

Spring 2011

EAA240



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The complete newsletter can be found on this website:
www.EAA240.org

Rotec would like to thank Chuck for the kind words expressed in his article.

CHUCK'S STORY

My imagination always did run rather wild. I recall at around 12 years of age, my brother and I sat up late one night fanaticizing about building an airplane and using a Chrysler Hemi engine for power. Well, correctly guessed, that never happened! However, I did start a Steen Skybolt project in the early 80's. But yet again, my imagination was too much of a reach and home and family brought me back to the reality of my life as with most aviation passionate nuts. But as life's requirements became easier to handle and less intrusive, retirement and what to do in retirement began to fill my mind with the old fanaticizes of building my own aircraft.

As I searched the web for "what to build", several aircraft caught my fancy however, a decision on which to build continued to elude me. I had narrowed the choice to a Flybaby or the EAA Acrosport II when out of the blue, the Spacewalker and Neal Dutson's Security web site was discovered. It was perfect. Low wing, tandem two place, open cockpit with a removable cantilever wing. Now, my imagination was in overdrive. Martin Hone's example of the Spacewalker with a Rotec radial set my passion on fire with how to get started.

I secured a set of plans, purchased some common wood and started making big pieces into smaller, detail parts to see if I had the art of producing items with any kind of accuracy. Well, half way through making an Aileron,

I decided that I was wasting my time with pine wood. Accuracy and skill was just a matter of taking your time and double or triple checking every measurement. No problem there. Real aircraft wood and other required supplies were procured and the Aileron was started again. Then the other Aileron, then the Ribs, then a Spar, then a center section Spar, and before I

knew it I have most of the wing wood items manufactured.

The Ribs were routed out of 1/4 inch Finnish Birch plywood. I was lucky to have a friend at work with knowledge and access to an NC router and together we made masters of the several different ribs required. There were all basically the same shape but some had different cut outs for different metal fittings. Four alignment pins were established on the masters and when mated with a blank piece of plywood, routing the was very easy. With a little edge sanding, the rib were complete. I even modified the master a little bit to route the wing walk ribs.

The spars were a bit more complicated but with my completed rib experience, I was ready. The largest issue was finding enough clamps to hold the Spruce together while the T-88 epoxy was curing. After cutting, sanding and shaping the wood, practice clamping, the "real deal" was glued up and left to cure. Another challenge in the wing building, was the 4 degree dihedral necessary for the center section front and rear spar. A wood steamer was built from 4 inch PVC and a steamer used for removing wall paper. It worked well for the small number of parts that were required. Slowly, the small detail parts grew into the spars

The planning for the metal work was always in the back of my mind. I had some limited welding experience years ago but was sure the quality was not something to bet your life on. Practice is the key. With some scrap pieces of 4130 Chromalloy tubing found at our EAA Chapter hangar, and a borrowed gas welding set up, I started welding. The end product was the most God-ugly looking joints that would never be referred to as welding. Boy, did I need a lot of practice! As my welded joints became better, I took steps to build a fixture,



buy most of the required tubing and start on the fuselage. Today, February 2011, most of the basic frame is welded as is the elevator, horizontal stabilizer and fin. Landing gear and Rudder fabrication are next.

It was in about November of 2009, after researching as much engine information and specifications as my mind could tolerate, I selected the Rotec R2800 for power. Emailing request for information to Martin Hone and his responses convinced me the Rotec, 7 cylinder, 110 horsepower radial is the best choice for the retro look that makes the Spacewalker so appealing while making it possible to build in the light sport aircraft category. I contacted the Rotec folks around February or March 2010 and was pleased to find them very willing to push a delivery of the R2800 out to Oshkosh 2011 and an order was placed. Today, after a year of email and conversations, I still find doing business with the folks at Rotec a great pleasure and something I would recommend to anyone considering a Rotec radial for their project

My current goal is to have the fuselage ready for trial installation of the Rotec in late summer or early fall 2011.

Chuck Shipman, EAA240 Hangar Manager