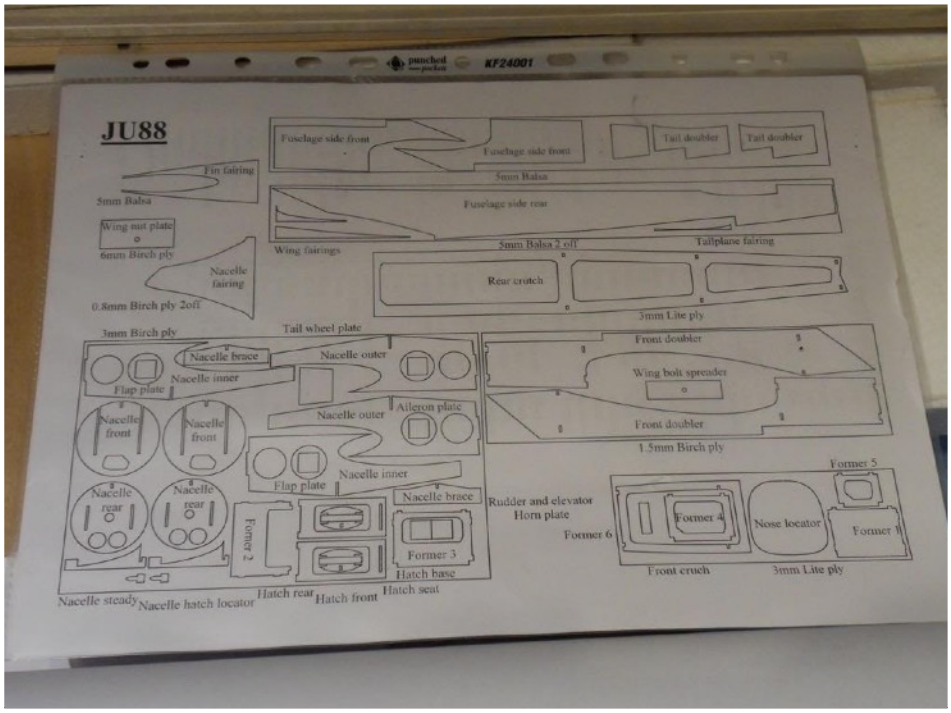
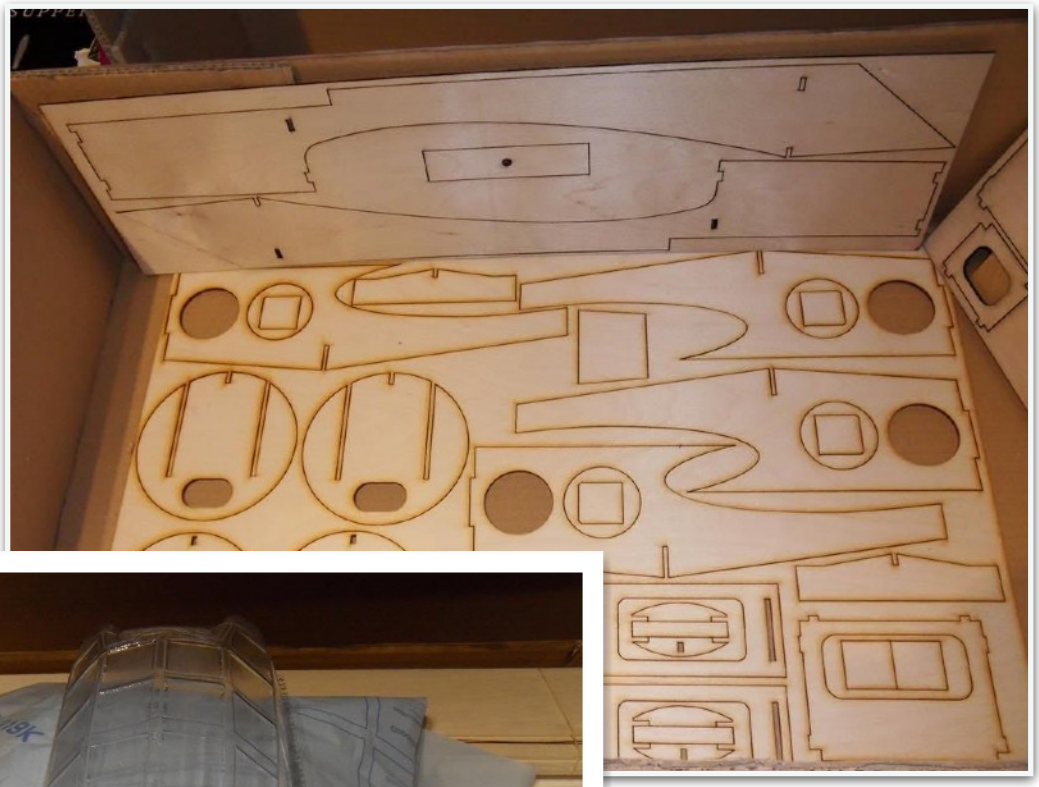
Ron Gray, Warbird Replicas
JU-88 Build, 1

Having thoroughly enjoyed the build of the BF-110 and being extremely pleased with the way that it flies, I decided to dive in and build another twin, this time a JU-88 again from Warbirds Replicas. Unlike the BF-110, this one will be twin IC (fourstroke 52s) powered.

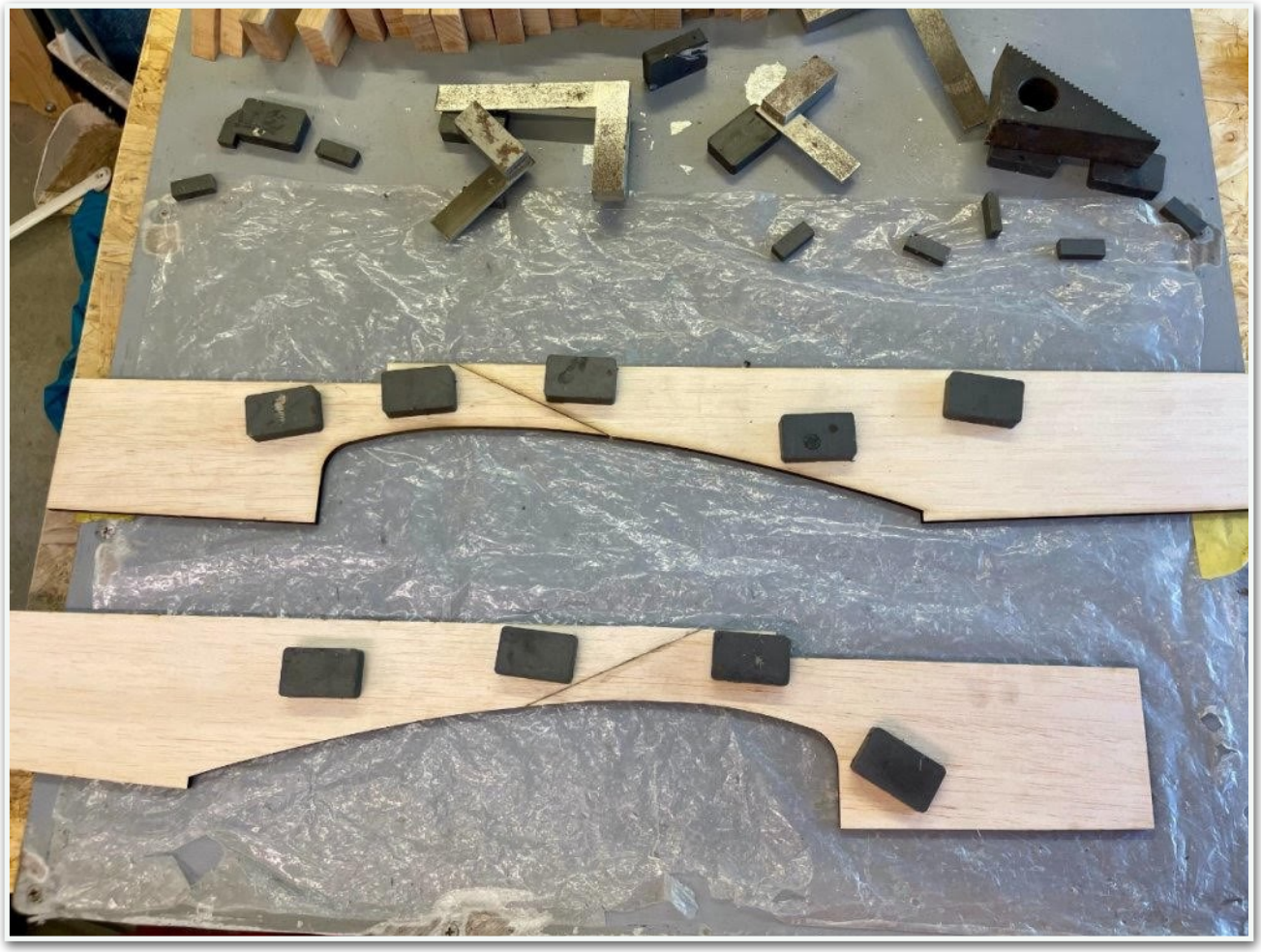
As per the other Warbirds Replicas kits, the box is very full of excellent laser cut and veneered foam parts.

(Note, these half dozen photos of the box of bits were not taken by me, they were another builder's).


JU88
KF24001
Fuselage side front
Fuselage side front
Tail doubler
Tail doubler
5mm Balsa
Fin fairing
5mm Balsa
Fuselage side rear
Wing nut plate
6mm Birch ply
Wing fairings
5mm Balsa 2 off
Tailplane fairing
Nacelle fairing
0.8mm Birch ply 2off
Rear crutch
5mm Lite ply
3mm Birch ply
Tail wheel plate
Front doubler
Nacelle brace
Nacelle outer
Wing bolt spreader
Flap plate
Nacelle inner
Front doubler
Nacelle outer
Aileron plate
1.5mm Birch ply
Nacelle front
Nacelle front
Nacelle inner
Former 5
Flap plate
Nacelle brace
Rudder and elevator Horn plate
Former 4
Nose locator
Former 1
Nacelle rear
Nacelle rear
Former 2
Former 3
Former 6
Hatch base
Front cruch
3mm Lite ply
Nacelle steady
Nacelle hatch locator
Hatch rear
Hatch front
Hatch seat

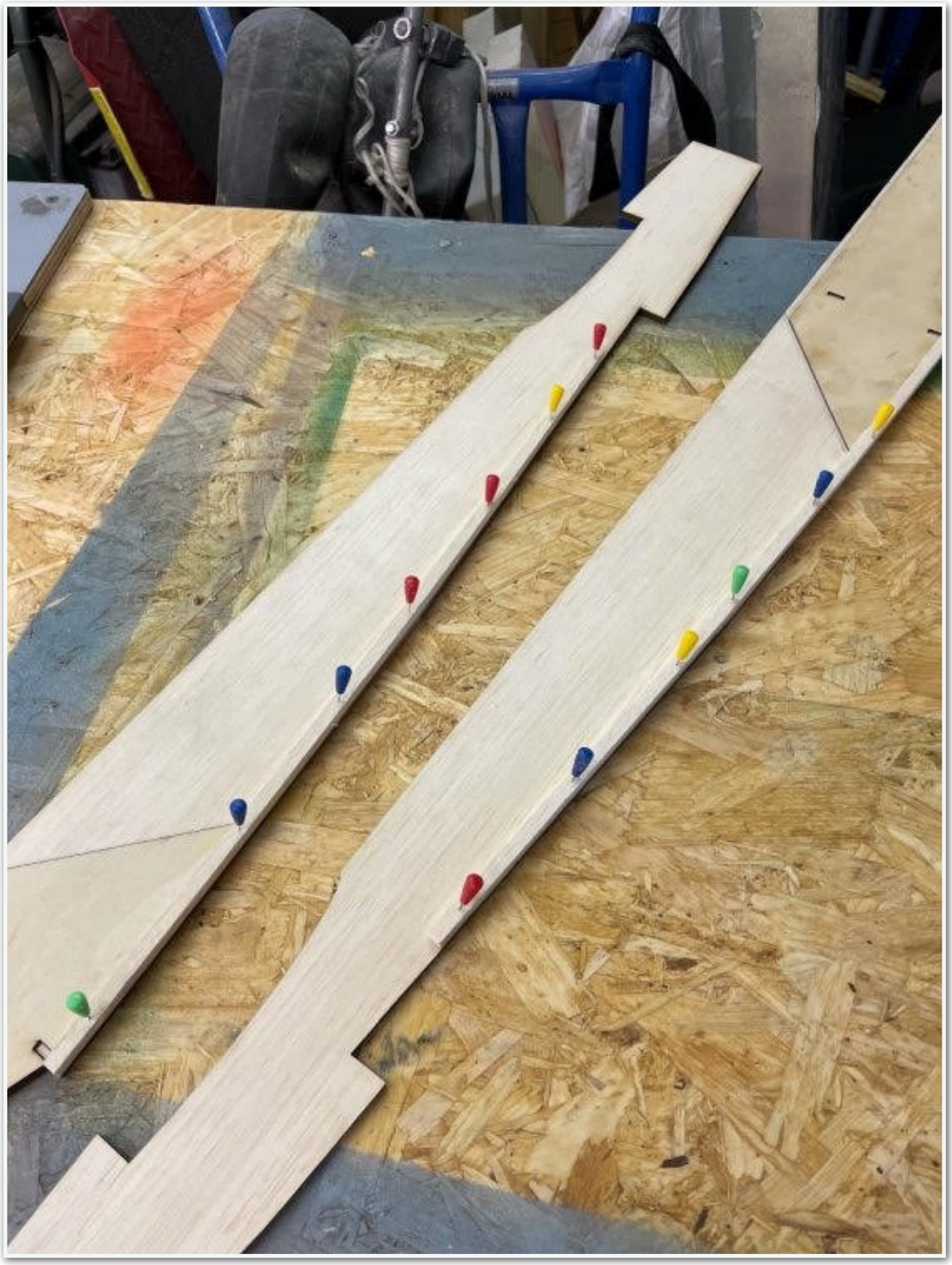


The good old magnetic building board has come out again, complete with the larger magnets (I had forgotten I had them!) and the sides have been joined and doublers added.

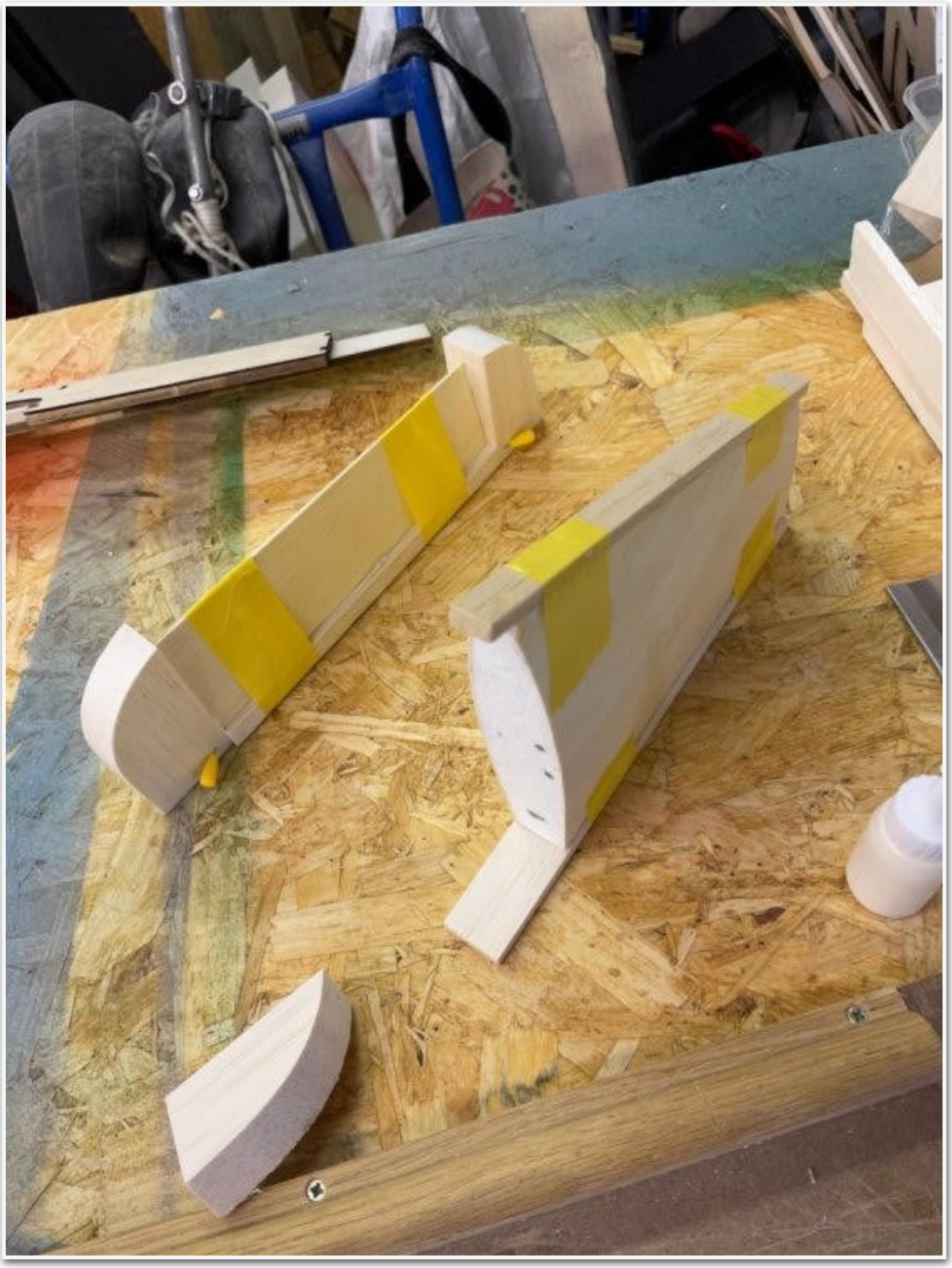


Formers stuck to the 2 piece crutch, combination of squares and magnets to make sure everything is straight.

Just to show that I use other holding devices here are some pins put to good use on the stringers

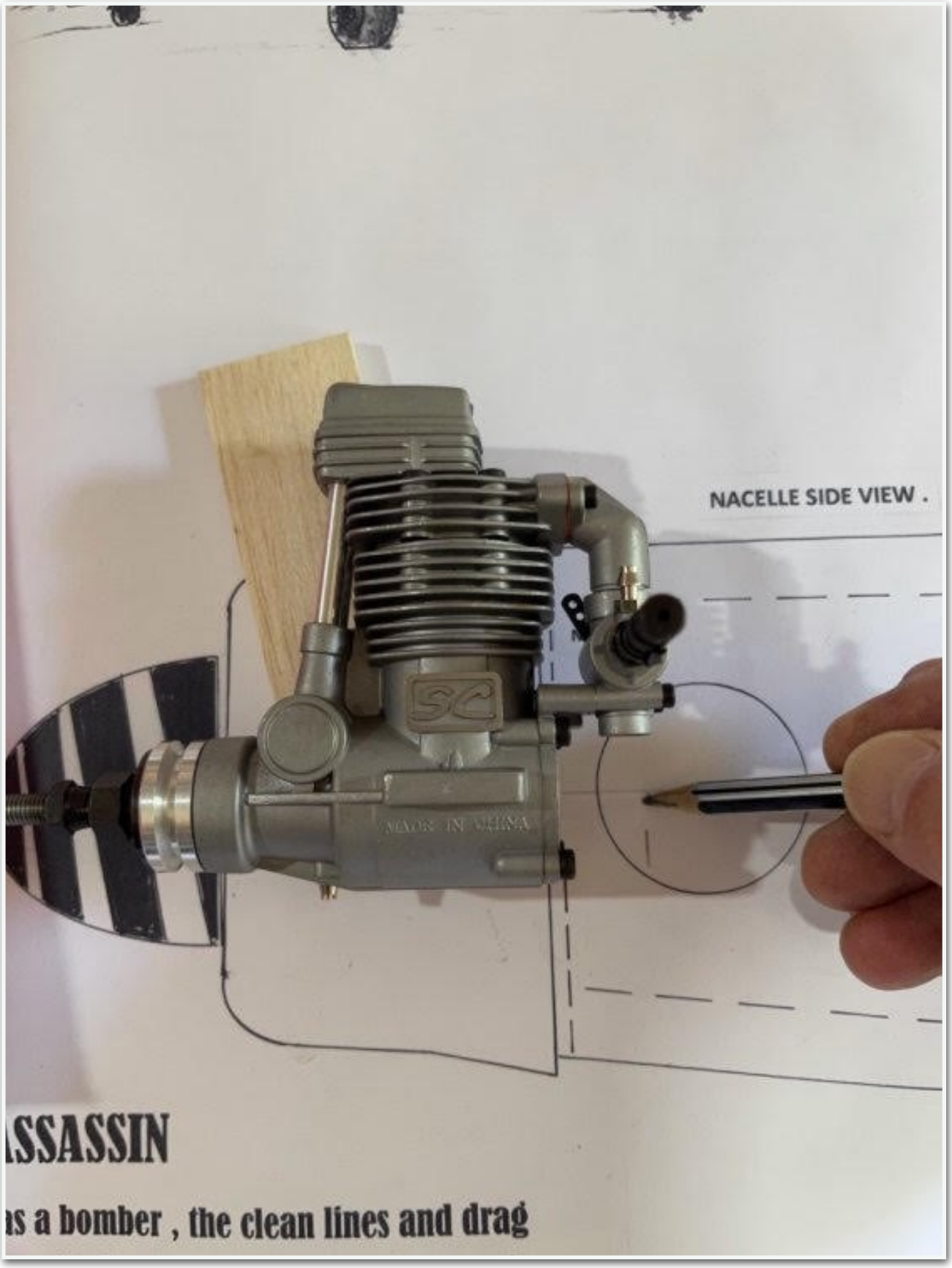


And good use of tape to stick the bits together for the fin and rudder, lots of carving and sanding to come later!

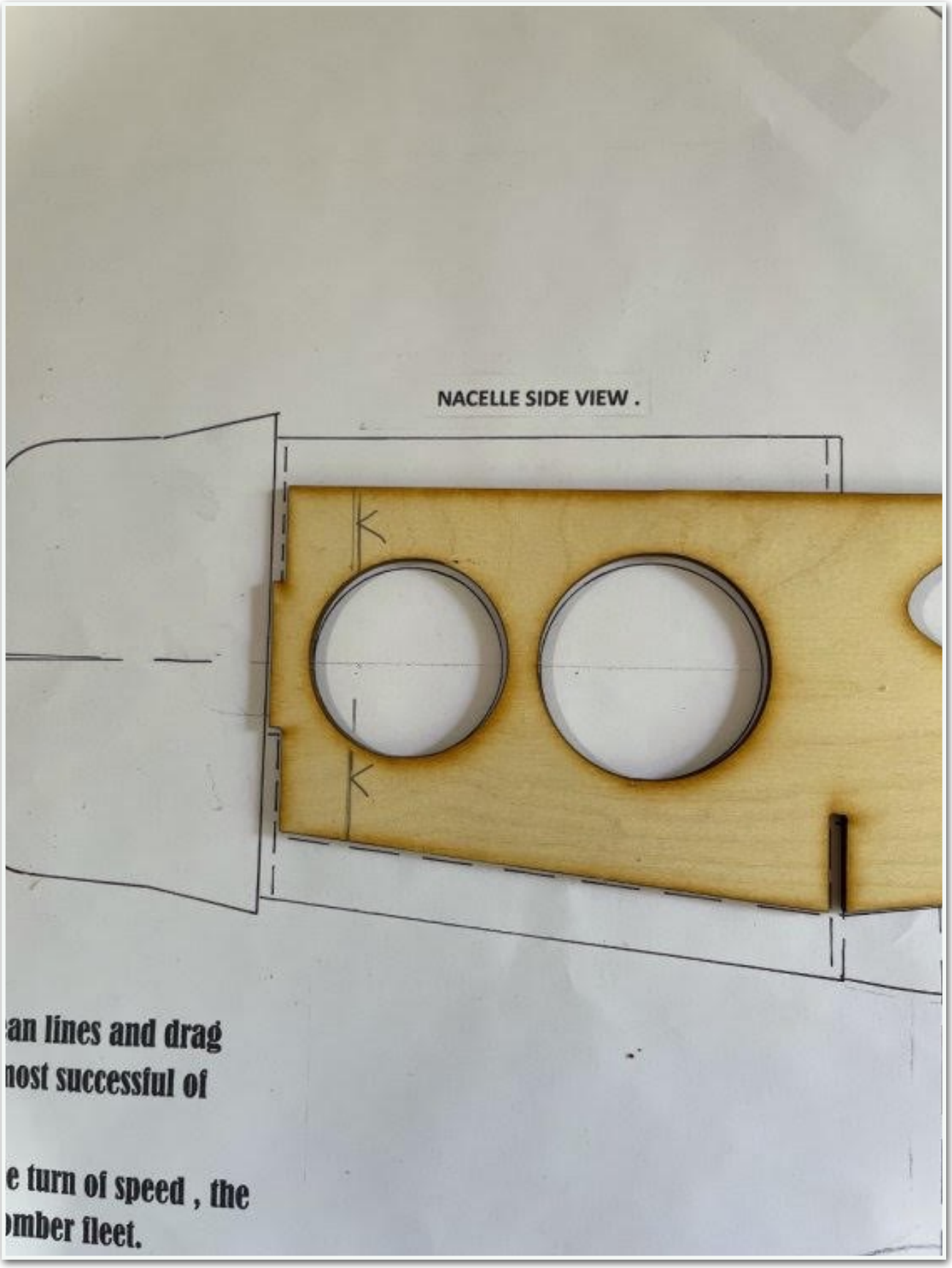


And then it was clamping time, crutches to fuselage sides

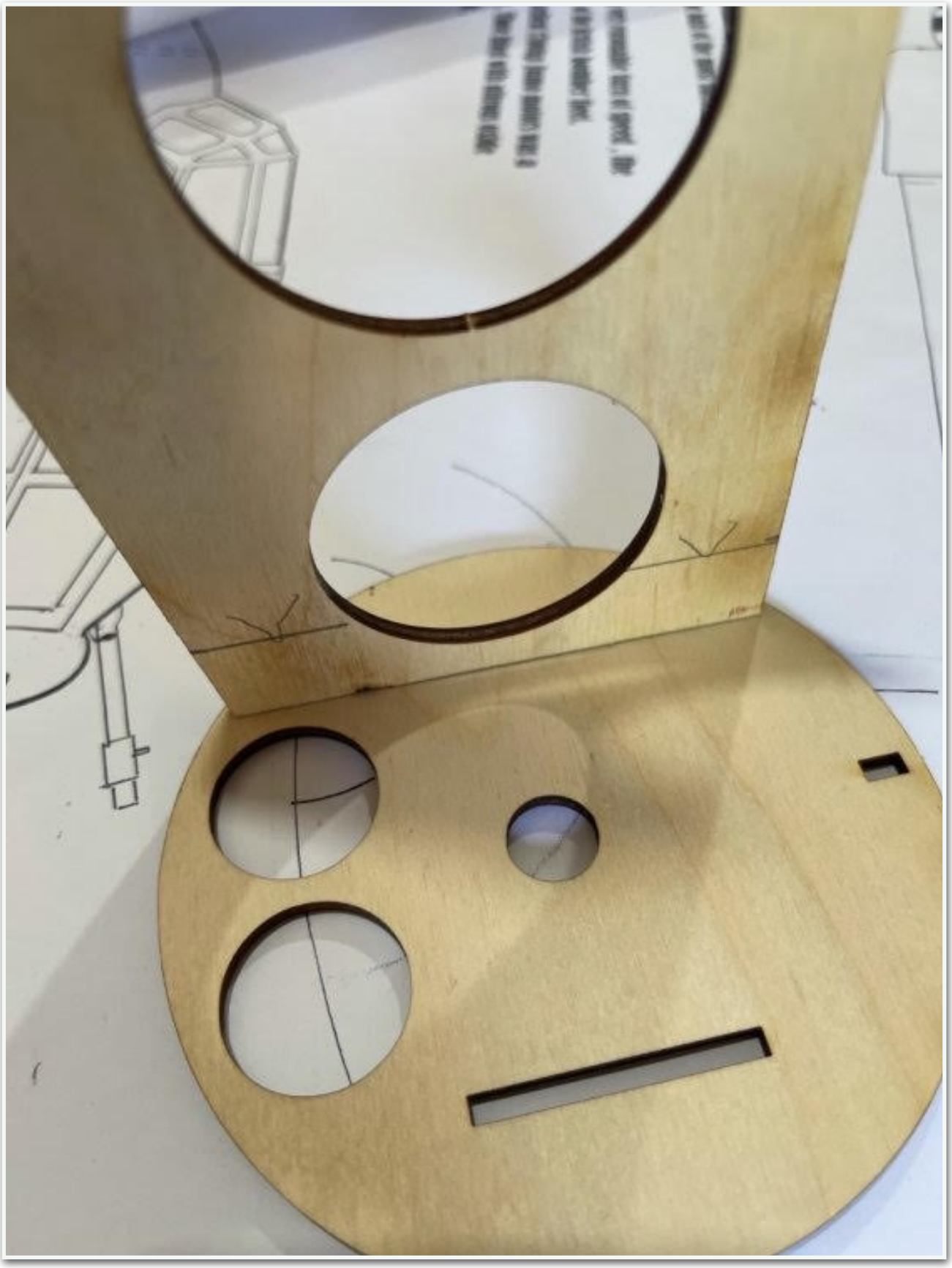
Whilst various bits were drying I started to look at the work needed to accommodate the SC 52s. The first is to move the firewall back, the shot below shows where it will have to sit to keep the nose in the same position



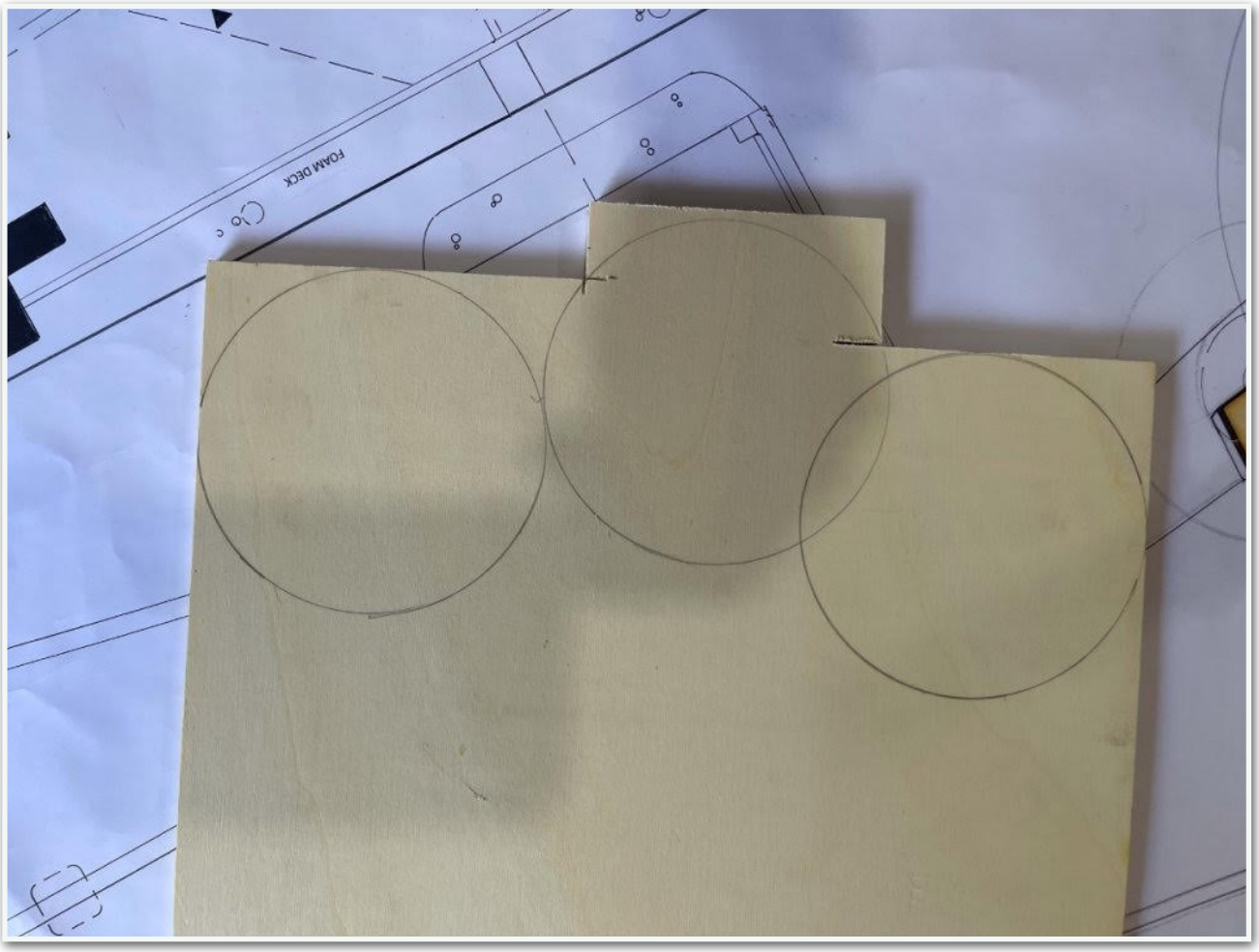
Transferred to the nacelle sides you can see the first problem



The firewall is designed to lock into the side pieces but with the lightening holes this won't be possible when the firewall is re-located.

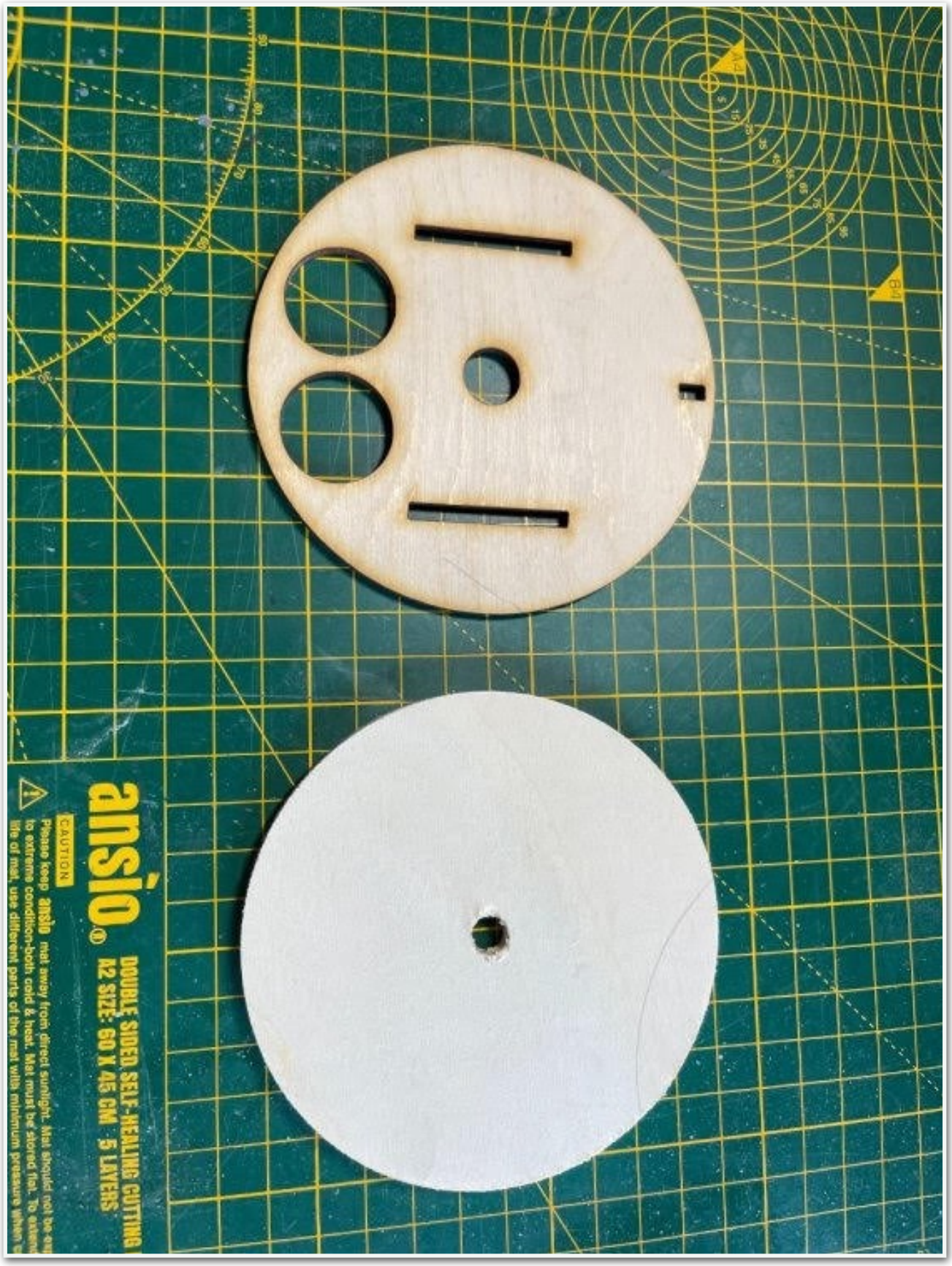


Whilst I know that the firewalls (designed for leccy) will be fine I've decided to make new ones from 6mm ply (the circle in the middle was drawn before I realised that there was a saw cut! - I hate waste).



I cut the new firewalls out using my scroll saw then put them in the lathe to true them up.

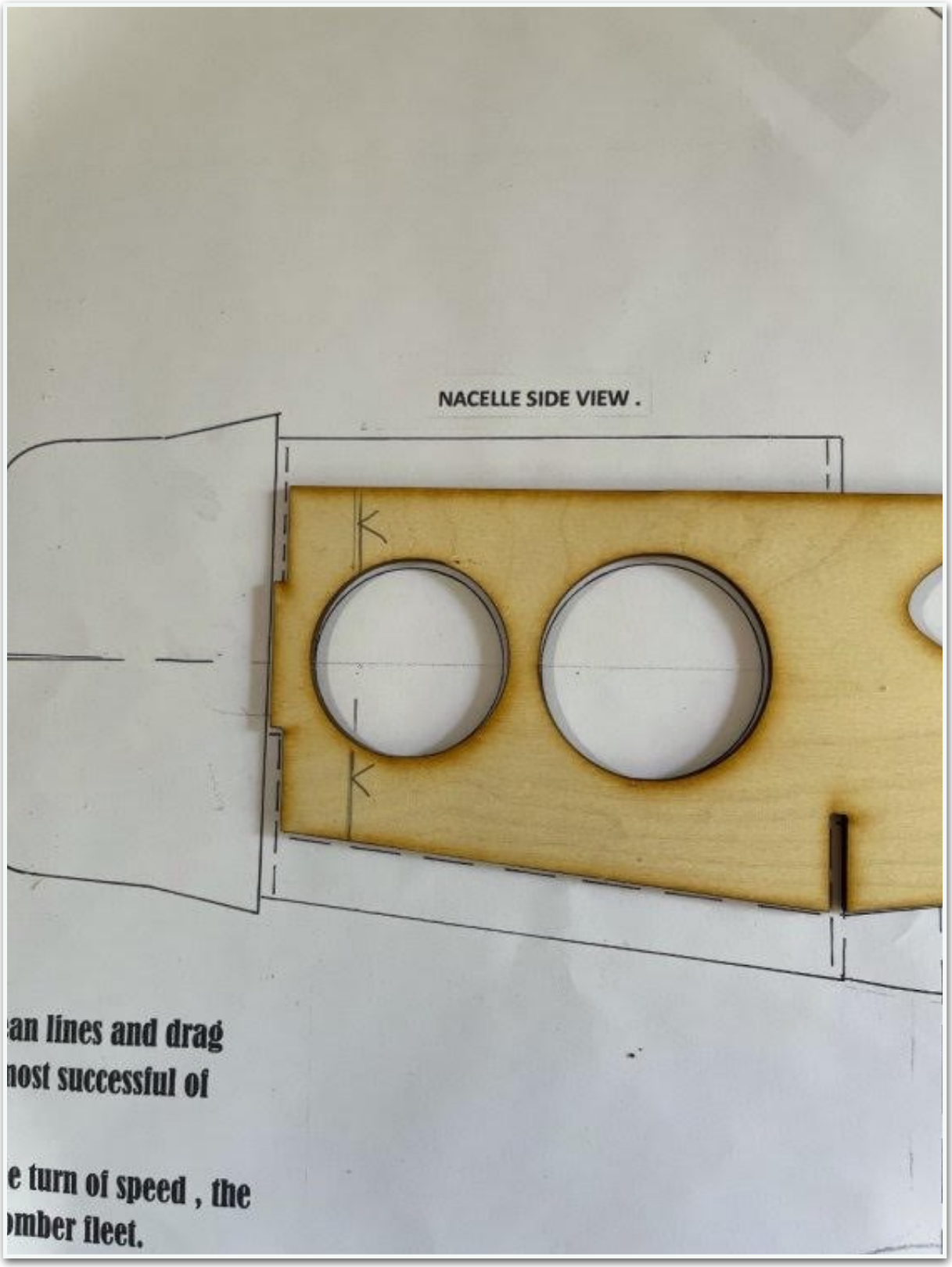
Shown next to original firewall:



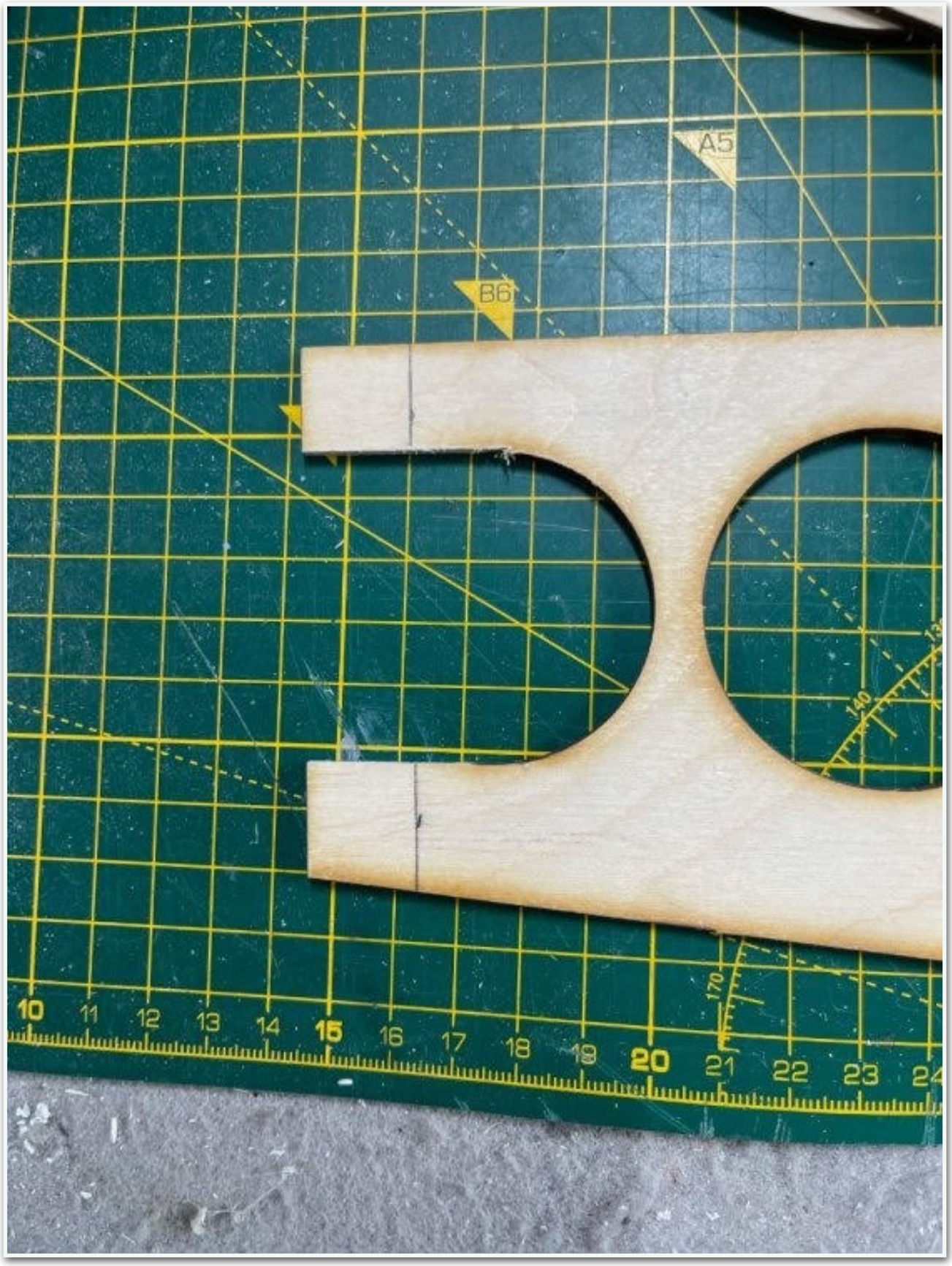
Twice the thickness:

The redesign of the nacelles involved a lot of time measuring and remeasuring then offering up the dry assembly to the wing to make sure that the orientation of the motors allowed the exhaust to exit as close to the full size exhaust stack as possible. Then it was a case of epoxying the framework together.

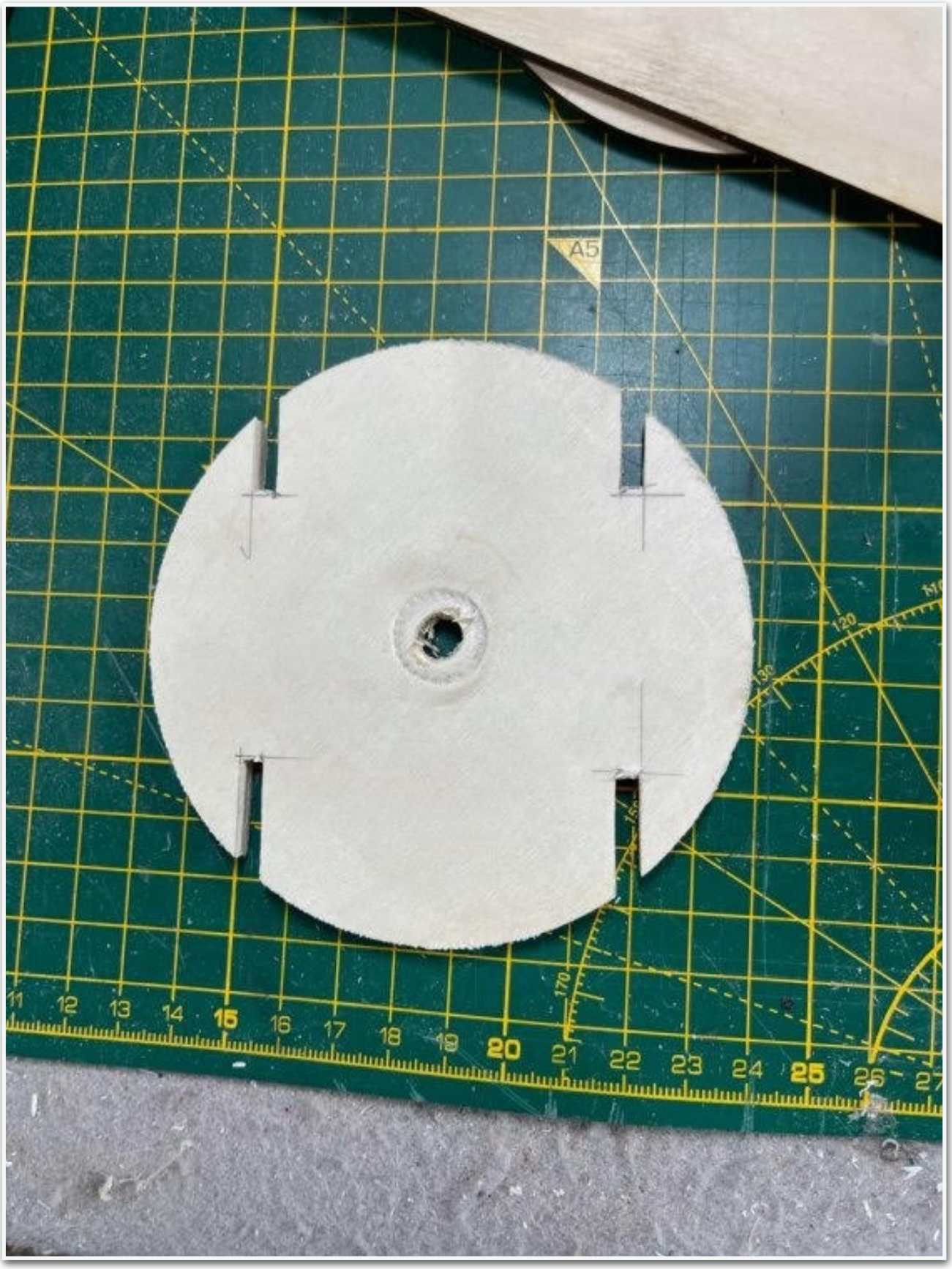
As I showed earlier, the side plates for the nacelles needed to be trimmed back due to the extra length of the I/C motor.



They actually needed 20mm cut off but first I cut out the middle section to leave 2 tongues



Then I cut out mounting slots in the new firewalls.

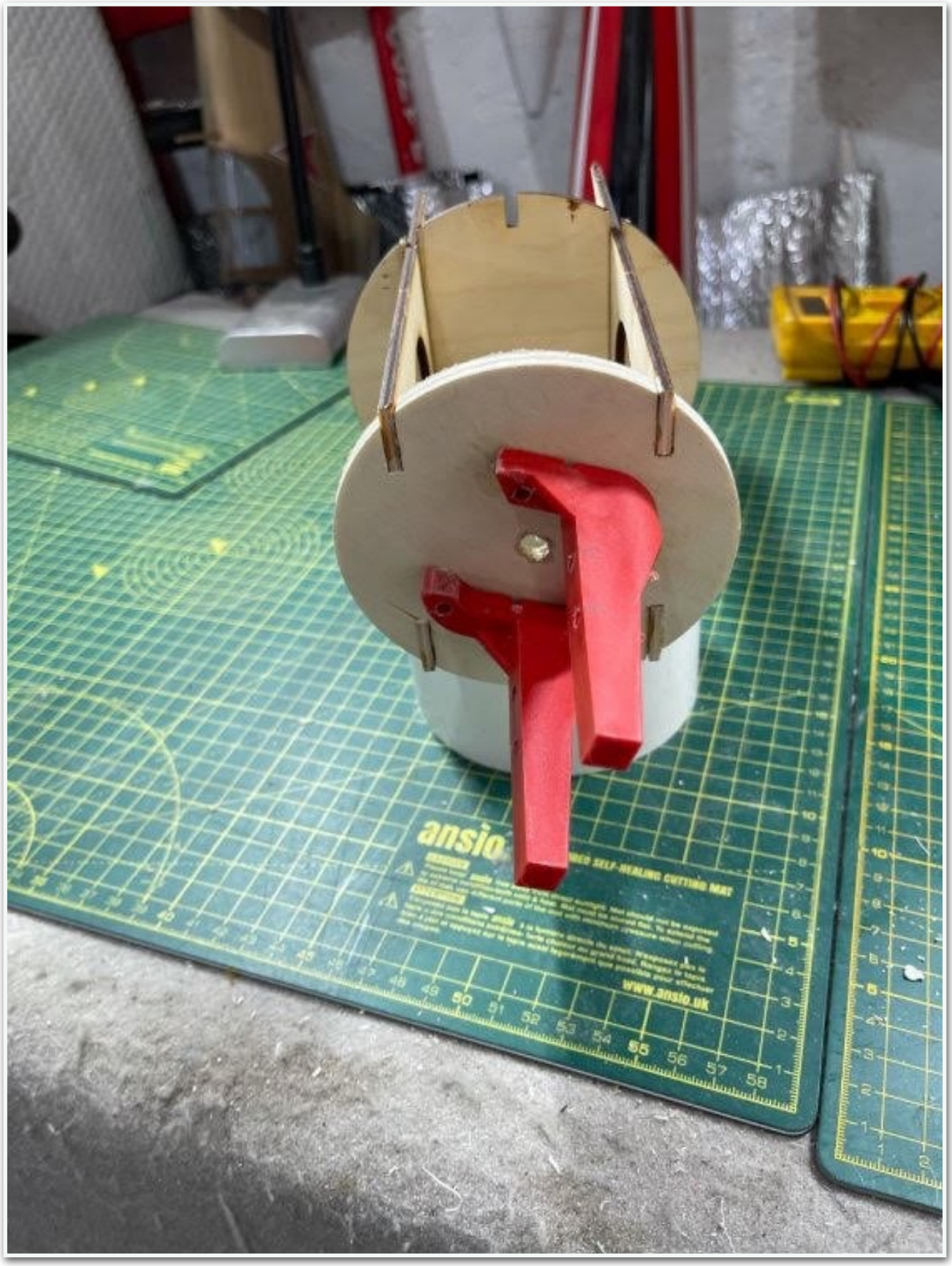


So when dry assembled:

After final measuring I was able to determine the orientation of the engine and then fitted the flanged nuts.

I then assembled both nacelles using epoxy and trimmed back the nacelle side tongues

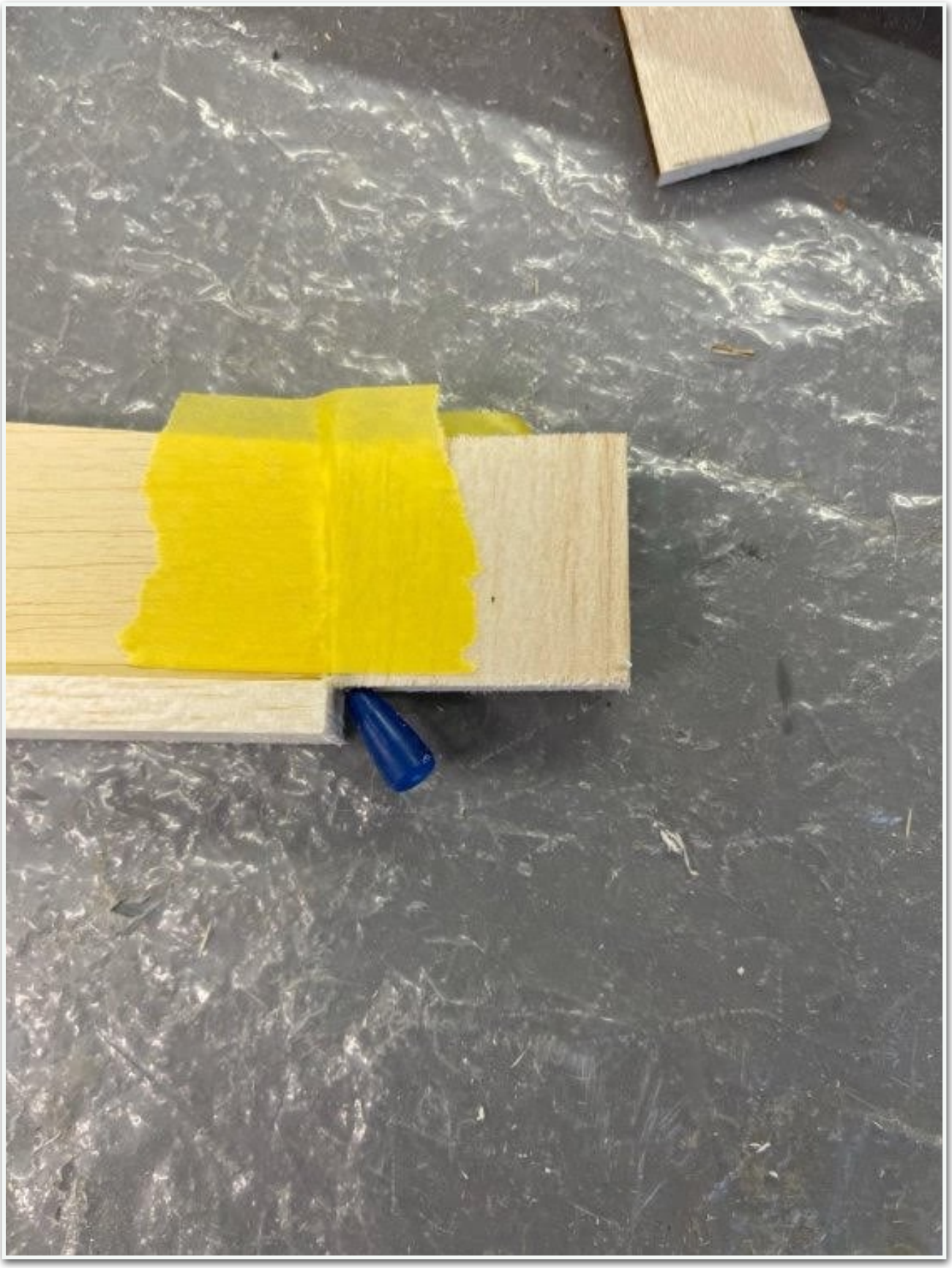
Motor mount loosely attached. Note that I cut out a section of the top of the motor mount to allow the motor to fit tight against the firewall (thanks for the tip Richard).



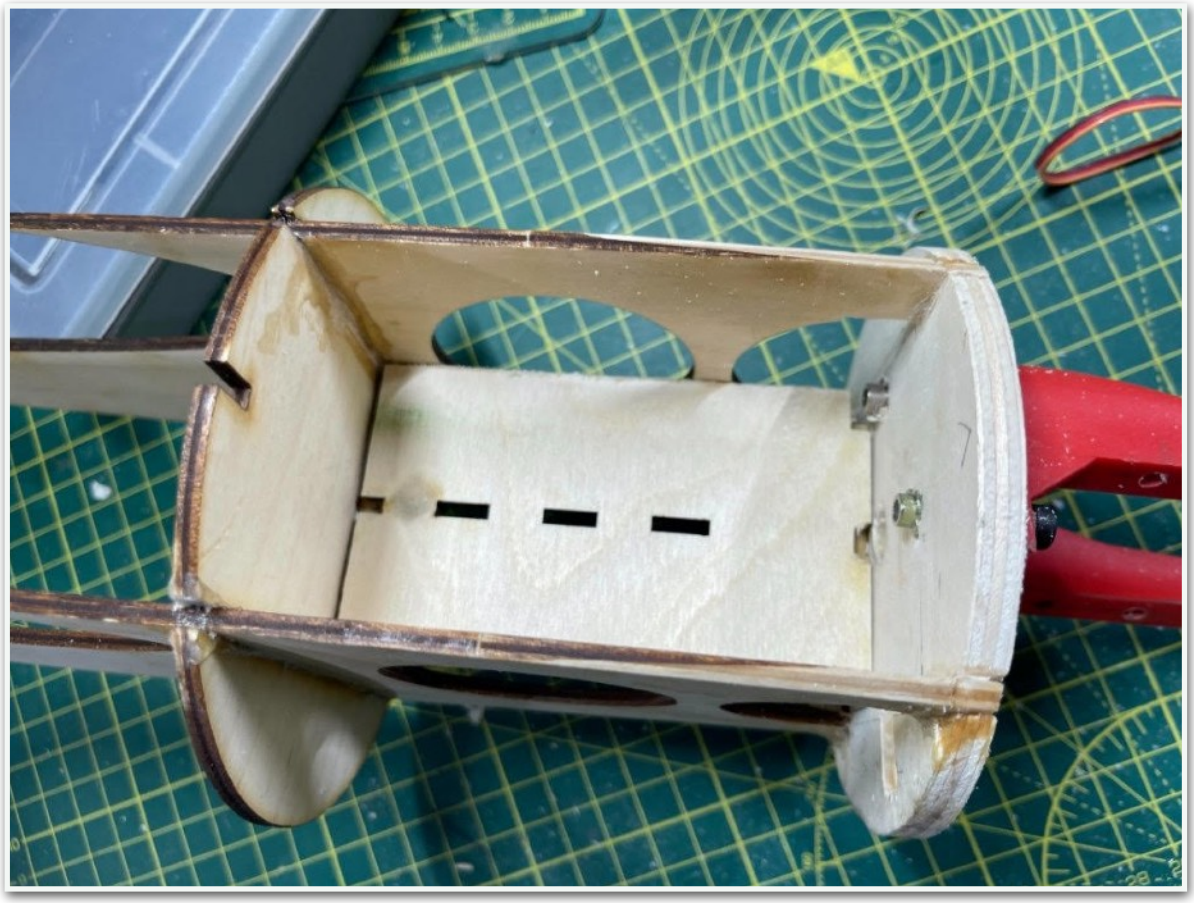
Whilst all that was going on I also assembled the tail feathers.

And these are the tip ends which will need to be cut and reformed due to my mistake in building the wrong model.

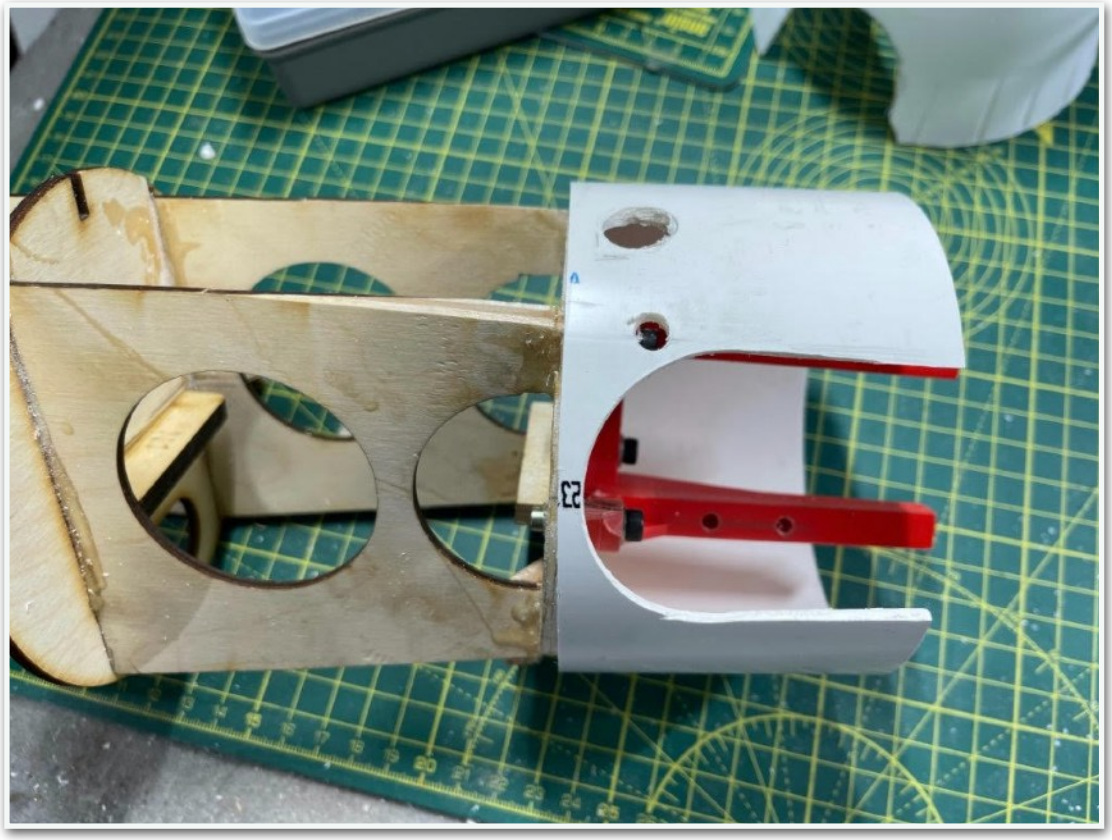
The problem when looking at full size photos is that you see all sorts of things! I noticed that the couple of full size ones I've been studying don't have elevator balancers at the tips, whereas Richard's kit has them. So I merrily went away and redesigned the tailplane and elevators. Later on this afternoon I downloaded a couple of books on the JU88 and having flicked through the pages I suddenly came across line drawings for the G-6 variant and guess what, it has balancers on the elevators.The model is the G-6 variant so I will have to adjust them back!



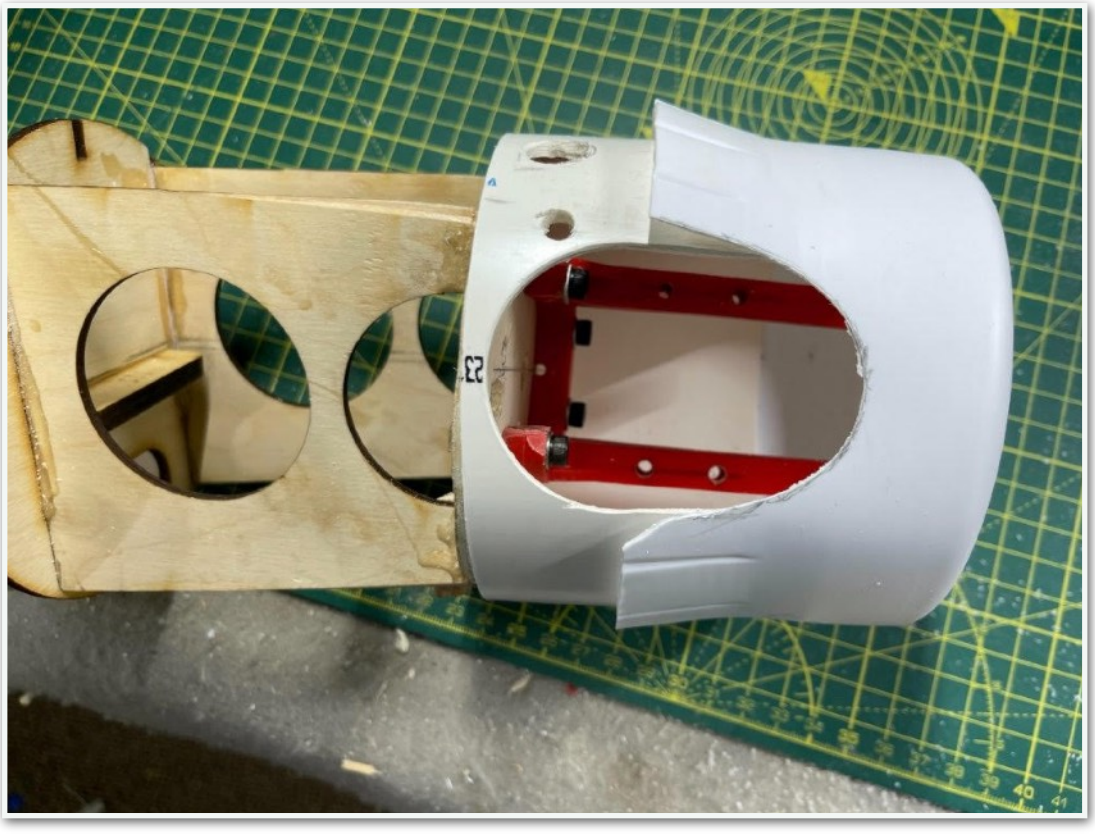
Tank/throttle servo tray added (screwed to bearers).



4" drain pipe cowl (thanks Richard) cut out for cylinder, main needle and fuel pipe.



Front cowl cut out for engine.



Loosely assembled: