

SONERAI

NEWSLETTER

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Bob Schank's Sonerai I
at the North Central Fly-In
Check the next page for
the upcoming Daytona Race.

Welcome to this Apr-May-Jun 90 Edition of the Sonerai Newsletter. The weather can only turn in our favor up here in the North, which for me means getting N 78ES out of the shop and to the airport. These three months went fast in some respects and slowly in others. I'll have to try to remember how to fly to begin with, but I have a new biannual so I must be a safe pilot, right? My Annual inspection is about done and the Sonerai should go to the airport this next weekend to get ready for Sun N Fun next month. 78ES only needed minor maintenance along with a new canopy cover and prop refinish. I hadn't thought much about it but I've been flying this same old Swept blade 54 x 42 for 5 years now. It still seems best for this particular Sonerai so I'd sure hate to break it. Of course on the flight South next month I will carry a spare in the back just in case. Don't you, too?

Speaking of Sun N Fun -----

I'll be heading down Friday Apr.6th with Dave Rawlings, hoping to make it by evening that day. Great Plains will have our Sonerai stuff on display in their booth; if there is something you may need and are going to be at the Show, it may save a lot on truck shipping charges to have it brought down to you. Contact Steve at Great Plains if this may work for you.

We have a Sonerai Builders Forum scheduled in the Forum tents for either Monday or Tuesday and one of our Builders living in Lakeland suggested a dinner, so we may just pick a place while at the Forum, and see who can make it. A rather informal way to do it, but maybe it will work into something like it has at Oshkosh.

** Midwest Sonerai Fly-In in June **

John Giordano from Cedar Rapids, IA asked about a Sonerai get-together before Oshkosh. The best idea I could come up with was a gathering to coincide with the fly-in breakfast at Sterling-Rock Falls, Illinois on June 10th. This is where we have our North Central EAA Fly-in in the Fall, but it's just a perfect airport with lots of runway and ramp space and a going breakfast to boot. I'll be talking to Dave Christianson soon about both items but since the next Newsletter won't be out until the first of July, I'd say to go for it and try to make the June 10th Breakfast as a gathering. If anyone would like to make it an overnigher, there is camping space available on the field or motels about 2 miles in town. Try to get there by late morning at the latest since it is a breakfast not lunch. Why not 10 Sonerai's?

-- Formula Vee for Spring 1990 --

This Newsletter is going out a little early because of Sun N Fun and also for the Formula Vee Races to be held at Daytona Beach on Mar 31-Apr 1. This is a "for sure" race. Saturday morning is the qualifying session then there will be two race heats on Saturday afternoon and Sunday afternoon. Please try to make the races if you'll be in Florida early for Sun N Fun and if you think you can be of some help, contact Jim Vliet 12 Cooper Blvd. Red Bank, NJ 07701. These guys are Serious Racers!

A Call from Neil Sidders

Rt 5 box 357A
Monroe, LA 71203

I usually enjoy having the phone ring around the house and shop. Either it's money or Sonerai stuff, I can't lose either way. Neil Sidders called the other night to talk about the Posa carb (what else?). It seems that Mike Huff had been having a problem with his newly completed Sonerai II after the first few flight hours, with the typical high EGT and/or rough running. He had received one of Neil's custom needles that should have worked but didn't, so Neil called to let me know that the second needle did the trick. This quickly degenerated into a discussion on our beloved Posa's.

Neil mentioned that he had once set up a Posa carb for Dale Severs Sonerai by running it on his (Neil's) Sonerai in Louisiana and then shipped the whole unit complete up to Dale in Illinois. Same type of engine, same type of airplane, how could you beat that deal? It hardly ran at all for Dale. Go figure. It turns out the difference was in the volume of the intake manifold systems. Dale had different diameter manifolds and a forward facing intake. Apparently that is all it took. What other factors can you add in: carb heat manifolds, different cam shaft lift and duration, different compression ratios, flow rates on the fuel system itself. There are probably a few more areas of concern I haven't thought of.

The end result seems to be that each installation is an individual and we must each pay the Piper when it comes time to fire the engine up for that first time. Try not to be discouraged, and above all else talk to someone who has already been that route.

*** Static or No Static ***

I had a question from one of you readers about the static system as used on Sonerai's. The plans show that it should be hooked into the support tube for the wing fold mechanism half way to the tail. For a static system to work properly it can't have any ram or suction applied to it at speed. Somewhere along the line when talking to the Monnett factory back in Elgin, IL, I got the message that it would work pretty well to just plug the airspeed and altimeter with threaded plugs that had a small bleed hole in them (1/16"). So that is what I did for whatever reason. There is no real static system per se. I guess I figured to just try it that way in the beginning, but like most things in my life it stayed that way. My wife can tell you that is my normal behavior.

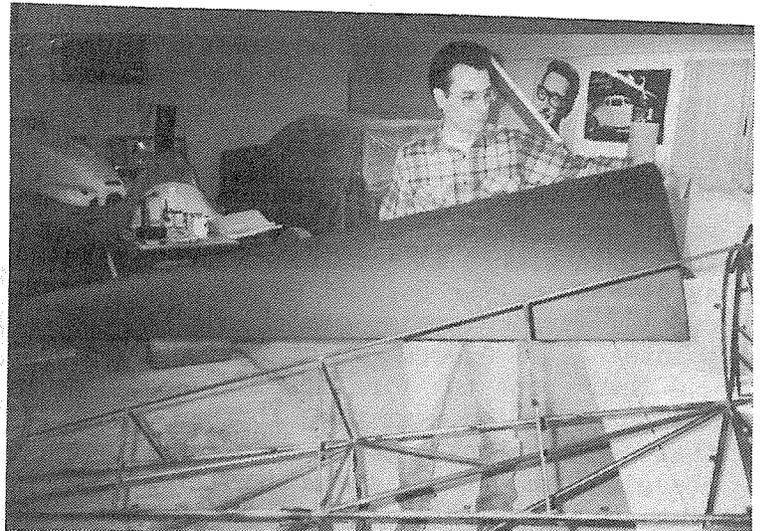
Well, the airspeed seems to be fairly accurate and the altimeter matches most people I fly with. The one noticeable problem is that the needles of both instruments tend to jump around in bumpy air. I don't think it is just inertia in the gauge, it is probably pressure surges in the cockpit. I have noticed one or two builders showing concern for getting air out of the cockpit in an orderly fashion just like a real airplane. One way is to fashion the stabilizer inspection plate with vertical louvers by cutting slots and then bending them outward to create a low pressure. The upside of this is to get the cockpit vents to actually work by making room for air to enter the cockpit.

Mark Elyea's Sonerai IIL
Box 81
Garden Prairie, IL
61038

I had the privilege of seeing Mark's Sonerai IIL in my capacity as Chapter 153 Tech. Counselor the other day. He is about ready for his fabric work and wanted another set of eyes to look things over before cover. It's a fine looking airplane with very good workmanship and a few additions that I thought the rest of you Sonerai builder/pilots might be interested in. It looks like this Summer will see it in the air, but not by Oshkosh ?? Maybe.

Mark has installed an elevator trim system that is similar to a J-3 jack-screw. A single cable runs forward up to his seatpan and it looks like it will be a very fine adjustment taking quite a few turns on the handwheel for complete travel. It does go the full distance of the cutout in the fuselage so should accommodate any possible loading condition. He also realized that it is necessary to limit sideplay of the stabilizer since the two 3/16" bolts are gone. I questioned the need for a trim position indicator, he will have to see what the FAA wants. It may be as simple as an external fuselage/stabilizer mark or some sort of marking on the cable itself. Time will tell.

While testing the fit of his fuel tank it appeared that there was an interference fit at the front of the tank and the cowling. An attempt was made to remove a bit of the tank and reweld it lower. Real bad deal! The two welders he took it to of course said no problem but managed to completely destroy the whole tank. So, Mark decided to build a new one out of fiberglass. It looks real nice out of Safety Poxie with stiffening pieces and possibly more than our 10 gallons.

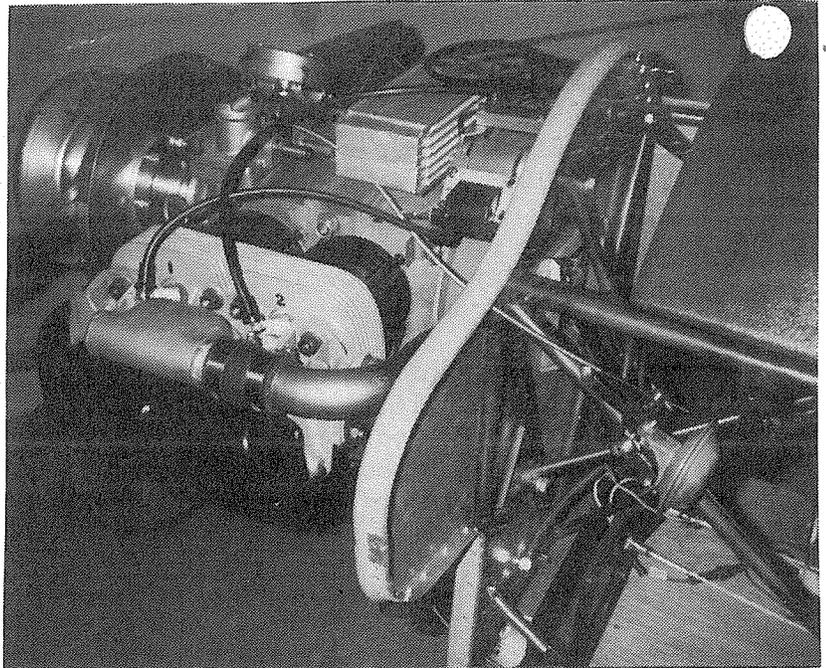


Since the fiberglass was working so well on the tank, Mark also decided to make a complete turtledeck also. It covers all the way down to the top longerons. His technique involved making 4 templates at the stations needed after raising the structure the desired amount (1 5/8") then covering them with 1/4" stiff chicken wire. It took the curve quite nicely being so stiff. This was then covered with heavy plastic sheet and the 3 layers of lightweight cloth laid up. Since this area is to be covered with the Dacron, the finish need not be as perfect as a cowl made with the male mold technique. Total weight came out at 11 lbs., but when you consider how many Sonerai's have lead in the tail, it may end up being no penalty at all.

A final item here involves Mark's one-of-a-kind ignition system for the 1834 VW. He is using the standard 10 amp Monnett alternator and wanted to have a distributor/battery style ignition system with 4 sets of points. This has been done before, but he found that the four coils needed for the system each drew 4 amps when on line. He couldn't live with a 16 amp draw obviously. A consultation or two

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with Dave Rawlings and apparently drawing on Dave's motorcycle experience led him to design and make his own system. The trick was to not have all four coils pulling 4 amps at the same time. So instead of having the points all closed and then firing the plug by opening one point set, Mark made a cam to hold all four points open at the same time, with about a 30 degree segment cut out of this special large diameter cam so one set of points gets closed to charge it's coil and then opens to fire a plug. When the cam turns to the next plug it then closes that set of points 30 degrees early for charging and then opens to fire that plug. Did I explain this O.K? The catch to this whole affair is the continuous rubbing of the cam follower on the cam. He doesn't know how the followers are going to hold up and will obviously need to set a good maintenance schedule in the beginning.



The second item in this ignition system involves the need to retard the spark for starting (Oh, you didn't remember to retard the spark! How's your arm?). Mark's method is to have the distributor able to rotate the required 28 degrees by a 3" long external arm that is linked to a standard vacuum advance capsule with a push/pull cable. The vacuum is drawn from just above the Posa so that on start-up it immediately pulls the distributor into the advanced position. At this time he has no plan to allow cockpit adjustments while in flight but that is a possibility. For now, it looks like an interesting ignition system that is in the Spirit of the Experimental label in the cockpit. It is a shame to lose the nice smooth 500 RPM idle at full retard so soon after start-up but the real trick will be to ensure it always is there when you pull the prop through.

When we were finishing up the visit, I happened to mention the rigging of the ailerons that most people seem to use, you know, about 1/4" down into the slipstream. Mark's comment was that the newer, one piece wing tips designed for the inboard aileron counterweights seemed

to have the droop built into them. Well, I hadn't thought about that before, so we got out a straight-edge and took a closer look. With the control stick centered and the wing tip counterweights in trail with the rest of the wingtip, the ailerons seemed to have the proper rig. Mark had the one piece wingtips but decided to go with the wing tip counterweights, and just lined them up, so until I look at a few more Sonerai's, it sure appears that he is right.

So that's how the morning went. This tech. counselor stuff is tough duty.

Mark Elyea's Sonerai IIL
Box 81
Garden Prairie, IL
61038

A Letter from Bill Joens

I've been wanting to write a long letter with an update on my Sonerai II (N87BJ), but it's hard to sit down in front of the word processor for that long.. so I'll just ramble on with this letter, as the thoughts come to me.

Bill Joens
2706 NW 9 Ave.
Rochester, MN 55901

Ed's Editorial

It sounds like Bill is getting his money's worth out of his Sonerai. I asked him for a play-by-play on his wing folding technique so we might get that in a future issue.

The tailsprings from Great Plains have a substantially heavier thickness at the bend to help alliviate the breakage problem. Usually you will have a crack before they finally break so you may catch it on a pre-flight by carefully feeling with a fingernail in the bend.

As previously admitted in this Newsletter, I don't understand radios and how they work, so don't look for an answer here. I use an Escort 110 and a Telex MRB 600 headset and have a tolerable whining in the background. If I turn on the Nav. lights, it gets worse. You would think that with a good headset things would be beter, but trying a good Telex and a David Clark only made the whine much worse. Unusable worse. Maybe someone can sort this out for us.

Ah, you have high voltage too! Mine will run up past 16 volts at cruise if there is no load on the system, so it is necessary to either keep the radio on or the Nav. lights to bring it down to about 15 volts. This is a bit high, but most of the flights are less than 2 hrs. duration so the battery doesn't get too hot. I'll have to try the ground wire trick. My regulator/rectifier are both on the engine side of the firewall.

Bill must have an especially slow Sonerai since I usually run circles around Glasairs and RV's. Maybe he doesn't have the ailerons rigged right.

Total time to date...80.3 hrs.

Problems.....

Broke tailwheel spring-rod at small diameter (grass strip, got it stopped OK.)

Still have a lot of ignition noise but have suppressed it enough to get by. (Using a Terra TPX-720 handheld).. have a Bosch 050 distributor ignition with resistor plugs, and put a 1 ufd capacitor on the + side of the ignition coil.

This fall had an overvoltage problem with the alternator charging system. Voltage would peak at 15.5 to 16 volts. Regulator should limit it at 14.5 volts.

Fix (??) .. ran ground wire from regulator mounting screw direct to battery grd. Installed 1/8" thick piece of aluminum between regulator and firewall to act as a heat insulator (regulator and rectifier are mounted on passenger side of firewall). Don't know if this will fix it but is working OK now. Will probably find out this Spring on a warm day, if the problem is heat related.

Can't keep up with Dave Nelson's Vari-eze. He bought a prop from you last year. Don't know how to solve this one!

Goodness.....

Really enjoy it...can't beat it for the money.

My goal was to be able to pass a C-150. I've done that...plus a C-172.

I am sharing a hanger with a Rose Parakeet and a Q2. I HAVE to fold the wings to fit in, so the folding-wing feature is used every time I go flying. The penalty is only 5 minutes extra for wing folding/unfolding. Plus I tow the aircraft home once a year to do the annual in my heated garage.

IT'S GREAT!!!

Your Basic Electrical System

I had a request from one of you builders for a schematic of a Sonerai electrical system. Our's isn't much different than most others used on light planes, but here it is anyhow. One or two comments might be in order.

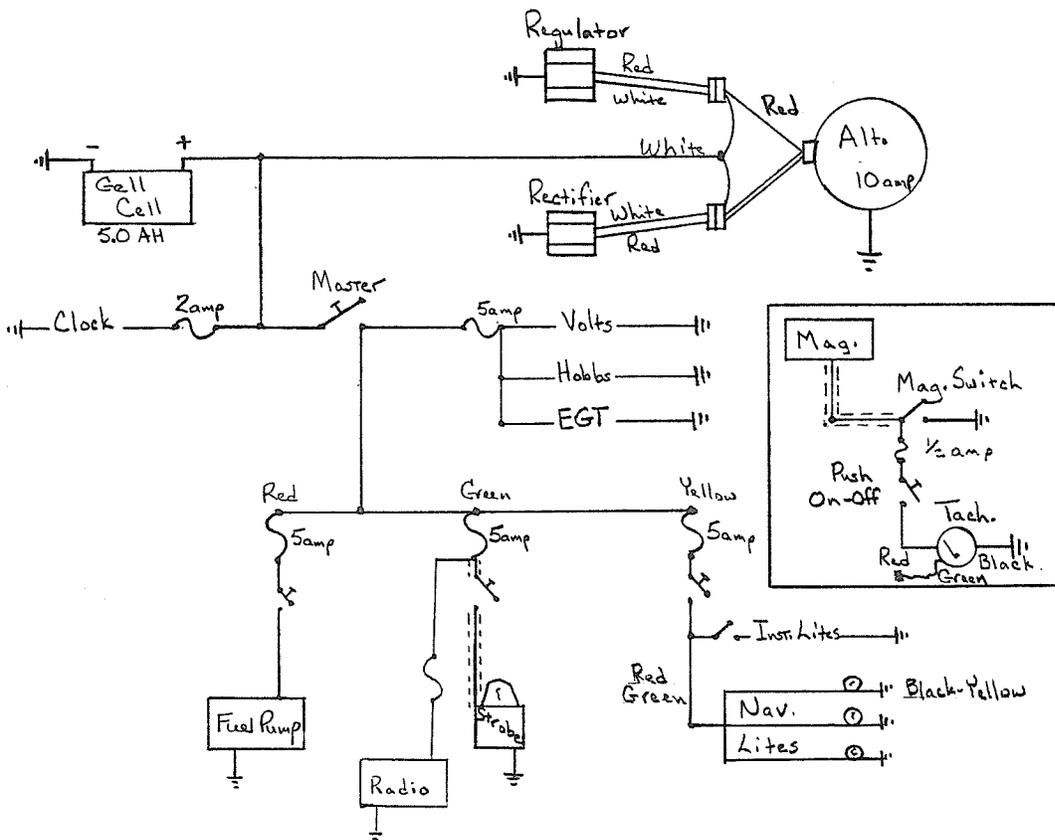
Most of us seem to use a voltmeter to monitor the system rather than an ammeter. As long as you are showing 13 to 15 volts you can expect the battery to be charging and don't really care what the meager output really is. If you overvoltage then you can expect the battery to live a shorter life. I once had the rectifier fail while in flight and noticed the voltage drop way down to about 8 or 9 volts. (The battery was being shorted and rapidly drained back through the alternator wiring.) I have my battery by my right hip and felt the A+ wire -- it was very hot already, so the master switch was turned off but of course this does no good since the alternator and battery are connected directly.

I now feel it was a good idea to have the battery in an in-flight

accessible position since I could reach down and pull off the A+ lead. End of problem. But what if I had the battery in the tail and couldn't remove the lead? I feel it would have eventually melted the insulation and then what? Even though I have 4 lbs. of lead in the tail for Wt. and Bal. purposes, I think I'll keep the battery where it is.

No, I believe I now have the strobe and radio on separate fuses for noise reasons. The bulbs in my Nav lights are not aircraft bulbs, they cost way too much and use way too many amps for my 10 amp Monnett alternator. Automotive types will do, but check amperage with your battery charger first before using.

On the Magneto wiring schematic, it is recommended to fuse the tachometer from the magneto "P" lead. If the tach fails internally, it could kill the magneto to ground -- end of ignition. If the tach is starting to fail internally, I can use the "push off" switch to take it out of the circuit and see if the problem clears up. Several people including myself have noticed the tach start to jump around -- in some cases it worked out to be the tach and in others it was the magneto starting to leave town.



Broken Tailwheel Modification

Gil Pollnow
205 S. Eagle St. # 10
Oshkosh, WI 54901

After finally getting an annual on John Monnett's Sonerai II, N2MX, by a local A&P, after 7 years of idleness, it was ready to fly. As a low time (100 hr) pilot, with only 7 hrs. in a friend's Luscombe, discretion dictated that Ray try to fly it first. During his high speed taxiing and hopping maneuvers, I kept waiting to see a full flight, but no such luck.

Upon finally taxiing back to the vicinity of my hanger area, but still on the taxiway, Ray opened the canopy and motioned me over, and told me to move the tail around so he could taxi back to the hanger. It was only then that we became aware that the tail wheel yoke assembly was gone with the threaded portion of the trail spring ground down about 80%. Needless to say, he noted considerable difficulty in controlling the airplane, which kept him from flying it!

After calling around for the price of replacement parts, and the impossibility of finding a suitable tail wheel. I visited the EAA museum to see what some of the other tail draggers used for this purpose. Clearly, there was evidence of considerable ingenuity. Hence, after searching the hardware stores for a possible substitute, the local Fleet/Farm store provided a neat solution in the form of a Faultless, steel, 4" wheel/caster with a ball bearing swivel, for under \$10.00. Calculations suggested that under typical takeoff and landing conditions, the simple sleeve wheel bearing, if properly lubricated, should handle the 900 or less revolutions without damage to the bearing. (Ed's note: that is revolutions, not RPM, which at 60 MPH is about 5000 RPM.)

All that was necessary was to have a 3/8" tool steel cross bar welded to the wheel yoke, with two holes spaced for connecting to the matching ones on the rudder horn. The rod was ground flat on both ends to reduce the thickness at the holes and minimize the friction on the

turnbuckle eyes. The latter were opened, cut off and a bead welded on the end to prevent escape. The threaded portion of the tail spring was ground down to the flared stop, and then welded to the center of the caster top. Welding was done at a local auto body shop with an Argon shielded wire to prevent losing the temper in the tail spring. Two 10/24 threaded turnbuckles with couplings, extensions and springs were attached to the drilled and flattened ends. Springs were required to get complete rudder travel up to the stops. After alignment of the wheel and the rudder, the threads were sealed with Loctite adhesive. Repeated dropping of the aircraft-mounted tail wheel assembly from about 12" above the ground revealed no apparent weakness.

Some months later, after my ATP friend Ray left the area, and some high speed taxiing practice, the author finally requested the full length of runway 9 (150' by 6166') and gave old N2MX full power (2020cc 75 HP). WOW! N2MX literally jumped into the air and all I had to do was figure out how to get it back down in one piece. After flying out to the Rush Lake practice area and doing some turns, I returned to Wittman Field for the moment of truth. Never having soloed in a tail dragger before, I was very wary but eased myself down to a very nice three point on the second try. Limited practice since then (due to a dropped valve and subsequent head replacement), of about 7 hours has improved my confidence but not my technique. Hopefully as soon as the weather gets warmer more practice will make landings somewhat less exciting for this 65 yr. old retired Professor Emeritus of Chemistry.

For what it is worth, my niece's husband, who is a full Colonel in the USAF and flies supersonic F-4 Phantoms, said he wouldn't fly the Sonerai after seeing pictures of it, too dangerous! I guess one gets spoiled by the luxury and momentum of those heavy jets, especially on landing.

A Letter from Doug Laursen
993 Carbon Canyon Rd
Chino, CA 91709

I am not a wealthy pilot. So when I purchase parts for my Sonerai, I will usually consider industrial or over the counter items as a lower cost substitute. One item I purchased from Aircraft Spruce was their peel and stick noise control material. It is about 1/4" thick foam with a foil face and expensive but at the time I did not have another source.

A few weeks ago I was flying out of my home airport at Corona, CA. 20 minutes out and 3000 Ft AGL I heard what sounded like my engine coming apart. After 5 seconds I was sure that I had a massive leak between a cylinder and the cylinder head. It was chugging along and felt unbalanced. Exhaust was pouring into the cabin as I throttled back to an idle.

Fortunately I was over Lake Elsinore's dirt runway. This is a seldom used strip with not so much as a telephone. The longer I flew the more I thought:

" I might make it back to Corona.... low power, 100 to 200 FPM glide....I would have all my tools there, maybe I could point the vents at my face and the carbon monoxide wouldn't be so bad. But maybe it would be that bad? Corona or Elsinore?"

I would like to say my good sense of safety prevailed but it was actually my burning eyes. With even a little power the exhaust carried with it an eye burning stink that I could not figure out. I circled down to this dirt strip until at 25 feet AGL I noticed the wind sock was sticking out the wrong way. I had enough trouble without a strong tail wind too. The engine sounded terrible yet it was running O.K. so I pushed the throttle in to go around. No additional altitude was needed. Just get pointed in the other direction. About 20 seconds into this maneuver I was choking worse than my engine. My eyes hurt so bad I couldn't keep them open yet I was only a few feet above the ground and trying to make a sharp U turn. I applied only enough power to keep from stalling. I had

never been so relieved to see dirt and rocks under my wheels.

After getting out to inspect the damage it became quite clear what had happened. The left rear exhaust pipe had broke off at the flange. The exhaust gas was blowing straight to the firewall that I had covered with the noise control foam. When at idle there was not much heat. At half throttle the hot gases had melted the foil covering and foam material. Had I used a less expensive foam it may not have been fire proof and the situation could have been much worse. Some foams give off a toxic gas when exposed to this amount of heat.

Ed's Editorial:

I had a chance to buy some adhesive backed foam at Oshkosh a few years ago, but being my normal cheap self, didn't. One of the other Sonerai Guys did, however, and brought it back to the campground. We took a little piece of it and put it to the match. It burned with a black smoke and dripped plastically onto the ground. I decided I didn't need that on my firewall. Of course it was being sold in the Fly Market as flame resistant or something like that. I still don't have anything on the firewall and I still can't hear myself think without the headset on. It looks like it will be that way for a while.

Doug Hagerman's Sonerai For Sale

This notice came after I had the Want Ads assembled, but I wanted to get it in this issue. Sonerai IIL 1835 with distributor, alternator and starter. Total time 42.6 hrs. Will have hydraulic brakes and re-paint by May 1st. Will have a fresh annual. \$5000.00 or best offer.

Doug hates to sell his Sonerai, but back surgery will prevent him from enjoying his machine.

Doug Hagerman 6 St. Helens Lane
Chico, CA 95926 916-342-3215

A Letter from John Giordano

I was particularly interested in Wayne Tappon's info on moving the tailing edge of his wings down to take some of the back pressure off the stick. I've had the same problem, even with ten pounds of lead in the tail. My fuel has to burn off more than halfway before my stick becomes neutral in pitch. My horizontal stabilizer is all the way down as per the plans. I don't think it would be very smart to add more tail weight or move the stabilizer down even more. Aircraft designer I'm not.

Item for the Newsletter: I may have solved the mystery of the valve train/wavey washers breaking problem--at least, for myself. I've had the problem four times now--each time accompanied by loss of power. In fact, during the last 15 minutes of my cross country back from Shkosh this Summer, I couldn't even maintain altitude. Fortunately, I was close enough to my airport to make it no problem.

I took a valve train off an old Bug engine and compared it side-by-side to mine. Guess what? Several flat washers were missing on the aircraft valve trains; consequently, the wavey washers were contacting the rocker arms directly. It doesn't take an engineer to see that the rotating rocker arm will sooner or later put considerable stress on the bulge in the wavey washer. The old Bug engines--this one, at least--had flat washers between the wavey washers and the rocker arms to act as buffers. You also need one next to the retainer clips; I've had two of these break. I bought a bunch of flat washers and haven't had any problems since.

I should point out that I bought an Engine Kit from HAPI, and I remember the two valve train assemblies already put together, complete with nice white grease. They looked good to me, so I just bolted them on.

However, I'm somewhat suspicious that this fix is just too simple. Murphy didn't become famous for nothing. If someone else has found a different cause for the problem, I'd like to know.

I kept my hanger this winter and have had some very nice flying lately. Cold as Hades, though. I can stand about 45 minutes if it's above 18 degrees. Temps under that are painful. It's been starting well, by the way--85 hrs total now. I haven't had any taper pins fall out lately.

John Giordano
6916 Brentwood Dr. NE
Cedar Rapids, IA 52402

Ed's editorial

It's certainly sounds like you have got the fix for your valve train problems. I wasn't aware you have been having so much trouble. Talking to other VW people indicates that should take care of it. Of course now the rest of us using wavey washers have to take a look at our situation to see if we are set up right, I know I will on the next valve adjust, however, mine have not been a problem in over 700 hours so they are probably put on right. (I think I'll still check.)

If the horiz. stabilizer is all the way down and you have ten pounds of lead in the tail, then it sounds like you might be a candidate for adjusting the wing trailing edges and/or ailerons. Please let us know how that works out.

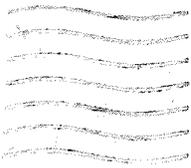
FRANKSVILLE MI 53126
11428 SIX MILE RD
FRED KEIP PD 90

To:

412 S. 5th
Ed Sterba
C/O Ed Sterba
SONERAI NEWSLETTER

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Sonerai News



WANT ADS

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.
Nacodoches, TX 75961

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

Wanted -- Sonerai I for Formula Vee
Bob Cowart Rt 1 Box 1346 A
Columbus, TX 78934

For Sale -- Unused Son.II Main Fuel
Tank --\$150 also Aux.Tank \$125
or Both for \$250
Tim VanAckeren 8039 W.Howard
Milwaukee, WI 53220
414-546-0986

For Sale -- 1700 cc Monnett VW Engine
w/ Electro X, tuned exhaust, oil
cooler, Super-carb, Slick mag,
spinner a/ prop from Q-2 77 hr TT
\$ 2650.00 complete
Bill Slattery 17119 Wentworth
Lansing, IL 60438

For Sale -- Diehl Supercase \$80, late
mod. Type 1 Case \$80, Ritz 54x36
prop drilled for G/P hub \$100,
Set Azusa mech.brakes \$30.
Stewart Bergner 6015 Brentwood
Arvada, CO 80003

For Sale -- Sonerai IIM, original two
seat, midwing prototype, NZMX, 730
hrs TT, rebuilt 2020 VW engine,
recent annual by certified A&P
mechanic. \$6000 or best offer.
Gilbert Polnow 205 S.Eagle St.#10
Oshkosh, WI 54901 414-231-3479

For Sale -- Sonerai IIL project on gear
2180 Monnett VW, canopy, cowlings,
Sterba prop. Everything but wings.
No time to finish. Best offer over
\$2200.00 Wisconsin.
Phil -- 715-276-6476

Wanted -- Electro-Vee Magnet Ring
Mike Huff Rt 1 box 193
Fair Grove, MO 65648

Wanted -- Drawings for Monnett Mag
Drive and Coupling or the parts
themselves.
Bob Schank 35 Clarence St.
Belleville, MI 48111

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 Mid-wing 1700 VW
Alt., Strobe and Nav. 60 hrs TT
Ron Pfeil W 199 N11525 Rosewood
Germantown, WI 53022
414-628-4716

For Sale -- Sonerai II LT 95% complete
Hapi 1834 dual ign., Great Am.Prop,
Trade up or down f/ flying airplane
\$ 6500 or best offer
Roy Johnson 26 Raleigh Rd.
Framingham, MA 01701