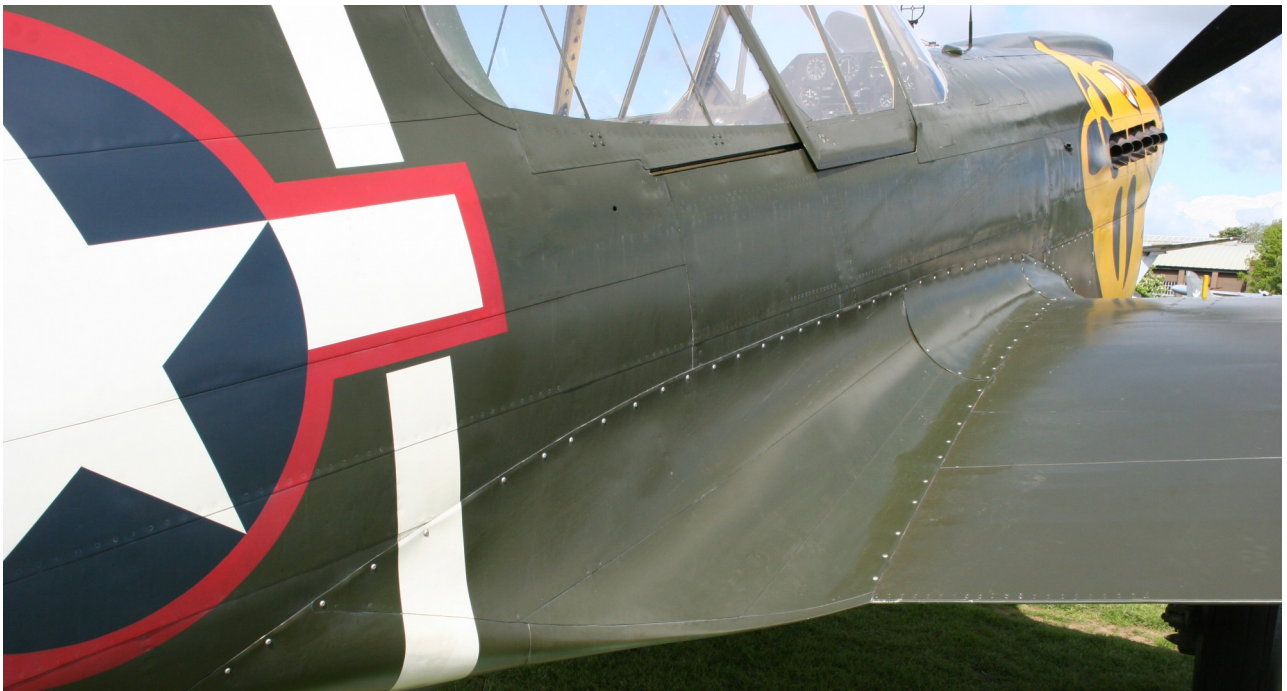


Building and Flying a Ziroli P40E Kittyhawk.... Instalment 5



Fitting the Wing:

One of the outstanding features of the P40 are the large wing fillets. The successful duplication of them on this model is a bit tricky.

I like to make them with the wing and fuselage joined as this gives me the chance to achieve a minimum gap at the join. I then remove the wing for the final shaping of the fillet.





The assembled wing and fuselage are set up on their datum line, which in this case is the basic fuselage crutch and then the wing incidence angle can be set using the **Robart** incidence meter at the wing root.

The ply profile is the base of the fillet but before planking and bogging the wing has to be mounted on the frame with the correct angle of incidence and at right angles to the centre line. The front wing mounting dowel has to be positioned accurately in the front frame and the rear bolt mounting points fitted, through holes bored and tapped. The wing is then bolted into its final position with two 3 1/2" x 1/4" - 20 c/sunk headed screws.



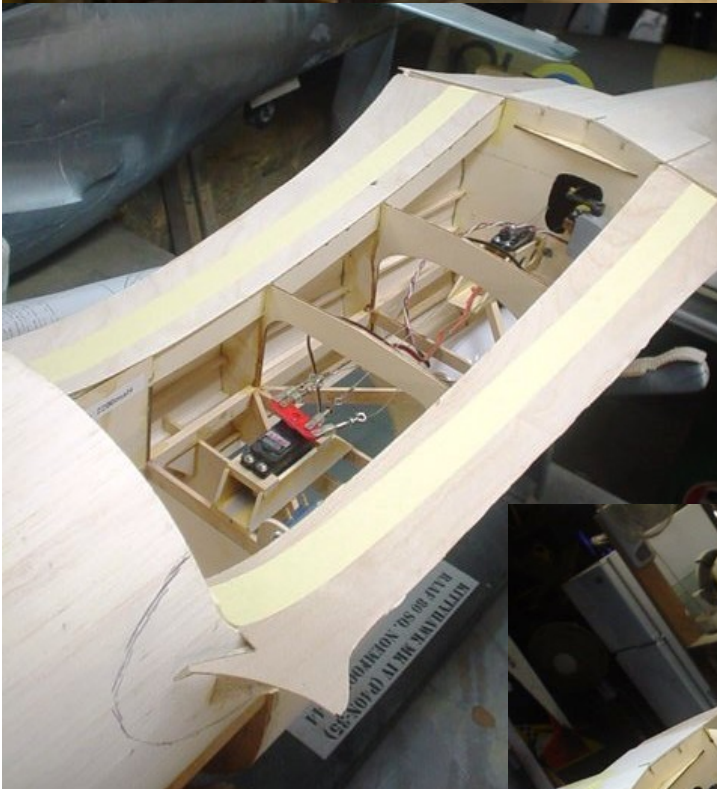
The wing is then bolted into its final position with two 3 1/2" x 1/4" - 20 c/sunk headed screws.

Setting up this way should give me a minimum gap at the fillet / wing join..



The fillets are marked out on the side of the fuselage and later I will apply masking tape to the line. After the rough planking is complete the wing is reattached with a line of micro balloon bog down the outer edge of the ply between the fuselage and the wing. A thick mix of laminating resin and micro balloon bog is then applied over the planking to join up with the bog squeezed out of the joint. I shape the fillets by sanding down to the masking tape previously applied to the fillet outline. After a fair bit of sanding I should end up with good fitting fillets. I should mention that before fitting the wing with the bog between it and the fuselage I cover the centre section of the wing with shiny post office packing tape so there is no adhesion between the two.





1). Rough sand planking to shape and stick on blocks of scrap balsa fillers in areas that require a substantial amount of bog to be shaped.

2). Mask underside and outline of fillets and apply a 1mm thick bog to the outside areas of the ply fillet base.





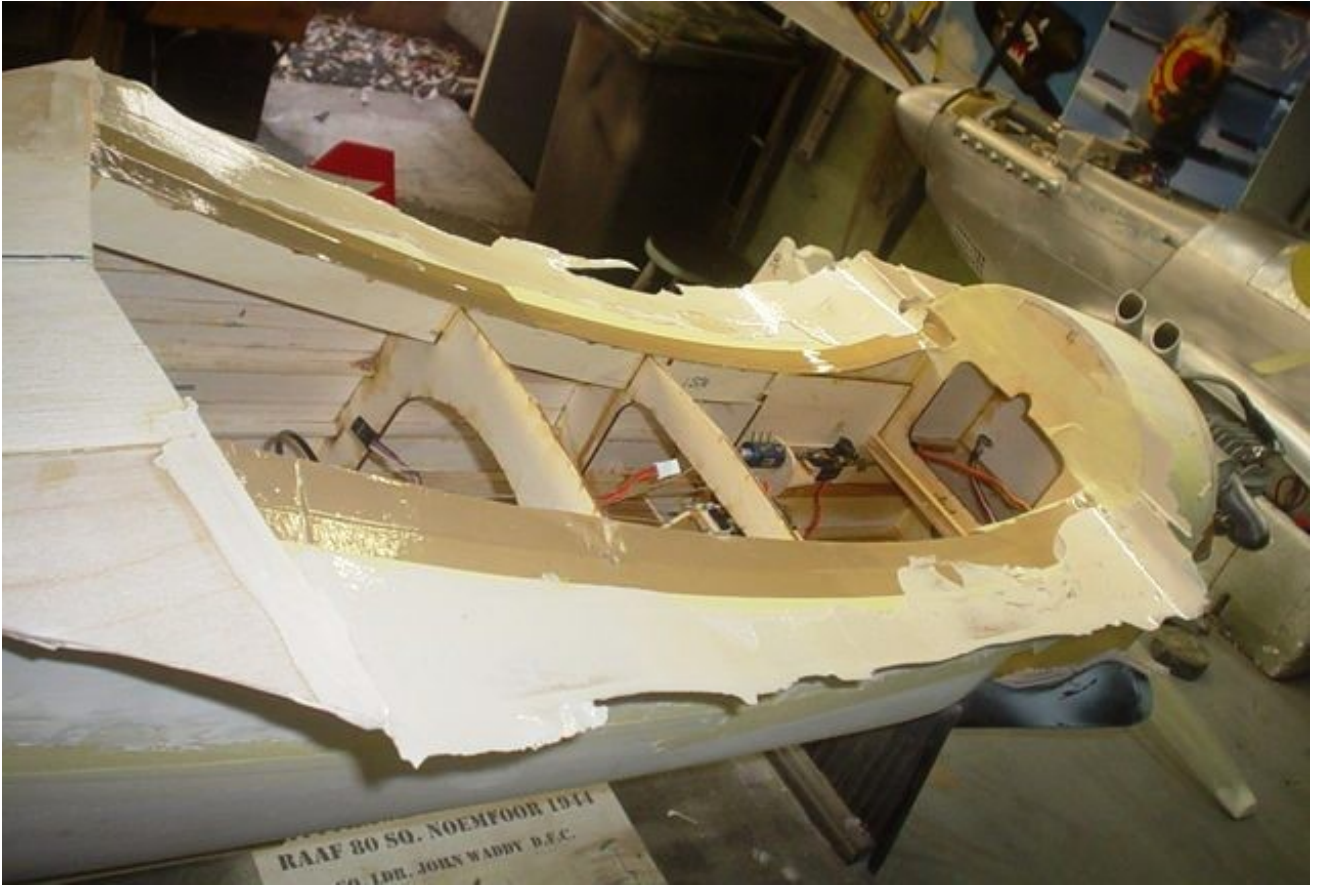
3). Tape top of wing to ensure bog wont stick and then fit wing, bog squeezes out of joint and meets bog applied over rough planking.





4) Top photo is of micro balloon bog build-up at front of fillet.

5) Fillet sanded to shape, masking protects planking when sanding.



6) Fillet ready for final trimming.





Fitting Stabiliser and Fin:

The plane was then set up on its lines and the stabiliser fitted at + 1 degree as per plan using the trusty **Robart** incidence meter at the stabiliser root.

Fin for the rudder came next and with the aid of two set squares was epoxied in place at right angles from the stab.

There is a rudder post running down the back edge of the fin to the bottom of the fuselage and will have to have a slot cut into it for the elevator horns and pushrod.



The stab fillet was created the same way as the wing fillet, micro balloon bog and then sanded to shape.



Finished tail fillets.....

Full size tail fillets...





The main micro balloon fairings are now all done and the only fairings remaining are the fibreglass fairings over the undercarriage and the large belly fairing that is fitted under the wing and fuselage. These will be glued to the wing with **Hysol** and then the wing re-fitted to the fuselage for the final fairing around the underside front of the wing root and the edges of the undercarriage covers with the usual bog.

I am going to try to hide the main on/off switches and the retract inlet valve within the under fuselage fairing but their isn't a lot of room ...We'll see.....

Next riveting episode will cover some more assembly, wiring and plumbing.

See you then

Cheers

Stan