

**** A monthly publication for communication between KR builders and pilots world wide.****
Edited & published by Ernest Koppe, 6141 Choctaw Dr., Westminster, CA 92683 714-897-2677

Oshkosh has come and gone again and with it a gathering of friends old and new. Never have I seen such enthusiasm and optimism generated by a single group of people as was demonstrated by the KR followers. The camaraderie enjoyed by the KR group all during the fly-in but especially at the gatherings at the campgrounds was fantastic. Many thanks are in order to Lofton Leland, a north Carolina KR builder and Larry Zepp, an Ohio KR builder for organizing the get to-gethers.

It's hard for me to point out any particular thing that happened at Oshkosh and say "this was the highlight of the fly-in". There was so much to consider. There is something I'll never forget though...during the "Homebuilt Revue", a procession of home built aircraft starting with the earliest and progressing thru the latest composite, three KR's flew by in formation. Steve Bennett in a KR-1 was flying point, Dan Diehl and Brad Hummel in KR-2s were flying wing while the air show announcer gave tribute to Ken Rand and his designs. That one moment is worth more to me than I can tell. My one regret is Ken wasn't there to see it himself....but then...maybe he was....



KEN RAND MEMORIAL AWARD

Due to crossed signals or something, there was no award presented at Oshkosh for best KR. This situation is in the process of being rectified. After much discussion by the KR Designees, all of which were at Oshkosh, Al Starkes' KR-2 was selected to receive the Ken Rand Memorial Award. The selection was not an easy one. There were several in contention, but the final choice came down to one of three KR's...Melvin Boggs' "Super KR-1", a beautifully done aircraft powered by Lycoming G.O. 75, Keith Campbell's "Lil Pretender" a KR-1 in P-51 clothing, fine workmanship and attention to detail, Al Starkes' KR-2 was clean, simple and basic to the point of being outstanding. This plus the fact it was flown in from Montana decided the award in Al's favor. The other two finalists had also flown, a pre-requisite for receiving the award but had not yet flown off the FAA restrictions. This is not to take anything away from the rest of the KR's at Oshkosh. Their builders and pilots are to be congratulated on the fine efforts that went into getting them to the fly-in and to the encouragement they offered to all

still building. I'm already making plans for next year. See you there!!

PILOT REPORT

I am happy to report that a new KR-2 joined the already growing fleet of KR's. C-GVHB officially flew on July 30-79 and everything went very well, the same as described on many occasions in your Newsletter. Field inspection passed with fairly good results on July 23-79 and a friendly 8 point list was given to me for completion, all minor. As an example, signs in cockpit, acrobatics prohibited, passengers prohibited.

At this time I can not give you any performance reports since the plane has only 1 hr 15 min on it and figures could be wrong.

However my wings have the original aerofoil and is not changed to the later one which R/R sent out later. The plane flies very well with an 1834 cc Ted Barker conversion and an R/R 3-bladed prop on a 4½ prop extension. The fuselage plywood cover is 1/16" 5 ply birch, full electrics except starter, removable gas tank, removable instr. panel. I am 5'11" - 207 lb which puts 55 lb on the tail wheel when I am sitting in it and 11 lb when empty. Total empty weight checks out at 565 lb and gross weight checks out a shade short of 820 lb. There is not much modification done on the plane except a 4" tail wheel instead of the 3" sold by R/R. The replacement is due to 2 hrs of slow-high speed taxi tests on gravel and the R/R wheel simply split. The other modification is the Wicks Organ seat arrangement with full cockpit covering, and the plane is built to be flown in the middle of the seat. In other words..a tube passes through the rear spar from the sticks under the seat and this way the seat can be fully utilized.

The plane is parked at St. Lasare Airport in Montreal and after 4 years and 3 months I was happy to tow it there. During construction I piled up a lot of info which I am willing to share with any KR builder.....Arpad Lehoczki, 653 -2nd Ave., Fabreville, Laval M7R 4H7 Quebec, Canada phone 514-627-1395 and no collect calls please.

ACCIDENT REPORT

Ernest, I have 2 KR-2 projects, 1 of which is for sale. But in response to your survey recently, please list me as having 1 KR-2 95% complete. Actually it was flown once and landed gear up the second time around.

So I am rebuilding the damage. For your information the KR's stand up to rough treatment very well taking all into consideration. The wrecked one that I bought was slammed into the runway out of control and gear up. It sheared both wings at the attach points, broke the engine off at the firewall and ejected the fuel tank. But the pilot simply opened the canopy and walked away. Except for a broken tail wheel mount and minor dings to the main fuselage and tail was undamaged. And only the right trailing wing spar had any damage. New wings, a new nose and tail wheel repair and she will fly again.

All people building KR's need to realize that the plane is a very sleek and fast plane and quick on control response. Add all these factors together, blend in a pilot, slow on response and you can have big problems come landing time or take-off. In this case the pilot realized at 70 ft attitude that the gear was still up can tried to kick the right side release with foot. His leg crossed over the joy stick and the plane did a wild right bank and when he jerked his leg back, of course the plane dipped left. He then hit the throttle abruptly, the engine coughed and died and the plane dropped like a rock....end of story. Robert Perry, 2950 Churn Ct., Redding, CA 96001

KR CLUB NEWS

Kansas Chapter of the KR Club meets Sept 22nd, Saturday, 7:30 pm (4th Sat. each mon.) 111 W. Vesper St., Hesston, KS 67062. Home of Jim Snyder. Phone 316-327-4053.

I purchased the slide/cassette program on composite construction that was advertised in the EAA "Sport Aviation". It will be sent to any group of KR Club members desiring to see the program (no charge) on a 1 week use basis. With the program will be a list of who gets it next after you have shown it, mail it to the next one on the list. This will keep charges down to a buck or so for mailing. If your group is interested, write to me and give me your meeting dates and I will compile the lists. This could work as well for other items, let me know your ideas...E.K.

QUESTIONS & ANSWERS

- Q. What is the status of the KR-3?
- A. The KR-3 is expected to be completed by the end of this year. Plans will be offered as soon as a thorough flight test has been completed.
- Q. On my plans, dwg #5 (KR-2) center section fwd spar, the spacing doesn't add up to 83". What is the correct spacing?
- A. Change the $7\frac{1}{2}$ " measurement to $9\frac{1}{2}$ " and this will bring the total spacing to 83" which is correct.
- Q. I'm 16 yrs old and 50% complete on my KR-2 and would like to know if anybody is building a KR who is younger? Cam Brown, 29 Lee Ave. Penticton, B.C. Canada V2A 3V7
- A. You're the youngest to my knowledge, Cam, but I know at least a couple more builders started when they were 16. Maybe they will contact you.
- Q. Where is the thrust line in relation to the top longeron. How critical is it?
- A. Thrust line is approx. .8" (+ -2") below top surface of the top longeron. I would try to keep it as close as possible.
- Q. I have a 1700 cc engine and want a 4 blade prop. Any ideas on diameter and pitch?
- A. Each prop maker employs his own formula to arrive at optimum diameter and pitch. Best thing to do is to tell a prop maker your needs and have him suggest the best prop for you.
- Q. I plan to purchase the fiberglass KR-1 parts from Danny McCormick (NL #49), any ideas on this?
- A. I've talked with a couple of KR-1 builders that bought the fiberglass parts from Danny and they were very pleased.
- Q. In Newsletter #41 there is a picture of a KR being built in a house trailer. How is the horizontal stabilizer installed with the vertical fin foamed in?
- A. The horizontal stabilizer spars can be fitted but not epoxied into place. The assembly can then be slipped into, or out of, place as needed.
- Q. Does the rudder have to be offset from fuselage center line and if so, how much?
- A. The prototype KR-1 and KR-2 had no rudder offset and flew with a variety of engines. Rand felt that an offset rudder was unnecessary in the power range of the VW engine.

From Larry Zepp, 230 Liberty St., Bowling Green, OH 43402.....Aug. 8, 1979.....
I had the thrill of my life on Aug 3 when Brad Hummel gave me a KR-2 ride at Oshkosh '79. With my 6'3" and 200 lb. we were certainly well loaded but we had little problem taxiing in the rough grass. The widened fuselage of Brad's KR-2 made shoulder room nice but we lacked elbow room near the control stick. Until we were away from the airport I kept my arm on the seat back. The take-off roll was smooth and the climb was quick and steady. I couldn't believe how stable the KR-2 climbed despite the noon thermals at Oshkosh. My big thrill was when Brad let me take the sensitive but completely natural control stick. After a couple of initial oscillations, I used steady light pressure and had no further problems. Never before had any airplane given me the feeling that the plane was a perfect extension of myself. No rudder pedals were required, cruise visibility was excellent and noise was fairly low. The visibility was so good, in fact, that I kept climbing because the nose was so low already! As we headed toward the airport, Brad took the controls and did a couple of near 90° banks. The KR-2 was quick, stable and had no tendency to slide out of the bank. I liked the way Brad operated the gear. To retract, he pulls back on the gear handle and releases both latches by cable. The air then keeps the gear from relatching. Retraction is done by simply throwing the gear handle forward to latch. To extend, the process is reversed using a pull instead of a throw. This seems much easier and less awkward than using your foot, etc. Landing was great until the tail wheel touched, then I could have sworn our tail was being chewed off it was so loud! Maybe a fibreglass spring or rubber mounted tail spring would help. I started building in 1975 and for the past two years Pam and I have worked on our house instead of our KR. My first ride was the biggest single motivation possible, followed by the great fellowship and KR parties of Oshkosh '79. Even if we haven't flown off the restrictions, WE WILL HAVE OUR KR-2 AT OSHKOSH '80. For the many still waiting for your first ride; read Brad Hummel's letter in issue #48, close your eyes, grab a broom, and you're there!

1
From Bill "Reverend Billy" DeFreze, 7530 Ironwood Dr., Dublin, CA 94566....If you will print this in the Newsletter, I would be deeply appreciative.

I am taking this opportunity to say "thanks" to some of the greatest people I've had the privilege to meet and know. I went to Oshkosh for the first time in my life this year and I don't have to go into the splendor of the "Big Airshow in the Sky", there has been enough written and spoken about it. One of the hardest things in one's life is "acceptance" by other folks in this world. Being the "World's Biggest Egotist", this acceptance has always been hard to come by for me. You can analyze the above statement any way you want but I am here to say the the most beautiful people in the world are KR folks. I know that I have never met a group of more concerned and sincere people for each other. Start with Ernest Koppe our Newsletter editor, he has so much feeling for us the builders, that he busts his butt to get the best information possible from us and any other available source to make our personal project or "dream", if you will, easier and safer to build and fly. Then, for a mere pittance, edits, corrects our spelling, re-draws our napkin sketches so they are easier to understand and then prints it, and mails it right to our front door. I observed him at Oshkosh spending countless hours talking to everybody, taking notes and pictures of anything and everything he thought may be of interest to us, the KR builder. I, myself, will never again take the Newsletter for granted. If I submit anything more to the Newsletter, I'm going to try and make my presentations a lot more clear and detailed in black ink and wording and spelling are going to be more precise. Anything to help! I know Ernie will appreciate it.

I met the other KR designees, Dan Diehl, Ron Sorrell, Ray Ellis and his lovely wife. All great concerned people. Brad Hummell, the most "fearless" KR pilot I've had the pleasure to fly with. He really knows how to fly the KR's. Steve Bennett, who came down sick, spent a day or two in the hospital and still didn't let it spoil his stay in Oshkosh. Keith Campbell, the "fighter pilot extraordinaire" with his "Lil Pretender" KR-1. I never could get him to confide in me how or where he obtained the 4 swastika "kills" painted along the canopy. Then there was Merv, Bill, John, Larry, George, Rex and Phyllis and many, many, more fantastic folks that came by dedicated to the task of blackening the sky with KR's. Even had the pleasure of meeting a very nice young lady that is building a KR-2! Yes, Jeannette tells us she is well along with her KR-2. I could probably go on and on naming names but I am sure you folks all know who you are.

Dan Diehl....now here's a young man I would hope my son would grow up like. Sharp, witty, ambitious with plenty of feelings for other people. Why, he and Brad, I don't think, were on the ground more than a total of three out of the seven days. Just giving as many of the KR builders some stick time as the fly-by time would allow. All were deeply appreciative. And all this was set up by Dan and Brad...that's dedicated!

Well, guys and gals, in closing, I again would like you to ask around your towns and cities and try and find the other KR builders and introduce them to the Newsletter and KR Club. Put up notices on your job and church bulletin boards asking them to get in touch with you. You may be able to help each other over the humps. I've received many letters from people who saw my picture in the EAA magazine asking about my tri-gear conversion and asking very basic questions pertaining to building KR's which tells me they don't receive the Newsletters where all these questions are answered. The importance of the Newsletter was brought home to me by one of these same letters. The questions asked were so basic, I decided I would call the writer long distance and ask him some questions. His letter to me was mailed Friday...Saturday he had destroyed his KR-1 and was lucky to be alive! Banged up his bod quite a bit but with further conversation, stated "that he just wished he had of known what to expect".....*Newsletter Flight Reports, there is no reason for these things to happen. My test pilot read every flight report in the Newsletter prior to test flying my KR-2 and he will tell you, if asked, how much help they were in knowing what to look for. Sure, each plane is different and some of someone else's problem may or may not show up in your plane...but isn't it nice to know what to expect even if it does not happen? I would sure think so! So let's push those Newsletters and help get these birds in the blue.

BUY SELL TRADE

FOR SALE....50 yds "Kevlar 49" \$450.00. Heavy duty engine mount \$125.00. Vic Kaaria, (213) 242-2211.

FOR SALE....KR-2, on gear all controls installed. Rudder and elevator signed off and ready for dynel. Center section closed. Has smoked tint canopy, R/R seat, fuel tank ready for closing..\$1500.00. Robert Perry, 2950 Churn Ct., Redding, CA 96001 or phone 916-244-0925.

FOR SALE....KR-2 30% complete, signed off and ready to close. Beautiful workmanship! Gear kit, aluminum kit, wing attach kit, plans, notes and asst. info. KR Newsletters from Issue #1. All for \$800.00. Call (201)449-3327

FOR SALE....KR-2 95% complete. Retractable tri-gear. Turbo charged Revmaster, throw-over control wheel, sliding canopy, 3000 mi. range, 500 lb empty wt., Kevlar construction, trailer...\$7000.00. Don Land, 906 Manzanita, Los Angeles, CA 90029 or phone 213-666-2869.

FOR SALE....KR-2, fuselage built, excellent workmanship, all Rand parts. \$1650.00 invested...best offer. 312-690-1393 Ken, evenings, Chicago suburb.

FOR SALE....Flying KR-2, Revmaster 1834, dual mags, full electric, radio, lights, starter, Warnke prop, oil cooler, FAA restrictions removed...\$6500.00 FIRM. Will trade for Cessna 170, 172, 182. John J Kerekes, 5794 Calle del Ciervo, Tucson, AZ 85715 or phone 602-299-9098.

WANTED....Corvair turbo-carburetor assy., distributor and/or shop manual. Any condition. Narco VHT-3 Radio crystals 120.5, 121.9, 118.5, 121.6 and others. Cash or will swap parts/services. Paul Venne, 3811 "B" Livingstone Dr., Long Beach, CA 90803.

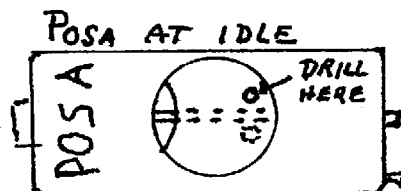
FOR SALE....Complete KR-1 landing gear (new) and KR-1 cowling (short type). Dale Strissel, 1428 Ave. C, Billings, MT 59102.

FOR SALE....KR-2 project. Fuselage complete, on gear, ready to foam. All R/R fiberglass parts. 1834 VW with R/R prop, hub and spinner. Several instruments and other goodies...\$3000.00. Bob Hamill, 3967 6th Ave., Los Angeles, CA 90018 or phone 213-296-5294.

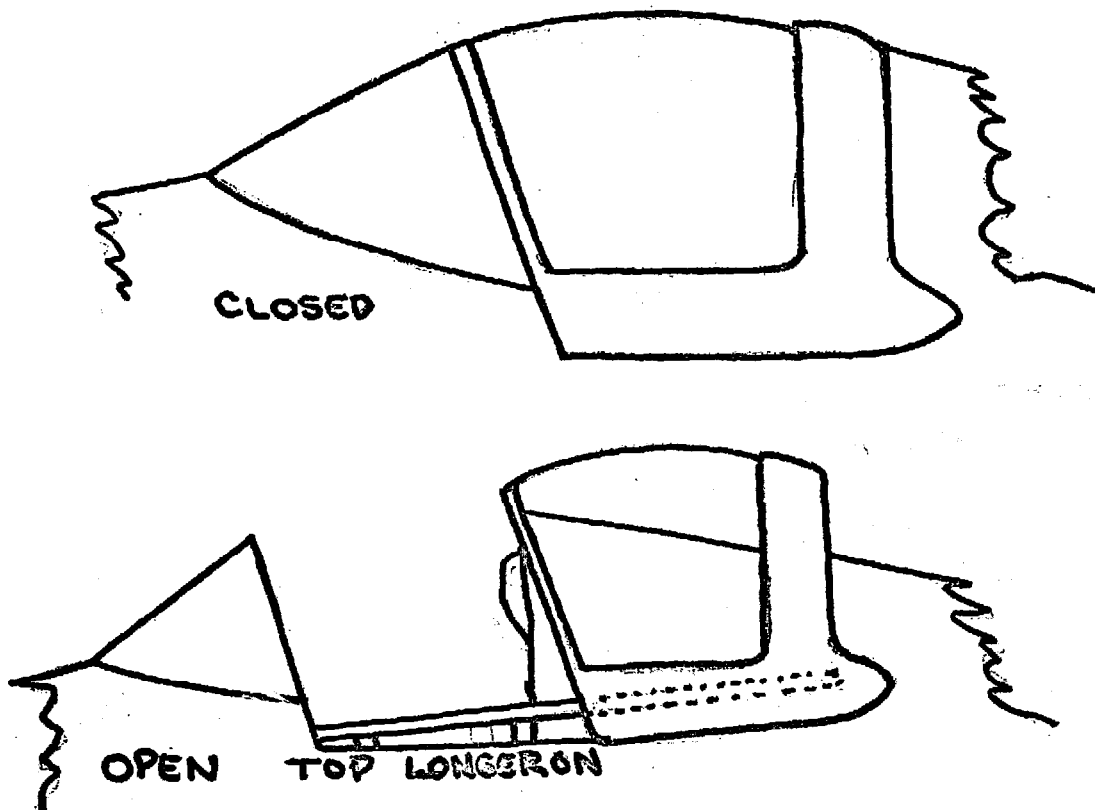
KR-2 PROJECT for sale....Fuselage woodwork complete; center section spars finished and installed; on gear; engine mount in place; most metal fittings completed; most materials needed to complete (including canopy) but no foam or epoxy resin, instruments or engine, 650 hours and material cost invested; exceptional workmanship. Have little spare time in foreseeable future....\$1750.00. Hubert Talton, Jr., P.O. Box 842, De Land, FL 32720 Phone 904-734-0330

TIPS FROM OTHER BUILDERS

The KR forum at Oshkosh covered many questions and ideas but the one that received the most interest was Dan Diehl's solution to the Posa problem. Namely the fact that if the darn thing ran good at idle it was rough at top end, and if top end was smooth, idle would be too rich. Dan's solution is simple; set the Posa for best top end performance then close throttle to the idle position. Leave the engine running at idle then turn the fuel off. If the engine speeds up before it quits (90% of the time) your idle mixture is too rich. To increase the air to fuel ratio drill a 1/16" hole in the slide on the opposite side from the half moon opening (above or below the needle) then try the idle performance again. If the engine is still running too rich, enlarge the hole to 1/8" or larger up to 1/4" as needed for a smooth idle. If larger than a 1/4" is needed, repeat the procedure on the opposite side of the needle. Be sure all drill shavings, etc. are removed before the engine is started each time!!



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We would like you to know about H.A.P.I. and our goals. We have built 3 homebuilts and are currently finishing up a KR-1 so we know the builders problems. We have been into V.W. engines for many years and decided we could build a better conversion than any that were available. To keep weight down we use magnesium castings. To insure long life we electronically balance every engine. We build from new parts, then test run and tune every engine before shipment. Our engines (5 models now) are engineered to run reliably for many hours of flight time. Our customers are receiving their engines in 30 to 45 days after ordering, and are very pleased with flight performance. We build 2 low cost engines, a 1680 C.C., and an 1835 C.C. with magneto only, but with the same power and reliability of our models "50" - "60" and "60" turbo charged, which have starters, alternators and oil cooler. Balancing is standard on all engines. All exposed steel surfaces are gold cadmium plated. Our catalog, 46 pages of engines, parts, accessories, and instruments is \$3.00 refundable on \$25.00 purchase. Our book "How To Build A Reliable Volks Aero Engine" is the most informative ever, with 126 photos, plus diagrams and step by step building instructions. \$10.00 plus postage. Every part or product in our stock has been selected for reliability and long life in aircraft service. We have "In Stock" many of the "Hard To Get" items such as Bosch starters, 20 amp alternators, Posa linkage kits, magneto drives and many more. If you can't seem to find the part you need, try H.A.P.I. If we can't supply your needs, we'll suggest someone who can. Our goal is to become the single source you need for everything ahead of your firewall. The only way we can reach that goal is with good products and good service for you. H.A.P.I. engines, ask the man who flies one!

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