

29TH DEC

It never ceases to amaze me how long some simple (apparently) little components actually take to make. The Signature plates took all day - well I did have some other bits & pieces to do and had to let paint dry - but essentially with the time taken to set up a location jig and the numerous tests to get the best engraving I didn't get anything else done. More to the point - they are all scrap!!

I only discovered this when I came to attach one to the mock assembly and was puzzled by



It took me a while to fathom what was wrong and only resolved when I came to photograph two of the plates side by side to demonstrate how they are fixed that I couldn't align the boss correctly.



I thought that I had been meticulous with positioning the various elements (Pentagon, Circle... which are on opposite sides) accurately and also central to the blank which had to be turned over and was surprised when the surface clearing cut was about 1.5mm out. Without much thought, I made an adjustment after flipping the blank so I suspect that that was my main error.

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I've just measured the position of the surface clearing polyline in the CamBam drawing and find that it is NOT central on the blank :(There is a difference of about 3mm (I wasn't looking for micron accuracy!) so that does seem to explain it.

Since I have to start again, along with the correction of the surface clearing line, I've made a few small adjustments to the Monogram which I think will improve the final result.

It looks as though there is quite an improvement. There are now three of the four sitting in the Denford waiting for a final surface clean-up when the paint has dried overnight. Fortunately I watched while the 2mm cutter did the pentagon outline so was able to abort the run when it began to slip out of the collet — **how could I forget to tighten it and leave it only 'finger' tight??** :(This meant that one of the holding tabs was removed so during the finishing cut, it broke away.

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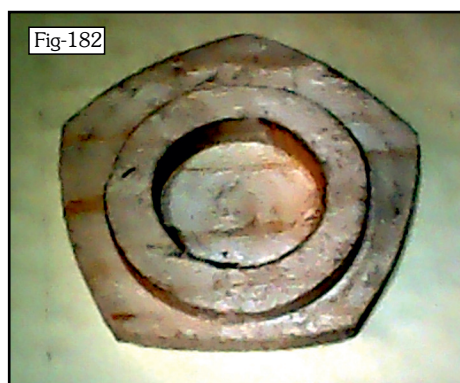


Fig-182 is the back of the 'One that got away' (recovered) showing that the mounting boss IS in the correct place and Fig-183 shows the remaining three waiting for the paint to dry before the final skim. I've already done a 0.1mm skim but there were depressions in the paint fill so I've applied another coat which will be skimmed again later today.

I think that having the monogram 'filled' is better than just a thin film in the depressions.





With just a little experience of the effects of engraving depth and very minor adjustments to the original outline (tenths of a millimetre) it surprises me how much improvement there is to the finished work.

On the left of Fig-184 is the first attempt, which went wrong due to the mis-placed fixing boss, with the deeper cut and surface painted monogram and on the right the second attempt cut only 0.3mm less deep and fully filled with Acrylic Paint.

With the end of the year fast approaching, I've reviewed what is still to be done as far as component manufacture is concerned and see that the only parts still to be made are for the 'Weight'. Though I'm still in two minds as to whether to buy in winding handles, which are standard parts available from the likes of Cousins, the main issue being that I don't have a broaching facility to cut deep square holes.

The Driving Weight has been left 'til last because until I have a fully assembled clock I can't be sure how much weight will be needed. I know that it will be made from a clear Acrylic Tube 60mm Ø but the length will be determined by the weight needed and I think that a 'part filled' weight would look 'odd'.

Tomorrow I should start to look at finishing the wooden parts by sanding, applying Sanding Sealer and MC Wax before glueing up the various 'sets' of Gears that belong on the same spindle.