Home Page	**How to Build an OT R/C-Model**	**Mon, 17-May-2010**

Building Tips and Tricks 2 of 4

by Tandy Walker

Layout and SAM Site Integration and Editing by Web Master Ned Nevels

(material provided by builder Tandy Walker)

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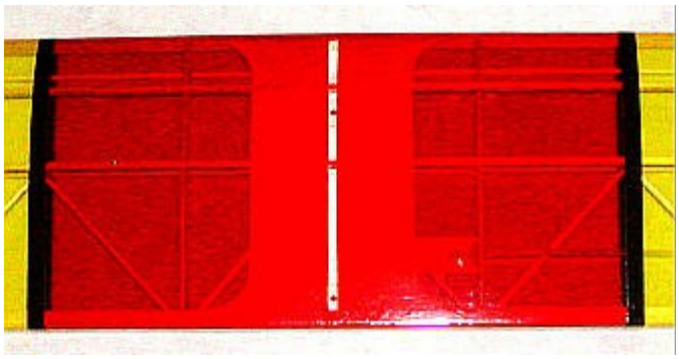
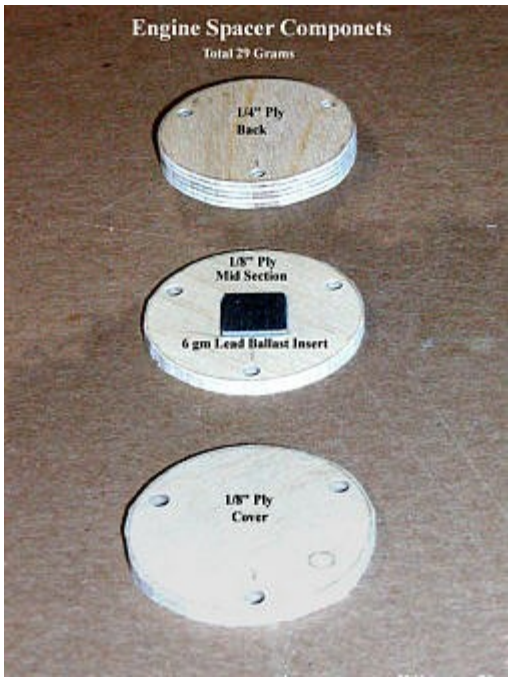


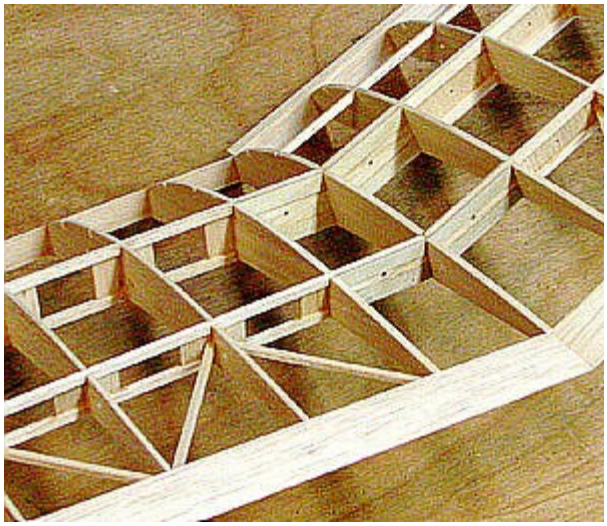


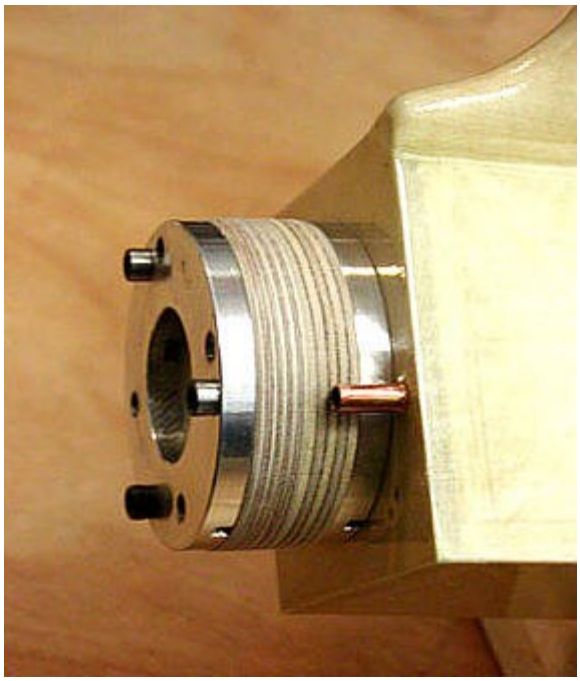
Well, as usual, things never work out the way envision them. I cut out the fin slot on the the stab (picture 1 below). However, when I got t completely assembled, I once again encounte friend "Tail Heaviness", which put me way bel schedule to finish up yesterday.

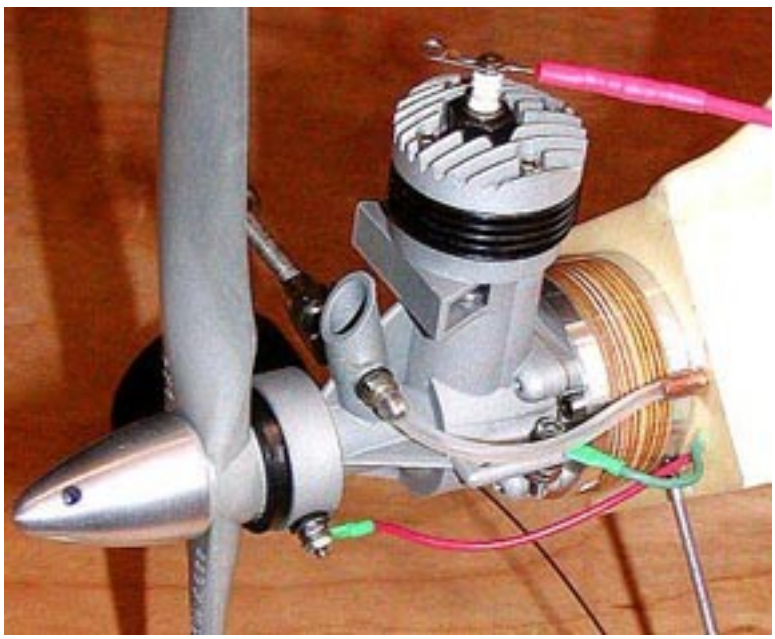
For the required 10 oz wing loading, the minir for the 414.55 sq.in. Class A Bomber is 28.29 816.15 gms (my Acculab scale resolution is or With the Bomber completely assembled and a installing an APC 9 X 4 prop on the Shilen Old with a Fox solid aluminum spinner, it only wei grams, which was under weight by 29 grams. out 29 grams of lead strip and placed it on the The weight was exactly the required 816 gran bad news was that the C.G. was too far aft. Tl only one thing for me to do at this point. Mov forward and that is what caused all of the dela

As most of you know, moving the engine forw the C.G. dialed in at 50 % at the minimum 81 weight is an time consuming iterative procedu is no good place to start! To spare you the de the iterations I did during yesterday and this will cut to the chase and give you the bottom plywood to make up a laminated 1/2" spacer lead insert inside the spacer. The spacer's tota was 19 grams (see pictures 2 and 3 below). I second 10 gram Shilen radial mount against t to mount the landing gear, which with the spa provided for the required additional 29 grams achieve the desired total weight of 816 grams arrangement moved the engine forward the w second Shilen radial mount plus the 1/2" spac magically trimmed the C.G. at the desired 50 The last picture below shows the trial fit of the spacer sandwiched between the two Shilen ra

Now, I will coat the plywood spacer with epox set up over night. God, what a Kabuki Dance been!.



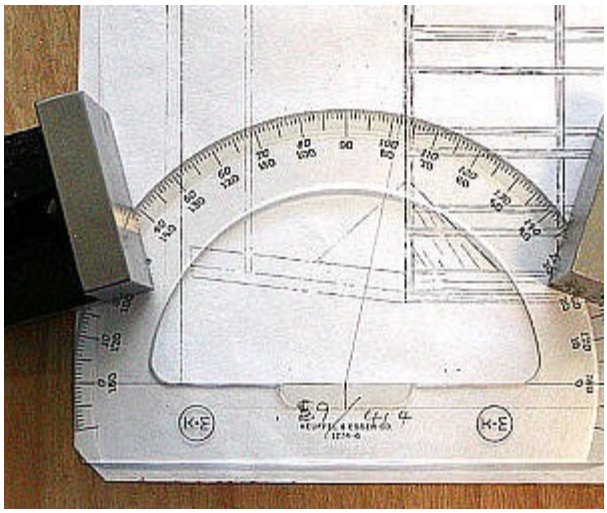


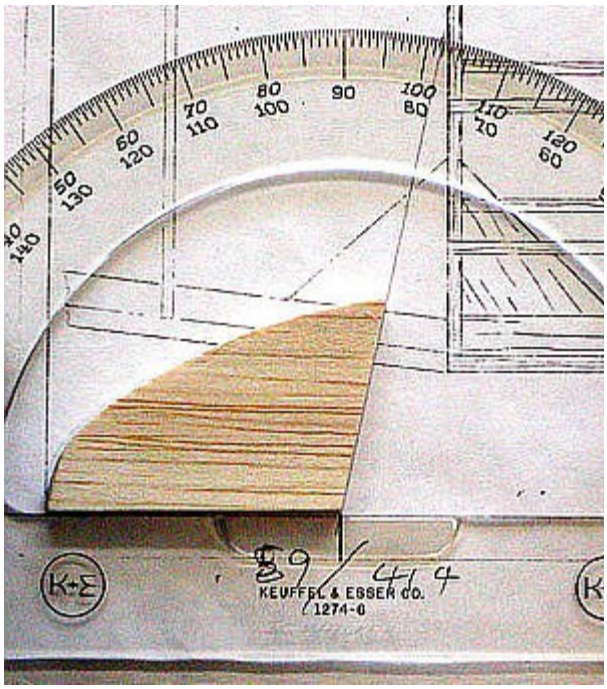


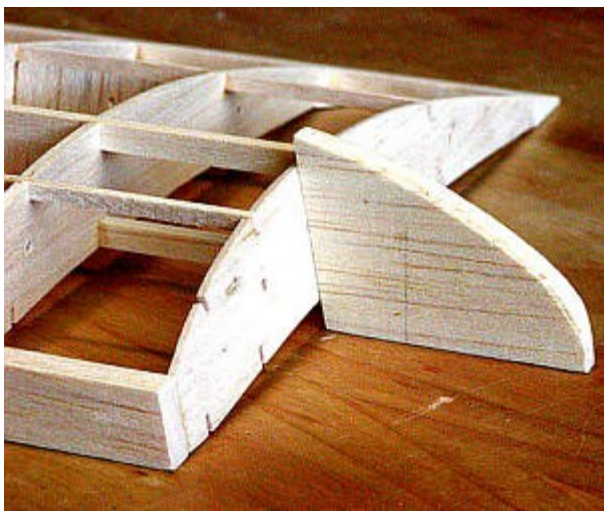
A modeler responded: OK, I give: how do you sand wood to 11.76 degrees? Hell, I can't even prop 'em up and glue 'em together to get 23.52 degrees very well. My guess is that the designer just said prop 'em up to 3" or whatever. Grins,.....Name

You got me, at least on the .01 degrees! I calculated the tip dihedral to be 23.52 degrees. I wanted the dihedral rib to split this angle, so the center section tip rib needed to inclined 11.76 degrees (a calculated number). Taking 90.00-11.76, you get 78.24 degrees. I went to the bottom of the wing plan and drew in an angle of 78.25 using my K&E protractor (see Picture 1). Your right, the best I could do was 78.25 degrees, by splitting the two division lines, which is .01 degrees too much. Then I cut a 78.25 degree template out of 1/4" balsa (see Picture 2), I used this template to jig the angle that the tip rib was glued in at. Once this was dry, I trimmed the spar, L.E., and T.E. tip over hang and sanded the edge ribs until every thing was flush and rechecked the tip rib angle with the template. (see Picture 3).

The truth of the matter is that the resulting angle is probably somewhere between 11.6 and 11.8 degrees, which is close enough for gluing purposes. My requirement was to get the angle of the ends of the spar, L.E., and T.E. as close as practical. When the tip panel is glued to center panel, angular measurement will not be used. Instead, a jig will be built to elevate the wing tip to the correct vertical or rise dimension. What little angular differences there are in the end joints will compensated for in the gluing process.







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