

# KR Newsletter

Issue #30  
Dec. 1977

## Subscription Rates

1 year--\$6.00  
0/seas--\$7.50

Back issues-50¢ ea  
Air Mail- - \$10.00



MERRY CHRISTMAS AND HAPPY NEW YEAR!

The KR aircraft is indeed of a very versatile design. Ken Rand has always said there was plenty of room for the builder to put his own ideas into his project and this has been proven out recently. There are two KR's nearing completion here in the So. Cal. area that have only their origin and quality workmanship in common. A KR-1 built by Frank Walker, an auto shop instructor in Whittier, represents the "strictly for fun" side of our sport. His KR is an open cockpit, fixed gear aircraft powered by the smoothest 36 hp VW I ever heard run. Frank is expecting to make the first test runs soon so there will be a more complete report in a future Newsletter. On the other end of the spectrum is a KR-2 built here in Westminster by Bror Faber, a C.F.I. and ex-R.C. modeler. His KR-2 is equipped for IFR operation via the nicest panel layout I've seen on a KR yet. Power is supplied by a Turbo Revmaster 2100 D w/starter and dual alternators turning a Maloof prop. Should move things thru the air at a goodly clip. A very complete and comprehensive testing program is planned for this aircraft, so watch for reports as they become available

\* \* \*

I was at Ramona airport last month at a fly-in hosted in part by EAA Chapter 114. The So. California weather co-operated and the fly-in was very successful. I wasn't a big fly-in as far as number of aircraft is concerned but there was one group of aircraft there in a number never before seen outside of Oshkosh. Would you believe four KR-2s...all flown in? It's true, the KR's were there "en masse" and it really tickled me to see that many KR's at a local fly-in. Hopefully it will become common place to have this number and more at these gatherings. Don't miss out on the fun, get your KR flying and join the rest of the crowd! See you at the next fly-in.

\* \* \*

RAND/ROBINSON UPDATE....New time saver from the ever busy "skunkworks" is a set of fiber-glass wing tips to fit the KR-1 and KR-2. No more hours of shaping and then wondering if you achieved the proper airfoil, just epoxy these tips in place and fair in with some Micro-balloons. Price of the set is \$65.00.....Plans for the KR-3 amphib will be available soon, probably before Christmas. Water operations and testing has taken longer than anticipated but now all is "shipshape". Plans will sell for \$75.00. There is a large blow-up drawing of the KR-3 for prospective builders to study at a \$2.00 price tag. If you are interested in any, or all of the above, drop a line to Rand/Robinson Eng., 5842 "K" McFadden Ave., Huntington Beach, CA 92647 or phone 714-898-3811.

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Two friends of mine passed away recently. They lived several hundred miles apart but news of their death came within the same week. They didn't know each other and for the record, I had never met either of them. I came to regard them as friends thru letters and thru a shared interest, building and flying airplanes. They were both building KR's...Jim Manento a KR-1 and Charles Haws a KR-2. Their planes are for sale now as there is no one to finish them. I hope the buyers appreciate what they are getting in these particular planes. These men built a part of themselves and their love of flying into them. So...it is with a sense of loss and sadness I report their passing but at the same time I feel proud to have known them.

## QUESTIONS & ANSWERS

- Q. Have any KR-2s been built with thicker wings, such as the 44 or 63 series?  
A. I have heard reports of builders using these airfoils but as yet, they aren't flying.
- Q. Is there anything you can use to thin the R/R epoxy to apply a thin coat?  
A. Since a chemical thinning of the epoxy can affect strength, I don't recommend thinning in that manner. By heating the epoxy to about 95° to 100° you will have a very spreadable consistency. A squeegee is the best tool for a thin coat.
- Q. How can you tell if the R/R epoxy is getting too old for use?  
A. Manufacturers recommended shelf life on most epoxies is one year. After that, you're on your own. However this doesn't mean you will have to throw out epoxy that has been around longer than one year. What happens to the epoxy is that it begins to "cross-link" or thicken as to be almost unusable. A little heat will usually restore the epoxy to usable consistency.
- Q. How is the R/R 3-blade prop working out?  
A. Due to the props ability to be "custom fit" to various requirements, it has proved to be highly successful.
- Q. I have two VW engines, a 1200 and a 1600. Which is best for the KR-1?  
A. I prefer the 1600 myself. This has proved to be a very dependable and economical engine and parts are readily available.
- Q. Are plans for the ½ span spoiler/flaps and aileron control on the KR-18 available for the KR-2?  
A. Until complete flight tests have been run, plans aren't even available for the KR-18.
- Q. What airspeed does Rand recommend for best rate of climb and best climb angle? What would be the best rate of climb in feet per min.? I know these figures will vary for the individual builder due to weight, engine and prop but it would give us guys something to shoot for.  
A. D.K., shoot for an 850 R/C at 85 ind. A/S. As you said, these figures will vary with each aircraft but should be obtainable, especially with an adjustable prop.

## BUY SELL TRADE

FOR SALE...KR-2 project: Woodwork complete and inspected, fuselage on gear, horizontal finished, 1700 cc engine, Posa carb, slick mag, all Rand kits, 95% of all materials less instruments, over \$2000.00 invested....Dick Hartwig, 2117 Liberty Dr., Cottage Grove, WI 53527 or phone (608) 839-4090.

Liquid foam...(please order only if you can't find it locally!) 2 gal. kit \$39.75, 2 qt. \$15.65, prepaid. Dual sticks, metal toe brake rudder pedals, 8 pages plans \$1.50 (Newsletter #14); wing spar drill & jig, \$12.00 deposit, \$10 less postage refunded on return; Englemann spruce with sitka spars KR kits, each piece cut and labeled, \$135.00 FOB.... Maj. Verne Lietz, Peshastin, WA 98847 or phone 509-548-7504 eves.

FOR SALE...KR-2 project, almost complete. Must sell due to epoxy allergy. Have instruments lights & controls installed. RevMaster 1834 turbo w/starter & alt. \$4500.00...Joe Semancik, 633 W. Sierra Madre Blvd. Apt. 7, Sierra Madre, CA 91024.

FOR SALE...Beautiful VW props our specialty. As displayed at Oshkosh. Send for FREE brochure....The Prop Shop, Box 237, St. Ansgar, IA 50472.

FOR SALE...Unused KR-2 plans plus all Newsletter to date. Will include the issues of Sport Aviation from March...\$45.00 for all....Grant Pence, 1522 W 4th Place, Mesa, AZ 85201.

FOR SALE...KR-2 project, 15% complete, plus remaining parts to finish aircraft (less prop). Includes instruments, Revmaster 2100 D. Over \$3800.00 invested, will sell for \$3300.00.... TEDDE, 3717 Ruth Rd., Ft. Worth, TX 76118.

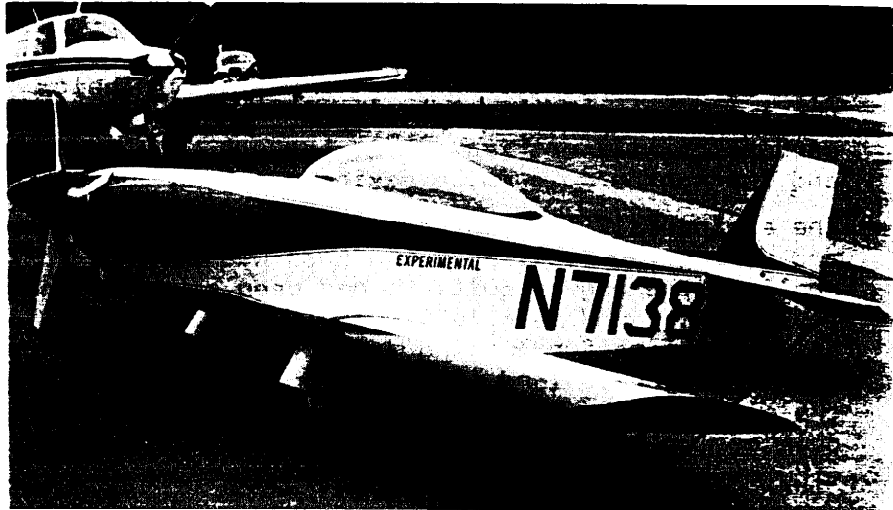
FOR SALE...Two gal. of five month old R/R epoxy (\$30) and 30 yds. x 48" wide Dynel (\$50). Ken Johnson, 208 N. Grace St., Lombard, IL 60148 or phone 312-495-1571 after 6 p.m.

FOR SALE...Slick Mag (4016), factory harness, Posi carb, oil pump (heavy duty), Magneto mount, 92mm cylinders & pistons...\$250.00...Steve Meltsner, 97 Patriot Rd., Windsor, CT 06095 or phone 203-242-4826.

BUY-SELL-TRADE (cont.)

FOR SALE...Almost complete KR-2, ten days and you can fly it. 2100 Turbo Revmaster all electric, Rand 3-blade prop and spinner, 190 channel radio, full panel, ELT, rudder and elevator trim, 3 gas tanks with electric fuel pumps, heel brakes and fuselage painted. Everything NEW, no used or scrounged parts whatsoever. Will sell for \$6000.00 parts and material cost only. Would consider plane in trade...Jack L. Bigham, 4483 Airport Rd., Redding, CA 96001 or phone 916-243-7179.

The KR-1 at the right was built by William Reents, 3874 Dunbar Dr., Youngstown, OH 44515. Engine is a 1700 VW turning a Rand 3-blade prop. Cruise is 160 at 3400 rpm and stalls at 45 mph. The aircraft is finished beautifully in DuPont Imron and weighs in at 462 lb.s First flight was in May, the picture was taken on Oct. 23, 1977 with 170 hrs. logged. The plane has been looped, rolled, & spun. Bill said the only problem was getting used to the torque on take-off. Photo and info by Carl West, 1208 Vine St. Girard, OH 44420



Here are a few bits of information that may help other builders. A piece of contact paper, purchased at a local department store makes terrific "N" numbers. It comes in different colors and stays on very well in weather but can be removed if you want to change size or color. I already took off my 9" numbers and put 3" ones vertically on the rudder. Just draw the number you want in ball-point pen onto the face..cut out with a razor blade and rub off any excess ink (if you cut down the center of the ink line).....Two tools which I found very useful in fiberglass work are a Rockwell Speed Bloc and a Dremel Moto-Tool. The speed block is expensive (\$60) but worth every penny when sanding epoxy & dynel. Very fast! Very smooth! I can use 50 grit construction grade sandpaper and sand epoxy smooth enough to paint. It makes 12,000 1/8" orbits per min. which means smoooooth & fast. The Moto-tool is good for removing dynel, epoxy, foam, wood or aluminum from places like wing attach bolts, empenage hinges, cowl camlocks where wood blocks are inserted, etc...Try this for a conversation piece at some hanger fly-in. Instead of putting inspection plates in the tail area I cut 1 1/4" circles at inspection locations and epoxied 1/16" clear plexi-glass flush with the surface. Instant inspection at a glance. Flashlight replacement lenses are similar to what I used. I extended the outboard wing spars in far enough to meet the center section wing spars. This acts as a spacer between the wing attach fittings. I already pinched one tire tube taxiing over a tie down loop with tire pressure under 20 p.s.i. Keep them pumped up above 22 p.s.i.....Art Lederle, RD1 Box 338, Wading River, NY 11792.



On the left is a picture of Art's KR-2.

ACCIDENT REPORT...The aircraft was a KR-1 with a 2100cc Revmaster engine equipped with a Pesa carburetor. Time of the accident was approximately 9:00 a.m....weather: temp 57°, dew point 54°, sky overcast with a 1500' ceiling, wind calm, visibility approx. 25 miles.

The carburetor heat system consisted of a filter placed behind a butterfly in the ram air intake. The idea was to take the ambient warm air within the cowl to furnish the heat for the carburetor. The butterfly cut the ram air off and permitted the air within the cowl to enter carburetor thru the filter. Due to the weather the entire flight including the high-speed taxi runs and the lift-offs were made with the carburetor heat "on".

To assure sufficient cool air for the oil, a vent was cut in the engine cowl just under the prop shaft to permit air to be forced over the bottom of the oil pan of the engine. This worked real well as the oil temperature never exceeded 140° including the climbout. The side effect of this oil cooling method was that it also took all the warm air in the cowl with it and since the carburetor was placed below this blast of air there was no warm air remaining to be used for carburetor heat. It seems to be general knowledge that a Posa carburetor will not ice. This has not been my experience. I have had the carburetor ice and the engine quit while making a ground run of the engine.

The engine failure occurred during the recovery from a stall. I carried 1000 r.p.m into and during the stall and when nose was lowered following stall and throttle very easily applied, the engine quit. I had been asked by the tower to move further from the airport for my stall and as a result could not return to the airport after engine failure. (I take half the blame for letting them move me away from the airport for the first flight.) It was necessary to land in a very rough pasture. Landing was rough and I was able to hold the plane on the ground for about 100 yards. The plane then hit soft dirt and flipped over on its back. I skidded about 30' upside down. I was pinned under aircraft for 25 minutes before anyone was able to get to me to lift it off me.

Plane is about 75% repaired and will be ready for another try soon, but with a different method of carburetor heat. Hope the above information will be of help to some others..... Harry Downard, 1727 Old Oregon Trail, Redding, CA 96001.

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ISSUE #30