



MAY 1979 ISSUE NO. 47

NEWSLETTER

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** 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

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Ken Rand Memorial Award Winner

Photo by Jarold Barnett

Chino does it again! For the second year in a row there have been ten or more KR's displayed at this EAA fly-in. To my knowledge there has been no other fly-in draw as large a turnout of KR's in consecutive years...not even Oshkosh.

The KR's in attendance this year were.....

KR-2 N52WV Warren Vincent, 10848 Sunnybrae, Chatsworth, CA 91311 built this KR-2 with care, attested to by the fact that it received the KR Club sponsored Ken Rand Memorial award for "Best KR" at Chino. Warren is short on taildragger time and is wisely being checked out by Brad Hummel before soloing the KR-2. Brad has flown four different KR-2s, and is willing to assist anyone desiring help on that 1st flight. His address is 14161 Chestnut St., Westminster, CA 92683 or phone 714-898-3888.

KR-2 N19FW Fred Whitcomb's KR-2 has an electrical system (starter, alternator, etc.) and a turbo-charger on a 1600 VW conversion that he built up himself. The overall appearance of Fred's KR is good but what makes the aircraft outstanding is how light it is. Would you believe only 410 lbs? When asked how he was able to obtain such a light empty weight, Fred said, "I just followed the plans."

KR-2 N24BD Bill DeFreze was on hand to demonstrate his retractable tri-gear system to all comers. If you're looking for the least expensive, quickest to build, retractable tri-gear, Bill has it. He's selling plans to the system, one that utilizes many of Rand/Robinson's existing parts. A twenty dollar bill will get you the easy to follow drawings and construction photos. Bill's address is 7530 Ironwood Dr., Dublin, CA 94566 or phone 415-828-2111.

KR-2 N51998 Murray Rouse gets around! No banjar queen this KR even tho it appears to have been just finished. Murray's KR-2 is one of the higher time KR's around. There are a minimum of deviations from the plans in this KR-2 and Murray says that's the secret of getting a homebuilt project finished quickly.

KR-2 N???? Don Land had his retractable tri-gear KR-2 on hand for its first public showing. The sliding canopy and tri-gear gave the appearance of a military fighter in miniature. Don plans on starting taxi tests within 30 days and will have more information then. Meanwhile, he does have plans and drawings available for the complete system. For those of us who don't weld, he plans on offering the gear as a ready to install kit. You can get an isometric drawing from Don with just a S.A.S.E. that shows the system in detail. Plans are \$40.00. Write to Don Land, 906 Manzanita St., Los Angeles, CA 90029.

KR-1 N1436 Ken Rand's original aerial hot rod was displayed by Jack Moell of Rand/Robinson.

KR-1 N47186 Butch Grafton was back again this year but then Butch attends all the fly-ins around here. He went to eight different fly-ins in 1978 and is well on the way to matching that total this year. A super sharp KR-1 and a great guy, if you see them at your local fly-in be sure to say hello.

KR-1 N78HM This was my first chance to see Harold Middleton's KR-1 tho I had heard about it before. Harold's home base is in the San Diego area, along with Butch Grafton and Murray Rouse. Harold plans on flying his KR-1 a lot this summer so watch for him. The aircraft has obviously had some thought and effort go into it and it's well worth looking over.

KR-1 N???? Robert Apdahl did not actually attend the fly-in as a participant but his KR-1 was hangared in the same hangar the awards banquet was held in. The KR appears to be completed but with only taxi time on it so far. Hope to have more info on this aircraft shortly.

KR-2 N??? Gary Boyd makes the fiberglass parts sold by Rand/Robinson and naturally encourages their use. His KR-2 has a fiberglass fuselage as well as using the rest of the ready made parts R/R has in stock. Eventually this option will be offered to other KR builders after a full series of flight tests are run. The KR Newsletter will have more on this as the info comes in.

KR-2 N??? Garth Hess brought his KR-2 as a static display last year and was back again this year....as a static display. Garth has modified almost every part of the aircraft in some way, going to a laminar flow airfoil & a canopy of his own design. A real innovation was the use of a venturi, built right into the wing fillet, that he made himself and tested by mounting it on his car and measuring the vacuum delivered. Garth should be flying his KR-2 by the end of this year and I'm looking forward to the first flight of this sophisticated KR-2

Well, there you have it. Eleven KR's to look at, compare, admire or criticize. Regardless of what you thought of each particular aircraft, you have to give these guys credit. They took the time to bring their KR's, finished or not, to allow the rest of us a chance to look. They have my thanks and the appreciation of all who came. See you at the next fly-in

Next fly-ins are:

May 18-20 Conroe, TX, Houston Sport Aviation Fly-in, Montgomery County Airport.
May 25-27 Watsonville, CA Antique Fly-in.
June 2 & 3 Mojave, CA, VW Fly-in, Mojave Airport.
June 2 & 3 Merced, CA Antique and Homebuilt Fly-in.
June 21-24 Springfield, OH M.E.R.F.I.
July 28 thru Oshkosh, Wisconsin 27th Annual EAA Fly-in Convention
Aug 4
Sept 26-30 Tullahoma, Tenn. 1st Annual EAA Fall National Fly-in Convention

KR CLUB HAPPENINGS...While at the Chino Fly-in I had the opportunity to meet several KR Club members, some for the first time, some were old friends. Bill DeFreze qualifies as the latter and is probably the most enthusiastic of all the club members. He is really the one responsible for our KR Designee program in which free assistance is given to KR builders in the form of questions answered, advice and occasionally, a little skilled labor. Anyway, from Bill DeFreze, KR Designee #3, (Ernest Koppe #1 and Dan Diehl #2) "I would like to strongly suggest that all builders of KR's make it a point to obtain all of the back Newsletters and use these as your 'bible' in building these beautiful planes. In the early Newsletters, the problems with the plans were discovered by the builders and so noted in the Newsletter by Ernie. Later, and as the construction continued, the builders came up with ideas to improve construction and techniques. I personally found these Newsletters really answered my many questions. There are those out there that think this and other homebuilt airplanes are under or over designed. This is good, because it is good stimulus to listen and see. But one has to evaluate each suggestion on its own merit. Is it really necessary, will it add weight, is the modification itself under or over designed, is it what I want in my airplane??? After you have asked yourself these and other questions, you can then make your judgement. As we all know, Ken built the airplane and then developed the plans. If anyone out there thinks this is easy....try it. You will be amazed. Case in point is my own tri-gear plans. Due to demand after Ernie printed the pictures of my 'baby', the phone jumped off the hook from all over the country. I'm sure Don and Gerhard had the same experience. It took me 3 months to get my plans ready and I still found where it could have been done better. Remember, Ken was only human. It is very difficult, no impossible to think of everything. That, in a nutshell, is the value of the Newsletter and the work and effort that goes into putting it in your mailbox once a month. Put them in a looseleaf binder and protect them. Adding this new designee service by phone or visit will really help you to complete the dream machine safely and with efficiency so you can move on to the next project. Ken proved it was not only a fun plane but a reasonable cross country ship. We all know the different air shows and just side trips he took. So it's a great airplane, lets get them finished and form 'squadrons' in our own areas and have some fun. Believe me, there is nothing to be afraid of in building this plane, I don't care if you have never built anything in your life. Yes, it requires some work-WORK! and persistence, but let me tell you publicly, that after all the work and patience I put into N248D, I had a close friend test fly it while I chased along side in the bed of my El Camino taking movies of its first flight. As he broke ground and flew into the blue, at 45 years old, I was so overwhelmed with emotion, happy, excited, thrilled, overjoyed, proud, that I broke down and bawled! Like a little child, I cried. The last time I can remember that kind of joy was when my bride blessed us with a healthy little girl 23 years earlier. Believe me guys, it is an exciting experience to look forward, too. So let us help you over your problems so you can continue on and get them flying. I would like to ask a favor of all you Newsletter readers. Would you submit on a postcard or letter to Ernie the status of your project so we who are interested can get a census of KR's. As an arbitrary scale, lets use this kind of table, 1%...Have plans, 5%...Have all or some parts or kits, 10%...Fuselage built, 20%...Tail feathers, 30%...on gear, 40%...wings completed, 50%...wiring, rigging, instruments and plumb., 60%...needs engine, 70%...detailing toward finish, 80%...need paint and trim, 90%...taxi testing, 100%...flying. If you know of others who don't get the Newsletter, ask them if they would mind helping us with this census. Just make the percentage of completion on a post card and mail it to the Newsletter and we will compile it and let you know the status in the next Newsletters."

****Not only is Bill a KR designee he is now an E.A.A. designee and a founder of E.A.A. Chapter 663. Now that is involvement!**

Speaking of KR Designees, the list of KR club members who have volunteered to help you with your problems is growing. Here is a listing....(1) Ernest Koppe, 6141 Choctaw Dr., Westminster, CA 92683 714-897-2677 (2) Dan Diehl, 4132 E 72nd, Tulsa, OK 74136 918-492-5111 (3) Bill DeFreze, 7530 Ironwood Dr., Dublin, CA 94566 415-828-2111 (4) Ray Ellis, 2416 E. Douglas, Des Moines, IA 50317.

The KR Forum at Oshkosh this year will be on Monday, July 30, 12:00 pm to 1:15 pm in forum tent #2. Answering your questions will be Dan Diehl and myself.

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Dan Diehl
4132 E. 72nd
Tulsa, OK 74136
ph. 918-492-5111

Retractable tri-cyle landing gear conversion plans by Bill DeFreze. Uses many of Rand's parts, including gear legs & spring bar.

\$20.00

Bill DeFreze
7530 Ironwood Drive
Dublin, CA 94566
Ph.415-828-2111

Retractable tri-gear for KR-1 or KR-2. Stress analyzed to 3x gross by Marshall Wood, senior design engineer at Rocketdyne. Plans are now available @ \$40.00 for complete system. Material kit, excluding wheels \$250.00. Ready to install assemblies \$800.00. Free isometric view with S.A.S.E.

Don Land
906 Manzanita
Los Angeles, CA 90029

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Advertising rates are as follows: Newsletter subscribers seeking or selling parts, materials, etc. for their projects are not charged. Other ads, including completed aircraft for sale, will be charged according to size. . . "business card" ads. . . \$6.00, 1/4 page. . . \$10.00, 1/2 page. . . \$18.00, 1/2 page. . . \$35.00, full page. . . \$65.00. prices are per monthly issue and may be raised without notice. Ads should be camera ready. Typesetting and halftones available at extra charge.

BUY-SELL-TRADE

FOR SALE....KR-1 fuselage, empennage, and latest plans, \$250.00. Wheels, brakes, tires, and tubes, \$65.00. Axle kit, epoxy, dynel, etc.....Karl Sheldon, 2614 S. Noche de Paz, Mesa, AZ 85202 phone 602-839-6877.

WANTED....KR-2. Finished or nearly so, less engine. State price and particulars.... Gary Turner, 5136 Pickford Way, Culver City, CA 90230 phone 213-838-5762.

WANTED....Complete 1834 or 2100 cc Revmaster engine in good condition for KR-2. State price and history....R. W. Jones, 8609 NW 10th Ct., Vancouver, WA 98665.

FOR SALE....1 each Wag Aero VW pressure cowl and 1 each fiberglass fuel tank for KR-1. Reg. \$160.00 value, will sell for \$70.00....Dan Scharf, 9564 Hwy 88, Campbellsport, WI 53010 phone 414-533-8720 after 6 pm central time...no collect calls.

FOR SALE....KR-2 project. Fuselage ready for inspection, spars almost complete, all wood necessary to finish, epoxy, plans, catalogs, Newsletters and E.A.A. "how-to" books. All for \$600.00....Bill Logan, 11940 Old Orchard Dr, Indianapolis, IN 46236. phone 317-823-6779...no collect calls.

WANTED....KR-2 project, prefer fuselage wood work completed, and on gear if possible. Further completion OK, but have engine and instruments to complete. Jim Mack, 1670 Van Patten St., Reno, NV 89503 or call collect 702-747-3505.

PAINTING & INTERIORS...Metro East Airport, St. Jacob, IL....contact Darwin Roach, 1158 Wanda Dr., Granite City, IL 62040

FOR SALE....KR-2 project. Fuselage complete, on gear, ready for foam. All R/R fiberglass parts, 1834 VW conversion with R/R 3-blade prop, hub and spinner, several instruments and other goodies. \$4000.00....Bob Hamill, 3967 6th Ave., Los Angeles, CA 90018 or phone 213-296-5294/

AN INTAKE & EXHAUST SYSTEM FOR YOUR VW CONVERSION

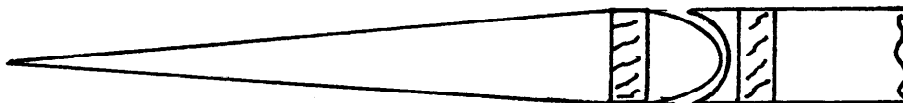
When I began putting together an engine for my KR, I discovered that an intake/exhaust system that suited my needs was not readily available. What I wanted was a compact, efficient, easy to install system that would give me some of the benefits of a tuned exhaust and still fit inside a KR-1 cowl. I reasoned that if it were compact enough to fit a KR-1 it would easily fit inside a KR-2 or other VW aircraft cowling.

After looking at several high performance systems made for VW cars and dune buggies, I decided something similar could be used for aircraft. I have located a shop that specializes in custom exhaust design and they are currently fabricating an intake/exhaust system to my specifications. Should this set-up prove out, I will have several more made using the original as a pattern. These intake/exhaust systems will be for sale as soon as I'm satisfied there are no problems with the design. Both single and dual port heads are in the works so the systems will fit all VW conversions 1300 thru 2200 cc. No price has been set, nor will there be until the design is finalized but total for both systems should not exceed \$150.00. They will, of course, be available separately. Write me if you're interested.....Ernest Koppe.

Now that the KR-2 is an "Approved to Build" aircraft in Australia they are finding good props are hard to come by. Seems as tho props also have to have the approval of the Australian D.O.T. So....again they need your help. If you are using the R/R 3-blade adjustable prop on your aircraft, and have 100 hrs or more, please send me your name and any thing noteworthy regarding performance of the aircraft/prop combination. This information is vital to our Aussie friends as they don't have the freedom to use just any prop, it must be approved. In order to obtain this approval they have to have proof of at least seven aircraft utilizing the prop for the required 100 hrs. A post card to the KR Newsletter with your name, kind of aircraft, size of engine, amount of hours on the 3-blade prop will get things started. Send it today...

QUESTIONS & ANSWERS

- Q. Do the rudder cables go over or thru the main spar? Where do they exit the fuselage?
A. The rudder cables go over the spars thru fair leads or pulleys. They exit 3 1/2" from the bottom of the fuselage, 17" forward of the vertical stabilizer.
- Q. Will the KR-3 be finished in time for Oshkosh "79"??
A. Work on the KR-3 is progressing but no target date for completion has been established.
- Q. Where can I get conversion parts for a type IV VW engine?
A. You can get your machine work, parts, etc. from Custom Aircraft Engines, Route #3, Box 427, Sanford, NC 27330.
- Q. I've heard rumors of a KR-1 or -2 on floats, are these rumors based on fact?
A. I've heard the rumors too, but I don't know that such an aircraft actually exists. If anyone can substantiate these rumors for us, I'll get it in the next Newsletter.
- Q. How are other builders closing the gap between the stabilizers and control surfaces?
A. Best way is to continue the foam/dynel beyond the spars thus.....



- Q. What batteries are being used in the KR's to crank over the Revmaster 2100 D?
A. Battery requirements seem to vary among homebuilders using starters but I feel this is more a matter of proper size wiring and adequate grounding than anything else. Rules to keep in mind when wiring for a starter are: (1) mount battery as close as possible to starter and starter relay. (2) use adequate size cable for positive and negative connections...when in doubt use automotive battery cables and connections. (3) have an adequate ground directly to the starter housing or to one of the bolts that attach the starter to the accessory case. (4) be sure the alternator is keeping the battery fully charged. Install a voltmeter in your aircraft, it will tell you more about the condition of your battery than an ammeter. (5) The battery offered by R/R is adequate for starting a 2100 Revmaster.

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