

# *DRAGONFLY BUILDERS AND FLYERS NEWSLETTER*

*THE OFFICAL VOICE OF DRAGONFLYERS ALL OVER THE WORLD*

VOLUME 40

MARCH - APRIL 1992



## *RICHARD WERNER'S BEAUTIFUL MARK I*

Above is Richard's beautiful Mark I, S/N 325. Richards plane is a real "sleeper". The closer you look at his plane the more you see what a truly excellent job he has done on N4862H! Richard built his DF over a four year span and 3000 hrs. He was pleasantly surprised when it flew "hands off" on its maiden flight on May 20th, 1985 and now as of this printing has a total of 190 hours. Power is supplied by a HAPI 60DM-2 with a Bendix float bowl carb and a Warnke prop. Max. speed is 165 indicated. Empty weight is 702 lbs.. Another unique feature of Richards DF is the

sliding canopy. I asked Richard for the low down on his set-up and this is what he had to say.....

Hi Spudley!

Here's some info on my slider set-up. Mine lifts up about four inches then slides forward twenty four inches to the full open condition. One of the things I like about it is the intial four inch opening. This provides great summer heat relief during start up, taxi and rollout. It also sits well at the air shows keeping the inside cool and no worry that the wind

will rip it off. A few things I don't like about it are; I would like to move further forward in the open position. I am average size 170 lbs. with no spare tire most of the year and find it easy to get in and out, but someone with more width might have more difficulty. My mother 60+ had no problem except for needing a stool for that first step. One last thing, the ball bearings on the drawer slides that make up the rails are a little noisy during taxi and rollout.

Now about the construction - The canopy latches on both sides just like the plans did on its one latching side. I used a standard 24" drawer slide, aluminum, AN hardware and some rivets. Counter sunk attach bolts into the longerons, wood blocks for stops, springs to hold it open and a small aluminum angle riveted at the end of the slide to prevent the canopy from sliding of the track into the propellor. I ran a "P" strip self-adhesive rubber sealing material around the front of the canopy seat area to seal it.

Richard Werner

19431 Babler Forest Dr.

Chesterfield, Mo 63005

## CALENDAR

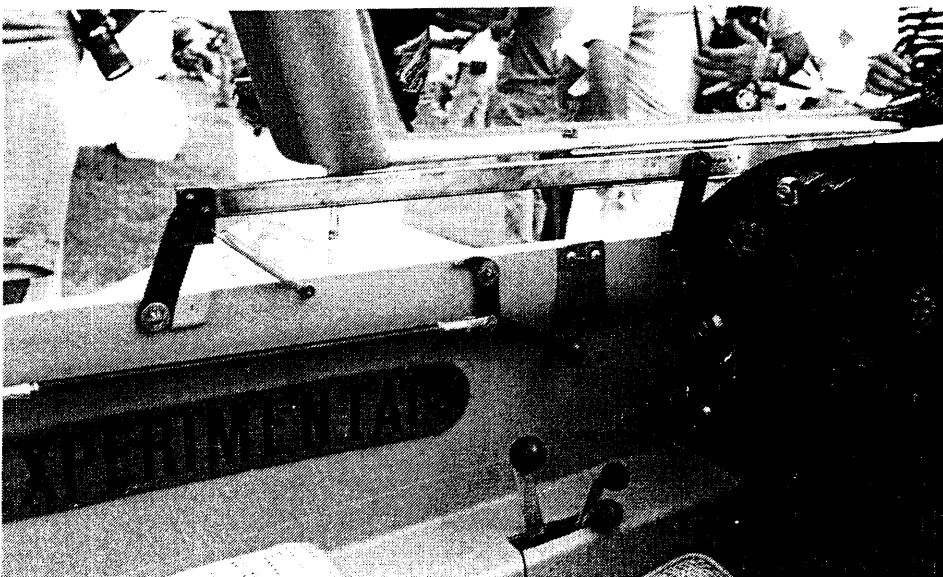
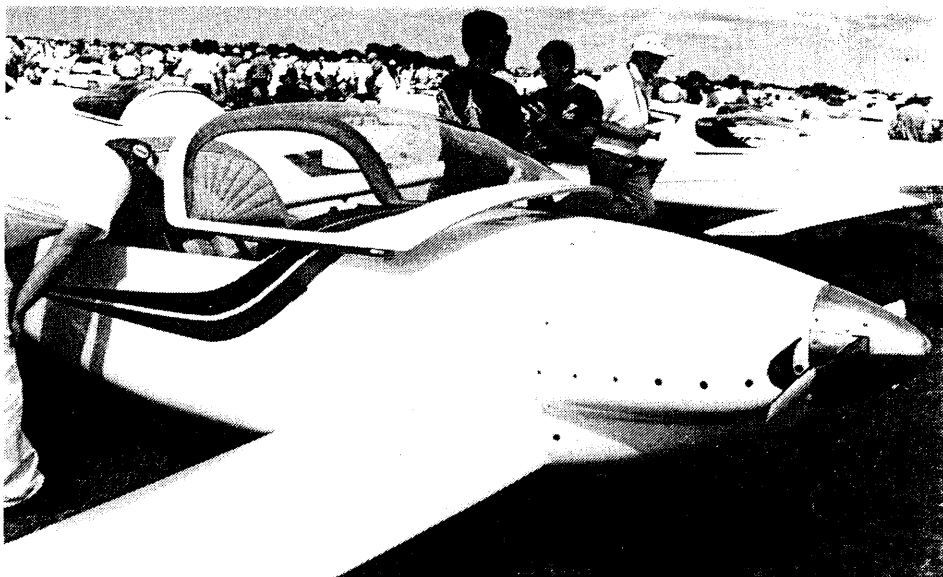
● National Gathering for Canard-Type Aircraft - Olathe, Ks. - June 5-6-7

● Oshkosh 92 - Oshkosh, Wi. - July 31 -

August 6th

● The Dragonfly-Q2-Q200 Annual Fly-in

Ottawa, Ks. - Sept. 18-19-20



## *SERVO TABS*

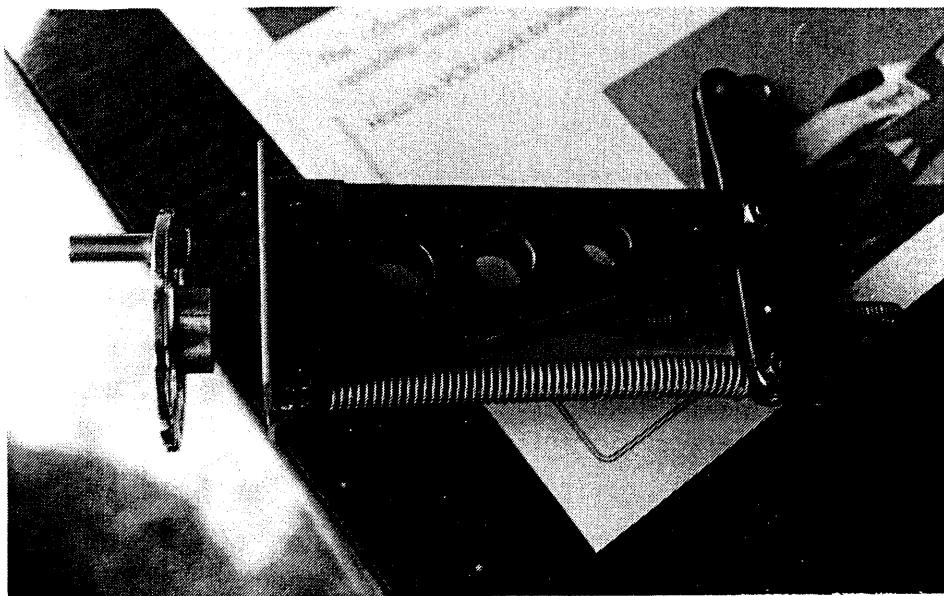
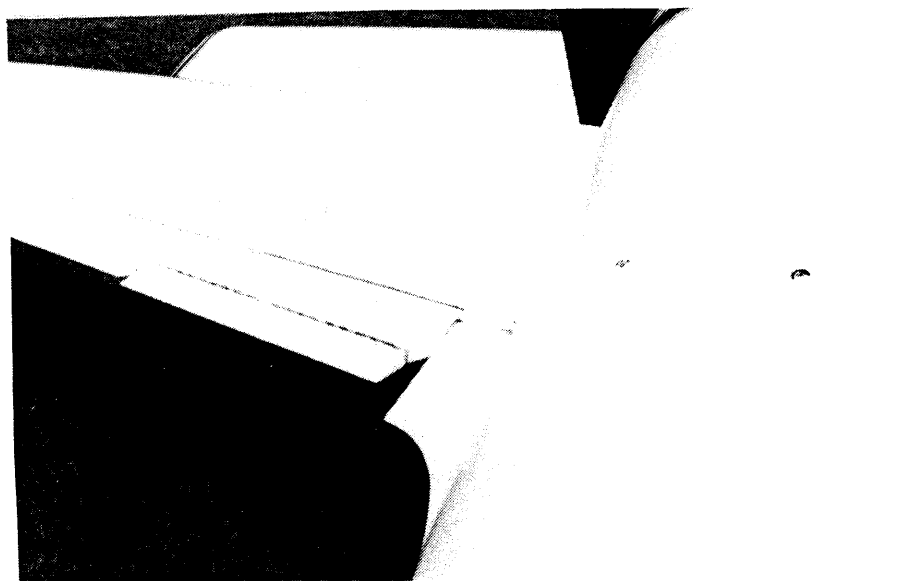
My Dragonfly, N1941G, is an old plane. It was constructed from the plans in 22 months and was first flown on Feb. 12, 1985. It was originally a Mark I which I later converted to a Mark II. No, I did not break the the Mark I canard. I simply made a new Mark II canard and sold the Mark I. N1941G is approaching 450 hours. The engine is a Hapi 1835cc turning a 44/54 Sterba prop. The empty weight is 660 lbs.. Stall speed is 58 mph IAS and I usually cruise at 140 mph at 3200rpm, Top speed (IAS) appears to be 172 mph at full power, 3700 rpm. I have worn out two sets of tires giving familiarization and demonstration rides.

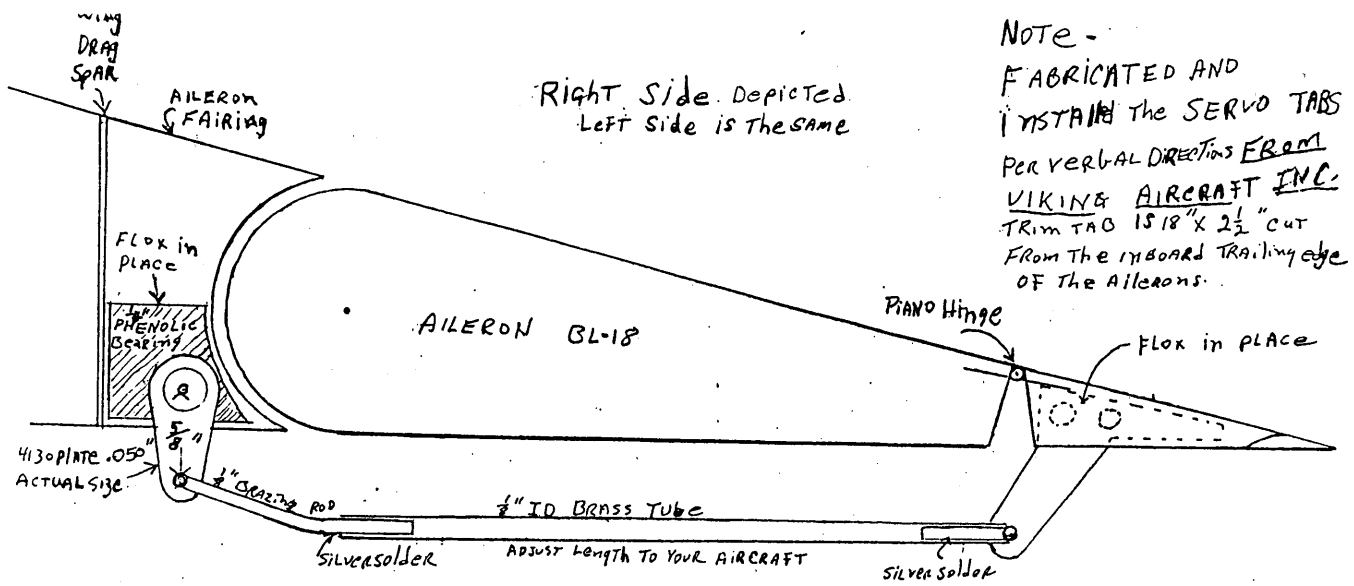
Radio equipment consists of a RST 720 NAV/COM, Terra transponder and encoder, RST marker beacon and a Davtron DVOR indicator. I brewed up a simple intercom/switching unit that allows switching between the RST nav/com and a KX99 handheld nav/com. Also a Voyager handheld Loran is used with an antenna taped to the inside of the canopy.

Dragonfly 1941G has many modifications which include a retractable landing light, forward hinged canopy, a front deck access door and aileron servo tabs adjustable from the center console for aileron trim. I have enclosed several sketches of how several of us at Chino have modified Rex Taylors aileron servo system to include the aileron trim. Also, in August, 1986 I designed and installed an elevator trim control unit which has been successful. I have not found a reflexor necessary in my plane, however I feel it would probably allow a slight increase in cruise speed.

My plane is hangered at Chino, California. There is eight Dragonflys at Chino and there appears to be a "Swarming" every weekend.

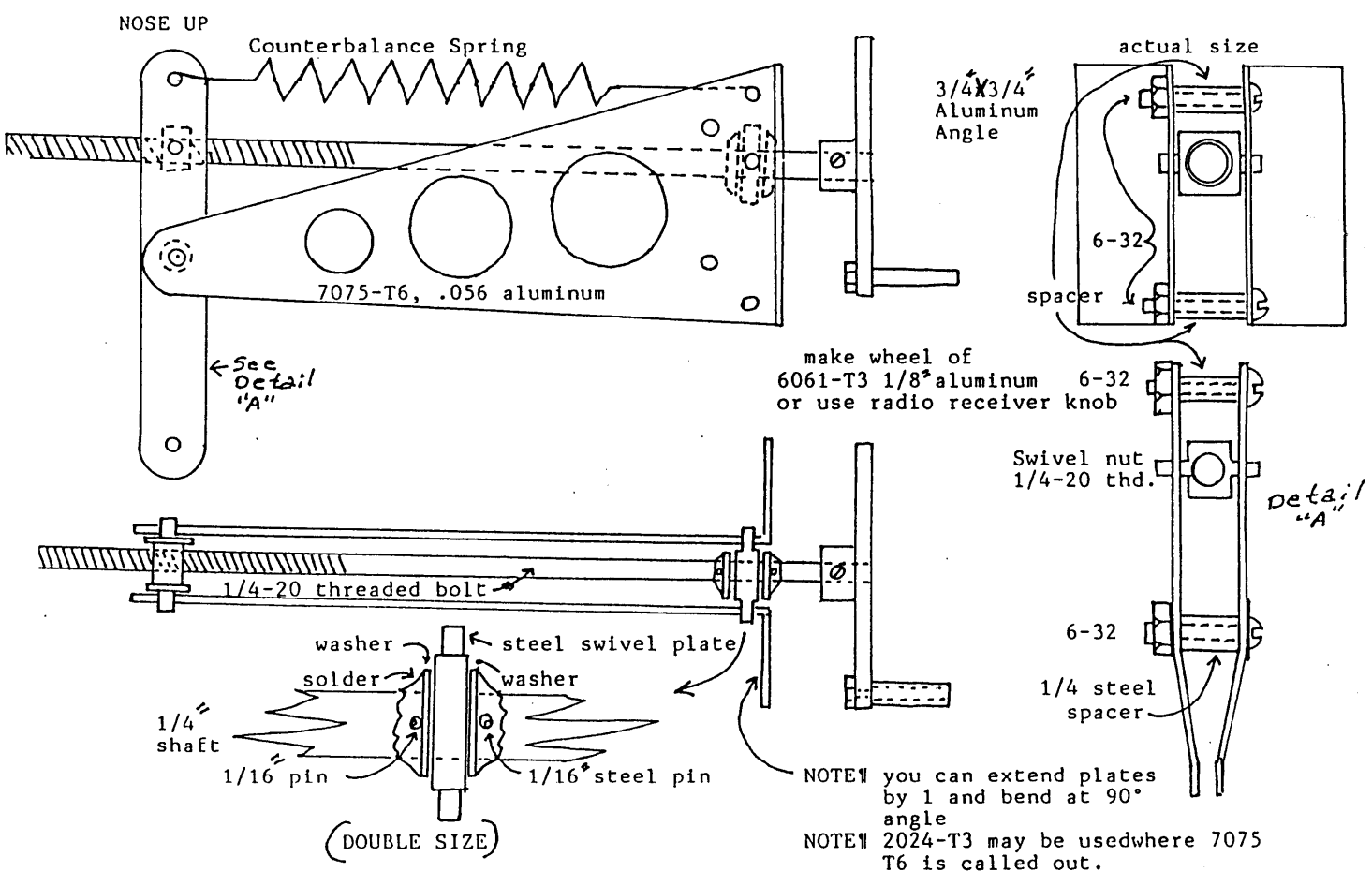
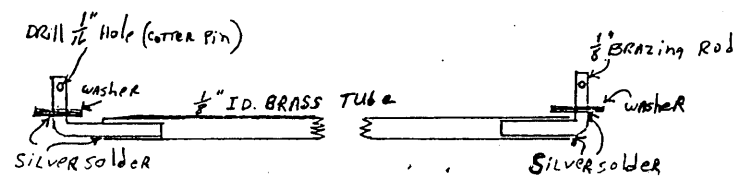
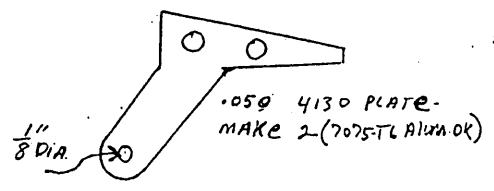
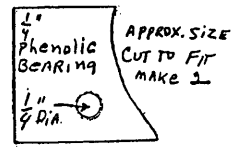
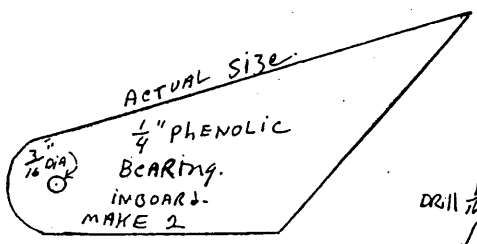
Troy Burris

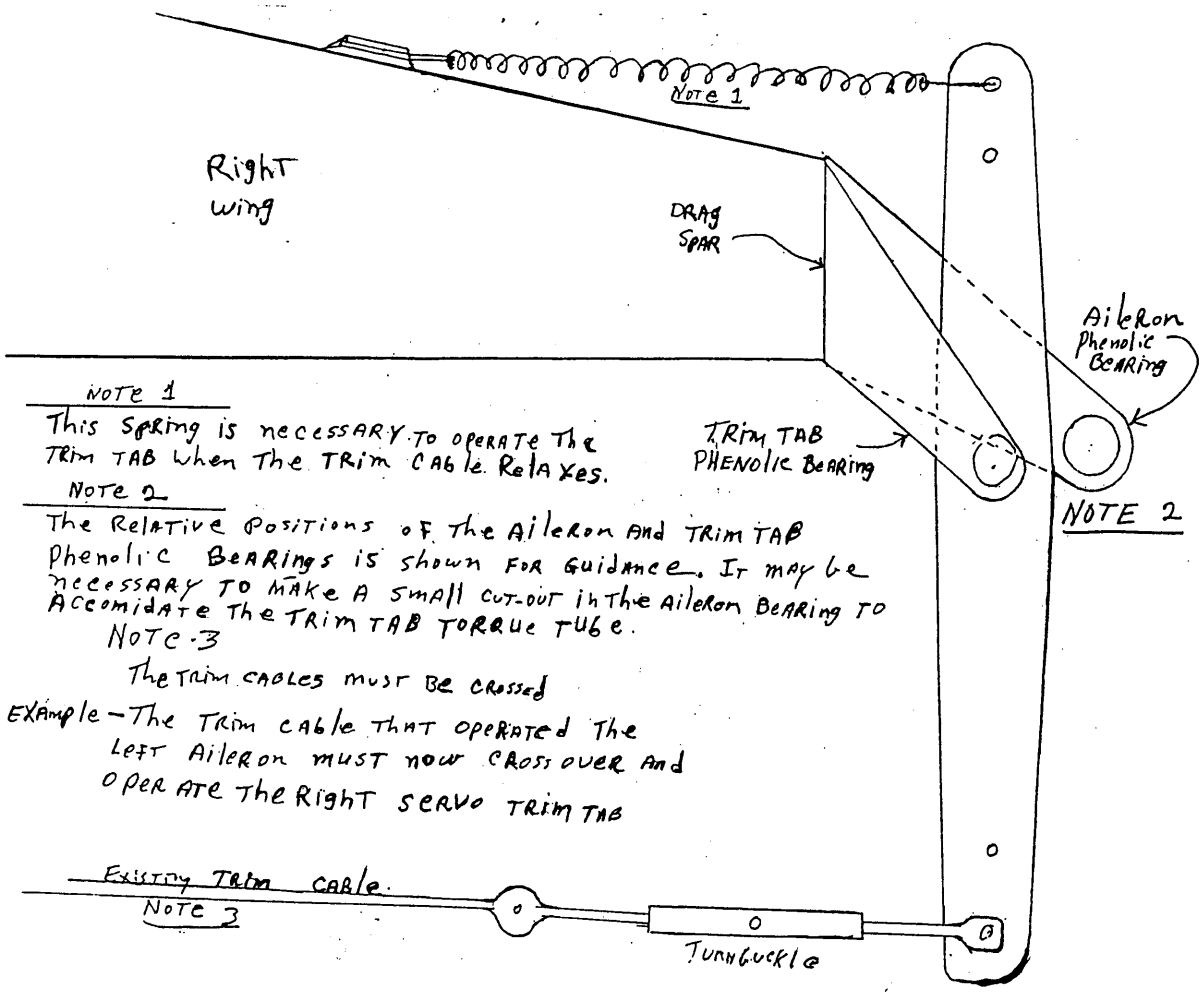




NOTE -  
FABRICATED AND  
INSTALLED THE SERVO TABS  
PER VERBAL DIRECTIONS FROM  
VIKING AIRCRAFT INC.  
TRIM TAB 15 18" X 2 1/2" CUT  
FROM THE INBOARD TRAILING EDGE  
OF THE AILERONS.

RIGHT SIDE DEPICTED  
LEFT SIDE IS THE SAME





NOTE 1

This SPRING is NECESSARY TO OPERATE THE TRIM TAB WHEN THE TRIM CABLE RELAXES.

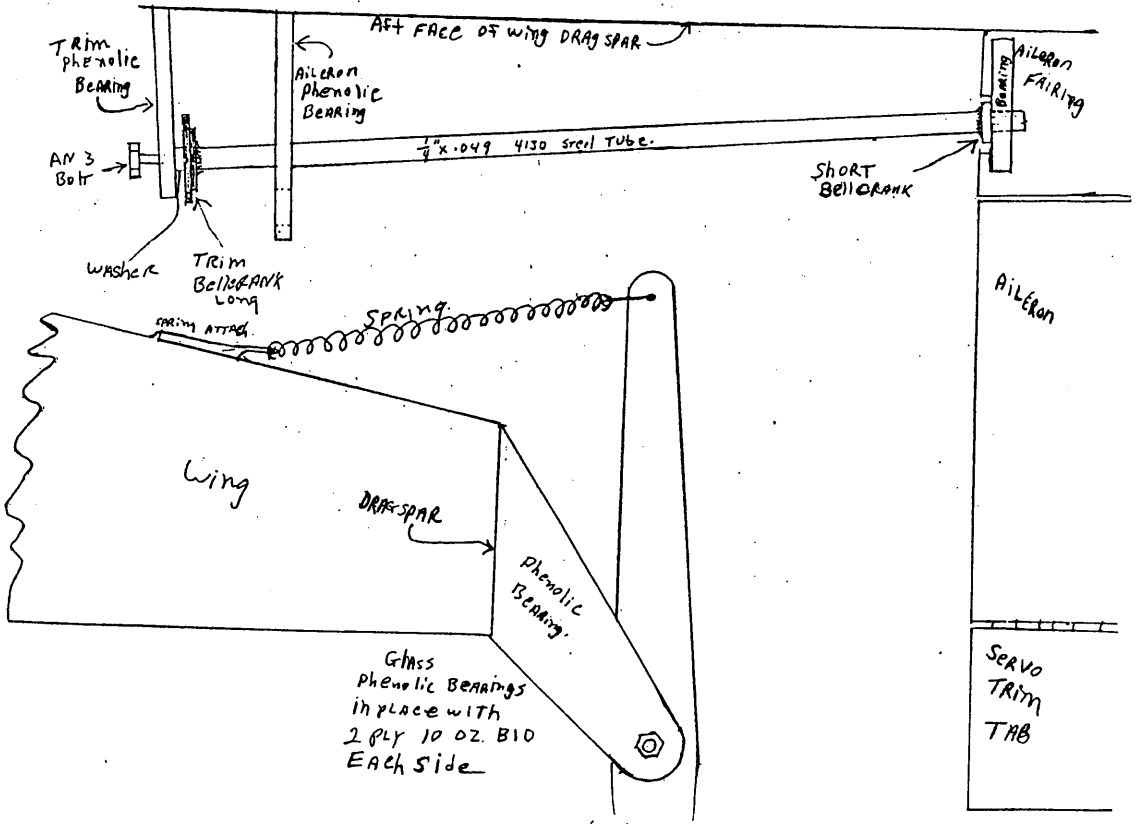
NOTE 2

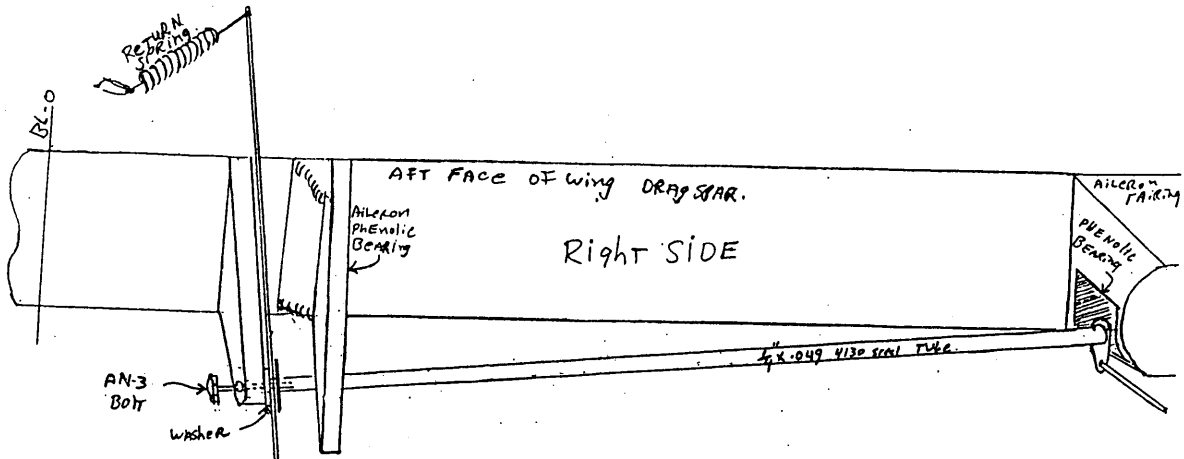
The RELATIVE POSITIONS OF THE AILERON AND TRIM TAB PHENOLIC BEARINGS IS SHOWN FOR GUIDANCE. IT MAY BE NECESSARY TO MAKE A SMALL CUT-OUT IN THE AILERON BEARING TO ACCOMMODATE THE TRIM TAB TORQUE TUBE.

NOTE 3

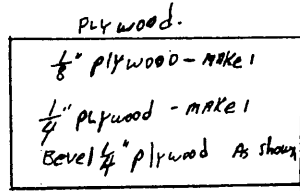
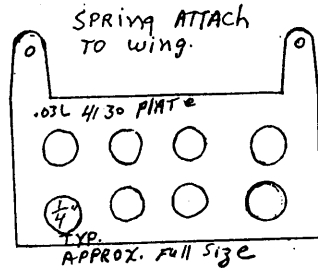
The TRIM CABLES MUST BE CROSSED

EXAMPLE - The TRIM CABLE THAT OPERATED THE LEFT AILERON MUST NOW CROSS OVER AND OPERATE THE RIGHT SERVO TRIM TAB

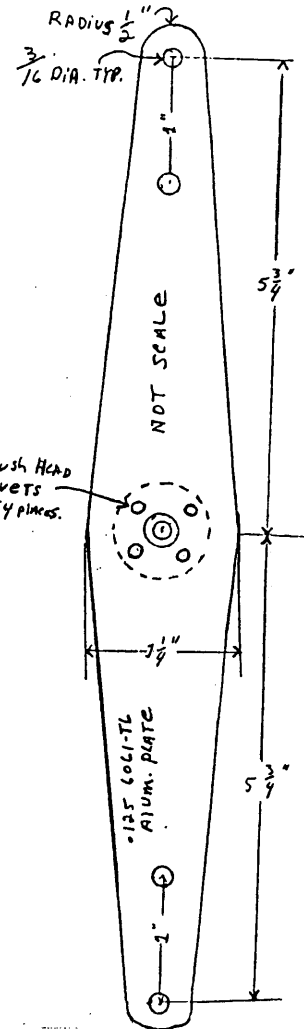
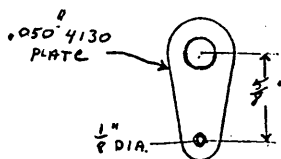
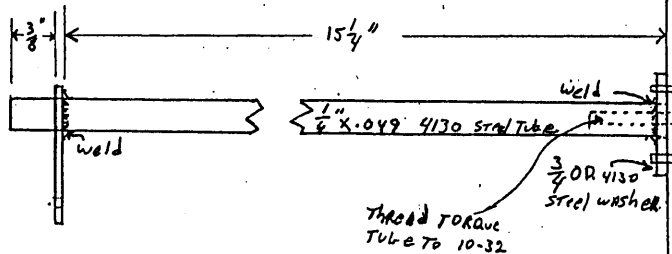
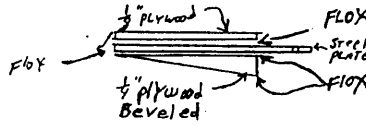




TRIM FROM LEFT SIDE OF A.C.  
 NOTE - CABLES MUST BE CROSSED TO PROVIDE PROPER TRIM DIRECTION



MAKE THE SANDWICH USING FLOX; FLOX TO UPPER WING SURFACE GLASS WITH 2 PLY 6 OZ. BID



## AIR BRAKE

Hello Spud, here's the info on My Dragonfly and my air brake. My Dragonfly S/N 328 is powered by a 2047cc - 75 hp - "Aeropower" VW conversion from Western Australia. The engine is also fitted with a Surefire II ignition system and an Ellison EFS-2 carby. I have only recently installed the Ellison carby and don't have any performance data yet. Previous performance was 130 Knots indicated cruise at 3000 rpm at sea level. I also have installed a Hoffman HOV 62 R/L 130CP variable pitch (2 position) propeller. The 130CP blade was designed specifically for the Dragonfly by Hoffman.

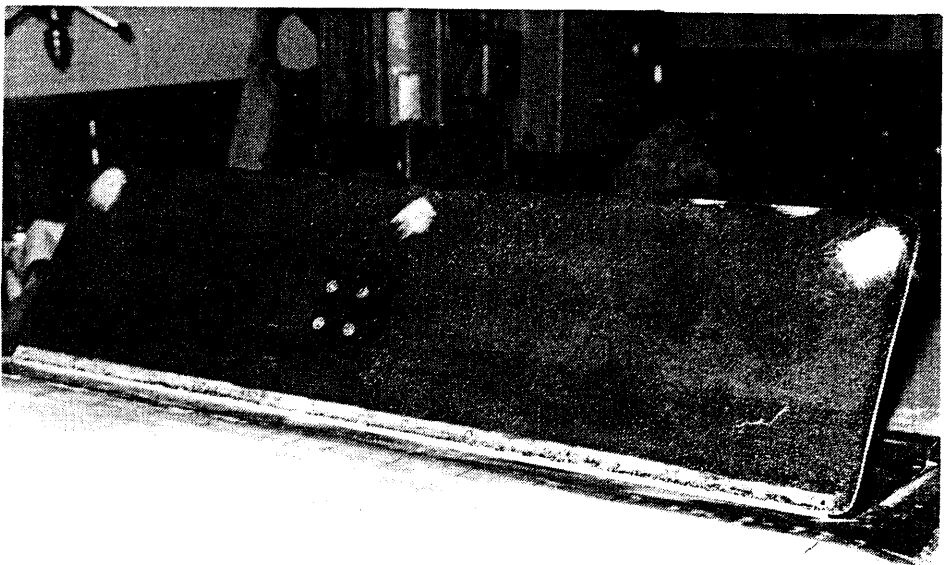
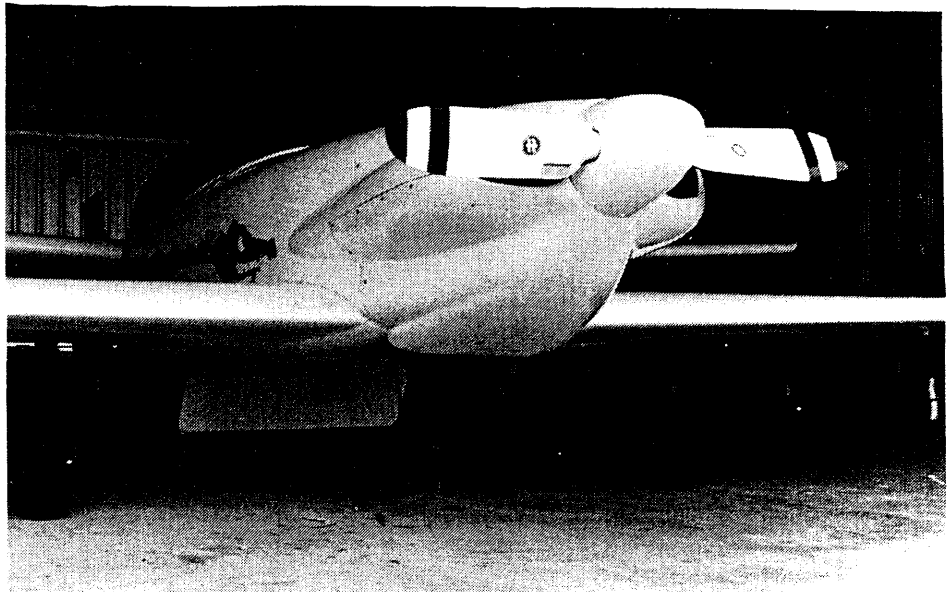
I have 135 hours in my Dragonfly and during that time I have had two engine failures. The first was an engine failure on take-off caused by carby-ice (I was too slow using the carby heat) which resulted in a broken canard. After that I rebuilt it with inboard U/C.

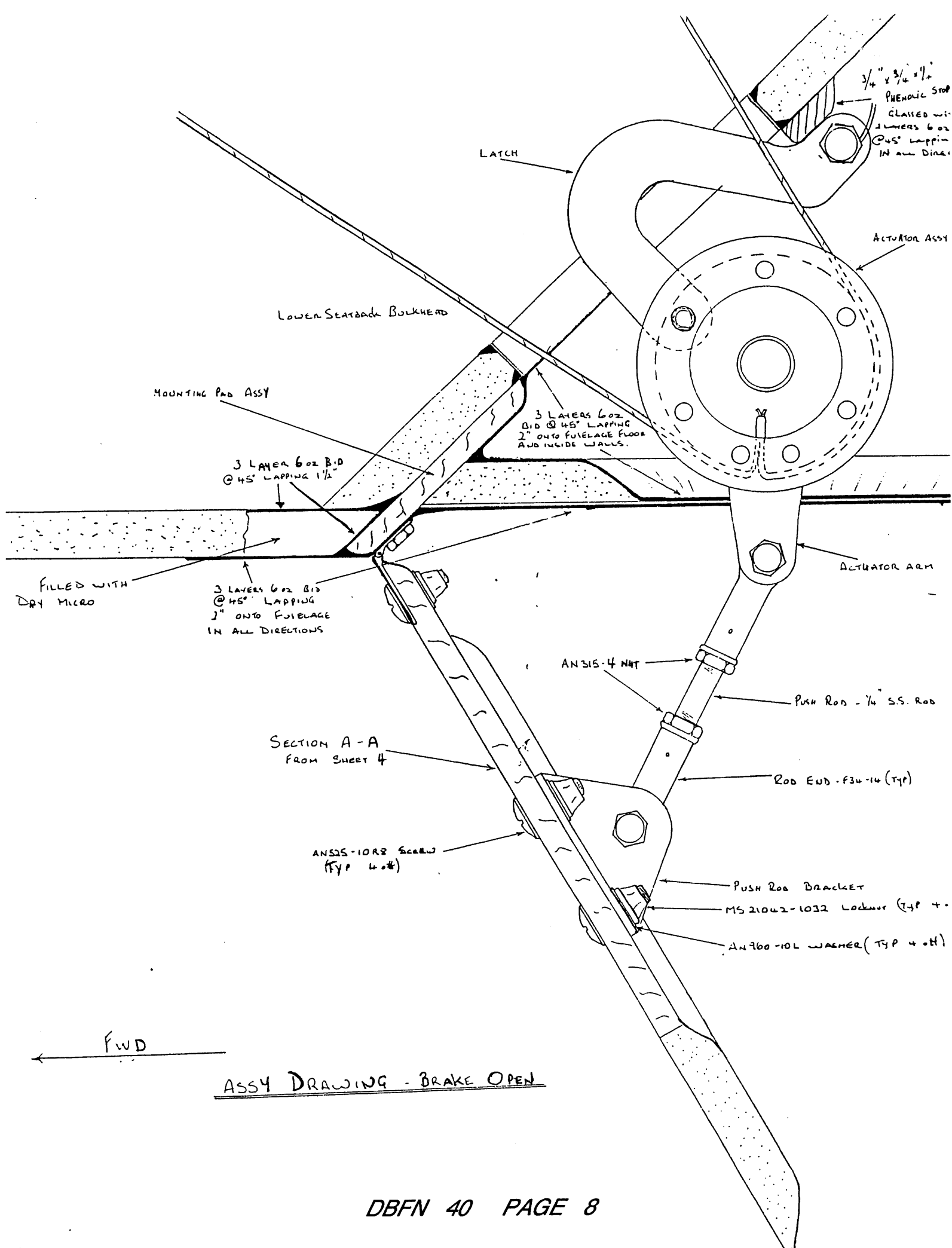
The second engine failure was caused by the guts of a "Curtis" drain cock falling out at 2000 feet and resulting forced landing damaging my U/C legs.

My Dragonfly is now ready to fly again except for compliance with a new Ellison service bulletin on my carby which is in the process of being modified.

My Dragonfly first flew 15th Jan. 1985. I have enclosed a copy of my drawings for a landing brake which I have installed and fully flight tested on my Dragonfly. This landing brake is approved by the Australian Department of Aviation. To illustrate the benefit of the landing brake, I had bugs on my wings and it was raining! I flew final at 80 knots all the way to the runway, flared to a level attitude (power off), forward stick after the mains touched, using full braking after the tailwheel was positively down and I had stopped and turned around before using 1500 feet of runway.

*CONTINUED ON PAGE 10*

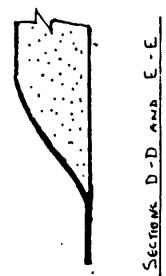
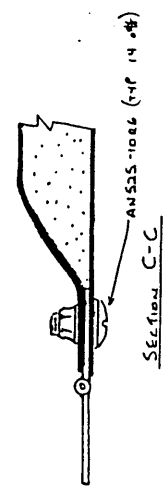
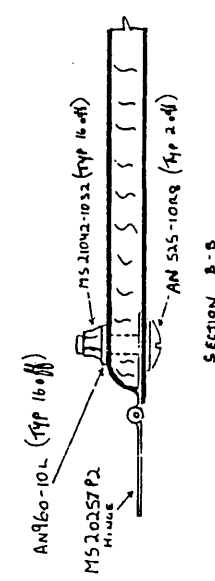
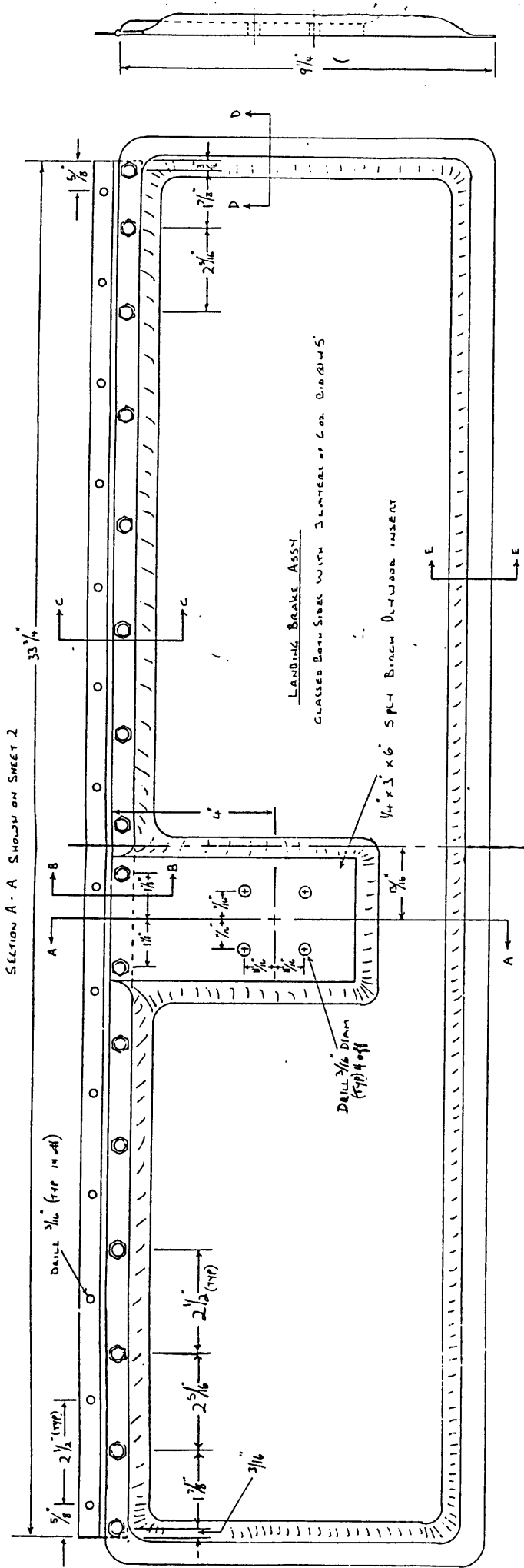




ASSY DRAWING - BRAKE OPEN



SECTION A - A SHOWN ON SHEET 2



Previous to installing the landing brake, this same situation would of used 2500 feet of runway. The benefit of the landing brake far exceeds the weight gain. Everyone is welcome to copy and use my drawings.

Len Dyson  
 29 Laurie st.  
 Newport Victoria, 3015  
 Australia

To follow are some pictures of Len's Dragonfly and his air brake. There is 8 large plates, plus the pictures. I feel that everyone may not be interested in the airbrake. So to keep a good mix of info to the subscribers we will be splitting up Len's drawings over the next few issues of DBFN. We are also going to be adding a pictorial essay from Chuck Kaplan of Walpole, Ma. We supplied Chuck a advance copy of Len's drawings. Chuck charged ahead and for the most part has it installed in his Dragonfly that he has under

***IN CLOSING.....***

We need to start planning for Oshkosh and especially "OUR" Q2 / Q200 / Dragonfly Fly-in this coming September 18-19-20th. I hope that DBFN continues to be of interest to all it's subscribers. We try to keep a good mix of information. I welcome everyone suggestions. We should be back on schedule with the next issue. Thanks

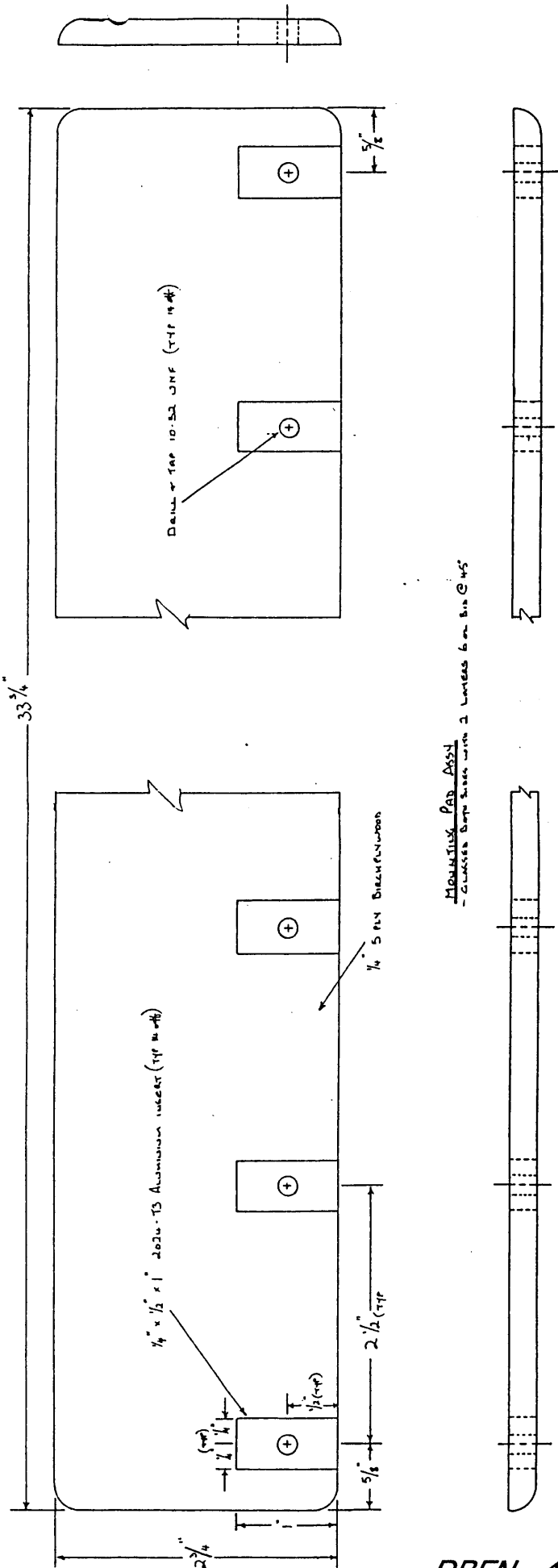
***THE CLASSIFIEDS***

***For Sale:*** Firewall forward for Dragonfly, 2167cc VW engine, prop. through and including motor mount, No carb. \$4400.00 invested in 1986 dollars, have receipts. \$3000.00 for everything, firm. Call Chuck Kaplan - Walpole, Mass. (508) 668-4784

***For Sale:*** Dragonfly project - Fuselage 65% completed, glassed inside & out, bulkheads, main & header tank installed. Wing completed less control surfaces & weave filling. Most foam for Canard. Get a head start & save 275 hours. First \$1350.00 firm. (913)764-5118 ask for Spud

***For Sale:*** Task Dragonfly cowling - \$300.00. Mark I canard, ready for outside skinning, excellent work, \$250.00 Brad Hale 6778 Naomi Ave, Buena Park, Ca 90620 (714)523-9197

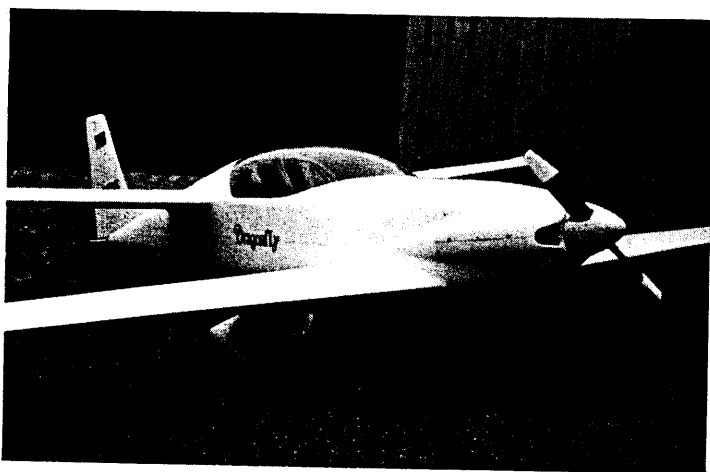
***For Sale:*** New Ellison EFS-2 fuel injection - \$250.00. Cessna Factory/King transponder - \$250.00. Mike Starkey 2910Roc Rd, Placierville, Ca 95667 (916)621-0069



**For Sale:** Fuselage-bulkheads, panel & hdr tank inst'd, tapered consoles with stick mixers. Most other metal parts included. Next step is to glass-\$1500. Ask for Stan, Days(213)941-9763. Eve(213)402-5023

**For Sale:** Dragonfly Mark II, 70% completed, Most major components, complete except finish. 1835cc engine made with Hapi parts, engine/flight instruments, Rosenhan brakes/wheels, 2 sets of original plans, foam hardware for 2nd plane, canopy \$10,000.00/OBO Phx,AZ (602) 892 1427

**For Sale:** Dragonfly N89VE Mark II - 37 TT hrs, New Hapi 60DM2, Hydraulic, Dual electronic ignition, all new instruments, Nav/Com, Loran, Transponder w/Mode C, intercom with 2 David Clark headsets. \$22,000.00 Invested. Steal it for \$15,000.00. Lost Medical, must sell. Will consider trade of Ultra light, motorhome, boat or what have you? Everett Vidrine, 1700 W. Laurel, Eunice, La 70535 (318) 457-5989



← Everett's plane →

**For Sale:** Dragonfly, NFK323, Mark I, New Limbach engine.,Exceptional workmanship, must see. Nav-Comm and all flight instruments.Taxi Test only. Klaus Robinson, 22040 Calvert str. #13, Woodland Hills, Ca 91367 (818)347-8518

**For Sale:** Extra Dragonfly fuselage, no filling done. Also Mark II canard & wing, no fairings. Make offer (616) 979-3951

**For Sale:**Dragonfly Project, modified for tricycle gear. Can be fitted for Mark II gear easily. Fuselage, wing, rudder, canopy, cowling and control surfaces. No canard. Excellent workmanship can be inspected, not painted. \$1800.00 takes it home. for further info contact Chris Barber, Big Sky Ranch Airport 437 Will Raby Rd. Toney, Al 35773 or (205) 656-7133

**For Sale:** Mark I Dragonfly 760hrs. 80 hp Limbach w/ 440 hrs., Cleveland brakes, Aileron reflexor, less radios and instruments \$10,000.00 ask for ,day (407)392-7062 eve (407) 395-9267

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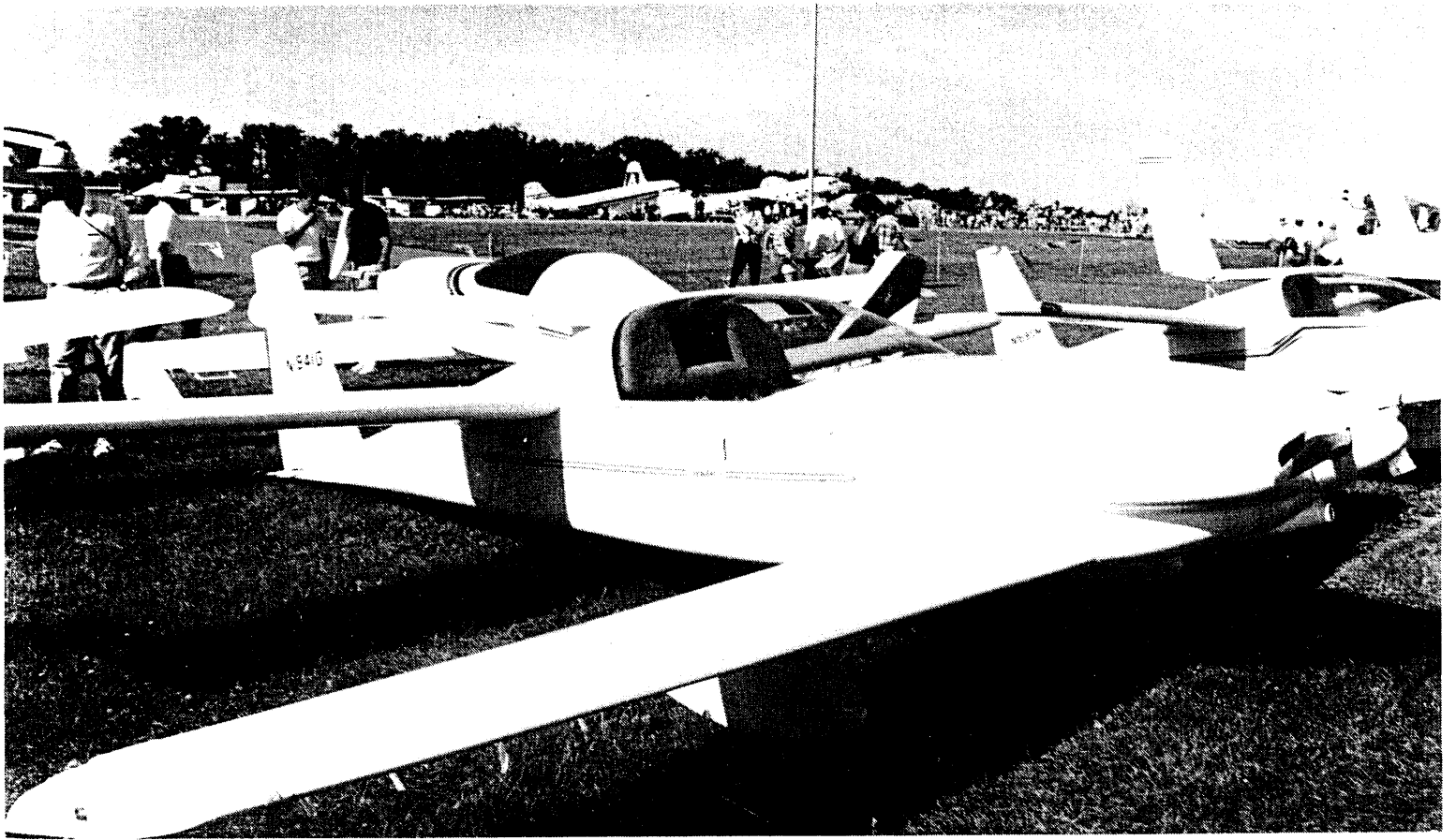
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Information may be submitted to DBFN in several modes, written or typed letters by mail, Fax machine - current number is (913) 371-0824, on computer disk 5.25" 360k or 3.5" 720k in a "ASCII" format and may be directly imported from these other word processing programs, WordPerfect 4, WordStar 5, Microsoft Word 4, Word Writer, 1st Word Plus, WordPerfect 5, Quintet, Beyond Word Writer & Word Writer 3. We can also import graphics from Gem Draw, Lotus 1-2-3, Encapsulated Postscript, Tiff, Gem Paint, PC Paintbrush & Splash.

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*Olathe, Kansas 66061*

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