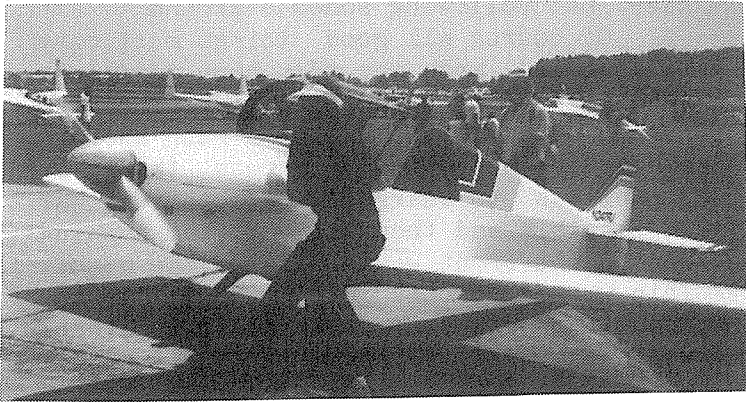


Jul - Aug - Sep - - 89

SONERAI

NEWSLETTER

Copyright Ed Sterba, 1988



Bob Yeager showing the Sun N Fun crowd the correct propping form

Welcome to this Summer Edition of the Sonerai Newsletter for 1989. It could probably be called the Oshkosh Issue since that time of year is not too far in the future. As you can read in this issue, we have a few activities planned for the event. Last year's turnout of aircraft was very good considering the type of weather we had to put up with in much of the country. It took a special effort to get in our little cockpits when the forecast was for another 100 degree day. My family had to force me out of the house and to the airport a couple of times last year, maybe the weather will be a little kinder this time.

If you plan to fly in this year, we haven't heard any changes in the Sonerai parking positions so head for the same area. Of course the earlier you get there the better your chances, our crew will probably be there Thursday morning as usual. I may bring my portable backhoe to put the tiedowns in, you could probably rent it out and retire after the week. We're all hoping they still maintain the No-Radio procedure, it's more convenient to use and seems in some respects safer than the masses of certified aircraft going through Fisk. Give me a call if you plan to attend but are nervous about flying in for the first time, we always get nervous about it but it works out fine in the end.

***** OSHKOSH 89 *****

This is the big month of course when we all get together up North. Seems like it's gone beyond being just a friendly little get together, I heard they had a lot of airplanes there last year. We've got a few activities planned as you know, hope you can all attend.

As stated in the previous Newsletter, the Sonerai dinner will be held on Monday July 31st at Butch's Anchor Inn. Time will be approx. 7:00 PM with the sign-up either with me out by the Sonerai's or at the Great Plains Booth in the display buildings. As stated we will be having more room this year since the response was so good last year. Please try to make it. Dick Morrow offered to buy us all dinner so I'm planning to be real hungry.

On Saturday July 29 at 12:00 noon we have the Homebuilder's Corner on the flight line reserved for our "Sonerai Club". If you attended last year you know we tried to give everybody a chance to get in a few words about their flying or any problems that have been bothering them the past year. Even though it tends to be a noisy place for a meeting (cause of all those stupid airplanes buzzing around) we had a good time.

On Sunday July 30 at 10:00 AM in Tent #8 we will have a Sonerai Builder's Forum for all interested parties. This will be in addition to a little get together on the flight line at the Homebuilder's Corner. The Forum in Tent #8 will be for us owners but also for those people interested in starting to build or purchase a Sonerai, and will include a little background on the basic design, building and flight characteristics of our airplanes. You, of course, are invited to keep me in line and let people know when to get their feet off the ground if it gets too thick. This is sort of what we tried to do at Sun N Fun with the idea of increasing the number of Sonerai's flying.

We hope to see you at all these functions. And fly in if you can!! It would be nice to see 20 Sonerai's.

✓

*** Sun N Fun 89 ***

I guess you'd have to say that no earth shattering Sonerai News was made this last trip down to Florida. Clyde Seager, Jim Wendel and I made the trip along with Herb Bull in his new KR-2 tri-gear. Bob Jaeger flew his Sonerai down the same day but on his own. Everyone's aircraft performed just as we had hoped with no mechanical problems at all. (Clyde had a problem with the fiberglass tipping on one of my props which helps to explain why I don't use fiberglass anymore.) When you have 20 kts. on the tail the whole way you certainly have no room to complain.

Jim's Narco Loran kept us on track all the time even if the alligator's were smiling up at us towards the end as we headed over the swamps of Florida. Point to point navigation is great but it does sometimes leave your wheel pants dangling over territory you wouldn't normally fly over. Al Bertellmann will give us a little insight into that in this issue. And I would have to say that I discovered the reason for a little glitch that has been bothering me for a while, by reading my own newsletter, so more on that later in this issue also.

As of early Friday afternoon we had a total of 6 Sonerai's present on the field at varying times. This is by far the largest number present in the 7 years I've been attending the event since we have been hanging closer to 2 or 3 most of the time. The weather for the trip down was quite good if you were able to get the timing right which means avoiding the Eastern seaboard (that includes almost all of Indiana) and not arriving in southern Georgia too early in the day. Our total flight time for the 1050 stat. miles was 7:55 hrs with 3 stops of as much as an hour or more. We arrived at the airshow just before dark that evening. The Lorans were clicking off ground speeds up to 140 kts. for quite a while. The worst part of the trip for me has always been navigating around the Atlanta TCA with just my compass and VOR but this year we all told Jim to pick out

an airport south of Macon near the super-highway and that was the end of the problem. He says that next year if I was a full time navigator I'll have to pay for all his gas. That's going to be a hard one to decide on because it sure was nice just following someone around.

Of course all good things must come to an end and the trip home tended to separate the men from the boys. The best method to fight the waves of rain showers that marched endlessly across the lower States was to charge up into them as far as possible and then sit out the evening hoping the front would pass in the night. This worked pretty well although Jim and Clyde and Herb got to know the Gainesville airport quite well for 36 hours while Bob and I got to know the Chatanooga area a little better. "If you want to play, you've got to pay," as they say. I always look forward to the trip down each year but forget the challenge of the return voyage. This year wasn't too bad. See you all next year?

Prop Covers

I've had a number of people ask about putting a propeller cover on their prop when it sits outside. It's a great idea if you use something that will keep the sun off without bottling up moisture that is sure to find its way inside. To use a plastic material would just steam the wood after a good rain when the sun came back out. Bad idea, since you can never keep it really dry. I use a 60/40 cloth that is available at any fabric store for making parkas or other outdoor clothing. It is breathable to allow moisture to quickly evaporate from the wood and yet will protect again UV light for a long time. Mine is cut and sewed to shape inside out to hide the seams and then tied in place with chord holding it right up against the spinner (it actually tucks up inside the edge of the spinner).

Since most of us tend to hand prop our engines there is no real safety issue involved here, however for those of you with a starter, please let me know how your first take-off and climb goes when you forget to remove it before flight. We'll probably find some kind of award for you too so you won't feel left out at Awards night.

The Official, Undisputed, Champion of
the Up-To-Your-Butt-in-Alligators Award

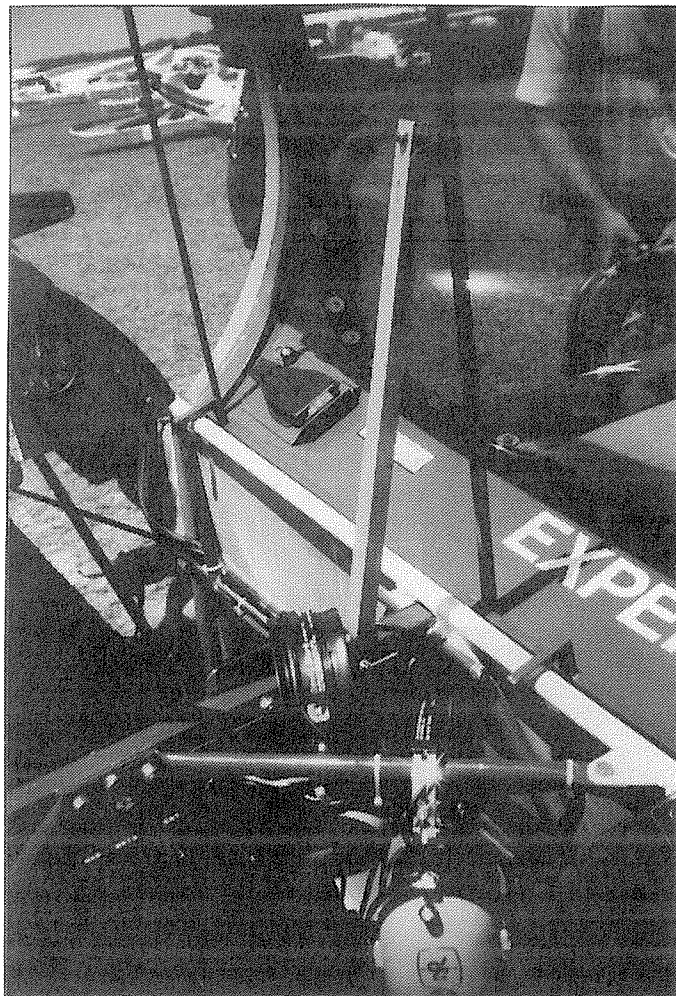
The winner is Mr. Al Bertellmann of Harvey, LA who managed to successfully land his Sonerai II in 4 feet of water after his magneto condenser failed causing engine stoppage. The aircraft remained upright after a very short landing splash and allowed Al and his passenger to successfully depart the machine. According to Al there was absolutely no damage to the Sonerai other than one wheel pant requiring replacement. The cowlings, fuselage fabric and wings were all completely unhurt even though they took the impact. Some of the instruments did require work but after a drying out, and replacement of the mag condenser the engine operated fine. One of the remarkable things to me was that the aircraft remained upright making an exit possible.

Since the area being overflown was your basic swamp Al and his passenger decided to leave the aircraft and make their way to what they believed was a road some distance away. After four hours of literally crawling on their bellies through the muck, the advent of darkness prompted them to spend the night on the only piece of high ground available which in this case happened to be a tree stump! The whole night was spent fighting off the ferocious mosquitoes and who knows what other critters. It was during this time that they noticed that there were no cars passing by on the "road" so morning brought the decision to return back to the aircraft. This required another 4 hours of crawling where they found a fisherman had discovered the downed Sonerai and had alerted the Coast Guard.

The cause of the accident as stated was the condenser in the magneto. This has been brought up in the Newsletter before as a problem, but has normally evidenced itself as a gradual problem in starting or as erratic operation in the air. This is the first case I'm aware of in which the engine was immediately stopped, indicating that our previous problems were an "open" circuit in which the condenser failed to perform its task, while this instance was probably a

"ground" failure in which the points were shorted to ground just like shutting off the mag switch. As some of you know it is very difficult to install the condenser on the Slick mag without damaging the wire; if it should break off you would most likely have the "open" type problems. In this case the condenser must have failed internally (?) causing the direct short to ground with no warning. It is not something that can be easily checked, so we all have to live with the possibility it seems. Of course for most of us it isn't reassuring to know that the mag is the only "certified" part on the machine.

Maybe there is some way to get the EAA to recognize Al and his passenger for the "longest distance crawled to Oshkosh." It's worth a try, they seem to have so many other awards.



Al Bertellmann's Canopy Latch

✓

Stretch Sonerai Fuel Tank Fit
by Dick Morrow

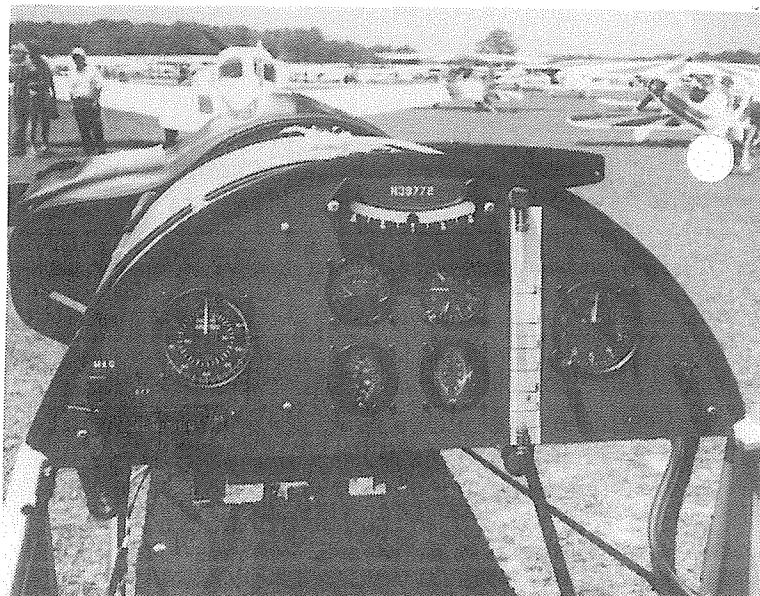
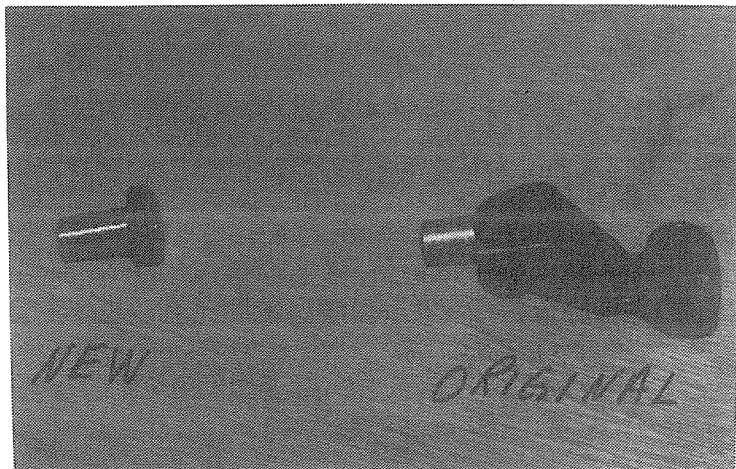
I'm enclosing some pictures of the final solution to the fuel tank cap hitting the cowl on a stretch Sonerai. Evidently the square longeron tubes hold the tank just high enough to cause the interference. I had removed the handle and planned to use a driver or a roll pin through the hole in the top of the threaded tube. That was when I called you and learned that Ed Hasch was doing something similar with success. However you mentioned a hex drive and that sounded like a good idea.

Since the original threaded tube was brass, brazing a hex end on it didn't sound too good. I found a piece of 5/8" stainless hex rod and had it turned on a lathe so it's a one piece tee-nut. With a thrust washer under the head, it's almost flush with the top of the cap.

Perhaps this might be an option you could provide with your new fuel tanks. It would save some head scratching for builders who haven't gotten to that point yet.

Sincerely, Dick Morrow

Ed.. Most people don't realize that there is a difference between the standard Sonerai tank and the Stretch tank. In the future those stretch Sonerai tanks purchased from Great Plains Aircraft will have the rear of the tank lowered to help alleviate this problem.



Al Bertellmann's Instrument Panel

Read What You Write

In the Oct-Nov-Dec 88 Issue of this Sonerai Newsletter there was a column about the possibility of syphoning fuel out of the main fuel tank in Sonerai's caused by overfilling. This was the result of an article in the EAA Tech. Counselor Newsletter and a few phone calls from Sonerai owners to me.

So why is it that the last few years I've had the engine cough and/or miss a few beats while climbing out of airports while on longer X/C flights when the auxiliary tank was installed? It happened again this year leaving Brown Co. TN and also the same day from Davies Co. IN just one stop down the road. I've attributed it to the hotter conditions down South and the fact I leave full power on for a longer time when the airplane is heavily loaded.

It suddenly dawned on me that that sort of flight is also when the main tank gets filled to the top in order to get maximum range. If you remember, the fuel surges to the back covering the fuel vent openings which then causes a hydraulic lock in the fuel system and stoppage of flow to the Posi. And of course the engine problem automatically makes me drop the nose to keep things under control which then opens the vent line and the engine goes into Automatic Smooth as is normal. Somebody needs a real kick in the pants!

A Sonerai in New Zealand

I spent 6 years building including 2 years perfecting the blowing of a clear canopy. It has been truly a learning experience, and now flying it, without too much bragging, having only flown Cessnas, Piper Cubs and an Acro-Sport 2, comparing the Sonerai with these, well, it's just like stepping out of a family sedan and into a sports car. Rate of climb at 950# weight is not spectacular about 500-550 f/m at sea level but at aerobatic weight of 720# feels great.

The first 70 hours ran pretty routine, with the test flying out of the way and a few cross-country flights, plus joyrides for most of my more courageous relations, kids not counted because they always go. Finally after a lot of paper shuffling a clearance from C.A.B. arrived to fly aerobatics legally! John Monnett wasn't exaggerating when he recommended the fitting of a G-meter for aerobatics, the first loop I attempted indicated 5 G's, just no drag now, easy on the stick pressure, maybe I made the control stick too long!

I am a keen aerobatic club member competing at Intermediate level so heaps of practice required, and just love the rear seat position and the feel in roll and pitch but easy on the rudder, it's powerfull. Engine temps. and oil consumption increased at an alarming rate so limited practice flights to 20 minutes max, even then on some flights finding a hell of a lot of oil on the airframe and about 1 1/2 litres in the sump. After about 25 hours of aerobatics "of the oil-losing type", you guessed it, the engine needed major work e.g. crankshaft grind, wrist pin wear was .002", bores and pistons scored but salvagable. All this 2 weeks before the competitions in Feb. 89. Don't laugh because some friends from the South Island (I live in the North) had just imported a factory built full house 180 hp SLS Pitts did in a crankshaft about the same time at the height of their practice. (Unlimited of course!)



Has anyone got a truly reliable, tried and tested inverted oil system I can fit to an 1834 Type 3 engine? I have read that HAPI may have something in the neat future. One is always wiser after the event, but I think excessive oil temperatures as well as lack of lubrication in the vertical positions, i.e. stall positions, vertical rolls, vertical descending rolls, killed the already highly stressed little VW. Does one say?

John Raven 22 Riverside Dr.
New Plymouth, New Zealand

Sonerai 2L #989
ZK-NTA Never Try Again

Doug Hagerman's
First <<<<< >>>>> Flight

Here's the low down on the first flight. I was very lucky to have a fine test pilot, Brian Carpenter, who made the first flight over a year ago. After many frustrating months of engine problems, the day finally came when all the bugs were worked out. With much effort Brian squeezed into the front seat and managed to take me up. I was so psyched up he did the takeoff and landing and I flew it around practicing turns and skidding all over the sky.

A week later (yesterday on my 62nd birthday) he took me up again and told me to take it off. It went very smooth after I discovered I needed to hold back pressure and a firm foot on the left rudder. The landing was IFR as soon as I turned final as Brian's body eliminated forward vision--dropping the nose a few times to glimpse the runway I got lined up, kept the descent constant and started the flare and greased it on doing about 70 when we touched. I weigh 205 and Brian weighs 185 so we're heavy. Once the tail wheel was hooked, she tracked like an arrow. The second landing was also a greaser--I was ecstatic. Now having landed the airplane I knew I could handle it.

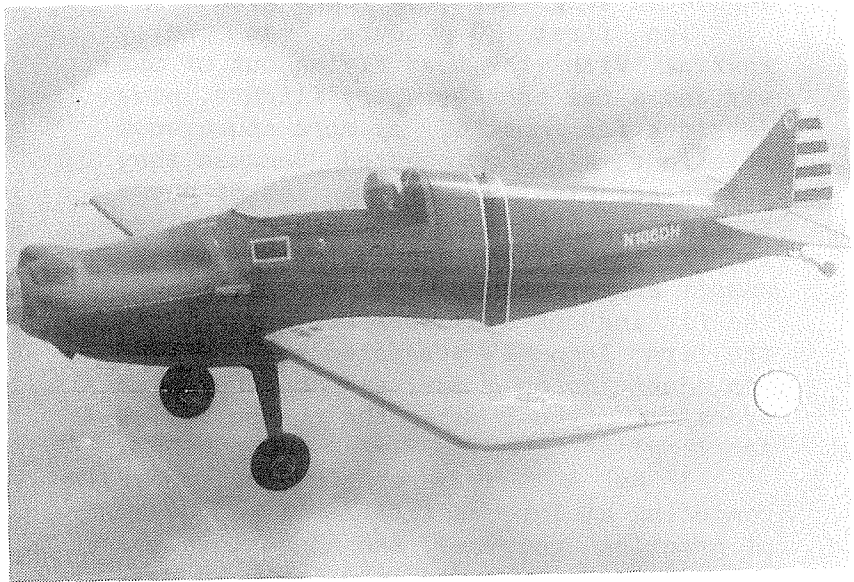
The next morning around 8:00 AM the tower cleared me to go, so I swallowed hard and advanced the throttle, I was off in a twinkling, the acceleration solo was amazing. Climbing out at 80 indicated I had 1000 ft at the end of the runway (6700 ft). I headed out to practice a few more turns and came back to land--got the landing clearance, reduced power to about 1800 RPM, slowed to 80 mph and was impressed with the glide. Naturally I came in too fast, ballooned a little and finally came down very nicely. I was scared to death of flying the Sonerai for many months--boy, was I scared for nothing. Having had about 6 hours in a Pietenpol and 1 hour dual in the Sonerai, my first solo ride was a piece of cake and tremendous lift to realize that I can really fly it well. Now I'm looking

forward to flying off the time in Peace.

My heart felt thanks to my wife, to Ernie, Bob, Chuck, Neil Sidders and Brian for their great support and to John Monnett for his outstanding design. Yea, EAA!!

Doug Hagerman 6 St. Helens Ln.
Chico, CA 95926

Congratulations, Doug !!!



100 hr Spar Retraction

I think I should be made to do 100 hrs. of Community Service for the smart little remark in the last Newsletter about changing spars every 100 hrs flying time. This had to do with the availability of spars and ailerons in the near future. Anyway, I learned at Sun N Fun that you never joke about that sort of thing when the airplane in question has a spar modification available. During the Sonerai Forum my brand of wit was questioned by a few people. I've learned my lesson and will only direct that sort of remark at the folks who fly the Sonerai's not the airplane itself. As I as I know, the spars do not have any known service life. O.K?

*** Alternator Windings ***

It seems like I've gone through this before but in going over the back issues that is apparently not the case. If the alternator on your VW conversion fails and the cause is a failed stator winding, usually the wires have been rubbed through by the rotating magnet ring plate. If you have ever delved into this part of your engine you will quickly notice that at least the outer layers of the winding appear to be wrapped by hand. The final few wraps may protrude over one another so they are sticking out farther than the rest. It helps to see this to believe it. The end result is that this final wrap or so may tend to touch the face of the rotor plate. One or two touches is all it takes to either short out the windings or eventually cut through that winding to make an open circuit.

So your choice is to try to fix this winding (Good Luck!) or buy a new one which is readily available (let me know and I'll give you the address). If you are installing a new stator winding it would probably be a good idea to make sure this one will not touch the rotor plate and immediately short out. This can be done by doing a temporary installation with chalk or some other material applied to the rotor face to see if you get any rub off onto the windings. So what do you do if that should happen?

Well, Jim Wendel and I decided the simplest remedy was to space the whole Electro-X casting away from his engine case about .032" with aluminum spacers at each of the four mount points. This of course pulled the stator windings out the same amount giving us the desired clearance.

This was done about 3 years ago and proved to be a easy way out of the situation. I'm sure if we had been given the time to come up with a more complicated solution we could have done so. But the flying season was at hand and we couldn't mess around.

One of our more prolific Newsletter contributors called with a few comments about engine stoppage problems and the speeds that are needed to keep the VW turning without the fire going. Actually, what happened is that while making repeated adjustments to his Posa carb (and removing it several times in the process) the darn thing decided to literally fall off in flight. The engine quit immediately (what did you expect?) but he was able to make a very safe landing at a private strip that was practically underneath. That's why the test flight was being conducted in that location. At any rate, while lining up for the landing he was able to pay attention to the prop and airspeed so that at 100 mph you could just about count the compression strokes and at 95 mph it stopped for sure. This is with a 2180 at 8 1/2 compression and a 54"prop. I'm pretty sure that a number of you could come up with some figures of your own.

The reason for the stoppage was the carb mount rubber at the carb letting go even though our Sonerai pilot took special care to make sure it was tight before this flight. Upon examination the rubber was quite soft right at the carb clamp area with a "slimey" feel to it. This piece of rubber was the standard material supplied by the factory about 4 years ago (?). Now, two catches to the problem; --the engine was being fed TCP to help scavenge the lead, and also Marvel Mystery Oil on occasion to keep the valves happier than normal. Perhaps one or both of these were a contributing factor. My intake rubber pieces are older than this and appear to be in good condition, definitely not "mushey and slimey". Anyone else notice this problem?

Neil Sidders' Needles

I've had so many people asking for Neil Sidder's address I thought it should be put in again. Neil as you can see from Sport Aviation's Craftsman's Corner is knowledgeable in a number of areas in aviation, but we thank him for his work with Sonerai people in solving their mixture problems with the Posa Carb. Maybe he can't handle all the extra business this will generate but here goes anyway.

Neil Sidders Rt 5 Box 357-A
Monroe, LA 71203

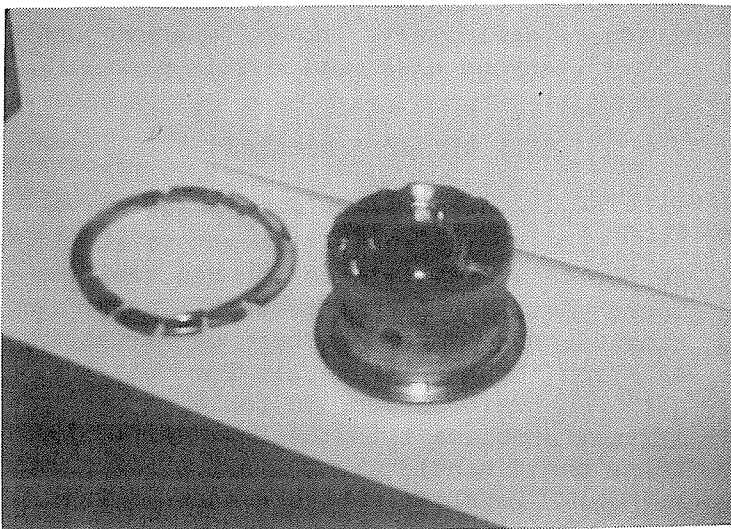
A Broken Wheel

Dear Ed -- You were interested in the broken wheel I was replacing and requested a picture. I'm not sure how the rim separation occurred because I'm sure it was in that condition when I bought the Sonerai after it had been ground looped by the builder, but I have to assume that it fractured during the ground-loop and separated then at a later date. The tire remained inflated and the defect was very difficult to detect at the time of purchase due to the fact that the wheel pants were installed.

Even after I removed the pants I didn't notice the difference in the two main wheels for quite some time--in fact the right tire lost enough air that I aired it up and was checking the left main gear when the defect caught my eye. The wheel appeared intact, just a little wider, but the inside wheel rim fragments had moved inboard and the brake drum kept them and the tire in place long enough that I was able to tow the plane 60 miles on the main gear and the tube still held air better than the right wheel which showed no defects when inspected. Weird, Huh?

I had even taxied it up to 40/45 mph. I hope you can use the info and that I have been explicit enough. Will try to answer any questions.

G.R.Roberts 1008 Maple St. Lamar, Mo 64759

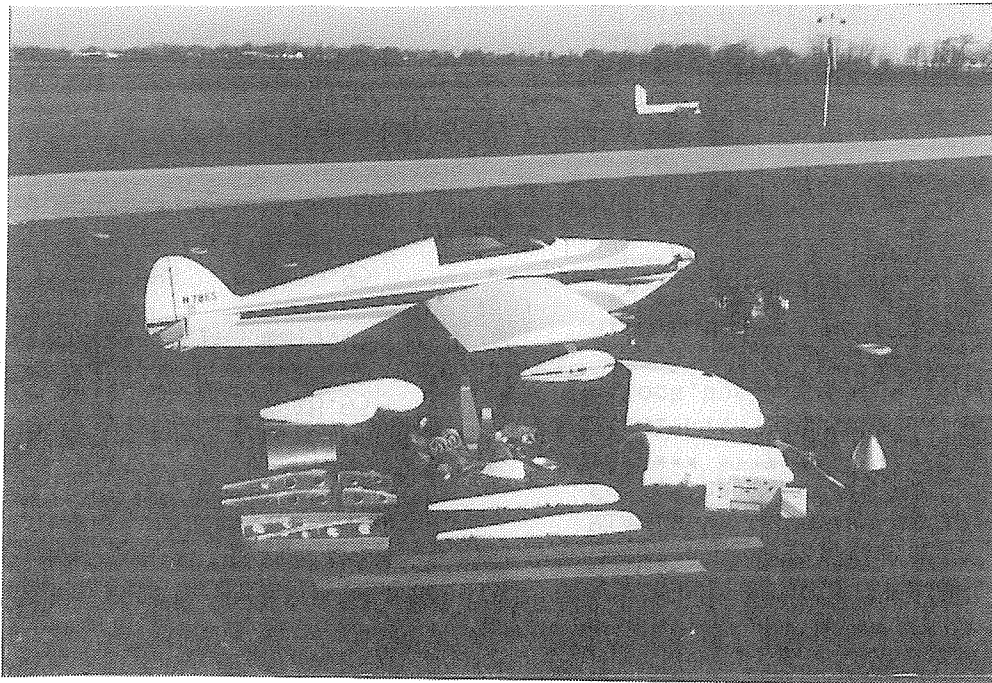


Otis' Distributor

While waiting out the weather at Brown Co. Airport on the way home from S N F 89, I had the chance to spend the morning talking to Otis Damron about VW powered airplanes and his KR-1 in particular. One feature that he installed that sort of caught my eye was his variable timing distributor installed on the 1834. Since he has no magneto and therefore no impulse coupling to retard the spark for starting, he has installed a vernier control coupled into the centrifugal advance of the distributor. The engine is started in the full retard position which resulted in a very smooth idle and then advanced to his 28 degree position for take-off and cruise. Of course he also has the option of controlling the timing while in the air. Those people well versed in engine operation could probably adjust the timing to realize better fuel economy and possibly greater power. I'm certainly not the guy to advise how that can be done, but the whole idea seemed interesting. Let me know if you would like his address.

Locktite and Canopies

I'll sort of borrow this message from the RV3/RV4 newsletter, hope they don't mind but it seemed so important to let everyone know. If you let any of the Locktite products get in contact with your plexiglass canopy you can expect the canopy to develop small cracks in the area. I believe most of us have used self-locking nuts to hold the canopy to the skirt, however should you use regular nuts and feel the need to keep them tight a natural tendency might be to use Locktite. Please don't! Within a week or so your canopy will be ruined. It has happened. It would ruin more than your whole day. As the weeks go by the cracks just get bigger and bigger and you feel worse and worse.



I figured this is the only way to get my Sonerai in the newsletter again. No, these are not the parts that the line crew picked up off the runway after one of my famous wheel landings. And we don't talk about an "exploded view" once you have seen little flames peeking around the fire wall. We just thought a layout of the Sonerai parts would look good.

WANT ADS

Oil Cooler Adapters to fit under Sonerai EV cowling ..\$110.00
Dale Severs 1801 Fairfield
Lindenhurst, IL 60046

Econo Vee Engine for sale, disass.
most new parts, 90.5mm stand.
crank, 4216 mag., eng. mount,
spinner, \$900.00 takes all.
Craig Morton 200 Pitman St.
Macodoches, TX 75961

Wanted--- Completed Sonerai II or IIL
within 400 to 500 miles of NW Tenn.
--or partially finished project.
Gene Leonard Rt 1 Box 256
Martin, TN 38237
901-587-6473

Wanted--- Monnett ABS Wheel Pants can be
new, used or slightly damaged
Bob Schank 35 Clarence St.
Belleville, MI 48111

For Sale -- Sonerai IILS 2180 Monnett
Conv., 55 hrs. TT, Exc. workmanship, needs
prop, canopy, minor tail damage. \$5500.00
Larry Hurley 2153 Foxhill Dr. Apt 11
Grand Blanc, MI 48439 313-695-0414

For sale -- Revmaster Acc. Case w/starter
and intake manifolds.
Dick Morrow 418-24th Ave. Ct.
East Moline, IL 61244 309-755-1495

For Sale -- 1/2" Monnett Landing Gear
and Monnett Tailspring
John Symons 4933 Lowry Ct.
Union City, CA 94587
415-471-5930

For Sale -- 2 ea. MK 12A Nav-Coms
w/ Indicator Heads \$250.00 ea.
Archie Frangoudis 162 Naticook Rd.
Merrimack, NH 03054

Wanted to Buy -- Tubing Kit for Sonerai
either II or IILTS, also spars and
ailerons
Mike Drake 414 Asharoken Blvd
Bayshore, NY 11706

For Sale -- Sonerai II midwing, taildrag-
ger, Hapi 1834 dual ign., Ellison T-Body,
Sterba prop, Narco 830, Loran -- 360 TT
Asking \$6000.00 or trade on T-Craft etc.
Fred Kugel 810 Kensington
Celina, OH 45822 419-586-4956 ev.

For Sale -- Kr-2 Cowl, Canopy, Front and
Rear decks -- Stits HS90X 3" Bias cut
tape (\$.50 / Ft.)

Wanted -- Escort 110 Front Face Plate
and service manual
Leland Selting 1441 N. Goebel Ave.
Tucson, AZ 85715

In addition to the above parts, Great Plains Aircraft Supply can supply on demand Sonerai I cowlings. The GPAS catalog is \$3.00. It has a full listing of VW engine parts and accessories as well as much technical data. Write to Great Plains Aircraft Supply, P.O. Box 1481 Palatine, IL 60078 or call 312-359-6558. Be sure to look up the Great Plains booth at Oshkosh 89 to see the full line of VW Aero Vee engine and Sonerai parts in stock.

Great Plains Sonerai Parts will soon be sold through Wicks Aircraft Supply in Highland, IL. They will also provide the following Sonerai Parts Kits

Steel Kit (all tubing, flat stock, bushing mat., square stock) \$826.64

Aluminum Kit (All mat. needed \$672.86 to form ribs, spars, ailerons, spar-carrythrough)

(Note: this kit does not contain the pre-made aluminum parts; ribs, ailerons, etc)

Hardware Kit (nuts, bolts, etc) \$183.82

Wing Mod Kit \$130.74

"S" Wing Mod Kit \$154.04

Clevis pins \$8.98

AN Wing Rivet Kit \$18.51

(Note: not pop rivets)

Great Plains Aircraft Supply has the following parts normally in stock:

1. FIBERGLASS WING TIPS \$89.95
2. FIBERGLASS WHEEL PANTS \$109.95
3. FIBERGLASS BEAUTY BUMPS \$19.95
4. WING RIB KITS \$324.95
5. AILERONS (price ea.) \$119.95
6. TAILWHEEL SPRINGS \$85.00
7. TAILWHEELS \$14.95
8. COWLINGS (SONERAI II) \$275.00
9. 5/8" LANDING GEAR (PLUS \$20.00 GRATING FEE) \$325.00
10. SPINNERS 12" \$40.95
11. BACKPLATES \$18.95
12. FRONT PLATES \$26.95
13. FUEL TANKS (SONERAI II) \$275.00
14. SHRINK FIT PROP HUBS \$139.95
15. ACCESSORY CASE \$135.00

(LYCOMING MOUNT HOLES)

Sonerai News

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