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KR-1 KR-2 NEWSLETTER

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#33

Spring is on us and the serious business of attending fly-ins is at hand. At least I tell my wife it's serious business but I'm not sure she believes me. Anyway, Bob Stone and I have been working feverishly to get our KR-2 ready for the EAA Western Regional Fly-in at Chino, CA. We were there but there are a few more details to take care of before the FAA final inspection to get the airworthiness certificate (placards, labels, & etc.). The picture of our plane, N31158, was taken just after the paint was applied. Color is white with green and yellow stripes. More details with the picture.

There are several fly-ins between now and the big one at Oshkosh. I am going to attend all of them in my area but the anticipation of the Silver Anniversary of EAA is getting to me. I just can't stand the wait. A couple dozen KR-1 & 2 builders told me they have definite plans to have their KR's at Oshkosh this year. I'll be happy if only half actually get there but if they all make it, wow!! See you there.

The 2nd Annual Indoor Aircraft Show at Anaheim, CA Convention Center is scheduled for May 13, 14, & 15 this year. An outside type fly-in at Angel Stadium will be held prior to the show and then the display aircraft will be towed down Katella Ave, to the Convention Center.

East Coast builders can get together at the Kentucky "Sport Aviation Week-end" on May 13, 14, & 15 at Rough River State Resort Park Airport. This fly-in is the joint efforts of EAA Chapters 110, 162, 169, & 482 along with the Kentucky Aviation Assoc., the Kentucky Division of Aeronautics and the Kentucky Dept. of Parks. Co-operation of all these people to promote interest in our sport are to be congratulated. I hope their effort is highly successful. (Contact Glenn T. Bumpous for more info...Ph. 502-564-4590.)

Other happenings....May 14 & 15 at Quincy, FL "Fabulous Fifth Fly-in" sponsored by EAA Chapter 445....May 15th At Newburyport, Mass "Picnic Fly-in" in Plum Island Airport sponsored by EAA Chapter 502...May 28 & 29 at Watsonville, CA "13th Annual West Coast Antique Aircraft Fly-in and Airshow"....May 21 & 22 at Brown field in San Diego, CA a fly-in for antiques, homebuilts and warbirds. Everyone welcome.

RAND/ROBINSON UPDATE

The fiberglass cowlings are being received well, so the guys at R/R decided to go a step further. Now available already formed is the forward deck/fuel tank/instrument panel section of the KR-2. Not only does this unit save hours and hours of construction time, it also increases the fuel capacity to 16+ gallons. Price of the fiberglass pieces available from R/R is as follows....cowlings, already split, firewall and baffle templates, \$95.00....forward deck/fuel tank/instrument panel, \$115.00.

New price lists for KR-1 and KR-2 parts and kits are available (effective 4-77). All the new parts and kits R/R now carries are listed. Send a S.A.S.E. to Rand/Robinson Engineering, Inc., 5842 "K" McFadden Ave., Huntington Beach, CA 92649. Ph. (714) 898-3811.

Received more information on Warren Aiken's aircraft. Warren now has approx. 20 hours on his KR-2 and reports the following:

Engine.....1800 cc VW using a Monnett conversion, dual port intake, 29mm Posa.
Prop.....Made own, ground adjustable, weight 4 lbs. Now spinning 52 x 44 at 3900 T.O.
3200 cruise.

Weight.....460 lbs w/oil, no fuel.

Stall.....just mushed down, nose doesn't drop.

Mods.....GA(W)-1 airfoil, 2" added to rudder & elevator, pressure cowl.

High speed cruise is about 155 ind., landing about 40.

Warren Aiken, 2323 Farleigh Rd., Columbus, OH 43221

TIPS FROM OTHER BUILDERS.....I received a bit of an eye opener when I roughed out the loads on the engine shock mounts and the forward fuselage. Knowing the numbers won't hurt anyone's project & it may cause a few folks to cast a wary eyeball on their glue joints. Supposing +5g & -2g situations with full torque, we find that each upper shock mount is required to survive up to 175 lbs shear with either 175 lbs compression or 75 lbs. compression or 75 lbs tension. The reason for this asymetry is that the upper two absorb the tipping moment in tension or compression with nearly zero arm while the lower mounts have a nearly 14" arm. "ONE DROP HOLD A TON"....I certainly hope so. Dale Walker, 11018 Hedwig Green, Houston, TX 77024.

Darrell Bosely sent the following tips...be sure you install the rear spar top wing attach fittings low enough to allow you to bevel the spar. Clamp all assemblies in place to check clearances before drilling spar....bevel fuselage vert. pieces under hor. stab. spar to receive ply bulkheads before skin is glued on....put a coating of wet varnish on each bolt on final assembly of metal to wood parts. Wood does have moisture and the bolts can corrode or rust.

Ready to start your VW engine for the first time? Prime the oil pump!! Your KR, sitting there with its' nose in the air, has left the oil pump high & dry. A lengthy period of disuse of the engine can cause the oil in your engine to drain away from the oil pump. A dry start can cause possible damage to your engine. If your aircraft has sat awhile without use, take the following precautions:

1. Check to see all switches are in the off position.
2. Raise the tail until the aircraft is level, or slightly nose down.
3. Turn the prop thru several revolutions (6 or more).
4. Tie the aircraft down then go thru the regular starting procedure.
WATCH THAT OIL PRESSURE!!!
5. If you do not have an oil pressure reading in 15 sec.repeat the previous steps.

QUESTIONS & ANSWERS

- Q. Are wood screws used to hold the aileron hinge?
A. No, wood screws should not be used any place except possibly to hold the sling seat at the main spar.
- Q. Are face plates required with R/R's fiberglass prop hub?
A. Yes, treat these hubs as though they are wood. .125 AL 2024T3 works fine.
- Q. What in the world does the term "scarffing" mean?
A. Scarffing is the method used to join two pieces of plywood. Accepted ratio is 10 to 1, i.e. 3/32 plywood requires a 15/16 scarf joint.

BUY-SELL-TRADE

FOR SALE: KR-2, N31158 (see picture) This aircraft just recently completed and has not yet flown. The engine is a VW 1700, balanced crank, stainless valves, alternator, etc. The plane will have a R/R 3-blade adjustable prop and final FAA inspection when sold. Price is \$5500.00. Will consider partial trade, (engine instruments, etc.). I have a KR-1 50% complete to finish. Write to me at the address on the newsletter if you're interested. E.K.

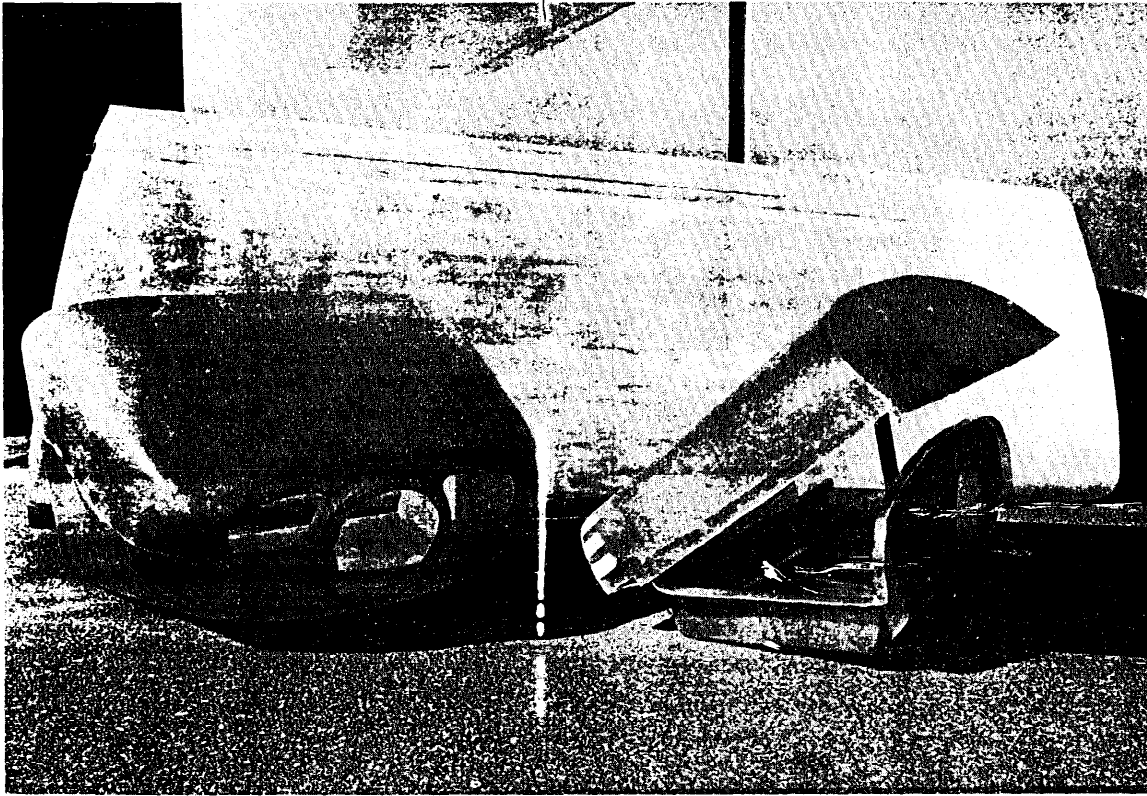
FOR SALE: KR-2 project. Fuselage sides, bottom assembled & skinned. Center spars assembled, no webs. Plans, all KR Newsletters, remainder of spruce & plywood kits, \$500.00.....Ken Neely, 1196 Morning Sun Dr., Pomona, CA 91767 or phone 714-623-2701.

FOR SALE: KR-1 canopy (clear) \$40.00 plus shipping...Dennis Busch, 307 Deans Ln, Bay City, MI 48706.

FOR SALE: Rand/Robinson KR-2 engine mount \$60.00 plus shipping....Gilbert Shue, 1372 Kitchen Rd., Pinconning, MI 48650.

FOR SALE: Full size cardboard patterns for all control fittings and fin nose rib. Includes a 3D view of aileron bellcrank & brackets in position, use of eye bolts at top rudder hinge, etc. All for \$5.00.....Darrell Bosely, Rte. 4, Marietta, OH 45750.

FOR SALE: Mylar, Microspheres, etc. Write for free price list....Harold Middleton, Box 26277. San Diego. CA 92126.

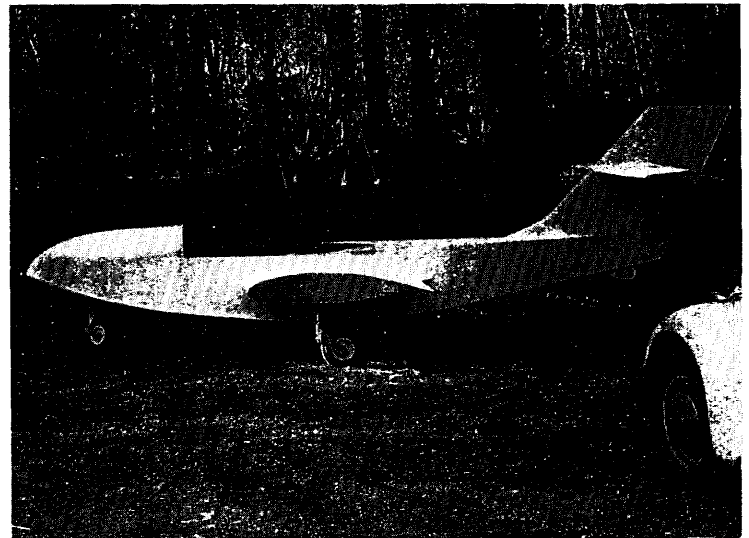


FIBERGLASS KR-2 PARTS NOW AVAILABLE.....as you see in the picture, the fuel tank has been indented for radio gear. The wing panel in the background is the GA(W)-1 airfoil off the KR-3.



KR-2 N31158

Here is the reason this month's Newsletter is a week late. This beautiful KR-2 belongs to Robert Stone and myself and we were frantically preparing the craft for the EAA fly-in at Chino. I was very pleased to accept the trophy for "Best Composite" from EAA Pres. Paul Poberezny. Made all those hours of work worth while.



The KR-3 made its' public debut at Chino. The picture I have doesn't show it off very well but you get the idea. First flight of the amphib is still in the "coming soon" stage. Ken was awarded a trophy for "Best Static Display" for the amphib.

I am continually receiving questions as to the ability of the KR's to handle crosswinds & just how much crosswind they can handle. The crosswind capability of any aircraft will depend much on the ability of the pilot. Here are some rules that apply to any aircraft & can be used as a "rule of thumb" with our KR's.

1. Never attempt taxiing when crosswinds or gusts exceed 50% of stall speeds unless outside assistance is used. Taxi very slowly when winds exceed 30% of stall speed.
2. Never attempt take-off or landing when 90° surface crosswind exceed 20% of stall speed or 45° surface winds exceed 30% of stall speed.
3. Never taxi closer than 1,000' from "blast" end of powerful aircraft and then only when headed into remaining blast effect.
4. Never follow a powerful aircraft on take off, in the air, or on landing without allowing time for turbulence to subside (2 minutes if a jet).

KR-2 Bolt list continued from Issue #22

| Summary Washers | | # | Dia. I.D. |
|-------------------|--------------|-----|------------------|
| Aluminum Washers | | 900 | 3/16 |
| Aluminum Washers | | 130 | 1/4 |
| Aluminum Washers | | 15 | 5/16 |
| Aluminum Washers | | 300 | 1/8 |
| Summary Bolts | | # | |
| 11 | 3/16 x 1/4 | 5 | 1/4 x 1 1/4 |
| 14 | 3/16 x 3/4 | 13 | 1/4 x 1 1/2 |
| 15 | 3/16 x 7/8 | 1 | 1/4 x 2 |
| 16 | 3/16 x 1 | 7 | 1/4 x 3 1/8 |
| x-42 | 3/16 x 1 1/4 | 6 | 1/4 x 3 3/4 |
| 4 | 3/16 x 1 3/8 | 3 | 5/16 x 3 3/8 |
| 24 | 3/16 x 1 1/2 | 200 | 1/8 x 1/4 F.H. |
| 8 | 3/16 x 1 5/8 | 4 | 3/8 x 1/4 F.H. |
| 2 | 3/16 x 2 1/4 | 24 | 1/8 x 3/4 F.H. |
| 34 | 3/16 x 2 1/4 | 14 | 1/8 x 1 F.H. |
| 32 | 3/16 x 2 1/2 | 41 | 1/8 x 1 1/8 F.H. |
| x-16 | 3/16 x 1 1/8 | 2 | 1/8 x 1 1/4 F.H. |
| | | 4 | 10mm x 50mm |
| Summary Lock Nuts | | # | Size |
| | | 218 | 3/16 |
| | | 32 | 1/4 |
| | | 3 | 5/16 |
| | | 285 | 1/8 |

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