

Construction Notes for kit FFP02 Wasp by Dan Rhinehart

To start off with, the engine on my airplane is a Bunch .45 (reference enclosed pictures).



The engine mount is a K&B stamped steel two piece unit that I bought at a MECA swap meet. The wheels are off the shelf Trexler Airwheels. I think they are 2 1/2". These are currently in production and available through Penn Valley Hobby Center in Pennsylvania or on the internet.



Now for the "fun part": the C.G. and structure of the tail. The tail was built as a unit (rudder and stabilizer). The tail is held in place by rubber bands coming off a dowel in the front and wire hook in the back which allows the DT fuse to burn through the aft rubber band deploying the DT. This part should show in the enclosed picture and is pretty much done like all other DT pop up tails. The real challenge was the aft fuselage which is so thin at this point.

I used the two bottom longerons as per plans. The sub-rudder attaches in the same way listed in the plans and uses a wire tail skid. The stabilizers then rest upon the "wedge" between the bottom of the stabilizer and the top of the bottom longeron, just like in the drawings. The challenge was the fact that by using a "pop up tail" that the top longeron could not be used and a structural weak spot develops in the fuselage at the point it meets the leading edge of the stabilizer. In a nutshell, I used solid 3/16" material to gusset in this weak spot.

Now with that said, all that structural "beef" in the tail caused the airplane to be tail heavy. I would look to find a lighter solution than the 3/16" gussets I used. It is likely that to deal with this issue you might consider extending the nose out about 1 1/2" to get the weight of the engine further forward of the CG. The CG is about 40% to 50% aft of the leading edge of the wing.