

Top adjustable gibs for 7x 12 lathes.

By MAGIC BRIAN

All dimensions in millimetres

We are all aware of the limitations of the standard gibs on our lathes so I won't dwell on the subject.

This mod had to meet 3 Main criteria 1- Be easy to make without a milling machine 2 - be low cost 3- be adjustable from the top of the saddle .

Shopping list

1 off 100 x 31 x 6 Mild steel strip, or brass.

1 off 100 x 26 x 6 Mild steel strip. or brass.

1 off 100 x 12 x 12 Mild steel bar.

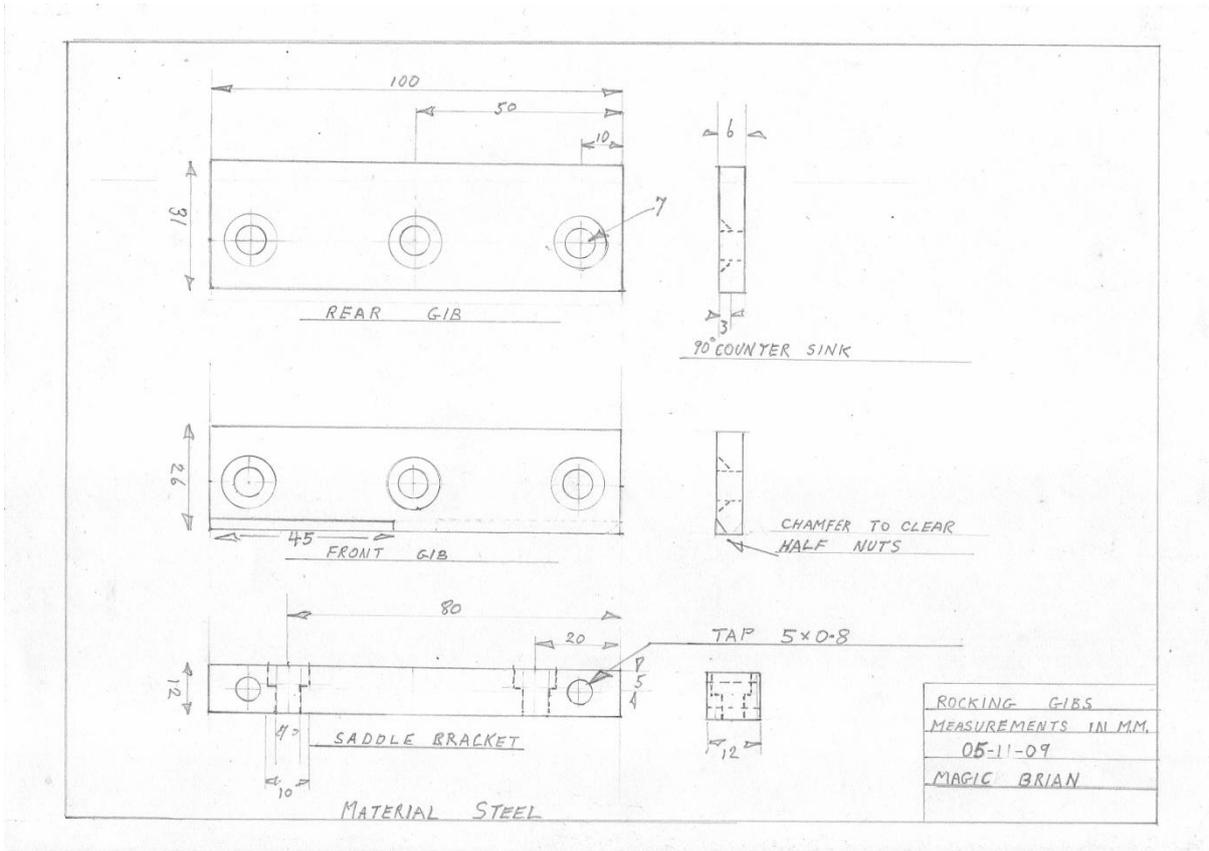
200 x M6 studing

6 off nylock nuts M6

2 off M5 x30 s.h.c.s

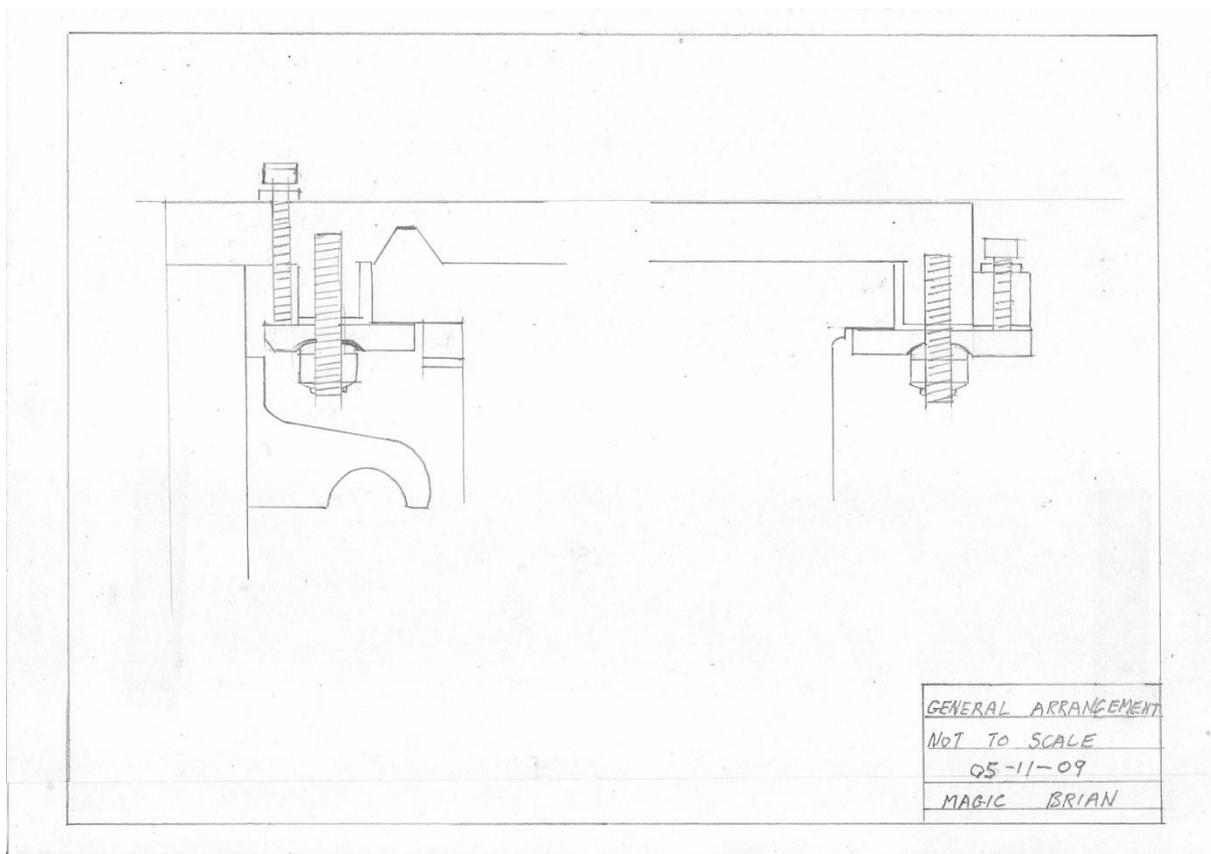
2 off M5x20 s.h.c.s

2 off M6x7 s.h.c.s (from the old gibs)



The new gibs can be made from mild steel as per the originals or engraving quality brass, this gives adequate strength . and good wearing property's they are supported by 3 nylock nuts that have a 13 millimetre radius seat, that locates in the countersinks machined in the gibs, this provides good lateral location ,but allowing a small amount of rock

Check the centre to centre dimentions of the studs on your machine as they seem to vary mine where out by 2mm and the gib holes had been filed at the factory to fit, so beware.



When drilling the holes in the front of the saddle for the adjusting screws, I relieved the area under the saddle with a mini grinder and drilled the holes from underneath to get the screws as close as possible to the vertical part of the saddle.

Due regard must be paid to the position of the right hand adjusting screw relative to the cross slide gib adjustment screws.

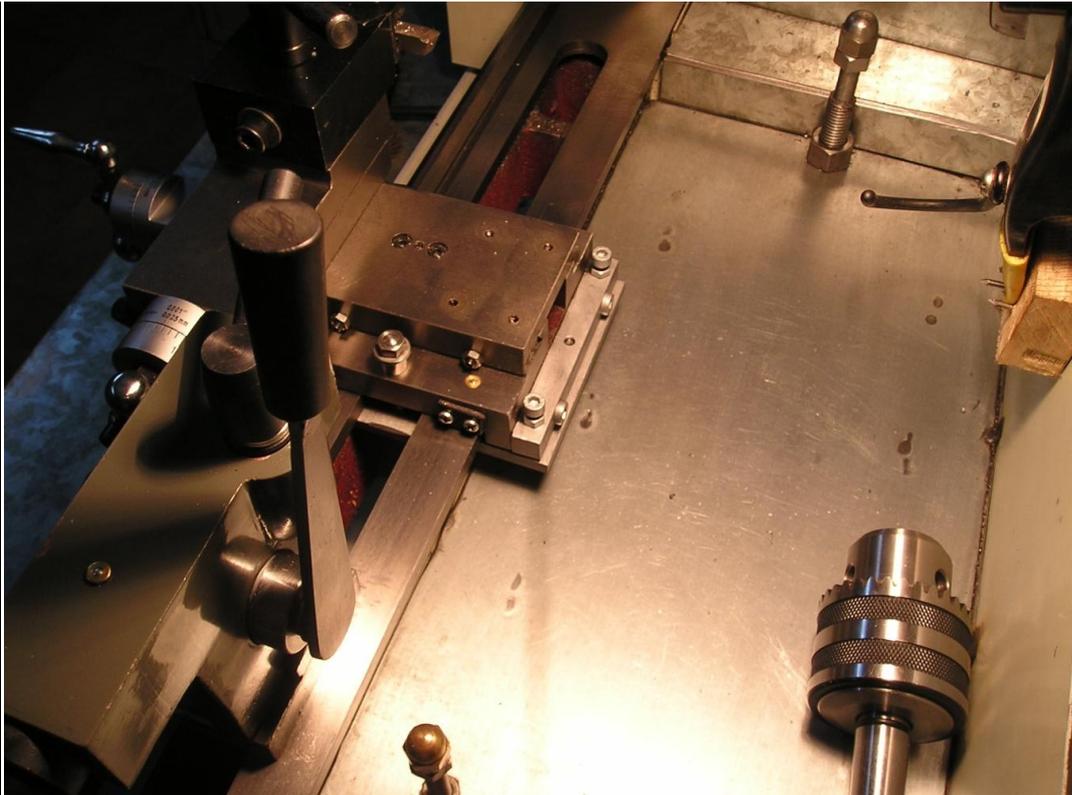


The studs are screwed in tight and Locktighted.

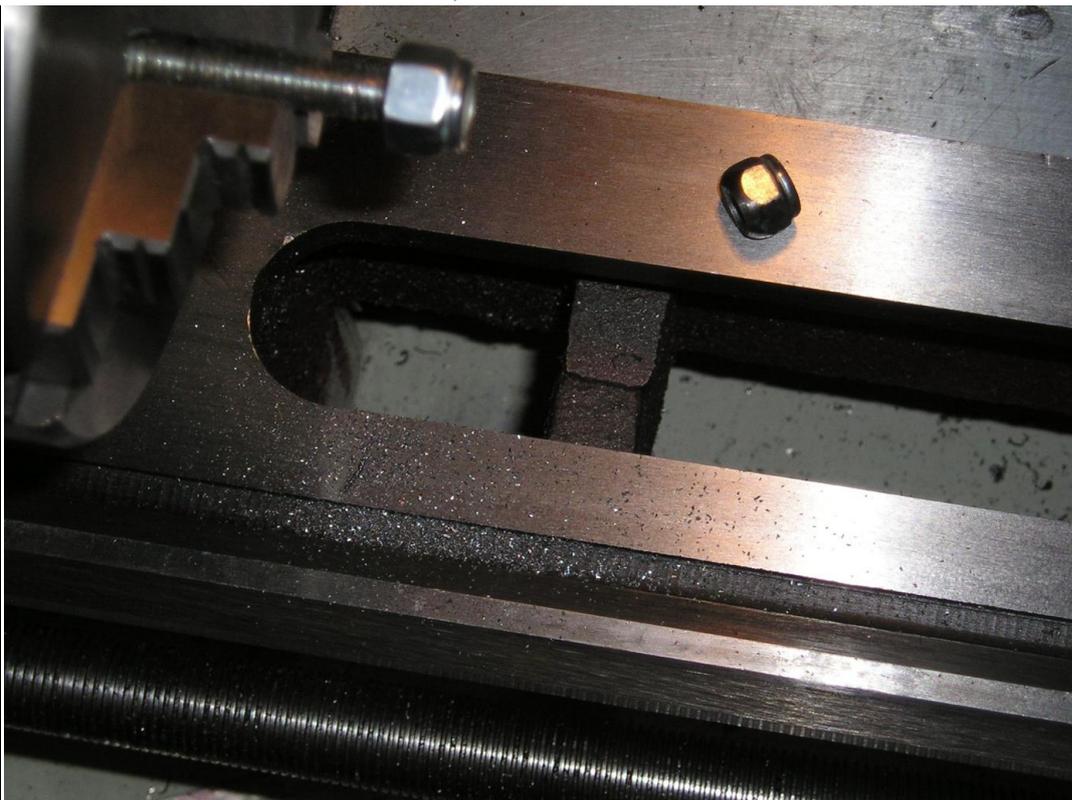
The saddle bracket is attached to the saddle with 2 M6 x7 screws from the old gibs.

Simply transfer punch the positions to the rear of the saddle. If you do not have a suitable punch find a drill that fits the hole tap lightly turn the punch 90° tap again and x marks the spot to drill

In this photo the rear gib is in prototype form and is wider than the one in the drawing. the bracket has a spare hole in the centre that was not used!



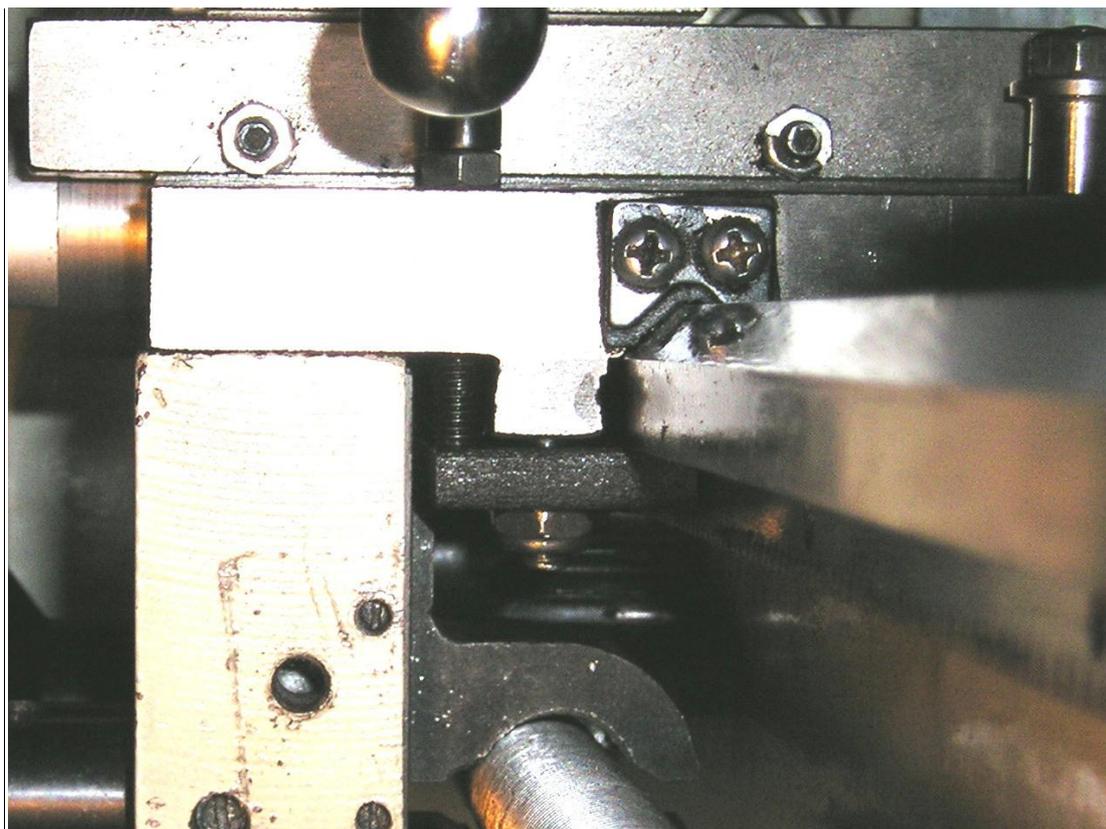
The radius on the nuts was made by putting the nut on a length of studding in the lathe and profiling the nut with a file.



Initial adjustment of the nuts levels the gibs to obtain good flat contact with the bed, and an even load on all 3 nuts, having achieved this, the nuts should not require further adjustment, the tension of each gib is adjusted by the 5 millimetre screws at the top and rear of the saddle. making life simple.

Care must be taken to ensure a good clearance (1 mm) between the inner sides of the gib and the bed at the rear, and the rack at the front. on my machine at the rear this area was covered in thick paint that took a lot of removing.

The chamfer on the front gib to clear the half nuts may not be required, on my machine I chamfered the top half nut instead.



I have been running this system on my lathe for 2 years now and have only had to adjust the gibs once and this was probably due to bedding down. During this time the lathe has seen a lot of use. I am very content with this mod and I hope you will be also.

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