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KR NEWSLETTER

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OVERSEAS $20.00 Yr Funds

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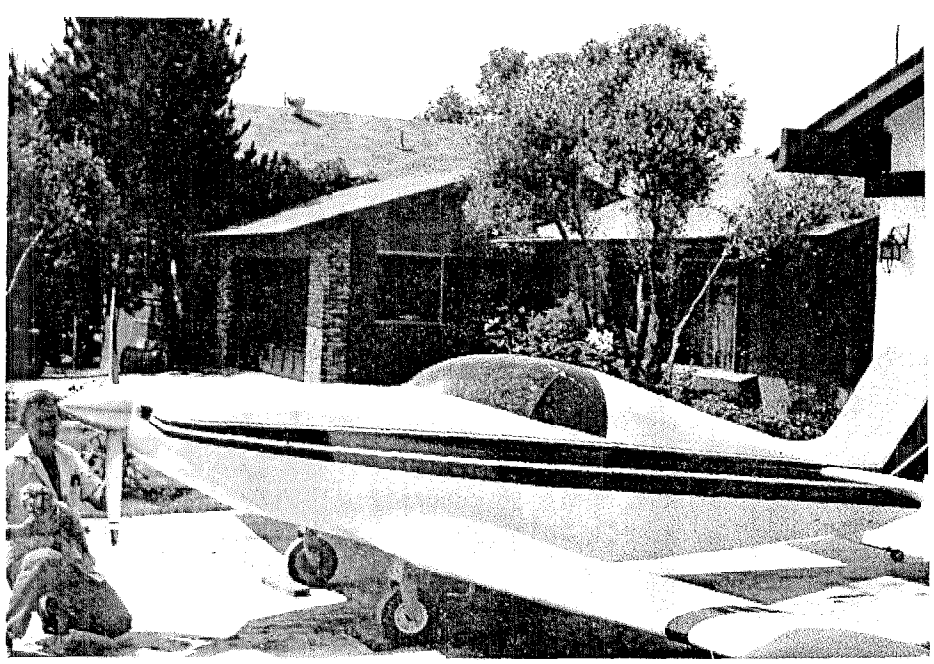
I have been asked hundreds of questions about the KRs, some difficult, some easy, and some that required getting outside help. There is one constantly recurring question that I have not been able to accurately answer...."How long will it take me to build a KR?" Everybody asks it. I don't have an answer that will fit everybody. The new Rand/Robinson ads say the KR-2 can be built in as little as 500 hrs. Maybe so, if the builder is able to get all the pre-fabricated parts. I remember the hours I spent on the hinges, and the bellcrank and the landing gear, and shaping the foam. Now, almost every assembly in a KR can be bought ready made. This can represent an immense saving in time, if not in money.

The new pre-molded fiberglass parts from R/R are much improved over the old pieces and these parts alone can save you a couple of hundred hours of sanding and glassing, and sanding, and sanding, etc. Engines too, are available ready to bolt on. When I built my first KR-1, I also had to build the engine and mount. Now, everything "firewall forward" is readily available.

So back to that original questions, how long does it take to build a KR? Well, the KRs shown in this issue of the Newsletter are typical examples, ranging from one year on a KR-2 to 8 yrs. on a KR-1. Now the KR-1 may not really be typical of all KR-1s, some have been built in a tenth of that time. But...it happens...and I know of KR-2 projects almost 8 yrs old.

What it all comes down to is this. You can build a KR as fast as you will. Whether it is 6 months (possible) or 6 years, you are the controlling factor.

BUILDERS REPORT



Manuel Sparks
10232 Kit Carson Pl.
Santee, CA 92071

Hi, Butch,

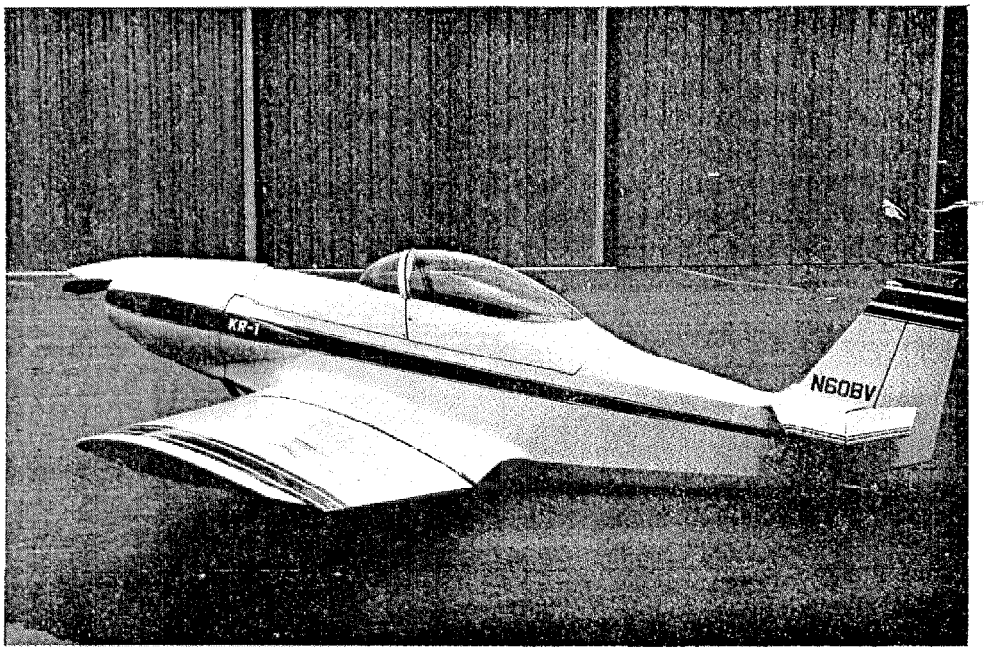
Here is the result of 23 months of blood, sweat, and tears. I'm very happy with the results, thanks to a good friend, Murray Rouse, who really gave lots of help. Murray built one of the first very nice KR-2s.

I stayed very close to blue prints. The canopy is lowered in front and lightly pinched. Made my own fiberglass parts except wing tips (R/R). 20 gal. nose tank only, 1834 VW from H.A.P.I. parts.

Hope to fly it in a couple of weeks, more later.

FLIGHT REPORT

I am very happy to report the first flight of another KR-1. N60BV was flown on June 12, 1982 at 9:30 am from Walker Field at Grand Junction, CO. This was after eight years of construction...that's right..EIGHT years. It is listed in the third issue of the KR Newsletter. My son Brian had completed a hovercraft at the age of twelve and wanted another project. I purchased the KR plans and he started construction May 1, 1974 at the age of 13. I was still building a Starduster Too and supervising his work. The Starduster was completed in two more years. We both did a lot of flying in the Starduster and the KR constuction was slowed, but never stopped. I took on all of the KR three years ago and built the engine and completed the plane. My son completed school, got married and has been very busy with his work. That partially explains the 8 years.



60BV has a 1600cc VW which I built with HAPI how-to book and parts...a Great American prop, POSA with carb heat, no electric but I carry a small receiver on tower freqency. Empty weight is 412 lbs. Changes from plans include the sliding canopy, HAPI type engine mount,NASA air vent, center control stick and heel brakes. A Cessna 172 spinner leads the way. I took off from a field elevation of 4500 feet, temp. 71°, wind 15-20 kts straight down the runway (had previously had four hours slow and medium taxiing and one hour of high speed taxiing). The KR lifted off in a very short distance. Engine temps were...oil-138, CHT-350 degrees throughout the flight. At 2700 rpm, I was indicated 140 kts in level flight...at 6300 feet. I am sure this was not TAS or ground speed, but it was really moving. The tower said it looked like a small jet. I thought the Starduster was sensitive on controls. The KR-1 is something else...very sensitive and a pure joy to fly. With everything going so well, I retracted the gear on the first flight. I flew for 20 minutes close to the field getting the feel of the plane. Landing, I carried 90 on final and held it off til it quit flying. I expected it to float, but with the wind and high altitude, it did not.

It is a real jewel and worth the eight years. Keep at 'em fellows! The Newsletters...from #1...and all the flight reports were invaluable, as was Pat and the folks at HAPI.....Vince & Brian Hostetler, 364 Martello Dr., Grand Junction, CO 81503.

**Editor's Note

Vince's comments regarding Pat and the folks at H.A.P.I. are typical of the comments I receive from people who deal with them. Rex and Phyllis Taylor, founders of H.A.P.I. have constantly strived to provide a reliable product to KR builders and all of sport aviation.

Recently H.A.P.I. engines were awarded the N.A.S.A.D. seal of approval, the only VW engine conversion to achieve this symbol of quality. Congratulations Rex, Phyllis, Pat, Robin and all the family.

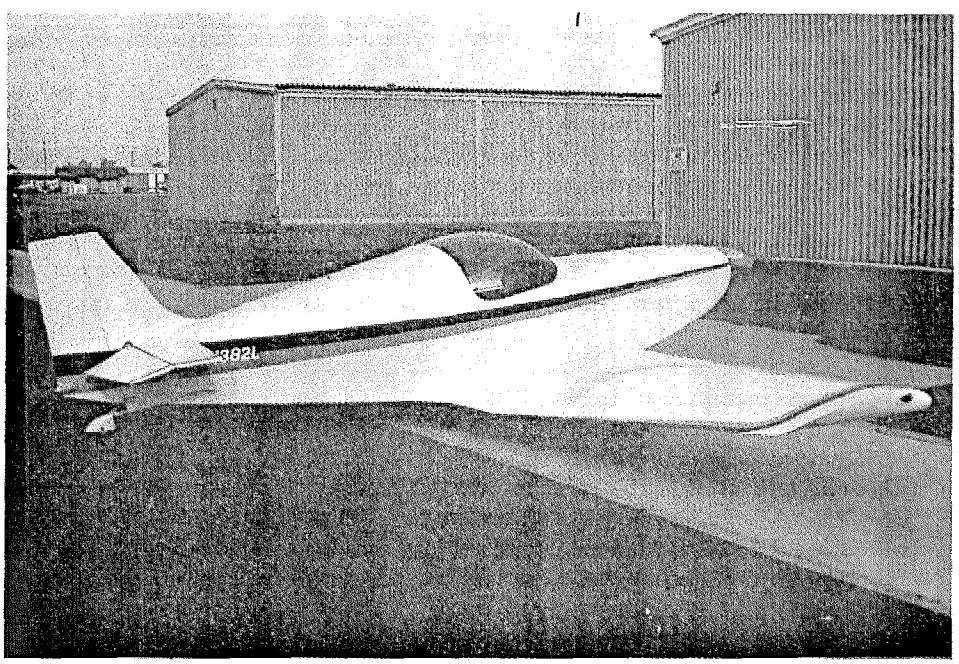
FLIGHT REPORT

First flight was May 18, 1982 at 7:30 pm. I started building my plane one year ago and with perserverence got it finished on Mother's Day, thus its name--Sweet Mildred after sweet Mom.

As to be expected, I made my share of changes...lengthened gear legs, wider fuselage by 2", reshaped turtle top for better head room, added speed brake, cockpit adjustable cowl flap and for the grand finale.....a faired in tail wheel!!

That eventful Tuesday night was really blowing with gusts to 35 mph so I decided to do just a few taxi tests and call it a night. Well the taxi tests (2) went so well and everything felt so right that I decided to go for it. Acceleration was brisk as I started drifting across the runway...had to get used to that left rudder requirement. Once in the air it became a bit reminesent of a circus ride with those winds. I couldn't check much out since it would never hold still long enough but reactions and control inputs were quite predictable. After two passes tracking the runway and the sun going down (but not the wind unfortunately) I decided to land. Well, the first attempt was a bit crude and after being blown off the runway for the third time, I punched the throttle. We went up like a bottle rocket that first 20 feet or so where I re-grouped for a go around. Praise be to that responsive throttle! For some reason the second attempt culminated in a real grease-on 3 pointer the likes of which I'm still trying to match! Thirty-two hours later (June 15th) I'm fully signed off and have a love affair going with Sweet Mildred that makes my girlfriend jealous.

I'm getting more rpm's than most guys with the same engine (Revmaster 2100 D) and prop (3200 static with a 52 x 47) so I went to a meatier 52 x 50. Static is now 3000, cruise at 3000 trues out to 197 mph. Stall is about 47 mph. I run the EGT up to about 1250°, the heads are still a bit hot at 330 cruise so I'm working on that now.



I've had it upside down and into a verticle dive to check the rate of acceleration. Flying 800 lbs. it's easy to pull out and not exceed 2G's and 140 indicated starting from 80 mph. Flying with more weight would be cause for closer concern.

I prefer wheel landings, flying final down at about 80 mph. I also start braking while the tail is up countering for the forward deceleration pitch with elevator input...it works great and I'm stopped in 1000 to 1200 feet.

I also have a patented new prototype exhaust system from Revmaster with anti-reversionary cones inside which appears to be increasing H.P. and quieting the engine. This is by far the quietest single I've flown, much quieter than a 172 or Mooney. All in all I'm JAZZED. Come see Mildred and I at Oshkosh after what will probably be her first long flight.....Lance Neibauer, 2217 Harriman Lane, Redondo Beach, CA 90278.

**Editor's Note....I understand the new Rand/Robinson ads featuring Tom Criss and his KR-2 were the work of Lance. They are apparently working as well as Lance's KR-2, Jeannette Rand says business is better than ever.

QUESTIONS & ANSWERS

Q. Why does everyone seem to be using such a primitive carburetor on VW conversations as the Posa? The original Solex carb had an accelerator pump and could be obtained with automatic mixture control (aneroid operated main yet).

A. Originally, the Posa was selected for its simplicity, lightness and because it did not require carb heat. Lately though, more concern for reliability has prompted modifications to the Posa that, while still light in weight, have added somewhat to the complexity. There has been some "re-thinking" on the no carb heat idea, too. Not because of the possibility of ice in the Posa but because ice has been found in the intake system behind the Posa. As for the Solex, some early VW conversions did use it with varying success.

Q. I was reading in the July '81 Newsletter about the Dow epoxy DER 324. My KR-2 is 60% complete and I need to get some epoxy that isn't so irritating to my skin. Where or who do I see about getting this epoxy?

A. Contact a fiberglass shop in your area and get the name of their resin supplier. He will be able to sell you the Dow/Versamid system or order it for you.

Q. Could you tell me how I can stop the trailing edges of my elevator, rudder and wings from warping? I've already tried sanding the foam on one side, glassing, then repeating the process on the other side but it doesn't work. I'm using Dynel.

A. You're on the right track but you need to add one more step. After you have glassed (or Dyneled) one side of the part and let it cure, sand the other side to contour. Trim the trailing straight and then scrape off approx. $\frac{1}{2}$" of foam along the trailing edge right down to the opposite surface. Now go ahead and glass this side of your part. This will leave a trough in the trailing edge that tends to be stiff and straight. Fill this trough with a very stiff mixture of epoxy and micro-balloons or epoxy and flox. Let cure and then sand to a smooth, straight edge.

Q. Has anyone encountered trim tab flutter using the Carl Goldberg servo (issue 18)? The new servos I bought have enough play in them to allow trim tab play beyond the limits mentioned in later issues. I'm using electric pitch trim on the stick and electric rudder trim beneath the turn co-ordinator.

A. There have been no reports of trim tab flutter to me, electric or otherwise. It is a possibility to consider however, and every effort to keep play in the system to a minimum should be made.

Q. I know the leading edges of the outer wing panels have two layers of fiberglass, do the wing stubs also have a double layer from top cap to lower?

A. Yes, the plans might not specify this but it is important. Many builders are now covering the entire wing surfaces with two layers of fiberglass cloth. When done properly this method makes the wings stronger and lighter than the old dynel method.

Q. Will the "Sting" exhaust fit the Revmaster 2100 D with Revmaster oil cooler and alternate air source installed?

A. Yes, the "Sting" exhaust system was designed around this engine.

BUY * SELL * TRADE

FREE ADS! NEWSLETTER subscribers get the first 25 words free! Ads with more than 25 words or ads from non-subscribers are $5.00 up to 50 words. Display or photo ads are charged by size: 1/8 page @ $15.00, 1/4 page @ $25.00, 1/2 page @ $45.00, full page @$80.00. Display/photo ads must be camera ready or include $10.00 for set-up. Charges are per issue, payable with ad copy.

FOR SALE...KR-2, 110 flying hours. 2100 D turbo charged Revmaster engine w/Maloof 2 speed prop. Radio gear with 720 channel transceiver and separate omni unit...$5500.00 total. $4500.00 less radio and omni. Bob Wood (707) 965-9132 (no collect).

MAGNETOS...New Bendix D-2000...$437.00 plus postage. Scintilla (Vertex) with 10 hrs...$350.00. Rex Taylor, R.R. #1 Box 1000, Eloy, AZ 85231 (602)466-9244.

FOR SALE...KR-2 project. Woodwork complete. Rudder and elevator glassed. Assorted materials & hardware...$1500.00 Chuck Borne (713)666-4251 Houston, TX

FOR SALE...R/R motor mount with rubber bushings. Fits VW case, unused..$100.00 Michael Walsh, 279 Claudia Ct., Moragu, CA 94556.

FOR SALE...R/R 3 blade prop for Revmaster VW engine, unused...$170.00 post paid. Rich Neate, (904)761-7261.

FOR SALE...KR-1 project. Fuselage, spars & empennage signed off. Empennage covered. FAA registration completed. Landing gear (aluminum kit), canopy, prop spinner, foam kit, VW block, bolt kit, 6 yds fiberglass, 1 gallon epoxy, most materials to complete airframe. $2400.00 invested, must sell fast for $1400.00. (817) 322-9566 evenings.

WANTED...3 blades for R/R prop hub (206)927-3530 after 9 pm.

FOR SALE...KR-1 project, signed off to finish. Log books, engine parts, etc. $2100 invested, will sell for $1500. Need room for KR-2. Allen Gurbino, 20706 Hillside Dr., Topanga, CA 90290 (213)455-1175.

KR PROPELLER

Carve your own KR Prop!
Universal computer generated blade angles, usual diameters and pitches. 1" stations, speed chart. How to cut blade angles with ridiculous ease. Easy to follow instructions...$2.95 per set U.S.A. Garth Hess, 881 Emory Ct., Upland, CA 91786

FOR SALE...Revmaster 2100D turbo with all extras, even digital Revmaster tach. All are new with "0" time.

Narco Escort 110 radio, new in factory carton.

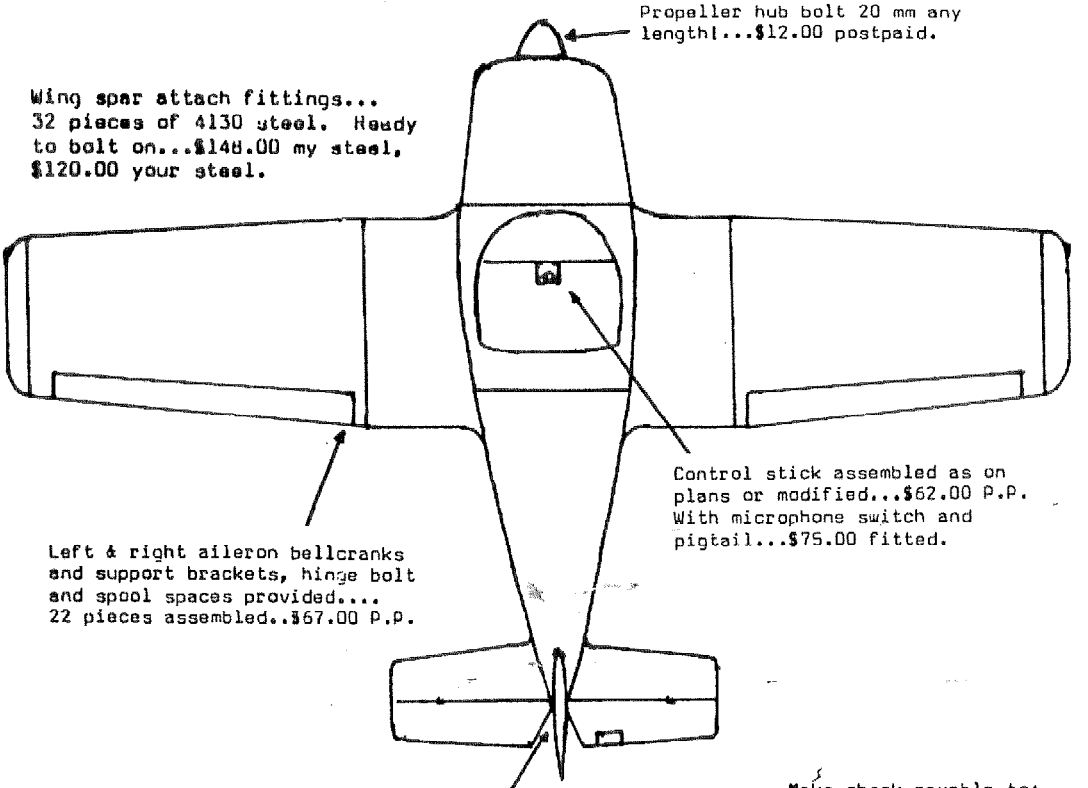
2 inch gauges, M/P,T&B,EGT,O/P, & O/T. Two each amp. meters, fuel meter, suction gauge, cyl. H/T, Mag. tach, air speed (220), rate of climb, altimeter,compass.

2 R/R 2 blade prop (ground adj.) with hub & polished spinner.

All items are new..$6500.00 firm as package deal. Freight charges C.O.D. (505)294-6100 8:30 to 5 Mon.-Fri. Ask for Gordon. No collect please.

Propeller hub bolt 20 mm any length...$12.00 postpaid.

Wing spar attach fittings... 32 pieces of 4130 steel. Ready to bolt on...$148.00 my steel, $120.00 your steel.



Minature Metrics has several services and products. Send a S.A.S.E. for more info.

No instructions are given which conflict with plans or Newsletter. We prefer you refer to plans or consult Rand/Robinson.

Control stick assembled as on plans or modified...$62.00 P.P. With microphone switch and pigtail...$75.00 fitted.

Left & right aileron bellcranks and support brackets, hinge bolt and spool spaces provided.... 22 pieces assembled..$67.00 P.P.

QUALITY...all material is aircraft aluminum/steel as specified in your plans. Milled with precision then deburred, bead blasted, final finish reamed by standard aircraft production proceadures all in the interest of safety.

Rudder, elevator, tailwheel horns and hinges...11 pieces plus 10 back-up plates R. & H. pilot drilled for mount bolts. $58.00 P.P.

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