



THE RATCLIFFE SPITFIRE P9503

Supported by The Leonard Stillwell Bursary and The Spitfire Society
THE WORLD'S ONLY SPITFIRE BUILT BY STUDENTS

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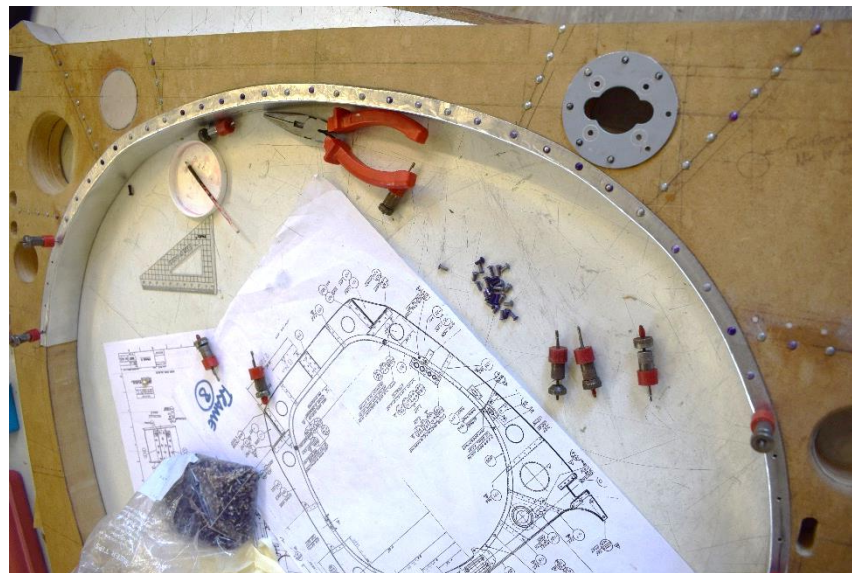


In this month of Remembrance, I would like to say how honoured all of us are to be involved with the project. To have a true link to such a momentous event in our world's history can at times, in the heat of working on it, be overlooked, but it is good to remind ourselves of what this is all about, and value the freedoms that we all enjoy as a result of the sacrifices from so many.

I have been extremely impressed with the start of this new year. In particular, I must commend our new intake of Year 7 students who, bar none, have come to the project with a level of enthusiasm and ability which has seen us push forward remarkably well; for a start to the year, this really is fabulous! We have regularly seen 15 or more students attending the sessions, so progress is happening, and managing each session is certainly keeping me on my toes, not a bad thing!

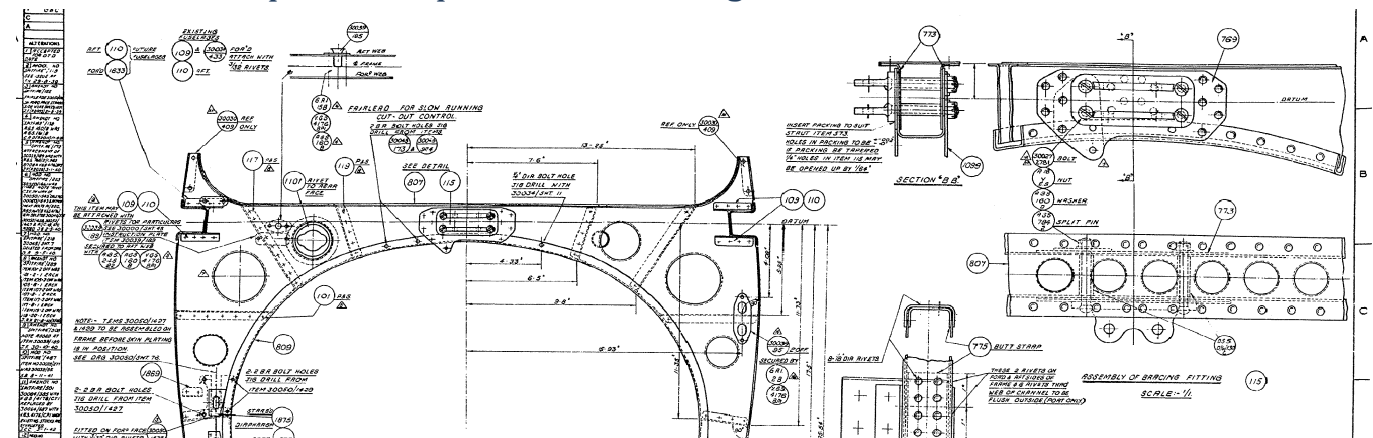
The Build

We have now had a number of sessions this term and, in that time, have made very good progress on two frames in particular. Frame 8, the instrument panel frame, seen to the right, has almost had all of the aluminium detailing finished on it. The senior students as well as the new intake have all enjoyed getting on with this work as it really does bring us tangibly



closer to completion, albeit one frame at a time. The skills involved include very accurate measuring, and subsequent cutting on the 1mm aluminium plate, careful bending around the MDF frame, followed by hammering to bring the metal to a tight fit, but crucial at this stage to avoid denting it. We have learnt that using a buck to transmit the hammer blow to the work reduces the risk of denting, and with shaped bucks cut from MDF we can help to stretch the metal around radii too. Adding the rivets requires the students to read the 80-year-old blueprints and work out which sized rivets are needed in any location. Holes are then drilled through

the metal after carefully marking out their exact locations. Before finishing the job, the metal strip needs to be taken off from the wood and filed down on the inside to remove the burring which would otherwise cause unsightly lumps in the work. Finally, after reassembly the rivets can be pushed into each hole with a dab of glue to secure them. Above is an image of a Mk1 cockpit at Frame 8, and whilst the datum longeron is rather in the way, it does at least give a sense of the level of work involved in getting all of the rivets and small metal plates on it. The flat section that follows the top line is yet to be done, together with a couple of small brackets to make, after which this will become our first completed piece. We will then apply two liberal coats of sealing preservative followed by a silver primer. Then the correct cockpit green colour, will be sprayed on, which will complete the illusion. All of the above needs to be done for all 24 frames that make up the fuselage, although it is only the frames within the cockpit that require that internal green, all others should be silver.



We are also working on Frame 11, (that the seat attaches to), and this is progressing almost as quickly, although there are a number of slightly more complicated brackets to make for that. As we are making two cockpits, that's a total of 16 of those, but one of our new Year 7's, Zoe, is quickly becoming a master at metal filing and bending!!



Since the last Bulletin I have received pictures of our fuselage jig, and I have to say it is looking quite impressive...and heavy. There are some minor engineering glitches to be ironed out, but it is essentially done – how exciting! Whilst it does break down into more manageable sections, it will nonetheless still take up quite some space, so while it will be amazing to have, we really do need to push forward on all fronts to try and secure the funding that we need to build our Education Centre. Speaking of which, I have had a couple of meetings this term with a number of interested parties. Together we are exploring new ways for us to reach our goal of building The Ratcliffe Spitfire Education Centre. If you would like to get involved, in whatever capacity,

please do get in touch with me.

The Simulator



Once again our new intake has also brought students to the project who are interested in the simulator aspect of our work. A number of them attend the Thursday lunchtime session where they are getting to grips with the program and the subtleties required to fly the Spitfire. I have to say, it interests me too; I love the challenge of the landing more than anything else. Getting the right speed and angle of approach, and lining up dead centre on the runway is tricky; darn lucky this is just a simulator and not the real thing, bend a prop, or as is more often the case, nose over and burn, and you quickly press re-set...phew!



Below is how most of my flights end...but the challenge is always fun!

