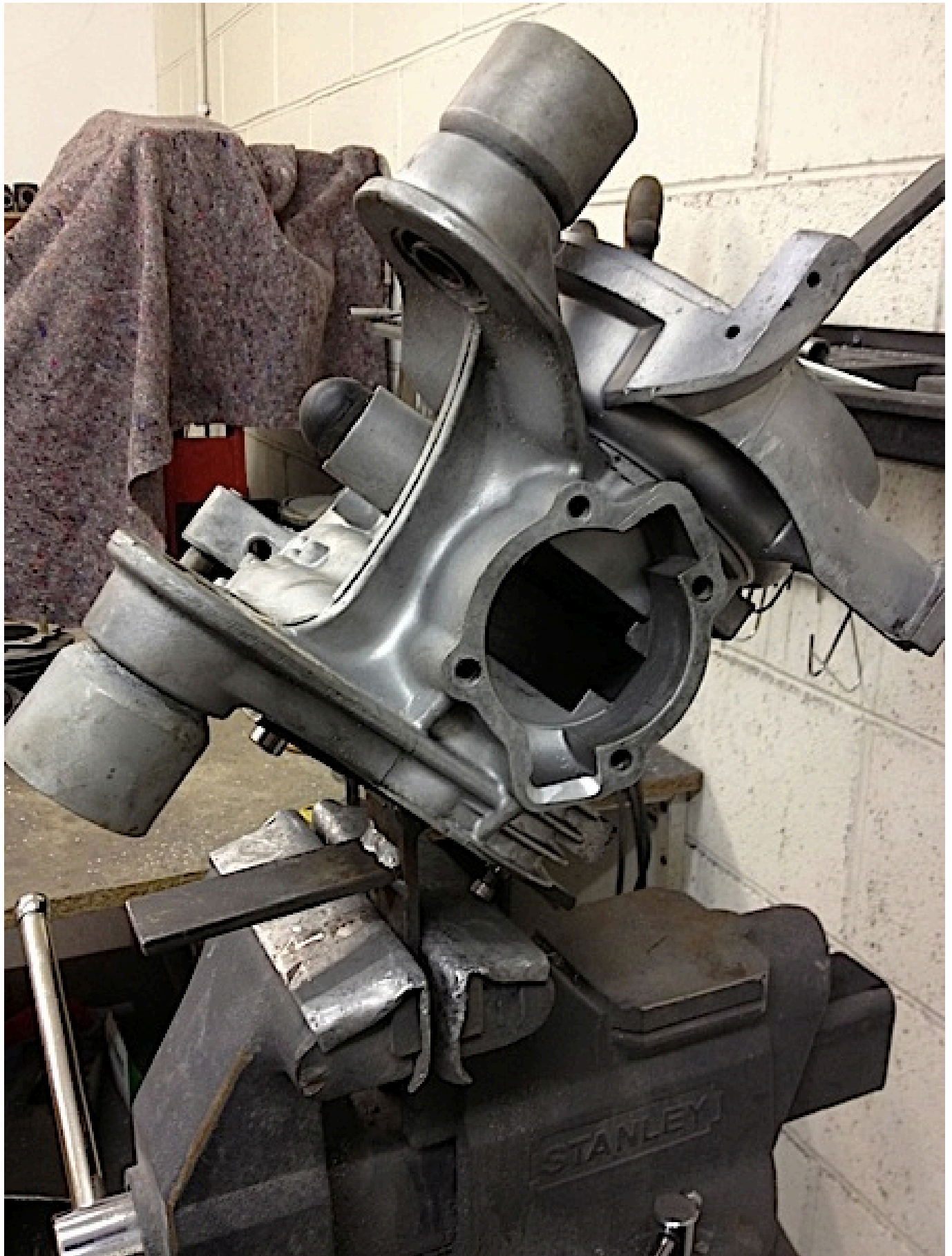
In this case the casing needed welding up to seal the cylinder



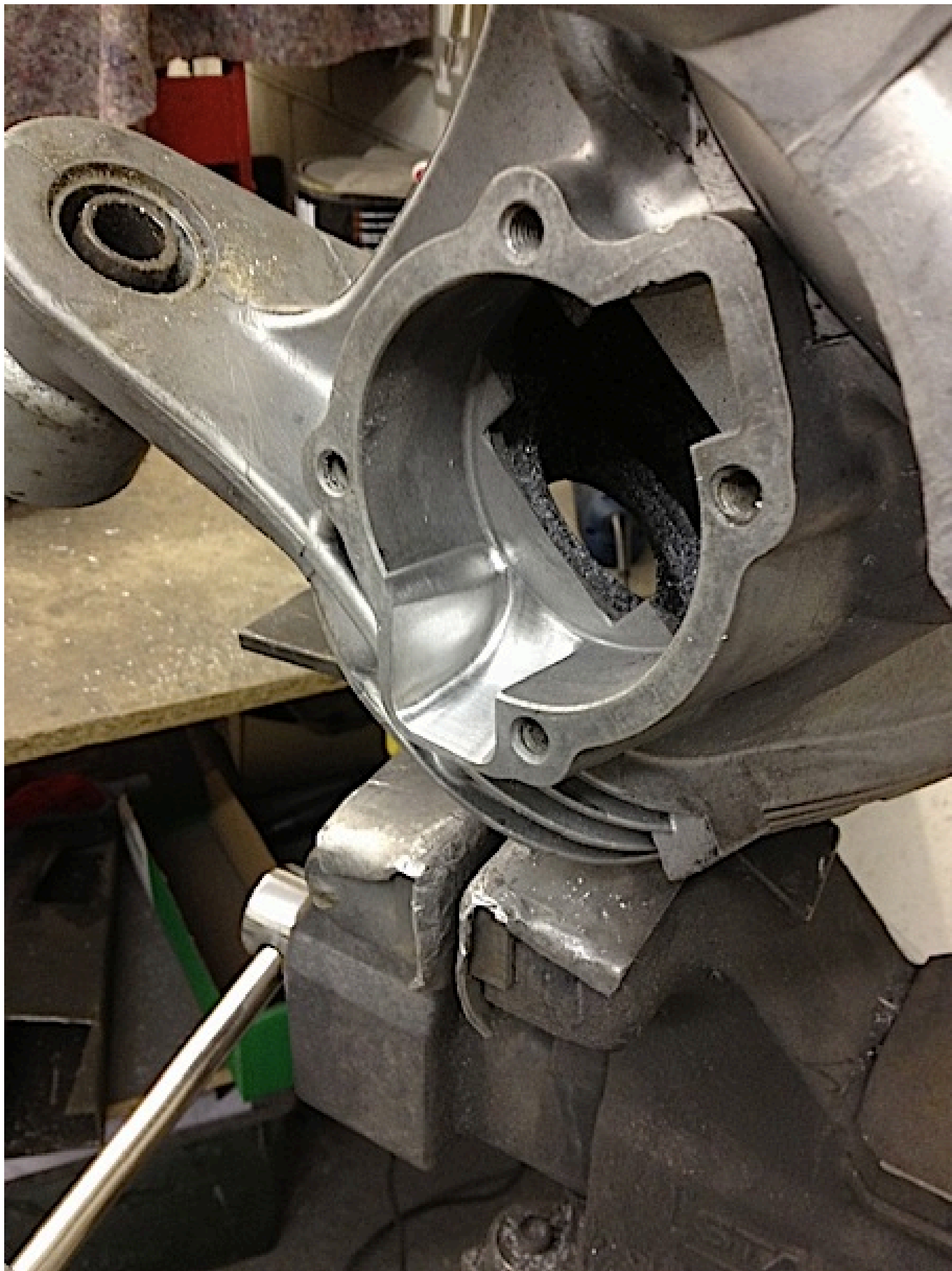
If used with a 110mm con rod and a packer this is not needed



Always check the mag housing a cylinder can hit here and cause damage, it needs tuning with the casing



The start of the casing tuning process on a better made Imola cylinder



And a casing transfer tuned correctly



Casing get thin on most types of Imola without welding, if your lucky



Mag housing matched and flowed with the transfer feed



Packers help with these cylinders they can seal each side



Matched to the casings



And as a packer should be, matched correctly

Mark Broadhurst if you have any questions email mark@mbscooters.co.uk