

Subscription Rates

6 mo. @ \$2.50

1 yr. @ \$4.50

KR-1 KR-2

N E W S L E T T E R

Ernest Koppe

6141 Choctaw Drive

Westminster, Ca. 92683

Ph. 714-987-2677

Issue #4

October 1975

Well, it looks like the amphibian project has been delayed a little. Ken and Stu are currently knee-deep in a motor-glider project. Based on the KR-1 fuselage, the major difference will be a 27 ft. wing span, with flaps, and something new...Joe Horvath at RevMaster has asked Rand-Robinson to use their airframe to test a new 2 cylinder engine.

If everything works as expected, conversion plans will be made available. I'll keep you informed as more developes. They are already calling it a KR-1B.

In the last newsletter, Wm. Lee asked about an error in the KR-2 plans, namely the 3-piece rib drawing. The first issue plans were sent out with any known mistakes corrected, however, this one got through without being noticed. I'm going to print the R.A.F. 48 co-ordinates as well as a list of other mistakes that have surfaced. If you know of any errors not on this list please let me know and I'll put them in the newsletter. No one has said anything about errors in the KR-1 plans as of yet but I'm sure there must be some, so you guys building KR-1s, let me know about them and I'll list them also.

KR-2 PLANS ERRORS

1. the section of the wing rib behind the aft spar should be widened to line up with the other sections, or if you wish, use the co-ordinates to draw a new airfoil.
2. the measurement on the fuselage drawing #1 at the aft spar was 1.87" on the original plans. This is O.K. but a little tight. Revised plans were to read 2" but somehow was printed as 2.5".
3. weight and balance info show 12 gal. fuel as weighing 60 lbs., should be 72 lbs.

R.A.F. 48 CO-ORDINATES

<u>Chord %</u>	<u>UP</u>	<u>DOWN</u>
1.25	2.60	1.65
2.50	3.68	2.34
5.00	5.20	3.16
7.50	6.39	3.69
10.00	7.30	4.03
15.00	8.63	4.41
20.00	9.53	4.58
30.00	10.40	4.56
40.00	10.20	4.33
50.00	9.38	3.90
60.00	7.94	3.36
70.00	6.05	2.65
75.00	5.03	2.24
80.00	4.02	1.83
90.00	1.95	1.00
95.00	1.05	0.60
100.00	0	0

For those of you who are not sure about how to draw an airfoil from the co-ordinates, Bill Lee has volunteered to do it for you. Just send him a large self-addressed stamped envelope and he will send you both 48" and 36" full size rib tracings. Address is: William Lee 114 Indian Ave. Tavernier, Fla. 33070 Bill sent pictures of his KR-2 project...looks like he's doing great. Looking forward to hearing from him again. Also Bill is interested in a sliding canopy and wants to hear from anyone with some ideas.

QUESTIONS AND ANSWERS

- Q. What is used for control stops and what is the maximum travel on each control surface?
- A. No stops are used, maximum travel is: ailerons at inboard tip, $1\frac{1}{2}$ " up and $\frac{3}{4}$ " down...elevator 30 degrees up, 20 degrees down...rudder 30 degrees each way.
- Q. What are the suggested dimensions for the control stick from fulcrum to cable attach points and rudder cable attach points?
- A. Aileron and elevator are 3"...rudder is 4".
- Q. What is used as a stop on the landing gear spring bar in the up position?
- A. The bar is allowed to swing all the way back to the large hinge and is held there by the gear latches.
- Q. What is actual building time on the KR-2?
- A. Average on KR-2 is about 800 hrs.
- Q. Should the KR-2 fuselage be lengthened a couple of inches in front? I understand some have had weight and balance problems.
- A. No. The only weight and balance problems have been caused by weight-adding modifications to the plans.
- Q. Could a list be compiled of some of the not so obvious details and problem areas encountered during construction?
- A. There are as many different problems as there are builders..as they are encountered and the builder lets me know, I'll list them here.
- Q. What are real 'G' and maneuver limits of KR-2?
- A. KR-2 is + or -7 Gs....KR-1 is 11 Gs

NOTICE--Several builders have written asking for info on different modifications. I am going to list them here. If you have any ideas on the modifications, send them in and I will print them. Drawings should be in black ink or ballpoint, pictures should be sharp, clear, black & white.

INFO REQUESTED ON FOLLOWING ITEMS:

1. retracting gear (toward fuselage)
2. larger engine mods. (A-65-Porsche, etc.)
3. sliding canopy
4. rudder and elevator trim tab systems
5. GA(W)-1 airfoil (see Newsletter #1)
6. KR-2 dual control stick
7. toe or heel brake pedal system, mechanical or hydraulic
8. flap or spoiler systems

If you builders know anyone who has built and flown a KR-1 or KR-2, find out from them how they like their plane and how it flies. Also, Ken Rand is considering heading up a group of KR-1 and KR-2s in a flight to Oshkosh next summer...if anyone is interested and wants to join...either in Calif., along the way, or at Oshkosh...write in to the newsletter or to Ken and let us know. It ought to be a very interesting and enjoyable trip.

BUY-SELL-TRADE

- SELL---KR-1, 50% complete. Most materials to finish..\$900.00 or offer.
BILL SOUZA 16291 Bayshore Ln. Huntington Beach, Ca. 92649 or
phone 714-846-2148
- SELL---1834cc VW engine with prop hub and front thrust bearing. Assembled
\$950.00...kit \$800.00 Dave Egelhoff 1747 James Pl. Pomona, Ca.
91767 or phone 714-624-7482
- TRADE--Older model Lear Nav-com with omni head and power-pak. Working when
removed from Bonanza; will trade for instruments or VW conversion
parts or accessories. ERNEST KOPPE 6141 Choctaw Dr. Westminster
Ca. 92683 or phone 714-897-2677

PILOT REPORT
KR-1A

Corona, California-----Sept. '75

I can hardly wait. Ken Rand is supposed to meet me here to check me out in his KR-1. Wind is pretty strong--15 to 20 mph. Visibility is good, high clouds about 5000---some haze due to smog, but still 7 to 8 miles visibility. Ken taxis up and shuts down the KR-2; we tie it down and roll the KR-1 out of the hangar where it had been kept while FAA restrictions on the new engine were flown off.

Pre-flight is S.O.P., fuel, oil, control surfaces, etc., then into the cockpit to try it on for size and go over take-off and landing check lists. "O.K., taxi for a while to get the feel of it on the ground, then you should be ready to go" he said. I expected the small plane to be a little tricky to handle on the ground but at 1100 to 1200 RPM, it was easier to taxi than the other tail-draggers I've flown. I was really starting to feel confident, so I taxied on down to the run-up area. All controls O.K., latches all locked, engine instruments in the green, no carb heat on the Posa injector, single magneto, so there's nothing to check there, nothing in the pattern...visibility is fantastic with the bubble canopy. Another glance at the check-list and I'm ready to go.

Alright, throttle in smoothly, little more left rudder, this 1700 really does have a lot of torque. Hey, I'm off the ground already, must have used less than 200 ft. of runway. Let me see now...A/S 80 ind. ...tach 2700 (Warnke prop set at cruise pitch is holding down the rpm)... R/C 750 FMP...not bad for 85 degrees, hot and humid.

Have to hold my wrist steady, getting some porpoising. Resting my arm against my leg to steady my hand solves the problem. Time to put the gear up; right latch, left latch, gear handle down. Going to take a little practice to keep the stick from wandering during gear cycle procedure. Rate of climb picks up another 150 FPM with gear retracted. Stick forces are extremely light, can't be more than a couple of ounces in any direction. Rudder has a little more feel than the stick, the side-stick arrangement is already starting to feel natural. I wish I could really relate the ease of flying this plane, it responds instantly to any movement of the stick. Turns are made with little or no rudder, no matter how steep....I never went over 60 degrees. Stalls were gentle and straight forward and I had the feeling I could just nudge the plane into any maneuver at all with just a flick of my wrist. But not having any aerobatic instructions is reason enough not to get too enthused, so after 10 or 15 minutes of just getting the feel of the plane, I headed back to the airport for my first landing in the KR-1.

Straight and level, 3000 RPM and indicating 165, the airport came up in a hurry. I slowed down to 90 and entered the pattern downwind and lowered the wheels. At the end of the runway, I chopped power, turned base and slowed to 80, turned, final lined up the runway, slowed to 70 til the flare.

No problems, right?.....Wrong...everything was fine til the flare, it was alright too...except about 3 ft. too high. Yep, I bounced it! I had forgotten how close to the ground the little plane sits. There was some minor damage to the wings caused by the landing gear flexing too far and major damage to my ego. However, I've repaired the wings and Ken wasn't upset, so, at first opportunity I'll fly it again....I can hardly wait!

Bill Koontz
303 Belmont
Jonesboro, Ar. 72401

F.P. Kibbe
630 E. 220th St. #1
Carson, Ca. 90745

Myron M. Jenson
2103 Pinemont
Baytown, Tx. 77520

Harvey K. Altergott
4310 Stanford St.
Chevy Chase, Md. 20015

Mac E. Booth
P.O. Box 580
Daleville, Al. 36322

C.V. Zichichi
53448 Belle Arbor
Rochester, Mi. 48063

Bill Gidden
2334 Cabrillo
Santa Clara, Ca. 95050

John Kieffer
Rt. 1 Box 155
Wheatland, Mo. 65779

John Lorence
718 E. Jackson
Monmouth, Or. 97361

Fred W. Bogardus
Box BH
Anthony, N.M. 88021

Frederick Fowler
2829 Sergeant Rd.
Sioux City, Ia. 51106

Gillespie Aero Service
404 S. Reese Place
Burbank, Ca. 91506

Maj. Verne Lietz
Box 234
Peshastin, Wa. 98847

Joe L. Brown
Rt. 2 Gimlet
Lawrenceburg, Tn 38464

John M. Ruddock
5837 Walsham Way
Indianapolis, In. 46254

Roy Sharp, Sr.
Box 483
Sterling, Il. 61081

G.R. Bassett
2260 Division N.W.
#2-B
Olympia, Wa. 98502

Wm. A. Villwock
Rt. 1 Lester Rd.
Fayetteville, Ca. 30214

Jim Giesen
2637 Fulton Ave. #129
Sacramento, Ca. 95821

Thomas Mason
2936 Clairmont Ave
Macon, Ga. 31204

H.M. Haught, Jr.
Box 45
Witter, Ar. 72776

Roy W. Bristow
5115 Center Way
Eugene, Or. 97405

William Green
732 Franklin St.
Batavia, Il. 60510

Kevin DeLashmutt
R.R. 2
Glenwood, Ia. 51534

Leo G. Blink
103 Hancock St.
Abington, Ma. 02351

Richard Narber
6904 N.W. 77th Terr.
Kansas City, Mo. 64152

James M. Jackson
6231 Waverly
Dearborn Hts, Mi. 48127

C.S. Cooke
304 Creekside Way
Felton, Ca. 95018

John T. Schladweiler
Rt. 1 Box 3-2-A
Hot. Springs, S.D. 57747

James E. Kitts
4455 Bradwood Terr.
Ft. Wayne, In. 46805

Joe Lang
1420 Rolling Meadow
Pittsburgh, Pa. 15241

T.W. Braman
390 Sunnyoaks
Campbell, Ca. 95008

William Wright
34 Village Lane
Levitown, Pa. 19054

Jim Palmer
Apt. 1007
890 Mt. Pleasant Rd.
Toronto, Ont. Canada

Warren Leber, Jr.
Rt. 4 Box 197-A
Mechanicsville, Va. 23111

Ward H. Smith
234 Blackburn Ave.
Ashland, Ky. 41101

Lewis Gaston, Jr.
Box 873
Hilliard, Fl. 32046

R. Johnsen
Box 38
Cassiar, B.C. Canada

Lt. Howard D. Weaver
8204-D Florida St.
Wurtsmith AFB, Mi. 48753

Gene Aronson
16819 Leslie
Cerritos, Ca. 90701

Jim Peris
911 North Prince St.
Lancaster, Pa. 17603

Irvin Faur
Box 236
Princeton, Ia. 52768

Gene Eggert
416 S. Caldwell St.
Brevard, N.C. 28712

Jake Enns
P.O. Box 56
Morden, Manitoba
Canada ROG 1J0

Bill Fowler
Box 155
Yates City, Il. 61752

Terry L. Bachi
1595 South Ridge Dr.
Marietta, Ga. 30060

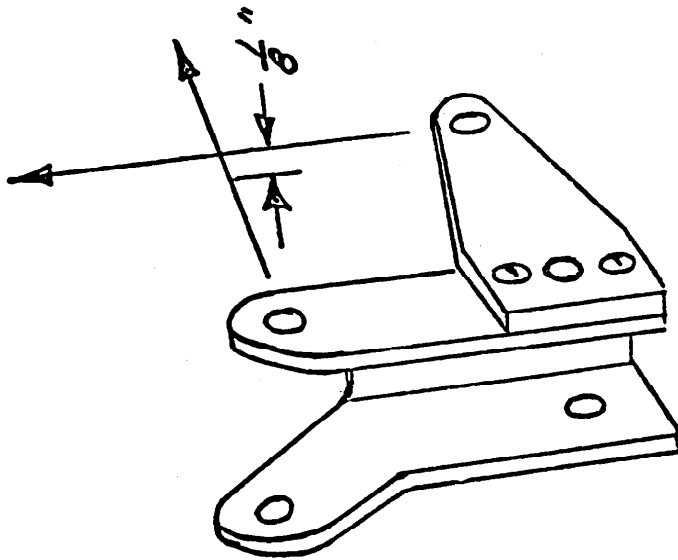
Marty Balk
P.O. Box 91
New Milford, N.J. 07646

E. E. Postell
1000 Front
Richmond, Tx. 77469

Kenneth O. Smith
22717-44th West
Mountlake Terr., Wa. 98043

Thomas F. Carmody
415 Locust St.
Carrollton, Il. 62016

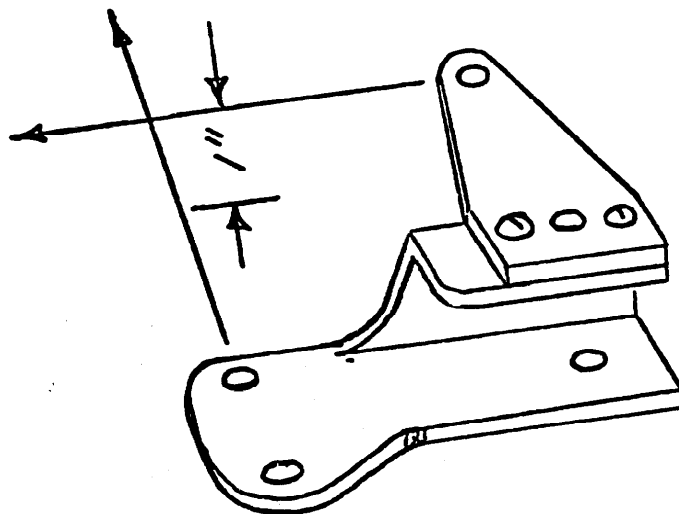
Wm. R. Foxenberg
11 Seward Ave.
Utica, N.Y. 13502



AILERON
CRANK

" AS SHOWN IN
PLANS "

NOTE HOW MUCH
SEPARATION IS
ALLOWED BETWEEN
CABLES



AILERON
CRANK
MOD.

BY MODIFYING
CRANK AS SHOWN
ABOUT 1" SEPARATION
ALLOWED

This is one page from Fred Kellar's modifications and building notes.
I'm using it on my plane.....works great. Fred's address is: 1200
W. Diamond #1013 Anchorage, Alaska 99502

BUILDER'S INFO

One of the largest benefits to me has been meeting and working with other builders and pilots, sharing their thoughts and ideas. If you are building a KR-1 or KR-2 complete the following questionnaire. Feel free to expand on any point. Please share...let's keep informed...from all KR builders and pilots.

1. Name _____
2. Address _____ zip _____
3. What plane _____
4. What % done _____
5. Any modifications _____

6. Comments or questions _____

Send photos and/or drawings of your project or modifications. If you wish, photos will be returned if a self-addressed stamped envelope is included.

ERNEST KOPPE
6141 CHOCTAW DRIVE
WESTMINSTER, CALIF. 92683