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KERRVILLE "80"
EAA SOUTHWEST REGIONAL FLY-IN

Texas is a BIG state! Especially when you are driving. I've had the experience before but you tend to forget just how far it is from one end of the Lone Star state to the other. My memory was refreshed last week when I drove from L.A. to attend the EAA Southwest Regional Fly-in at Kerrville, Texas. Whoof...what a drive! Original plans were to bring the KR-3 to Kerrville and then to Tulsa where water operation and flight testing would be carried out. However, propeller problems were not solved before the fly-in date so the KR-3 remained in California and I made the journey via my Datsun. Long drive or not, it was a great trip. I had a chance to see first hand some of the KR activity I had been hearing about. Dave Baker, president of EAA Chapter 35 in San Antonio, had his KR-2 project on hand for static display. The center spars were finished so Dave was just past the "boat" stage of construction. Good workmanship so far, should be a nice KR-2.

Al Campbell, newsletter editor for Chapter 35, is obviously a perfectionist when it comes to his KR-2 project. Al's KR was on the gear, with the rudder, horizontal, and elevator foamed. I really want to see this one when it is finished.

John Wells had the remaining KR project. John's KR-2 N37JW was almost complete, with only some cowling work to be done. An interesting modification to 37JW was the fabric over stringers fast back and a gull wing canopy. John had a Daily Tubbs 1800cc VW conversion and ran it during the KR forum to demonstrate its easy starting and smooth running.

KR-1 N44EH, a continental 65 powered, built and flown by Ed Hart. I was never able to catch Ed around his KR so didn't get a chance to question him about the performance of his aircraft. A spec sheet with the KR listed the empty weight as 600 lbs, gross 900 lbs and a cruise speed of 120 IND. This is somewhat slower than other Continental powered KR's so I suspect a propeller change would improve Ed's cruising speed, however it would probably decrease his rate of climb.

KR-1 N90537. Danny McCormick has been flying this quick little KR-1 for over a year now and enjoying it more each day. He recently put a Great American prop on the KR-1 and increased his top speed by 35 mph. Dan was obviously pleased with this boost in performance and made several low level fly-bys to demonstrate the speed & climbing ability of the 1700cc KR-1 to the very appreciative crowd. When asked how fast he was going, Dan reported a fly-by speed of 175 mph indicated. The KR forum was hosted by Dan (also a member of EAA Chapter 35). Good Show!!

KR-2 N4DD. This blue KR-2 is a familiar sight at any fly-in around the Southwest and other gatherings around the country. Next time Dan Diehl is at a fly-in, take a close look at the engine installation. Clean and neat, no loose ends. There-in lie the reasons for the hundreds of trouble free hours Dan gets out of his 2180cc turbo-charged VW engine. This same philosophy is carried out thru the whole of N4DD from the spinner to the tail. Dan and N4DD was selected to receive the Ken Rand Memorial Award for the KR most representative of Ken Rand's ideas.

It is always a "high" to attend a fly-in but the Kerrville gathering was especially enjoyable. The most descriptive word that comes to mind is "friendly". The whole fly-in was characterized by an air of informal efficiency that made everyone feel they were a part of the event. This was my first time to attend this particular fly-in, it sure won't be the last.

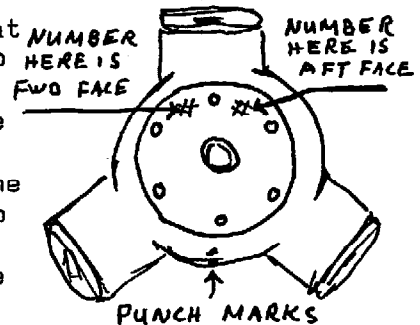
The note in the last Newsletter about staying at the University dorms has drawn some response. Reservations for 10 people have been received so far. I'll repeat the note just to make sure you don't miss out. If we get enough people, the University will reserve a whole floor for the KR group. Rates are very reasonable, \$9.00 per day for singles and \$14.00 a day for doubles (two single beds). The food is good, there is ample parking for those with cars and a regular bus run to the fly-in for those with out. Make out a check to the University of Wisconsin-Oshkosh if you would like to be a part of the group. A one day deposit (\$9.00 or \$14.00) is all that is required plus name, address, etc. This is refundable if requested in writing by July 15, 1981. Mail your check to me and I will send it along with the others. The Oct. 15th deadline is going to be extended to Oct. 19th to allow week-end mail to be received. Any reservations received after that date will be forwarded immediately to the University with a request that they be added to the KR group. See you at Oshkosh 81!

KR FLY-IN

While we're on the subject....Bill "Reverend Billy" DeFreze has come up with a perfect location for a KR fly-in for next year. It is a large private airport in north central California and the whole airport would be turned over to the KR group. Tentative plans are to have an early fall week-end as the dates but we want to hear from you before we finalize anything. The fly-in is planned as a West Coast event but naturally KRs and KR builders from all over the country are invited.

Drop "Reverend Billy" a note if you're interested in attending or if you just have some ideas on the subject. This will be your fly-in so we want to hear from you. Write to Bill DeFreze, 7530 Ironwood Dr., Dublin, CA 94566 or phone (415)828-2111.

PROPELLER NOTES FROM R/R...A problem discovered by R/R is that prop owners were not sure which was the front half of the two piece hub and some were not installed properly. Here is how to check yours...There are two punch marks on the edge of the prop hub, one each side. Make sure these marks are adjacent each other. Now...There is a production number scribed on the forward and aft face of the prop hub. This number will be to the bolt hole thru the top blade when the punch marks are at the lowest point. The number will be on the right side of the hole on the aft face. An "out of track" condition may exist if your prop is not installed correctly.



I was talking with Rex Taylor the other day about some of the new parts and accessories H.A.P.I. has available. You guys having trouble with the Posa carb will be pleased to know H.A.P.I. is now selling a Bendix Zenith float type carb made especially to H.A.P.I. specs. Along with this they have gascolators and other fuel system parts. Eventually H.A.P.I. expects to handle everything ahead of the firewall so if at all interested in flying behind a VW engine, stay tuned to H.A.P.I.

Rex also had some thoughts on the fuel starvation problems experienced by some KR builders. The probable cause is a poor vent to the fuel tank. If you are having a problem and you suspect fuel flow is the culprit, could be the vent. A fuel tank vent must allow air into the tank as fast as fuel leaves it, in all flight attitudes and air speeds. The vent must never be positioned in such a manner that it is open to a low pressure area. Air moving over the cowling can create a low pressure zone in certain areas. These areas vary from KR to KR so it is up to each builder to make sure his fuel tank vent is adequate.

There are a couple of ways to check the airflow around and to the vent. One is our old stand-by, tuft testing in which three or four pieces of light knitting yarn (2" to 3") is taped to the area around the vent. Airflow over the surface should be smooth and the tufts of yarn will lie straight and flat. If they dance, you might have to pay the piper.

Another method, and one suggested by Rex, is to hook a vacuum gauge to a tee at the top of the sight gauge, if you're using one as most KRs are. A vacuum reading of any amount while the engine is running indicates a vent problem. Check yours out now. Could save you some embarrassment or worse later.

FLIGHT REPORT

Well, I've finally flown my KR-1, although not as soon as I would liked to have flown it but patience paid off in that several high speed taxi runs acquainted me with the plane.

The following is a flight report and conditions existing at the time:

Time: 0930 Saturday Aug. 23, 1980
Weather: Clear, warm, about 80F, no wind
Runway: Paved strip, Redding Sky Ranch 2400 ft. with 50 ft. obstacles at each end (pine trees).
Engine: 2100 Revmaster
Prop: 3 blade R/R
Empty wt: 450 lbs.
Carburetor: Used Mikuni instead of Posi which allowed idle speed of 750-800 rpm with 3000-3100 static.
Oil: Temp 170-180 at 50 psi
T.O.: Distance about 350 ft., no idea of speed, too busy on climbout to notice
Cruise: Gear down 125 at 75%

After several days of high speed taxiing, a date for the initial flight was set for Friday, Aug. 22. However, because of winds, the date was moved to the next morning. The next day proved perfect for the test and after preflight I intended to make one high speed taxi to refresh my feel of the plane's ground handling and to insure a good warm up. I rolled up to the ramp and did a quick cockpit check and proceeded to start my taxi run. Then about halfway down the strip, when the tail was up nice and high, I said to myself, "fly it or park it" and gave it full throttle. There exists a good amount of torque difference between high speed taxi power and take off power and since its to the right, is easy to misjudge, I misjudged it and almost made the 50' obstacle a 54' obstacle pine tree with a KR-1 top ornament. Therein lies the reason why I failed to notice the climbout speed.

After initial climbout, everything settled down a little and I started to get the feel of the plane. I know all of you have yet to fly your KR have heard it before but the flying capability of this design is beyond description, it is almost an extension of your own body and just as controllable.

I never did retract the landing gear and only used 75% power on the initial flight. I was just trying to learn the plane which turned out very easy indeed. I then set up a downwind and glanced at my airspeed opposite the assumed touchdown point, which read 125. Well, with that much speed I wound up too high on final and flew another pattern with downwind at 100. This put my final at about 85-90 and after I cleared the trees I chopped the throttle and was over the numbers at 70. It floated about 1/4 of the way down the strip with me holding the stick as still as possible and finally settled in a 3 point attitude with a 6 inch initial skip (according to my ground observer because I didn't feel it). Rollout went great and I turned off active with 350' of runway left.

Observations: first, do not wait to apply power halfway down a 2400' strip, not enough margin for error even with the climb rate we have available. Second, watch that right torque all you Wichita Spam Can Flyers, instinct says right foot, KR says left foot. Third, whoever says a KR needs a long runway to land on, i.e. greater than 3000' doesn't know what the KR is capable of (the late Ken Rand flew his KR-2 in and out of the same strip at our local EAA Chapter's Oktoberfest giving demo rides). Fourth, get some tail dragger time in a Champ, Luscomb, or T-Craft or similar, I learned in a T-Craft and only once before have I flown anything else (a 140 Cherokee). Fifth, and I hesitate to make this statement because I do not want someone to try to fly their KR without sufficient experience, but I will include it only to set aside fears some of you low time pilots have of your ability to fly a KR. At the time of my flight, I had less than 50 hrs total flying experience, including instruction time. But please be sure of your familiarity with your KR and get some taildragger time, it ain't that hard. Finally, and KR owner's flyers who attend the Redding Chapters EAA Oktoberfest have a place to stay at my home or I'll provide any and all transportation to any hotel in town if you prefer. This invitation remains open at all times, just drop me a line or call. Incidentally, there are three other strips here in town, all longer than the Sky Ranch if 2400' makes you nervous.....Maynard Gary Brower, P.O. Box 15, Whitmore, CA 96096 or phone (916)472-3757.

QUESTIONS & ANSWERS

- Q. What type of instrument would best be used to measure dimensions such as 20.12" or .87"?
- A. Use a standard inch rule or tape measure and convert the decimal measurements to the nearest large fraction, i.e. 20.12 would be 20 1/8", .87 would be 7/8".
- Q. Where does one get an 8 ft. sanding block to sand the wings as per plans?
- A. There are several ways of making a long sanding block, here are some of the ways other builders have used. Use two pieces of 1"x 3" (straight naturally), glue & screw to form a long "T". Glue sandpaper to the flat side and sand away. Another method is to use the rails from a suspended ceiling, there are light, straight, & cheap. The one drawback is that they are fairly narrow. The last method I've heard about is to use a piece of 1" PVC pipe with a strip of 1" non-slip tape (as found in 12' rolls for the bottom of tubs and showers). All reportedly work well.
- Q. Is there anyone in the KR fraternity who would be willing to spare some time in his KR-2 with a person like myself (low time pilot) in order to help insure the investment made in building or buying a KR does not disappear on the first flight attempt? Even if the KR-2 flight experience only lasts 10 minutes the experience gained could quite possibly mean the difference between a successful first flight and a tragic ending.
- A. There is not a formal program to train KR pilots but there are at least two guys who have made themselves available to someone needing KR flight experience. Brad Hummel, 15872 Puritan Cir., Huntington Beach, CA 92647 is one. Brad does not have his own KR-2 finished at this time but has made several KR-2 first flights and has demonstrated flight techniques in KR's that have received their final inspection. Dan Diehl is the other KR-2 builder/pilot and has given an uncounted number of familiarization rides to KR builders ready to make their first flight. Dan's address is 4132 E. 72nd, Tulsa, OK 74136 phone 918-492-5111. These guys work for a living and are not rich so arrange some compensation for their time and expenses. Whatever the costs, it is cheaper than a big repair bill or a totaled aircraft.
- Q. Can an outboard motor (2 cycle) be used on a KR-1 or -2? How large?
- A. Outboard engines are fine engines....on boats. I'm not sure how well one could be converted to KR use. Size would be more of a weight factor than horsepower. 160 to 190 lbs is what the aircraft is designed for.
- Q. Did R/R incorporate the corrected dimensions, as they were observed and reported in the KR Newsletter, into subsequent plans?
- A. Most of the errors in the original plans have been corrected, not all however. Check your plans against the Newsletter to be sure.
- Q. Is it OK to undercut the wing ribs about 1" and then lay in one large, continuous piece of foam? This would eliminate the often found "washboard" effect found on some KR's.
- A. Several builders recommend this method. I haven't tried it yet but fully intend to.
- Q. The plans call for 6061-T5 for hinge and control arm material. Can 6061-T6 be substituted?
- A. Yes.
- Q. The dimension given for the tip of the rudder spar is 3/8" yet the cap is given as 5/8". Which is correct?
- A. 3/8" is correct, however, you may want to use a larger size cap to allow for the rudder taper.

There have been many and various cost increases suffered by all of us. I am sorry to report one more is in the offing. Subscription rates to the KR Newsletter will be raised as of 11/1/80 to the following: \$12.00 per year in the U.S., \$15.00 (U.S.) per year in Canada, \$20.00 (U.S.) per year for overseas air mail. The annual dues to the KR Club will remain \$3.00 per year. I am sorry to increase the Newsletter rates to people I know are already feeling the effects of runaway inflation. Unfortunately, the KR Newsletter is a victim too, with costs more than doubling in the last two years.

Many of you cherish the Newsletters and have let me know of your appreciation thru your letters. I will continue to offer whatever assistance I can to all KR builders, thru the Newsletter, by telephone and in person. Future KR Newsletters will continue to seek tips and techniques from the people who know KR aircraft best of all....you the builder and the pilot. I will continue to answer any questions regarding KR's as long as there are questions to be asked.

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FOR SALE...KR-2 complete Rand kit with all optional fiberglass pieces. Woodwork is 80% complete...\$1500.00. Phone (414)227-0357 Griffin, GA.

FOR SALE....1835VW. Magneto, Posa carb, Revmaster starter, alternator, access. case, R/R Lyc-type engine mount, extras \$2000.00. Also a JLO snowmobile engine model 2F-400-1 for \$300.00. C.J. Soboleski, P.O. Box 238, Riverton, VA 22651 (703)636-2250 no collect calls please.

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HEY GUYS!

Do you buy parts & supplies from a business that the rest of the KR builders might benefit knowing about? Would it benefit that business to have the thousands of KR builders as potential customers?

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