

DECEMBER 1979 ISSUE #54

NEWSLETTER

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**** A monthly publication for communication between KR builders and pilots world wide.****
Edited & published by Ernest Koppe, 5141 Choctaw Dr., Westminster, CA 92683 714-897-2677

There have been four KR-2 accidents reported to me in the last two months. Three of these accidents claimed the lives of five people and the other involved serious injuries to the pilot.

Two of the KR-2s had engine failure. Engine failure is suspected in a third but its not yet verified. The pilot and passenger can't tell us...they're dead. The fourth accident happened just as the aircraft was leaving the runway on take-off. The pilot was unable to keep the plane under control and hit an obstruction just off the side of the runway.

All four of these accidents had one thing in common....they did not attain or maintain flying speed....they stalled and they crashed.

How long is this going to go on until we realize it takes sufficient airspeed to keep a KR or any other aircraft in the air? Just using the basic training every pilot gets as student could have avoided these accidents! Answer these questions...I know you already know the answers but do it anyway. What is the stall recovery procedure? Easy question, right? Right! So how come we can sit right here and glibly rattle off the answer and so many of us seem to forget when it really counts? How about this question.. You're climbing away from the airport, three to four hundred feet of altitude and the engine sputters and dies. What is the first thing you should do? Turn around?...of course not. So why do we continually hear and read of pilots that tried it and didn't make it? Try this sometime in your plane.....get some altitude, say three to four thousand A.G.L. over your favorite out-of-the-way airport. Pick a heading into the wind and start a normal climb-out. Note the altitude you start the climb and when you reach 400 feet above this altitude, cut your engine. I don't mean just throttle back, I mean shut it off. Now....see if you can make a 180° turn without losing that 400 feet. Be prepared for the stall/spin because this is where it happens and it is the #1 killer in general aviation.

Our light KR's are especially susceptible to a stall when the engine quits for this reason: they are light. They lose momentum rapidly without the engine pulling them and if you don't get the nose down you are going to lose airspeed just as rapidly.

I hope I've made my point. When I heard of these accidents I was saddened. And then I became angry. Angry at such a senseless end for the pilots, for their passengers, for their KR's. This year is almost over, 1980 will start a new decade. Lets make it a good one.

KR CLUB NEWS

Eddie Taylor sent me a copy of the Newsletter of the KR group in the Houston, TX area and they've undertaken a worthwhile project. They are compiling a record of the weight of individual assemblies and parts of the KR. With over 20 members participating they should arrive at a pretty comprehensive figure on what the ideal KR should weigh. Maybe they'll send us the results as they come in.

In Australia, my hat is off to Tom Harrison, 10 Allwood Cres., Lugarno, 2210 NSW. He has taken it upon himself to help the Australian KR builders thru their many problems with the plans and with D.O.T. Tom is obviously very knowledgeable regarding composites and should be a boon to the "down under" KR group.

Closer to home is the KR Club in Kansas. Organizer of this group is Jim Snyder, 111 W. Vesper, Hesston, KS 67062. Jim's group meets at his place bi-monthly.

Here locally, we have taken a page from the San Jose, CA KR group and have decided to meet at different members house each month so we could all volunteer comments and criticism to the lucky (ha) host. We meet the 2nd Monday every month and you can call me for the location. I haven't heard from the San Jose area group lately but I understand they are still active. Contact Emmett Dignon, 2975 Walgrove Way, Apt. 2, San Jose, CA 95128.

I just re-read a letter from Steve La Manna, it's sort of a double flight report and it did much to restore my usual optimism. I'm sure it will do the same for you.

Dear Ernie,

If you recall I met you at Oshkosh and got a demo flight from Dan Diehl and was in the finishing stages of my KR-2. Well, it is finished and certified--got my first flight off 11 Oct. 1979.

What an excellent flight! The plane took off straight, true, steady climb--very steady and gave a feeling of absolutely positive control. All the butterflies in my stomach stopped flying and crashing into each other and settled down from the moment of take-off. From there on in it was easy street. The plane was so responsive and accurate that I felt like I could carve my own line in the sky to a fraction of an inch. Scanning the instruments everything was operating smoothly except for the Tachometer which was forever nailed on 800 rpm. So I flew it by ear. Although I had not planned to retract gear on first flight, things were going so well that there was not too much to do except retract gear and try it out. So I did.

I must have flown 20 to 30 planes so far but the KR-2 was by far the most enjoyable. No trim corrections were required during or after flight. Just as well as I did not install trim tabs anyway!

What a trip!--Neat-O---all right!!! My admiration and thanks to all at Rand/Robinson Corp.

Technical Data

29SL First Flight (20 min.)

TAKE OFF

Take off run	500 ft. (est.)
Rotation	65 mph
Take off speed	65 mph
Climb out speed	80 mph I.A.S.
Climb rate	800 fpm
Tachometer	(not functioning)
Oil	60 psi 140 ^o F.
Cylinder Temp	#3 320 ^o F others 220 ^o F

LEVEL FLIGHT

Cruise	75% to 95% power estimated
Cruise-wheels down	120 I.A.S.
Cruise-wheels up	140 I.A.S.
Ammeter, Voltmeter	15 amps (max) 13.5 V
Oil	40 psi @ 120 ^o F
Cylinder temp #3	300 ^o F

GROUND TRACKING

Take-off run and landing roll out--straight and true
Brakes--poor. Only effective at slow speeds.

CONTROL RESPONSE

Elevator, pitch response	Sensitive but accurate--goes exactly where you want.
Ailerons, roll response	Pleasant--docile like a Cherokee or 150

LANDING

Pattern speed	80 mph
Flare to stall	70 55 (estimated)
Landing Technique	Hold off on float, let plane settle in by itself--nose just above the horizon. Results very smooth landing--used about 3000 ft. of runway.

Steve La Manna
122 Shady Cove Rd.
North Kingston, RI 02852

IMPRESSIONS OF FIRST FLIGHT--29SL

11 Oct 1979 5:15 p.m.

29SL, engine idling--waited. The runway extending in an endless taper ahead--waited. The air--hushed and waited. Friends waited by the hangar.

Prayer completed, the throttle was advanced. Responding to the throttle, the runway eased into a backward slide. Intermittent lines on the runway advanced, gained momentum and darted below the fuselage. Faster and faster the lines came, accelerating and bursting into light-dark flashes which were flickering at a quickening beat. On came images of all kinds, rushing up and parting to both sides, disappearing rapidly behind. The runway unrolling as a tape from a huge reel raced by, sweeping the adjacent landscape by until all was in motion. Suddenly the end of the runway appeared, then dropped below as the horizon started a steady descent and the sky took my plane in a firm embrace.....29SL was flying!

Whoof!! How can you just sit there reading this Newsletter after reading something like that? Makes you want to go out and fly that KR-1 or -2 doesn't it?

By the way, if you haven't read it yet, a KR-2 received national coverage in one of the better magazines. Look on page 74 of the December "Popular Mechanics" for the story.

QUESTIONS AND ANSWERS

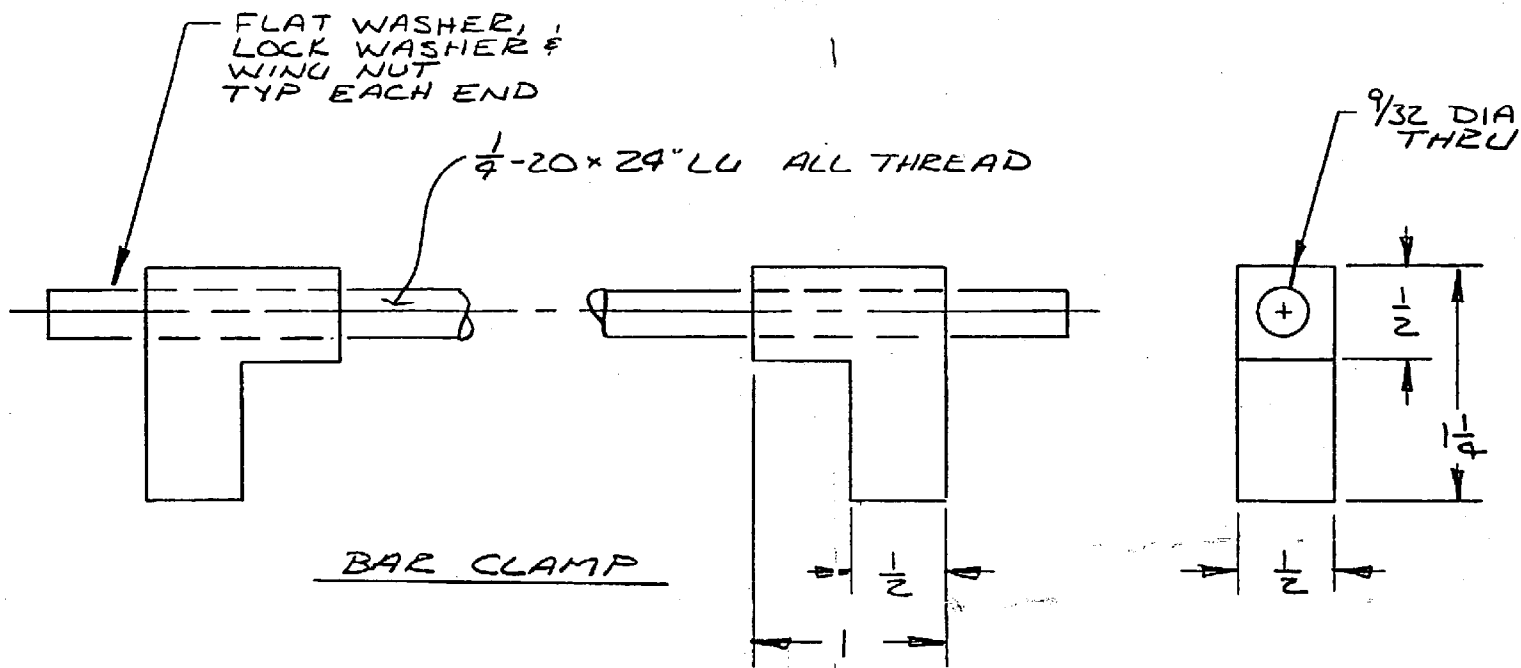
- Q. Where can I get the 3/8" alum. to make a fixed landing gear such as the one in the Oct 76 KR Newsletter?
- A. That KR-1 used a VP type landing gear. I understand it was made by the same company, Metal Masters, 5599 University Ave., San Diego, CA 92105. They have an info sheet for 50¢.
- Q. Is the KR-1½ you mentioned in an earlier Newsletter a narrow KR-2?
- A. Basically yes.
- Q. What should the prop hub bolt be torqued to?
- A. 44 ft. lbs.
- Q. Getting ready to do my wings and I've already varnished the spars. Do I need to sand them or will liquid foam be adequate for attaching foam to the spars?
- A. The top and bottom of the spar should be free of varnish so that the skin can make full contact with the spar. The liquid foam will give an adequate bond along the forward and aft sides of the spar without sanding. It would be a good idea to rough up the varnish in this area though.

BUY SELL TRADE

FOR SALE...KR-2 fuselage on gear, controls in, spars and horiz tail...\$1200.00. Grey canopy, uncut...\$60.00. Two sets KR-2 wood kits (spruce). Birch plywood 1/8" ½ sheets....\$10.00 ea. Green foam for three airplanes. White 3 lb styrofoam -3 to 5 airplanes. Paper face foam ¼" thick for No Sand wing skins. 4' x 8"...\$15.00. Ass't hardware. VW 411 block- set up to complete as Revmaster, 102MM bore, stock stroke, modified crank for Revmaster type prop flange...\$1200.00. Tools, glass cloth, resin, alum. to steel hinges. Also have Vari-eze kit - 90 HP Franklin, 75 HP Continental - propellers - Volmer amphib project - Cub wheels, other instruments, tools, radios... Lou Sauve, 11989 Telephone Ave., Chino, CA 91710 (714) 628-7028.

WANTED....KR-2 project or spruce, plywood, foam kits and other parts. Southeast U.S. only.....John Shaffer, 604 Langley, Robins AFB, GA 31098.

FOR SALE...KR-2 project, fuselage done and spars installed, assorted instruments, three wheels....\$2000.00.....Jim Boyer, 2021 Ocean Ave., Santa Monica, CA 90405 213-870-8122.



Here are two aids I used when gluing my fuselage sides together that made the job easy and accurate.

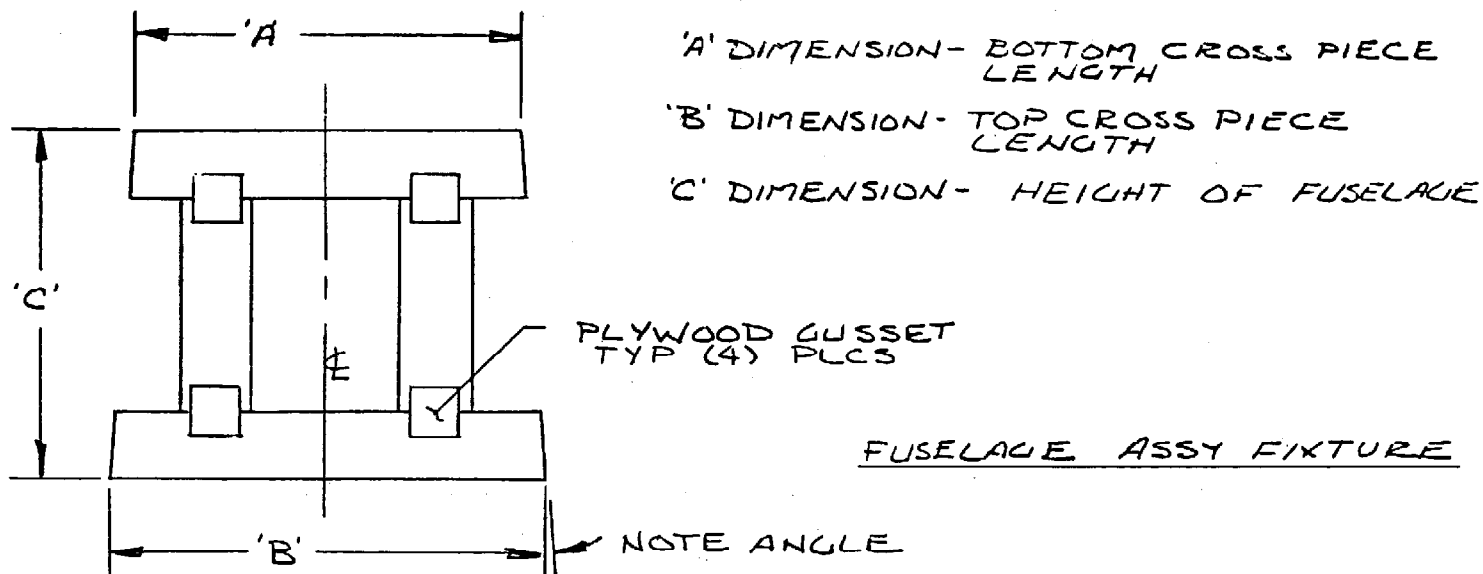
The first drawing is for a fuselage assy fixture I built to hold and align the fuselage sides. I made mine with 1 x 4 boards, built to the dimensions of the fuselage at the point where the fixture is to be placed. I used three fixtures to assemble my fuselage, one at the firewall, one at the main spar and one at the first cross-piece behind the aft spar (place them behind the actual cross piece location so that the cross piece can be fitted and glued). I attached the fixtures to my work table with some small shelf angle brackets lining up the fixture center line with a straight mark line on the table.

(Hint: If you cut the angle on the ends of the horizontal pieces of the fixture, the fuselage will lift off the table when all gluing is completed. I glued both top and bottom pieces in before removing the fuselage from the fixtures.)

The second drawing is for a simple bar clamp to be used for clamping the fuselage sides to the assembly fixtures. I used steel for the angle pieces but wood reinforced with plywood sides should work also (only light clamping pressure is required).

These two aids will hold the fuselage sides very rigid and square to glue together. My spars rest in the fuselage square and parallel without any shims.

Hopefully these drawings and explanations will help someone else as much as they did me.....Gary Swanson, 600 Owens, Edmond, OK 73034, 405-348-0785.



REMINDER.....There are five KR Designees... all willing to help you with your problems. We've all built and flown at least one KR and we've helped on dozens of others. Below are our names, addresses and phone numbers. Call or write the designee nearest you (or all of us for that matter). We can help!

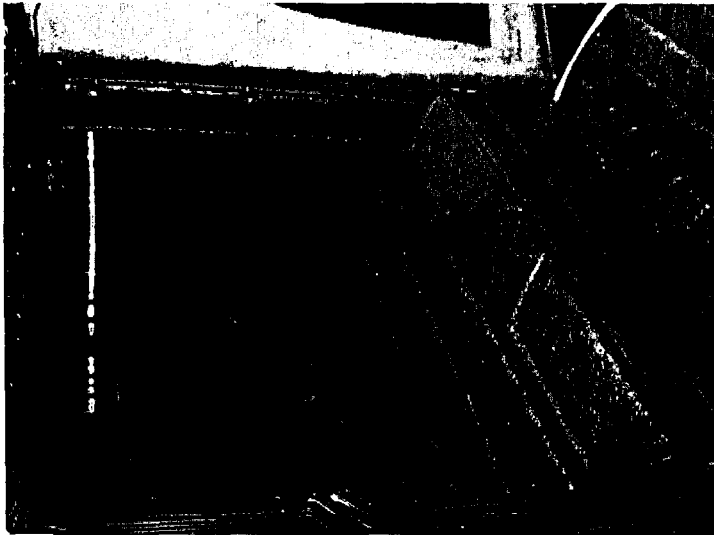
Bill DeFreze
7530 Ironwood Dr.
Dublin, CA 94566
(415) 828-2111

Dan Diehl
4132 E. 72nd St.
Tulsa, OK 74136
(918) 492-5111

Ray Ellis
2416 E. Douglas
Des Moines, IA 50317
(515) 265-3007

Ron Sorrell
6505 Sassafras Dr.
Independence, KY 41051
(606) 356-6242

Ernest Koppe
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