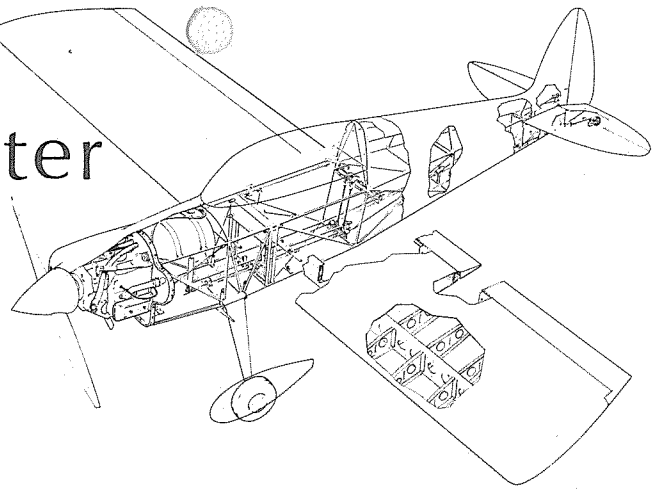
sonerai I&II newsletter



Fall/Winter, 1979

Dear Planholder,

Merry Christmas and Happy New Year!

Looks like we'll be making this newsletter a twice a year thing. We now have 413 sets of Sonerai I plans out and 815 Sonerai II plans out. The cost of printing and mailing a newsletter is getting expensive for this quantity. Should we ever have any sort of an emergency message or A.D. to get out, we would not hesitate to make a special mailing to those affected.

As a follow up to last summer's newsletter, there has been no further development on the low wing version of the Sonerai II. Much as I have personally pushed John at times to complete it, there always seems to be something more important to do at the time. I must admit the projects that have taken precedence, rightfully have been more important. Another problem we have, even more than the lack of time, is the lack of space. If we had enough room to have the low wing Sonerai set up, I'm sure John and Pete would find time now and then to work on it, but such is not the case. Have faith, someday it will be finished, hopefully in time for our children to build it.

Also as a follow up to the last newsletter, there have been no further developments on the longer 76 mm crankshaft. The one and only one we have in John's Sonerai I has been working just fine. We have had absolutely no problems. He has flown it 50-60 hours so far. The status now is we are at an impass with the O.E.M. supplier of the V.W. crankshafts as to how many must be made as an initial run, and how much they should cost us. If there are any changes, we will let you know. We have a file of those that have expressed an interest.

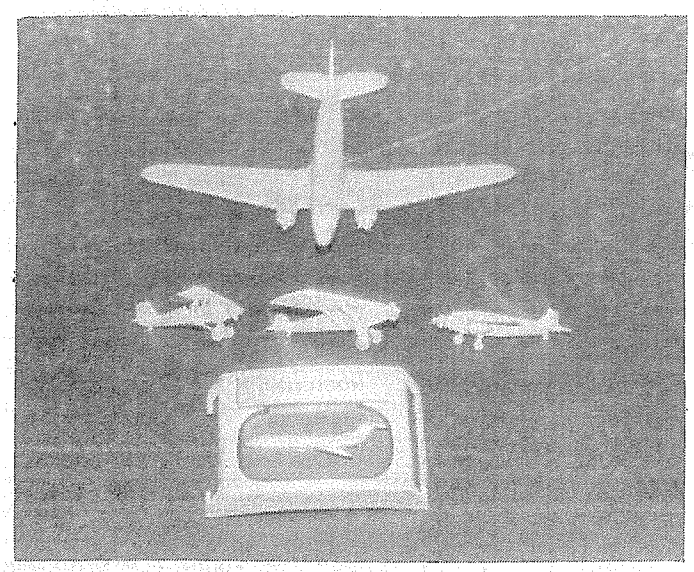
NEWS NEWS! At long last we have finally completed the Sonerai Owners/Pilot Manual. This project was started years ago by the first Sonerai II builder, Mel Lamb. It is patterned after the newer Cessna and Grumman manuals in that it will come in a vinyl covered three ring binder. It will be professionally printed and the pages will be separate so they can be removed to use or replaced if and when they become outdated. It will include sections on: Operating Check List, Description and Operating Details, Emergency Procedures, Operating Limitations, Care of Airplane, Operational Data, Electrical Wiring of Aircraft and Basic Performance and Specification List. Included in these will be weight and balance graphs along with performance charts and graphs. Cost is $20.00.

There is a new book out, *Homebuilt Airplanes* by Peter Garrison. He is the designer/builder of Melmoth and a writer for *Flying* magazine. The photography is just super. As the Sonerai is included, we have written the publisher and have secured a quantity of these books for resale. The price is $7.95. It has a photo of the Dyke Delta on the cover.

While we're talking about books and write-ups on the Sonerai, we have been told the article in *Playboy* magazine on homebuilt airplanes is still scheduled to be published and should run this spring. When the American Airlines DC-10 crashed last summer here in Chicago, among those killed was Sheldon Wax, *Playboy's* chief editor, his wife and several other staff members. Their loss to *Playboy* was substantial and threw publication schedules in a turmoil. The only thing I can say is we'll just have to keep reading it every month until the article comes out. Who knows by then our wives may be used to having it around!

We have been talking to a company that specializes in making Peuter Miniatures, about making some for the Sonerai I and II. They make some super detailed desk models that have 8 inch

wingspans with a stand and real walnut base. They also make tie-tacks and belt buckles. They are willing to work with us to develop the molds and patterns for the Sonerai's if we feel there would be the interest. The desk models would sell for $35.00. These would be super detailed and just like the ones you see advertised in the magazines for the airline jets at $70.00 to $90.00 each. The belt buckles would sell for $16.00 and the tie-tacks for $10.00. Both



Peuter models. Large desk model at the top, tie-tac pins in center and belt buckle sample. The name Sonerai I or II can be put across the top.

would be three-dimensional and have excellent detailing. If you would be interested, please drop me a note so we can decide if we should go through with this. Lead time on the desk models will be two months for initial orders if we decide to do this. Ladies, these would make excellent gifts.

While we are running out of room in our building, we feel we are getting more and more efficient and getting orders out faster. We still have problems with the landing gears but there is no easy solution because of their special nature. For a while this summer chrome-moly tubing was a little problem as the one main mill was closed because of a labor strike. Another item we've had long delays on this summer, has been our ready to run engines. Our supplier went through some large expansion at their plant and as a result, got way, way behind on shipments, and then the engines were sent incomplete and it's taken us much longer than we anticipated to get it straightened out. In the future now, we hope to be able to get engines out in five weeks. We are truly sorry to those of you that have had to wait and hope you can understand the delays were out of our control. We are very picky with the parts that go into our engines and while our rejections may cause further delays, we feel it is worth the wait to make the engines right the first time. We are on top of this now.

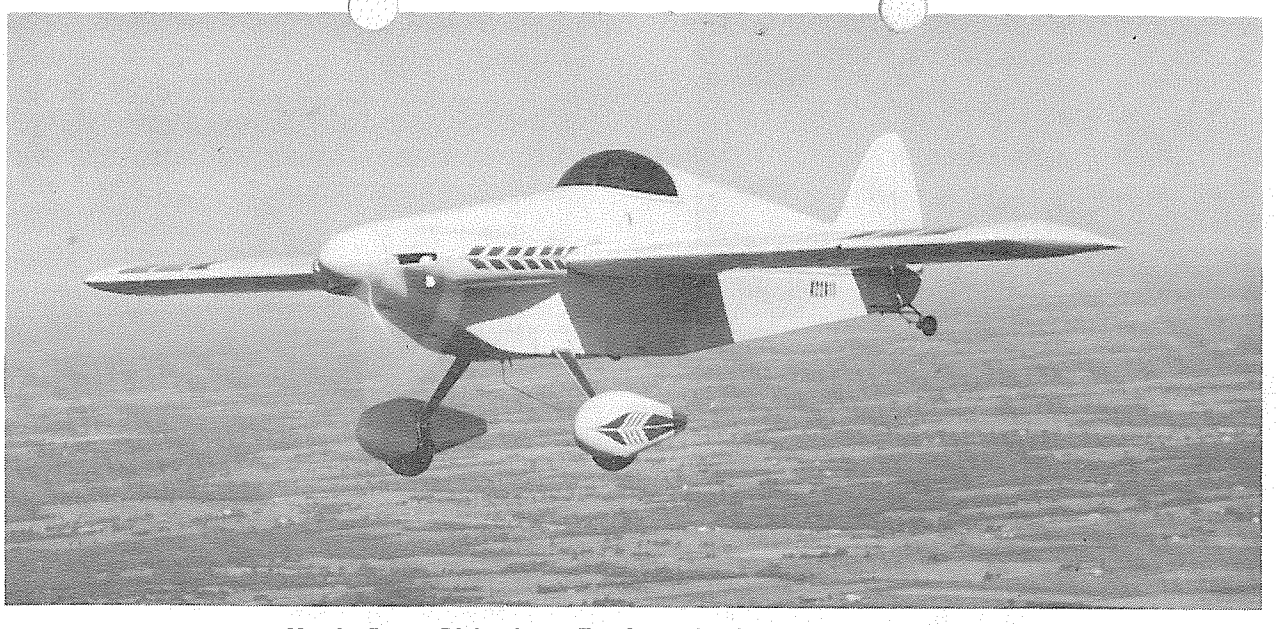
In order to operate more efficiently, we have added another full time employee. He is Bill Schaben. Bill is a pilot and owner of a Cessna 120 with an 0-200 in it. He comes to us with an extensive background in accounting and inventory control. He is gradually getting us in shape.

For those of you that bought plans a year or two ago, but have not started construction yet, there is no time like now. Prices will never be lower. Like everything our prices have gone up also. We have strived to keep the increases to a minimum and are proud we have been able to keep them somewhat below the general inflation rate. There have been some large jumps in raw material prices, but in most cases, we have not passed on the same percent increase we have experienced. Our latest catalogue is dated October '79. We are not including one with this newsletter, as the catalogue alone costs .41 cents to mail and not everyone would want one now. If you do want a current catalogue and price list, just drop us a note and if possible, include a buck.

In an effort to save both you and us some stamps, here is the current information on the pre-welded fuselage frames. The current price is $1,810.00. To order write Ron Wagner, R.D. #3, Box 301 B-2 Slippery Rock, PA 16057 (see there is really such a place!) or call him at 412/530-7366. To order a pre-welded fuselage Ron needs a deposit of $680.00. Ron has also put together a set of sheet steel parts for the Sonerai's. Purchase of these parts will eliminate the need for a bansaw or shear. There are 63 pieces in the kit. It is available for $125.00 which includes the material or $85.00 if you send him the flat stock from your fuselage kit. For further details, contact Ron.

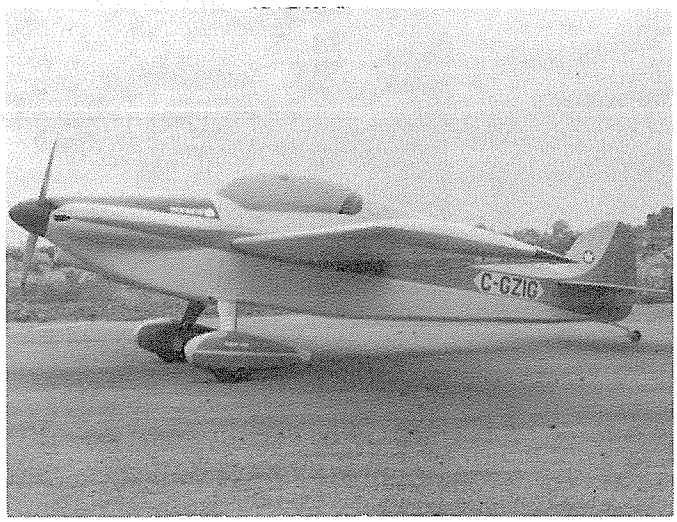
I do not know the exact number of Sonerai's flying now, but there has been quite a few that have made their first flights this summer and fall. I would guess there are around 140 to 150 Sonerai I's and II's now flying. There are Sonerai's flying in six foreign countries. While the Sonerai turnout at Oshkosh was less this year then the previous year, the overall homebuilt count was down. The weather at Oshkosh wasn't too bad, but to the south, just south of our Chicago area there was a front that just stayed there all week and cut off a lot of hopefuls. John, Vance Graeber and I flew up on Friday through some just terrible weather. If we were not so familiar with the area, we would not have gone. We expect a much larger turnout next summer and will have special awards for everyone that shows up with a Sonerai. More about this in the pre-Oshkosh newsletter.

We have been getting more photos of completed planes, but we barely have photos from half of those of you that are flying. Come on now, how about a nice color photo. If at all possible, include one of the

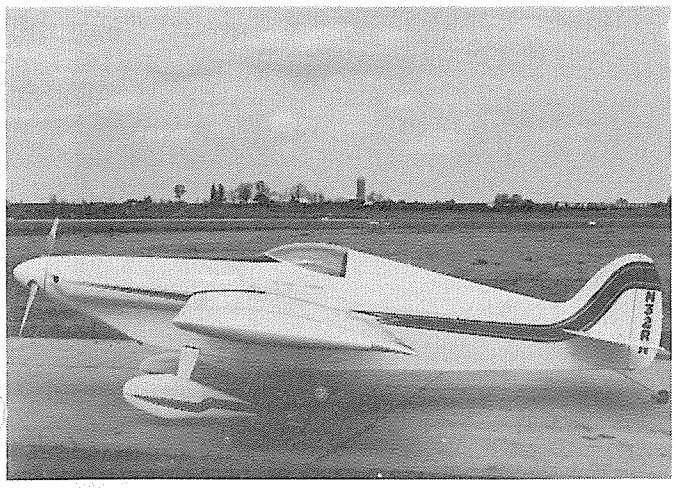


Marvin Brott, Richardson, Tx. Sonerai I Serial #251, N22611. Started June, 1974. First flight, October 7, 1978. 1700 cc V.W. Best Auto-powered Oshkosh, 1979. 1979 Best Sonerai I.

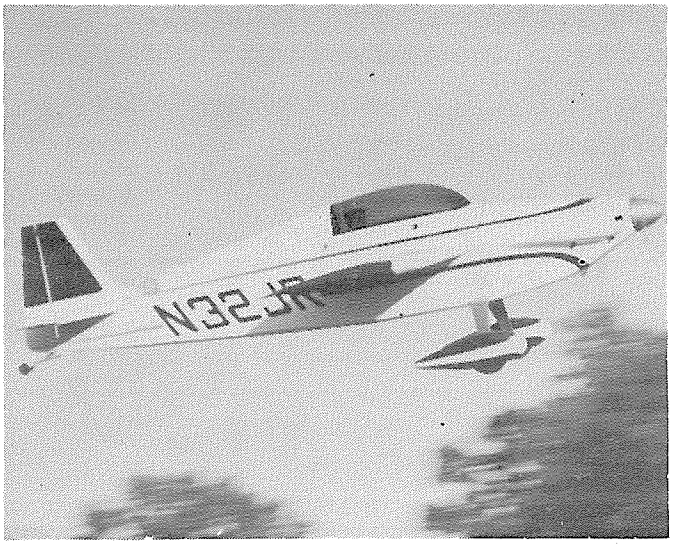
Sonerai II 78ES made by Edward J. Sterba, 106 Center, Fox River Grove, Ill. Test flight; November 25, 1978. Construction began April, 1977. Building time approx. 1000 hours. Engine 1850 cc V.W. 5244 Rehm prop. 1979 Best Sonerai II



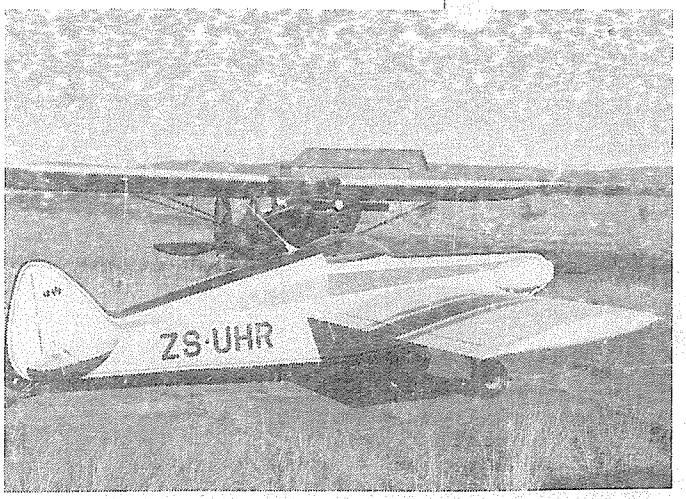
Zig Berzins 658-39 Ave. LaSalle, Quebec, Canada, H8P-2YP. 1978 Best Sonerai II



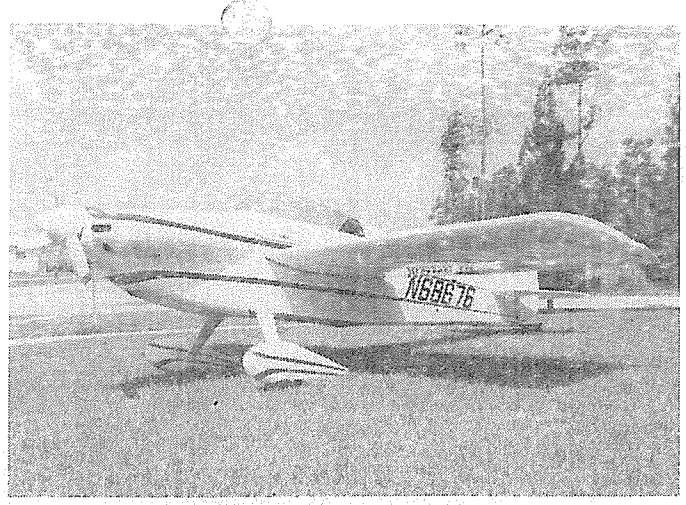
Ralph Koger, 1947 W. 1st Extension, Boone, Ia. 50036.



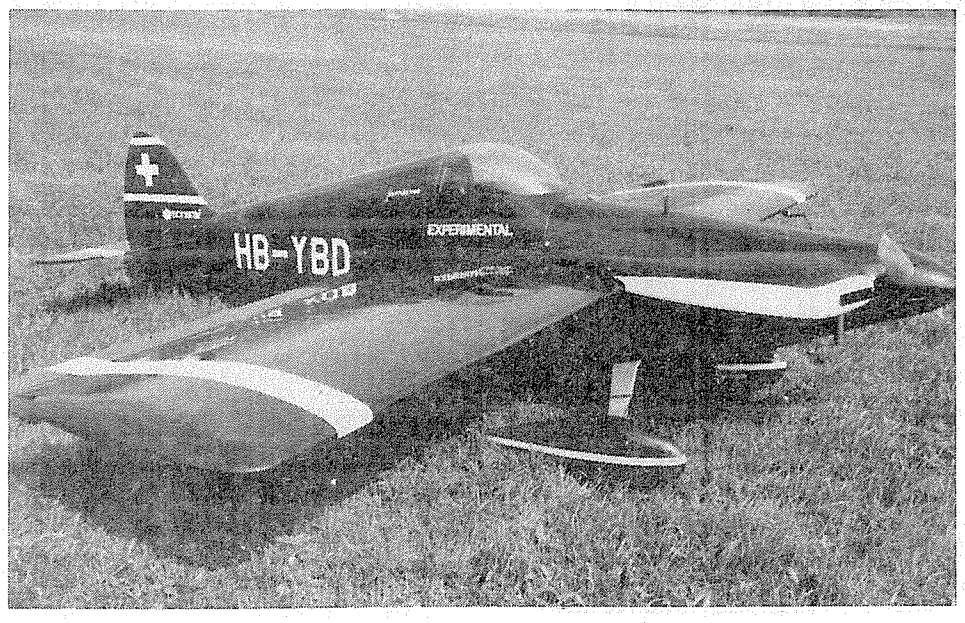
Jim Rollow, 347 Cullom Street, Clinton, Tenn. 37716.



Dr. Von Moltke, Box 94 Kuruman Republic of South Africa.



Neal Nicholson, 10881 SW 128 Street, Miami, Fla. 33176.



Ulrich Nater, Grand Rue 21. 2316 Les Pont de Martels, Switzerland.

Sonerai I and II being towed home from a Mail display.

cockpit and instrument panel. It is always nice to see how the other guy did it, and the builders that do get by the shop here and up to Oshkosh really like looking at the panel photos from the few that we have.

Tips, Hints and Facts

1. There seems to be some confusion on the length of the motor mount bolts for the Sonerai II. The size is AN6-60A. These are 3/8 in. bolts, 6 in. long. Use some 6 in. hardware bolts when you are welding up the motor mount bushings. There has been several fellows calling saying they need 6-1/2 in. or 6-3/8 in. bolts. In an AN6 bolt when you get over a -60 (6 in.) the selection gets slim. The next size we are able to get is a -64 (6-1/2in.) and there is a quatum jump in price. In summary, make the 6 in. bolts fit.

2. While there is no one best way to mount the cowling, and no materials are included in the hardware kit, here is how we have been doing it. We use a 3 ft. piece of 1-1/2 in. piano hinge down each side (see photo). It is mounted with AAC-44 rivets, approximately 2 in. spacing. Where the piano hinge is attached, the fiberglass flange on the bottom half of the cowl will have to be removed. We attach the rear of the bottom half to tabs welded to station 29-1/2 (on Sonerai II) with 507-832-R10 screws (4 on each side). These will go on with 3125-017-24 flush finish washers (photo 1). The screws will be retained by NAS 680-A02 plate nuts, riveted to the tabs with SSC-32 pop rivets. We use the same set up with a screw on each side of the lower cowl into the firewall and under the cowl check into the firewall (photo 1). The top cowl is attached to the bottom cowl with the piano hinge, and the same 507 screws. The screws are placed on each side of the air inlets (photo 2) and at the very rear of the cowl to tabs just ahead of the instrument panel (photo 1). Quarter turn quick release fasteners like Cam-locks or Duz fasteners can be used in these six places (3 on each side) but cost alot more. We do not carry them.

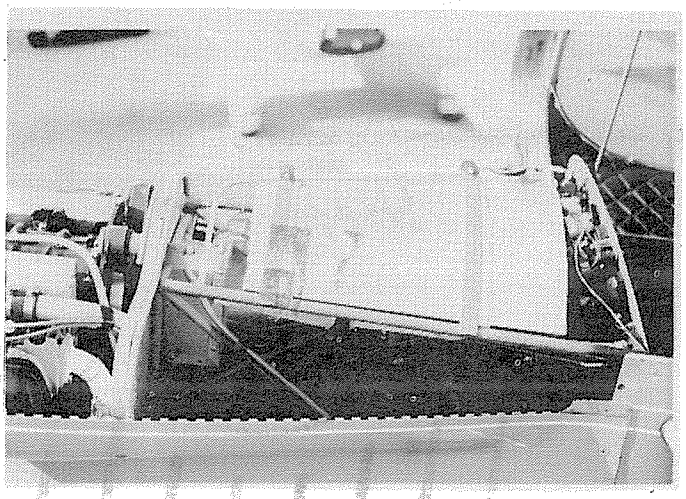


Photo #1

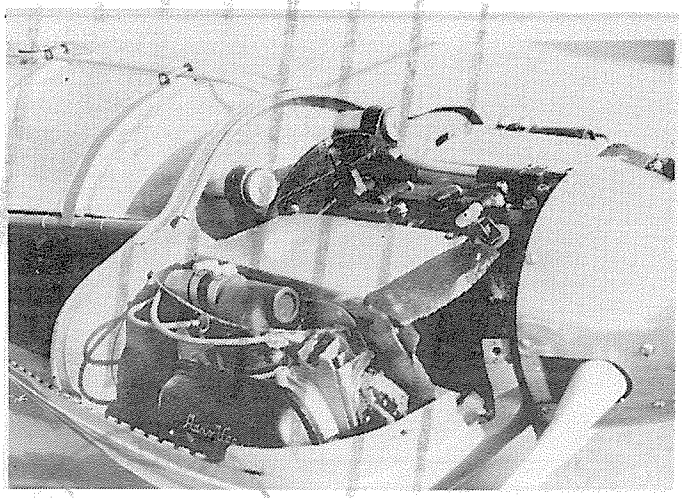
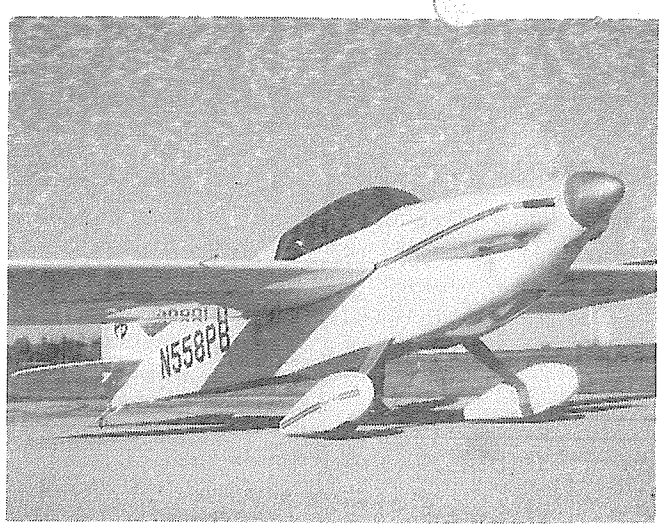


Photo #2

3. No gear strap material is included in any of the kits, and we do not stock this size chrome-moly. What we have always used is a piece of 1/4 in. leaf-spring material from a car or truck. Put the curved side up against the gear and when you tighten up the bolts at the ends, you will get a nice even clamp up. Tho it is not listed in our catalogue, we do have the aluminum material to make front step and spacers for the gear retaining bolts. Cost is $5.00.

4. Photo #1 also shows good detail of spinner fit and mounting. Here a Warnke ground adjustable is being used. Some of his hubs are too large to completely fit inside spinner, so a larger slot will have to be cut in spinner. For fixed pitch props, you'll actually cut a somewhat airfoil shaped slot and you will then sort of twist the spinner on. Note how we mount the front bulkhead. We put two screws on either side of the cut-out for the prop. This is where the stresses will be. We put another screw half way between these pairs for a total of 6 on the front bulkhead. We use 12 screws for the backplate. Make sure you file the cut-out real good. Any rough areas will be a stress riser and surely cause a crack.

Many of you have talked to Pete Buck who works for us, well, he has finally found time to finish his Sonerai II. He did a super job on it as you can see on the enclosed photo. It is all white with red and black trim. The trim colors are made from striping tape. The interior will be all red and black (he doesn't have the side walls or seat cushions finished yet). The plane really flies well. Pete built up a 1700 cc engine himself long before he came to work for us. Right now, he is using the Warnke seimentor prop I had on N2MX at Oshkosh



Pete Buck, Elgin, Illinois N558PB

this year. His static RPM is only 2850 RPM (this is low) and at 3200 RPM it indicates 140 MPH easily. An interesting note about his plane is, he originally planned to use the Super-Vee extension unit and completely machined his own up. When we first started talking about the longer crankshafts, he decided he would go with one of them an E-V hub and a spool extenstion. Well, he got ahead of himself and removed the S-V hub unit and machined up a spool extension. Now that we're at an impass on the longer cranks, he just put an E-V hub on anyway with the spool extension so he could continue to use the Super Vee Cowling he already had fitted and painted. We are happy to say this combination has been working just fine and the airplane has been rolled and put through some heavy "G" loads.

Dates to Remember

The next Sonerai builders workshop will be Saturday, January 19, 1980. It will be here at our building starting at 8:30 a.m. to 5:00 p.m. There will be a $10.00 fee and it will include lunch.

If any of you builders in the far north-west area around Seattle have any questions, we are planning to be at the National Soaring Convention in Seattle, February 28 to March 3, 1980.

For those of you in the extreme south-east, we are planning to come down to the Lakeland Fly-In, the end of March.

In between these two, we will be at Des Moines, Iowa March 8 and 9 for a homebuilders seminar sponsored by the Iowa State Council of E.A.A. Chapters and the State Department of Aeronautics.

Happy Flying,
Gregg

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