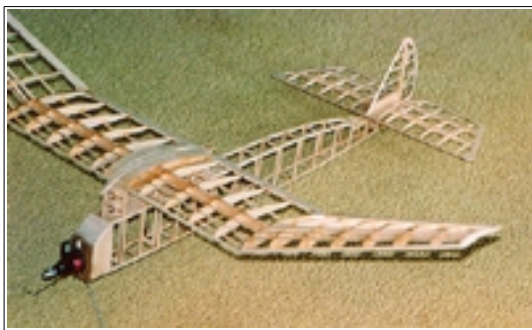


Don Bekins – Build a Red Ripper



B&W Models Red Ripper: I t's a Great Flyer! Ugly? Maybe,--it's all square, strange looking stab, and has a humpback. But envision what the wind sees as it flows over the wing and tail in flight. The wind sees almost exactly what it sees in a Lanzo Bomber, one of the most popular and best flying antique models. The wings have similar dihedrals, planforms and efficient airfoils. The tails have large, lifting stabs. The moments are similar, giving both models great stability. Both the Bomber and Red Ripper have a minimal amount of cross section and wood in them. And both are relatively easy to build and to keep under minimum weight. This airplane is a sleeper, and may climb to the top of the competition results when discovered.



The Kit: Bob Hartwig's B&W 1/2A Models, Ltd. asked SAM Speaks to re-view their new laser-cut 1/2A Texaco Red Ripper short kit. On opening the box, I was surprised at how few curved parts there were in the kit. The Red Ripper is truly a square model. The laser-cut ribs and firewall were clean and accurate, but as usual, with laser-cut parts, the edges have a brown-ish tinge to them which can be lightly sanded out. The only inaccuracies in the wing tip ribs were the slot locations for the spars--they did not line up exactly, giving the spars a wiggly look when assembled. Of particular note are the laser-cut parts for the pylon. They are intricate and fit to-gether exactly like an erector set. Impressive. Included with the kit is a copy of the original published article by Jerry T. Peeples, which is instructive and helps to interpret the rather sparse plans for the reduced size 1/2 A Texaco version. Neither the plans in the article nor the 1/2 A plans show the location of the CG, which came out to be just about 50%, or just slightly back from there. The 1/16 bent wire gear is OK, but does not accurately follow the plans. However, the gear should be made from slightly heavier piano wire, as it seems to lack the stiffness needed for hard landings. The wheels included with the kit are superb, with light but solid plastic hubs.



Modifications: When I framed the Ripper, I decided I would make the model dual purpose--both 1/2 A

Texaco and Class A ignition. I made a removable firewall that would actually fit two engines: the Cox Texaco engine and the Elfin 2.49 diesel. The 2.49 was mounted with shims to give it 5° downthrust, whereas the 1/2 A engine has none. I mounted a 1 1/2 OZ. Perfect tank on the back of the firewall, and made it removable when flying with the 1/2 A Cox engine to save weight. I then glued fuel line and filler tubes through the firewall for the diesels. For the diesel fuel shutoff, I used a positive actuation OS-type shutoff, actuated by a micro servo, via a Dubro flexible wire cable. You may ask, "How can you adapt two engines of such different size and weight to the same model?" Easy, the minimum wing loading requirement for 1/2 A Texaco is 8 oz. per square foot and the loading for LER-type events is 10 oz. per square foot. With the Red Ripper, these minimums can be obtained for both events and the CG easily adjusted because of the long pylon. The wing can be moved fore and aft on the pylon and keyed to shift the CC back and forth and maintain the 50% CC location. For the heavier diesel, I located the Rx battery in the bay behind the pylon with a hatch in the bottom of the fuselage. The micro servos are located just behind the center of the pylon with receiver just in front of the servos. Using the Cox 049, the Rx battery is velcroed up front, right at the firewall in place of the Elfin tank. The wing location for the Elfin is right at the front of the pylon and for 1/2 A is at the back of the pylon. The wing loading for the Elfin came out right at 10 oz. And the 1/2 A configuration came out right at 8 oz., utilizing micro servos and a 110 mAh pack. In order to have removable tail feathers, I shaped a 1/16 plywood platform glued to the back of the fuselage and four 2-56 screws to secure the stab. I covered the model with Polyspan, doped with nitrate and trimmed with Super Pox. My computer created the Red Ripper graphic and AMA numbers which were cut out of Monokote. Then the whole model was sprayed with a coat of clear Super Pox to provide fuel proofing. I use black underside of my wing and tail tips for improved visibility in all types of sky conditions. The black & white contrast shows up against clouds, deep blue sky or hazy sky. The top and bottom covering need to be semi-transparent in order for the light to glow through the underside center sections.

Flying: Both the 1/2 A and Elfin powered configurations flew right off the building board with almost no trim corrections. Even though there is about a 4.5 oz. difference in weight between the versions, the Ripper had a superb flat glide with hands-off directional stability, just like a Bomber. And the model could be easily controlled with trim alone. Under power, the Elfin-powered Ripper had an almost vertical climb, and because of the 5° downthrust, was nearly hands-off in the climb. A superb flying model. Congratulations, Bob Hartwig and B&W Models, on creating a fine partial kit and making the Red Ripper available to the modeling world in the 1/2 A Texaco and full sized 72" versions.