

I am continually surprised at the number of pilots who have never heard of the Experimental Aircraft Association (EAA). I suppose I shouldn't be, until I was actually involved in building my KR-1, I hadn't heard of the EAA either. I joined about 4 yrs. ago and since then it has become S.O.P. to take advantage of the mine of information available to all members. The monthly magazine "Sport Aviation" contains a seemingly never-ending supply of pictures and articles about building, flying and plain enjoying aircraft of all types.

There is also a designee program in which qualified members have volunteered to give their time and knowledge to help us build safe, fun to fly, aircraft.

If you aren't already a member, you too should avail yourself of the benefits of the EAA. Write to them for more information at: E.A.A. P.O. BOX 229, HALES CORNERS, WI 53130.

We have goodies galore in this issue, electric trim tab, a folding wing idea, a KR-2 flight report, plus the usual questions and answers.

The folding wing idea will really be popular with the several builders who plan on sharing hangar space with other KR builders. It will be possible to get three or more aircraft in a hangar meant for only one.

The flight report is from Leo Davison. Remember the picture of his KR-2 in Newsletter #11? Well, Leo followed thru on his promise to send us a report on his KR-2. Here it is...."a note about the first flight of our KR-2. N15LD has an empty weight of 449 lbs. The engine is a 1700 VW with a 32mm posa carb. and is complete with an electrical system except for the starter. We started the project in July 1975 and flew it July 10, 1976. The field elevation was 2500 ft. on a calm day. Take off roll was approx. 400 ft. I leveled off and circled the field getting the feel of it. I trimmed it out and flew it hands off. Second time up I clocked the ground speed. Top was 180 and cruise at 165 at 3250 rpm. Had engine failure and glided to airport and made a safe landing. Trouble was a faulty fuel pump. Controls are quick but plane flied like a dream. After 30 wonderful hours of flying I attempted to take off on strong gusty cross winds and lost it. Did extreme damage to plane but survived the crash with eleven stitches in one finger. Have flown it in winds of 30 mph but, of course, we always have winds in Western Kansas. However, never again. Am rebuilding it exactly as it was. Because it was the most enjoyable flying I have done".....Looks as tho' Leo will have a project to occupy him thru this winter. Rest of you builder/pilots take heed, watch those crosswind landings and take-offs.

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NOTE TO NEW OR RENEWAL SUBSCRIBERS:

Due to an increase in printing and handling, our subscription rates will be increased beginning January, 1977. The service will, however, be better because all newsletters will be mailed first class. The price will be increased as follows:

6 mo. @ \$3.50

1 yr. @ \$6.00

Back issues - 50¢ ea.

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MERRY CHRISTMAS

SUMMARY ON BACK ISSUES

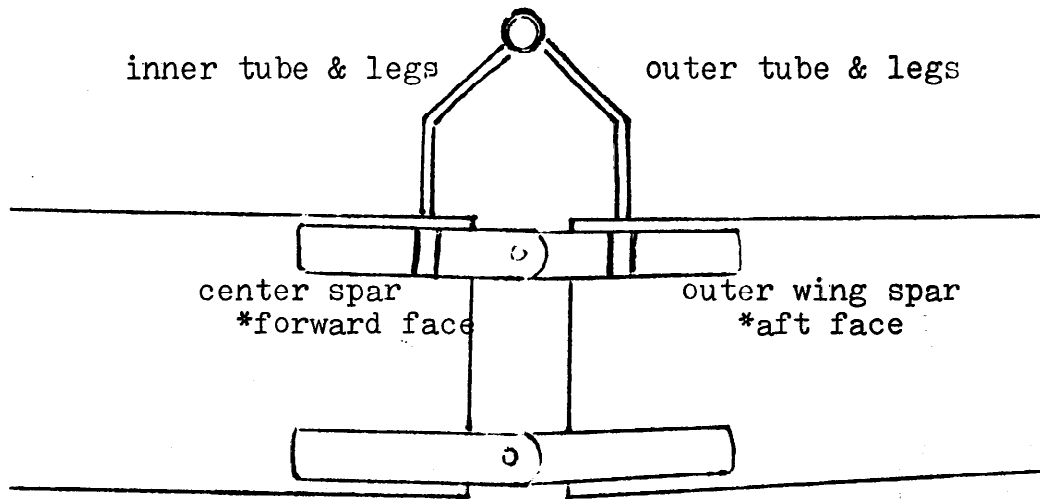
1. Introductory, tips on foam construction.
2. Control stick drawing.
3. Oshkosh '75, list of builders, Questions & Answers.
4. KR-2 plans errors, Pilot report KR-1, bellcrank drawing.
5. Wing tank construction, Questions & Answers, list of builders.
6. KR-2 plans errors, KR-1 & KR-2 construction tips.
7. KR-2 plans errors, Questions & Answers, list of builders.
8. VW engine info, RAF 48 co-ordinates, tips.
9. Balancing ailerons, tips, Questions & Answers.
10. Spinner construction, VW engine info.
11. Control stick drawing, 3-blade prop pics, fixed gear drawing.
12. Dive brake drawing, tips, Questions & Answers.
13. A-65/A-75 engine mount drawing, wing washout info.
14. Sliding canopy pics & notes, dual stick drawing, tips.
15. KR-1 accident report, Questions & Answers, tips.
16. Hydraulic speed brake, liquid foam tips, fix gear pics.
17. KR-2 builder/pilot report, 3-blade prop adjustment info, Questions & Answers.

The KR Newsletter was first issued in June of '75 and has been published monthly ever since. I have tried to make each issue as informative and helpful as possible. Back issues are 50¢ each.

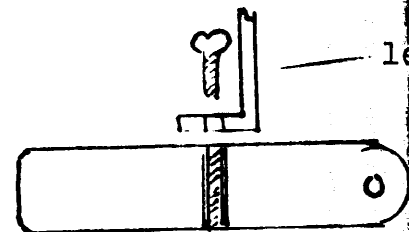
QUESTIONS & ANSWERS

- Q. Can aircraft quality sheet aluminum be bent & used for pulley brackets, etc.?
- A. No. Bending tempered aluminum causes small stress cracks.
- Q. Extra fuel tanks have been mentioned as in center wing & outer wings. Exactly where are they & what size?
- A. Builders using the area between the center section wing spars are limited to approx 8 gal. max. each side of fuselage. Outer wing tanks can be the entire length of the wing, also between the fwd & rear spar.
- Q. I noticed a report of a R/R tail wheel failure in issue #16. What is the cause.
- A. It was reported to me as a bearing failure. To my knowledge this is first & only instance of a failure in this part.
- Q. I had to cut bottom of first ribs outside both sides of fuselage for full gear retraction. Is this the correct procedure?
- A. The spring bar when in the fully retracted position should have at least 1/8" clearance from bottom of rib. It is OK to cut the rib completely thru for installation purposes.
- Q. I am interested in installing a starter. According to you there will be an article in the newsletter soon. Will a turbo-charger installation interfere with the starter location or vice-versa?
- A. There is no problems in combining the two systems. The article on starter installation will be in the next issue. An article on turbo installation will appear in a following issue.

M. Plowright in New Zealand is seriously considering using a GAW-1 airfoil on his KR-2. He would greatly appreciate correspondence with other builders with the same idea. Write to him at P.O. BOX 11, KAWAKAWA, BAY OF ISLANDS, NEW ZEALAND



by Peter Steckler
5 Millcreek Rd.
New City, NY
10956



leg/socket detail



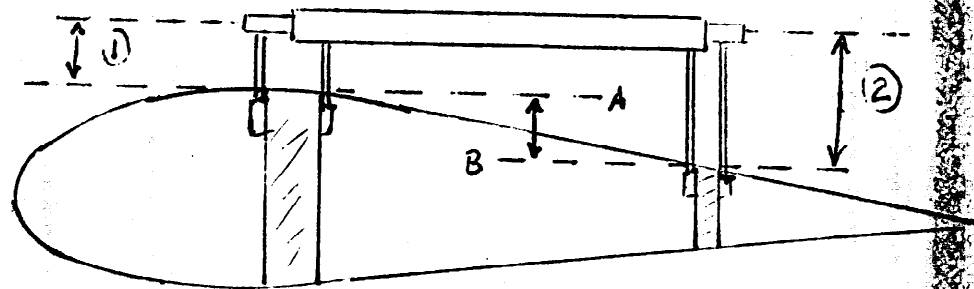
*reverse for other spar

These are my suggestions for a wing folding accessory for KR aircraft. The device folds the wings vertically against the fuselage, as on a Corsair, for towing. It will position the wings when lowered for installation of wing-attach bolts.

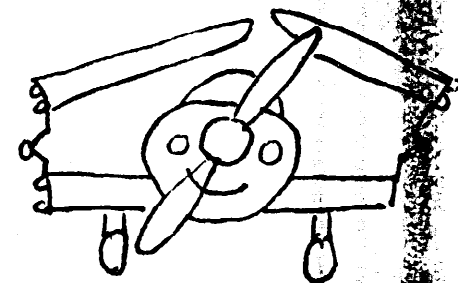
The principal advantages of this device are found in its detachability from the aircraft when in flight and in its applicability to the aircraft without redesign of the wing attach fittings.

The device consists of two close fitting metal tubes, one being inside the other, with the smaller inner tube being several inches longer than the outer tube. Legs are attached to each end of each tube. The legs end in a screw fitting as shown. The legs on the shorter tube screw into sockets welded to the wing attach fittings of one wing panel, on the inner-facing side of the spars; the legs on the longer tube to those on the adjacent wing panel, on the outer-facing side of the spars. The system involves only the eight sockets to be permanently fastened to the airplane. The working geometry of the device is similar to that of the partly external hinge system found on the Dyke Delta.

That's my idea. I would appreciate any info as to other folding-wing mechanisms applicable to the KR-2, particularly any which might simplify or speed up assembly of the plane.



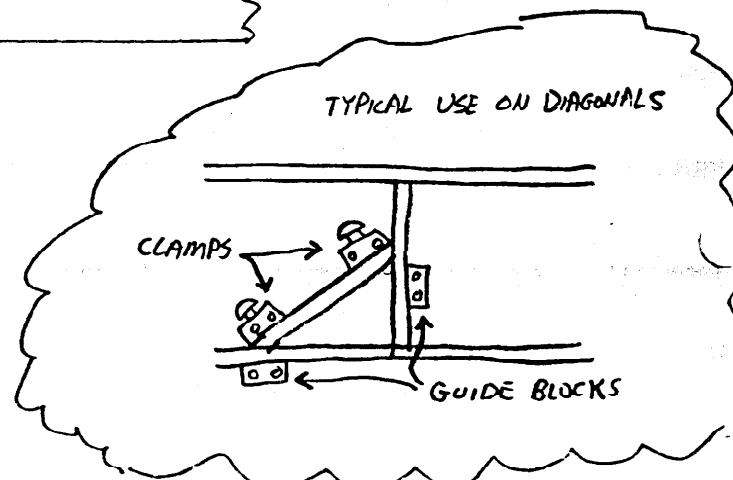
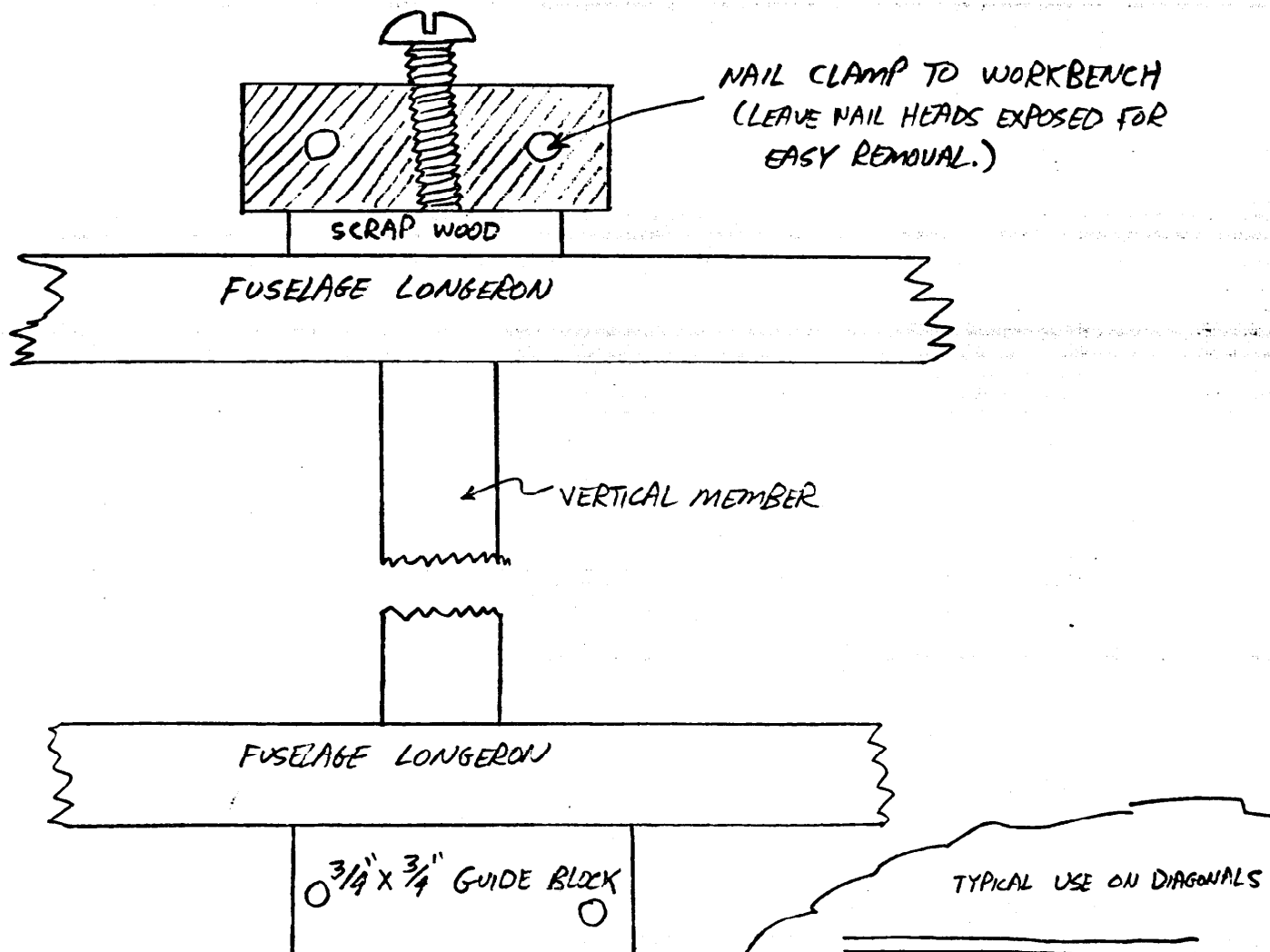
- (1) as small as possible to fit hardware
(2) same as #1 plus distance A-B



FUSELAGE ASSEMBLY SUGGESTIONS

DURING THE GLUEING OF THE FUSELAGE VERTICAL AND DIAGONAL MEMBERS, I FOUND THE CLAMP SKETCHED BELOW TO BE VERY USEFUL. IT IS SIMPLY A PIECE OF $\frac{3}{4}$ " SQUARE WOOD, DRILLED AND TAPPED FOR A $\frac{1}{4}$ "-20 SCREW. IN USE, THE CLAMP IS NAILED DOWN TO THE WORKBENCH IN THE SAME MANNER AS A GUIDE BLOCK, LEAVING ENOUGH SPACE BETWEEN THE CLAMP AND THE FUSELAGE LONGERON FOR A SMALL PIECE OF WOOD (TO PREVENT DAMAGING THE LONGERON). AFTER VERTICAL MEMBERS ARE FITTED AND GLUE APPLIED, THE CLAMP SCREW IS TIGHTENED ENOUGH TO SQUEEZE OUT EXCESS GLUE. ABOUT 15 OF THESE ARE NEEDED FOR VERTICAL MEMBERS AND DIAGONALS.

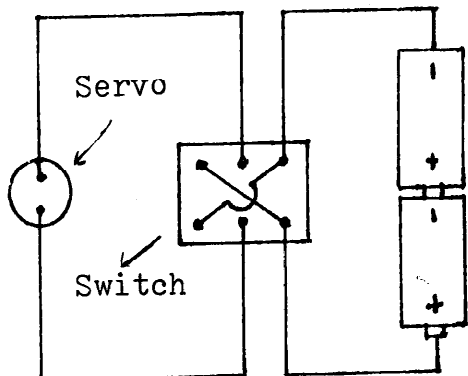
BILL GIDDEY



ELECTRIC TRIM FOR YOUR KR? Why not???

Here are some notes to get you started.

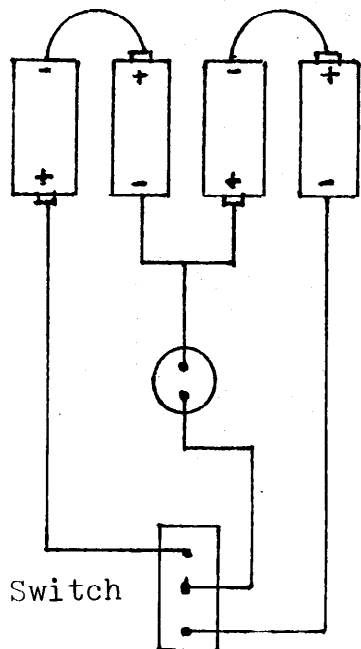
Wiring diagrams



This diagram utilizes a double-pole double-throw, center off, spring loaded toggle switch.

Batteries are 'C' or 'D' size alkaline cells. They will give many flying hours of service before replacement is necessary. Wiring is 18 ga. double insulated.

Lower diagram uses the more common single pole, spring loaded, center off toggle switch found on control sticks.

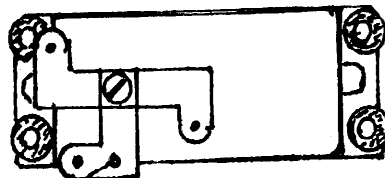


Batteries

Servo

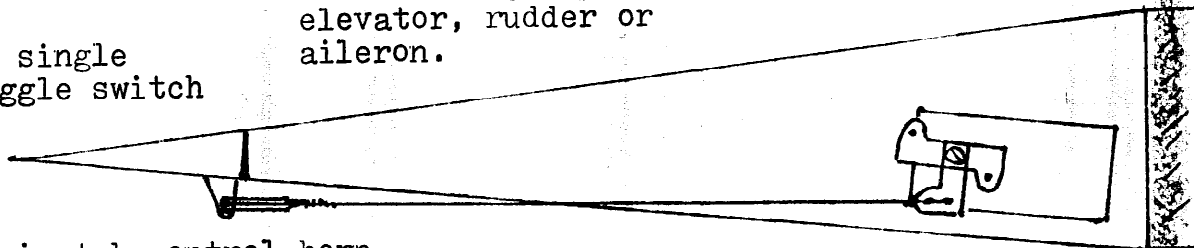
Use the landing gear retract servo manufactured by CARL GOLDBERG, INC.

This servo has heavy duty gears & is self-limiting (155° travel) with built-in limit switches. Mount servo with aluminum angle, attach to 3" x 3" piece of 3/32" plywood. Epoxy entire unit to inside skin of control surface.



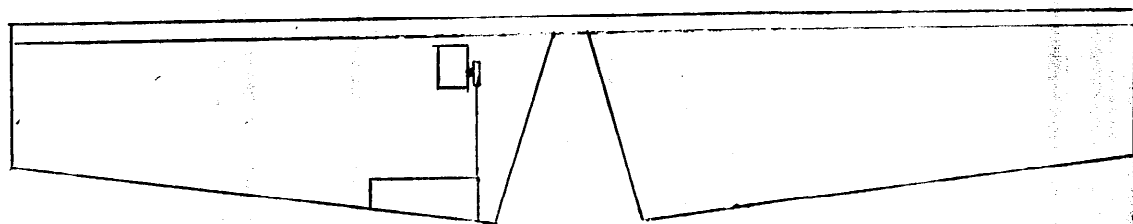
Drill new hole for pushrod.

This drawing represents the elevator, rudder or aileron.



Trim tab control horn should be mounted to 3/32" ply. Use 2-56 screws, epoxy into trim tab.

Hinges, control horn, and pushrod are standard R.C. model parts.



Elevator trim tab should be at least 2½" x 6".

Thank to Bror Faber for much assistance. Bror has a KR-2 about 70% complete & has installed elevator & aileron trim. One control stick mounted switch activates either unit. (Chinese hat switch)

BUY SELL TRADE

- FOR SALE...Stainless steel for firewall. R/R has it. .005" thick, five square ft. (Large enough for KR-2) \$7.00. RAND/ROBINSON Eng. 5842 'K' McFadden Ave. Huntington Beach, CA 92649
- FOR SALE...KR-2 project. Fuselage ready for foam. All materials to complete less engine and instruments. \$1900.00 JOHN SCHLADWEILER 1100 E. Church st. Pierre, SD 57501 or Ph. 605-224-7558.
- WANTED.....To buy KR-2 in any stage of completion. Send price & info to BRIAN HYMA 3769 Hollywood Dr. Holland, MI 49423
- FOR SALE...Two-part liquid foam, best solution to gluing foam, repairing if you sand too deep, break off a corner, etc. (See newsletter #9 & 16) Quart (2 pint cans) \$9.50; ½ gal. (best for KR's) \$12.95; 2 gal. \$32.80 UPS or PP prepaid. VERNE LIETZ P.O. Box 234 Peshatin, WA 98847
- Note: Verne says there is a good supply of Douglas fir in his area. He is willing to put together wood kits for approx. \$80.00. Drop him a note for more info.
- FOR SALE...Nylon bar stock for fairleads. 3/4"x1"x12". wt.-5 oz. \$1.50 ea. Will ship postage paid JIM SNYDER Box 696 Hesston, KS 67062
- FOR SALE...33½ yds Dynel \$40.00 B.J. LEMPA RTE. 4 Box 247C Lake Charles LA 70601
- FOR SALE...KR-2 parts & materials: Spruce kit (Wicks), 2 gal. epoxy(R/R) Fuselage halves completed, wing spars completed (need webbing & hardware. Rands most recent plans. Will sell this project to highest bidder. RONALD W JOHNSON 1245 Kings Row Reno, Nevada 89503 Ph. 702-747-2466
- FOR SALE...KR-2 fiberglass engine cowls, complete with full size firewall and templates. \$125.00 DAN DIEHL 4132 E 72nd St. Tulsa, OK 74136 PH 918-492-5111

MERRY CHRISTMAS

and

HAPPY NEW YEAR!!

Ernest Koppe

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Issue #18

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