

KR

Newsletter

ISSUE #28
OCT. 1977

SUBSCRIPTION RATES
AIR MAIL \$10.00

1 year \$6.00
0/seas \$7.50

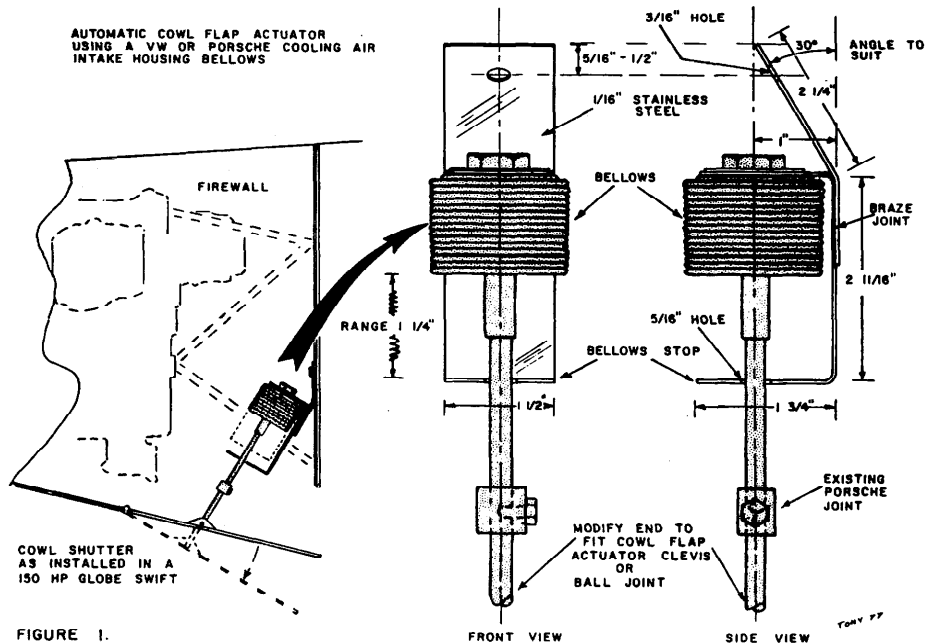


Last issue of the Newsletter had an appeal from Fred Richen, 9917 152nd St. E, Puyallup, WA 98371 for anyone having difficulty getting paid-for orders from Ted Barker. I know Fred has received at least two replies...one from R.L. Smith, Sandspit Q.E.I., B.C. Canada VOT LTD and one from G.W. Townsend, 234 Charles St., S Meriden, CT 06450. Seems Mr. Smith has spent \$430.00 and all he has to show is a \$30.00 prop hub. Bill Townsend was luckier, he received all the parts he ordered but only after a very long delay and several unanswered letters (registered). He notified Barker to expect a visit from a local lawyer because he was going to sue for all expenses incurred, including if necessary, a trip to California. Bill's order came almost by return mail. If you are one of the many that have had problems with Ted Barker send a letter to Fred and enclose photostats of receipts, etc. and perhaps something can be done.

Last issue had a request for Corvair engine conversion information. Seems there is a newsletter out just for Corvair engines. Interested builders should write to J. Hartley Locker, 69 Murray St., Norwalk, Conn. 06851. Subscription fee is \$9.00 per year.

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If you were going to improve the performance of your aircraft, what single item would give the best results for the least amount of work? I mean a real improvement as much as a 20% decrease in parasite drag. I'll give you a hint, one of the greatest sources of parasite drag is the cooling system of an aircooled engine. You EAA guys know by now what I'm talking about...a cowl flap! This is the easiest, most effective, single thing you can do to increase the performance of your aircraft. What brought the subject up is a very fine article in the Sept. EAA magazine "Sport Aviation" on the installation of an "automatic cowl flap actuator." This is a big name for a small inexpensive unit. Made by VW, it sells for approx. \$5.00 at your nearest VW dealer. Ask for a "Cooling Air Intake Housing Bellows". Use this drawing from "Sport Aviation" to get your own ideas of installation.



TIPS FROM OTHER BUILDERS.....Last month's mail had a very interesting letter. There was no signature or return address on the envelope or in the letter itself but the information contained is worth repeating...."Here is an anonymous report on loss of a prop blade on a homemade ground adjustable prop on a KR-2.

RPM at failure...3600. Time to failure from last assembly-adjustment...20 min. Total time ...12 hrs. Weight of blade...24 oz., shaft...2"diam., stainless welded clamps. Alum 3/16" thick split retainer rings.

Cause of failure...blade shaft flexing in hub sufficient to work way past retainer ring, split out 2" endgrain wood behind prop bolt and fly off.

Damage...(slight) instrument panel came loose and crack in epoxy/dynel appeared along right longeron nearly to firewall and toward tail along turtle deck. Fuel gage tubing pulled loose slightly to cause gas leak. Exhaust stack ruptured around curve.

Analysis...engine stopped NOW due to immediate separation of clamped hoses of intake Y to dual port manifold. Initial high torque responsible at instant of blade separation. A major contributing factor to absorb twisting motion was right rear exhaust stack which passed rear ward under lower edge of firewall, about 1" clearance. Torque caused stack to contact firewall sufficiently to rupture which absorbed twisting energy. Light weight of blade may have a factor also.

Observation...manifold attachment could be a life and aircraft saver in event of prop failure."

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Another letter has some pertinent info on UV protection.. "Your Newsletter #24, June 1977 has a statement in it which I believe to be very dangerous, the use of carbon black in primer coat of paint to prevent UV rays from damaging the dynel/epoxy skin. I have checked with a chemist at the University of Arizona and a local FAA official and I think your statement is wrong. The USAF and USAAF discovered many years ago that aluminum powder mixed with what ever base was being used was the best protection from Ultra-Violet rays. Since most aircraft of that era were never hangared, I say aluminum primer (at least two coats, sanded lightly) is the way to go." Lt. Col. Neil King (ret), 9361 E. Palm Tree Dr., Tucson, AZ 85710. ED. NOTE...This was also brought to my attention by another builder who added this comment, "the aluminized primer will paint a brighter picture on the radar scope of the big planes. These little planes should be seen and not hurt!"

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"One of the problems I ran into when I installed the foam in the elevator was how weak the trailing edge was because it was so thin. I ended up by making a new elevator. On the second try, I sanded the foam down on the bottom only, leaving the trailing edge about one inch thick. I then applied the dynel/epoxy to this finished side only. After the epoxy set up, I was able to sand down the other side to a feather edge. No more problems. Another point, to drill the holes in the tail wheel spring, use a concrete drill in a drill press. These drills are carbide tipped and cut spring steel like butter. Run the drill press at slow speed." Paul Pryor, P.O. Box 435, Mayaguez, Puerto Rico 00708

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Here is an idea for a reliable fuel gauge for homebuilts. While doing some work on my VW (a '64), I noticed that the gas gauge is MECHANICAL. The sending unit transmits motion to the gauge unit via a flexible cable, like a choke cable. I haven't been able to test it yet but it looks like an easy job to modify the sender to work in cowl tanks, wet wings, or stubs. The VW gauge already has lighting provisions if required. Even tho you'd need one gauge per tank, its better than a sight glass or guess....T.A. Trimble, 1609 Luxton St., Seaside, CA 93955

QUESTIONS & ANSWERS

- Q. Has there been any further developments in tricycle gear systems (retractable) for the KR-1 & KR-2?
- A. I've heard of several under development but only one KR-2 I know of actually is flying with the retractable tri gear. It belongs to Bill Matto, 8556 Rhoads Circle, Fountain Valley, CA 92708. I have seen pictures of a system under development that looks very promising though. I understand if enough people are interested the gear will be marketed. Write to: Michael S. Lamb, 5327 West Ave., L-10, Quartz Hill, CA 93534.

INDEX FOR ISSUES 1-24

- Plans Corrections, Important notes or Safety Notices
- Questions & Answers
- Both of the above

Accident report 21

Aircraft survey 12 13 17

Airfoil & co-ordinates

Aileron & crank

Builders list 3 4 5 6 7

Bolt list 22 23

Canopy 8 24

Controls

Dynel/epoxy 2 8 11 16

20 24

Elevator

Engine, mount & magneto 8 9 10

18 19 22 23

Firewall 9

Foam 1 9 24

Fuel tank & pump 5

Fuselage 6

Gear, retract system & lock

Glue, paint & preservatives

21 24

Inspections plates

Kits & ass'y 1 7 12 21 23

Progress & flight reports 1 2 4 16 17

18 19 20 21 24

Prop 8

Rudder

Scarf joints

Spinner 10

Stress limits

Turn buckels

Wings: ribs, spar attach

Wheels, tail wheels & brakes

MODIFICATIONS

Airfoil 1

Aileron & crank 4 9

Alternator & electrical systems

Aluminum for brackets 20 21

Brakes 3 9

Canopy 14 19

Controls 2 11 14 15 16

Dynel/fiberglass/epoxy 20

Electric trim 18

Engine, mount & magneto 13 14 20

Floats

Fuel tanks including wings & caps

20

Fuselage & seat 15

Gear, retract systems & lock 8 10 11 15

16 19

Hinge bearings 7

KR-3 17 20 23

Lights 5

Liquid foam 9 10 16 20

Luggage carrier 20

Muffler 7

Primer 21

Prop 11 13 14 16 17

Speed brake 12 16

Wing 12

Wood for construction 21

We have Rich Trickel to thank for this index to past issues. As more and more subjects are covered in the Newsletter, a guide has become necessary.

BUY-SELL-TRADE

FOR SALE....Kr-2 project, passed two FAA inspections, controls installed, all parts to complete airframe except canopy...\$1400.00. Ed Darling, 5321 E. 29th, Long Beach, CA 90815 or phone 213-425-7033.

Nico Press Swedging tool for control cables: 1/16, 3/32, & 1/8...\$6.95 plus \$1.00 shipping. Roska, Box 57, Greenvale, NY 11548

NEW A.C. aircraft spark plugs for VW conversion..\$4.00 ea. Rand/Robinson Eng., 5842 'K' McFadden Ave., Huntington Beach, CA 92647

FOR SALE....Partially complete KR-1 Fuselage on retractable gear. Control cables in place, all metal fittings completed. Factory re-built 1500 VW engine, Monnet prop hub, Warnke prop. All material, components & instruments to finish except tach, intake manifold, firewall & $\frac{1}{2}$ sheet plywood...\$1700.00. M.T. Henry, 1321 Jackson Dr., Pulaski, TN 38478 or phone 615-363-3184, (no collect calls please).

WANTED....Completed and flight tested KR-2 with 2100 cc Revmaster and electrical system. Other features would be desirable but not necessary. Jack and Barbara Morelock, c/o Marine Sciences Dept, R.U.M., University of Puerto Rico, Mayaguez, Puerto Rico 00708

KR-3 UPDATE...Well, as reported last month, Stu Robinson took the amphib up to his "hidden hangar in the hills" and went to work. Last week more water tests were carried out to see how the new hull configuration would work. It did work but performance was deemed marginal with the available horsepower. So....back to the hanger. Next tests will be carried out using a Turbo 2100 VW and should have power to spare. Further results next month.

Ernest Koppe

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