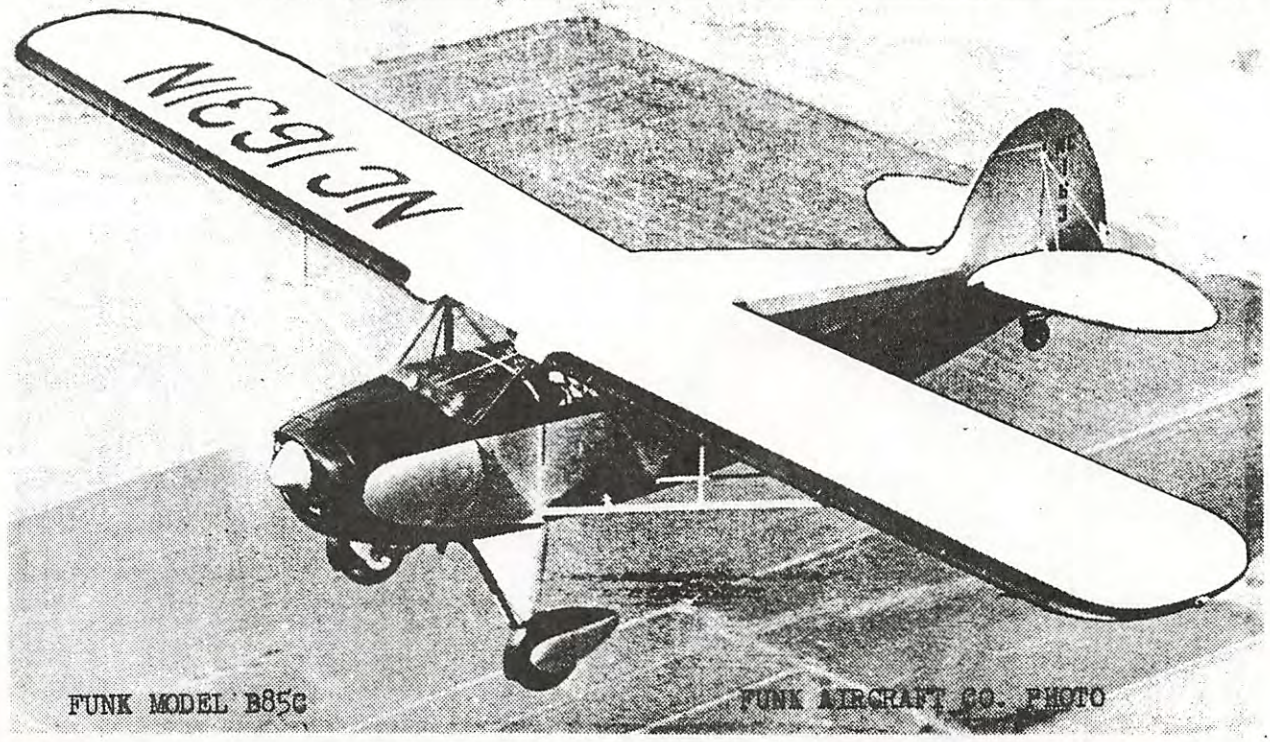
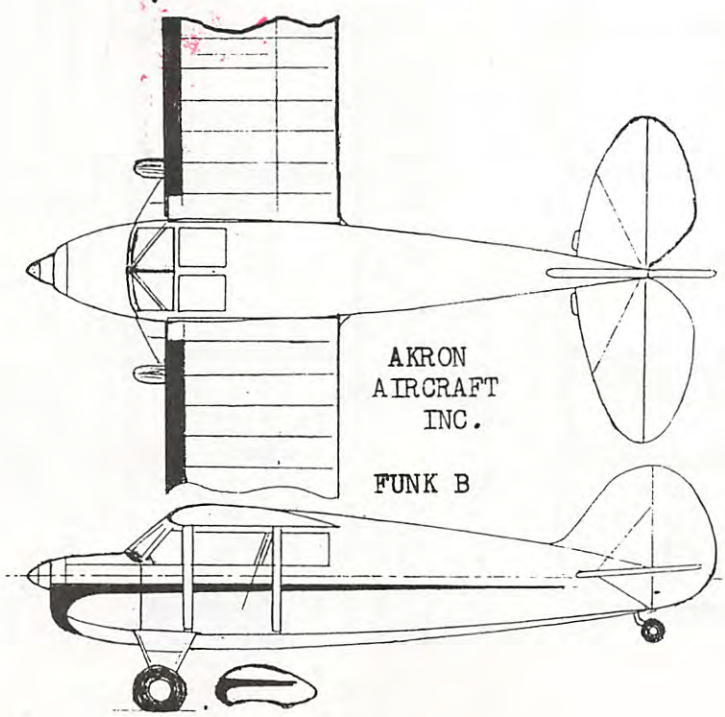
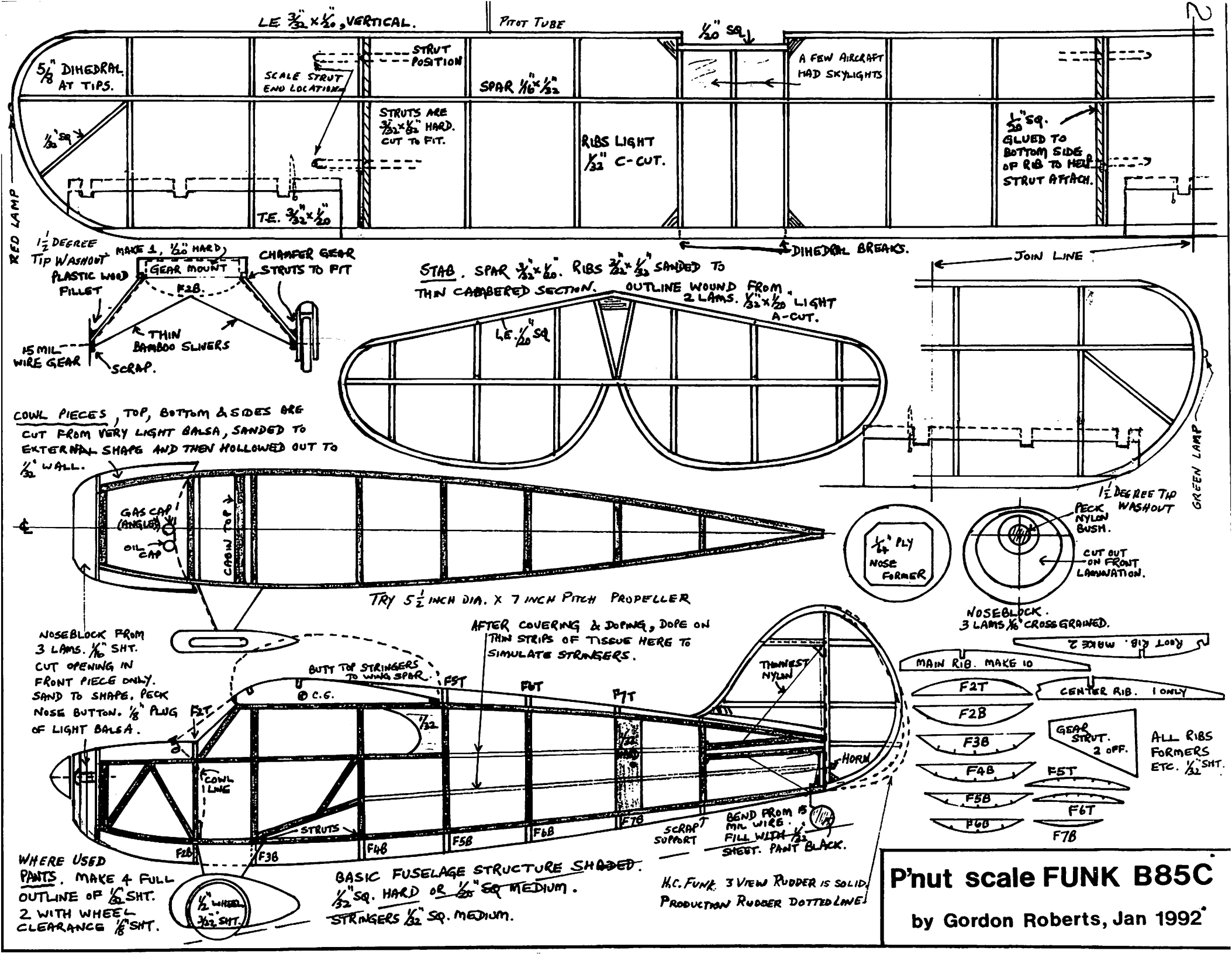
CROSSWINDS 81



FUNK MODEL B85C FUNK AIRCRAFT CO. PHOTO

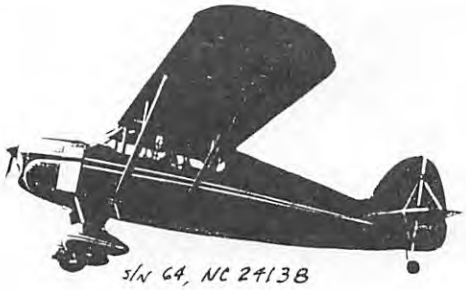
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ARGO-TECH CORPORATION
23555 Euclid Avenue Cleveland, Ohio 44117





P'nut scale FUNK B85C

by Gordon Roberts, Jan 1992



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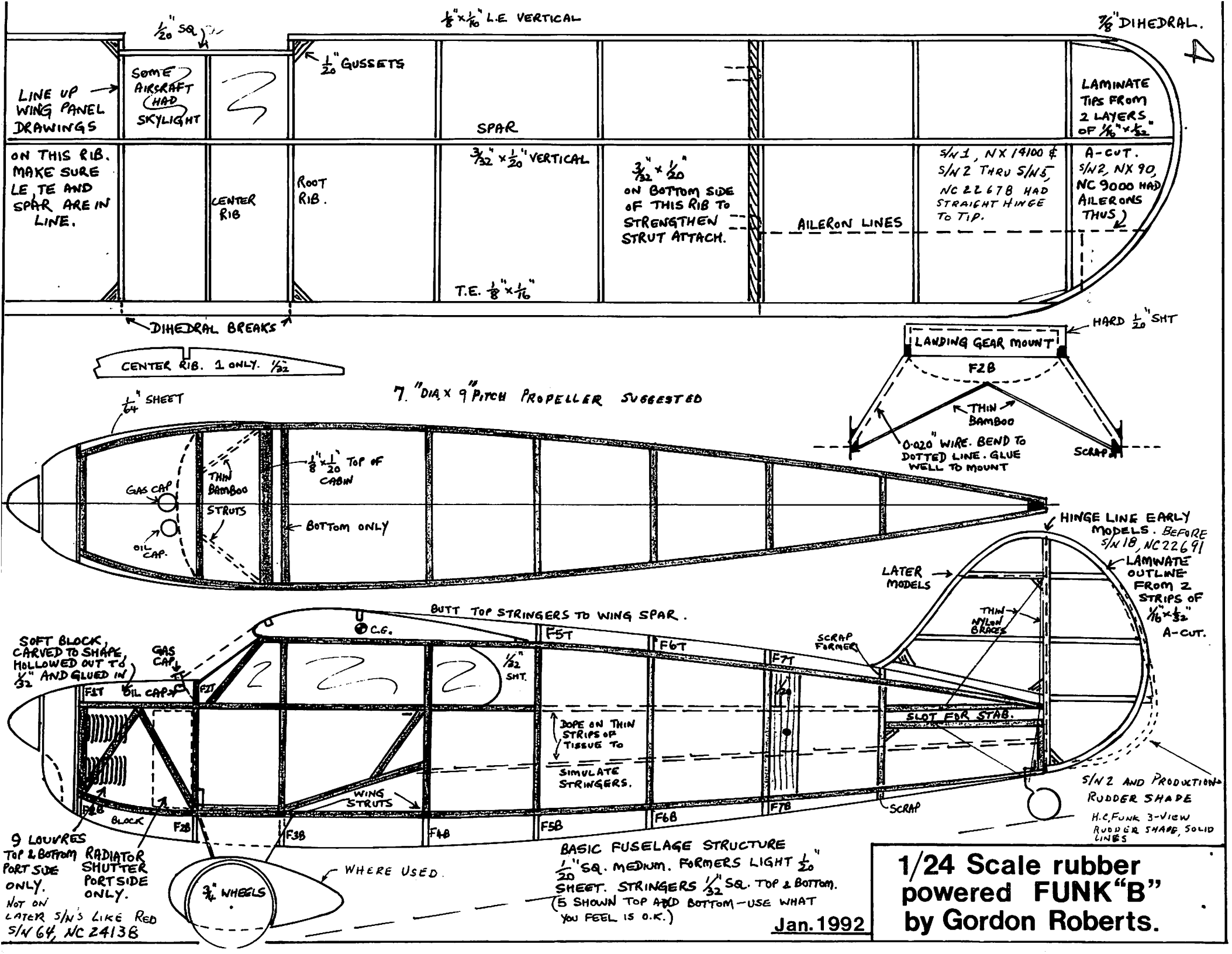
No. 81

EDITORIAL COMMENTS

This issue is devoted to Funk aircraft and it has been in preparation for a long time. Our good friend Andy Medovitch was into Funks at the time of his passing and this issue was to be a tribute to him. It is now two years later and this issue is being finalized at last. I was not supposed to be the guest editor, but took on the job a couple of months ago because little seemed to be happening and, after all, a two year gap in publication is pretty serious. I have been asked many times at contests and by letter about what was happening and it gets pretty embarrassing to keep on giving the same old excuses such as work load, lack of interest in the subject, other developing interests and so on. Enough said! Here it is in all its glory and I hope you like it. There are two plans in this issue. Firstly there is a ½" scale Funk Model B. This was the first production model and has a Funk-modified Model E Ford liquid-cooled engine developing about 70 horse power. The nose was quite slim and the airplane was of a pleasing but slightly "chubby" appearance. Its flying characteristics were outstanding, being almost impossible to spin, for example, and the interior was not in the least spartan. The second plan is a Peanut scale of the B-85C (also known as the F2B). This was the final model and employed the 85 horse power flat 4 air-cooled Continental engine. The nose was widened and modified to accommodate the engine, and this constituted the only visible difference between it and the Model B.

By the miracle of xerox, of course, these plans can be expanded or shrunk to meet your requirements. There was an intermediate model, powered by the Lycoming 75 H.P. engine. As far as I can see, the nose shape is similar to that on the B-85C, but the cooling air intake is completely different and smaller, located beneath the spinner. Some pictures show an automobile-type grille with vertical slats, while others show an open hole with landing lights tucked inside. The B-85C can be built as the B-75L by changing the frontal appearance of the nose block to incorporate a horizontal ovalish orifice just below the spinner rather than the more generous all-around hole on the B-85C.

Over 300 Funks were made and about 200 are still around, revered by their proud owners for their solidity and their great flying qualities. The two brothers, Howard and Joe are still with us and there is a flourishing Funk owners club, to which we are indebted for some of the information contained herin. If you can find a copy of the book "Its a Funk" by G. Dale Beach, it will tell you all you could possibly want to know about the history of these planes. It includes information on all


1/20" SQ.
1/8"x1/16" L.E. VERTICAL
7/8" DIHEDRAL.
1/20" GUSSETS
LINE UP WING PANEL DRAWINGS
SOME AIRSRAFT HAD SKYLIGHT
SPAR
LAMINATE TIPS FROM 2 LAYERS OF 1/16"x1/32"
ON THIS RIB. MAKE SURE LE, TE AND SPAR ARE IN LINE.
CENTER RIB
ROOT RIB.
3/32"x1/20" VERTICAL
3/32"x1/20" ON BOTTOM SIDE OF THIS RIB TO STRENGTHEN STRUT ATTACH.
AILERON LINES
S/N 1, NX 14100 & S/N 2 THRU S/N 5, NC 22678 HAD STRAIGHT HINGE TO TIP.
A-CUT. S/N 2, NX 90, NC 9000 HAD AILERONS THUS)
T.E. 1/8"x1/16"
DIHEDRAL BREAKS
HARD 1/20" SHT
LANDING GEAR MOUNT
F2B
CENTER RIB. 1 ONLY. 1/32
7." DIA x 9" PITCH PROPELLER SUGGESTED
1/64" SHEET
THIN BAMBOO
0.020" WIRE. BEND TO DOTTED LINE. GLUE WELL TO MOUNT
SCRAP
1/8"x1/20" TOP OF CABIN
GAS CAP
OIL CAP.
STRUTS
BOTTOM ONLY
HINGE LINE EARLY MODELS. BEFORE S/N 18, NC 22691
LAMINATE OUTLINE FROM 2 STRIPS OF 1/16"x1/32" A-CUT.
LATER MODELS
THIN NYLON BRACE
BUTT TOP STRINGERS TO WING SPAR.
C.G.
F5T
F6T
F7T
SCRAP FORMER
SOFT BLOCK, CARVED TO SHAPE, HOLLOWED OUT TO 1/32" AND GLUED IN
GAS CAP
OIL CAP
F1T
F2T
1/32" SHT.
SLOT FOR STAB.
DOPE ON THIN STRIPS OF TISSUE TO SIMULATE STRINGERS.
WING STRUTS
F2B BLOCK
F2B
F3B
F4B
F5B
F6B
F7B
SCRAP
S/N 2 AND PRODUCTION RUDDER SHAPE
H.C. FUNK 3-VIEW RUDDER SHAPE, SOLID LINES
9 LOUVRES TOP & BOTTOM PORT SIDE ONLY.
NOT ON LATER S/N'S LIKE RED S/N 64, NC 24138
RADIATOR SHUTTER PORTSIDE ONLY.
3/4" WHEELS
WHERE USED.
BASIC FUSELAGE STRUCTURE 1/20" SQ. MEDIUM. FORMERS LIGHT 1/20" SHEET. STRINGERS 1/32" SQ. TOP & BOTTOM. (5 SHOWN TOP AND BOTTOM—USE WHAT YOU FEEL IS O.K.)
Jan. 1992
1/24 Scale rubber powered FUNK "B" by Gordon Roberts.

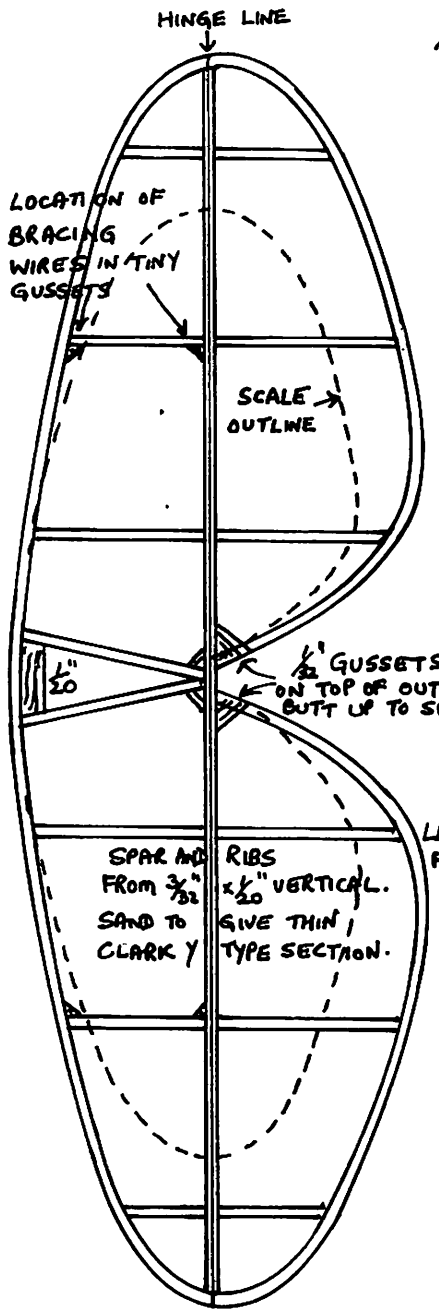
known Funks (still in existence or destroyed) and so it is the ultimate resource for the model builder.

I'm sure that Russ Brown has come up with all sorts of good information on color schemes and registration numbers and I will thankfully leave all this to him. There are a few magazine articles and pictures in books which he will also go into for background information. There is so much stuff that I'm hearing hints of spilling over into the next issue! I had a nice letter from Dick Howard in Lake Havasu City, Arizona enclosing much Funk data for this issue. It appears that after the War, he used to ferry Funks from the factory in Coffeyville, Kansas to dealers on the West Coast. He is of the opinion that it is the best flying airplane he has ever handled and that is saying an awful lot!

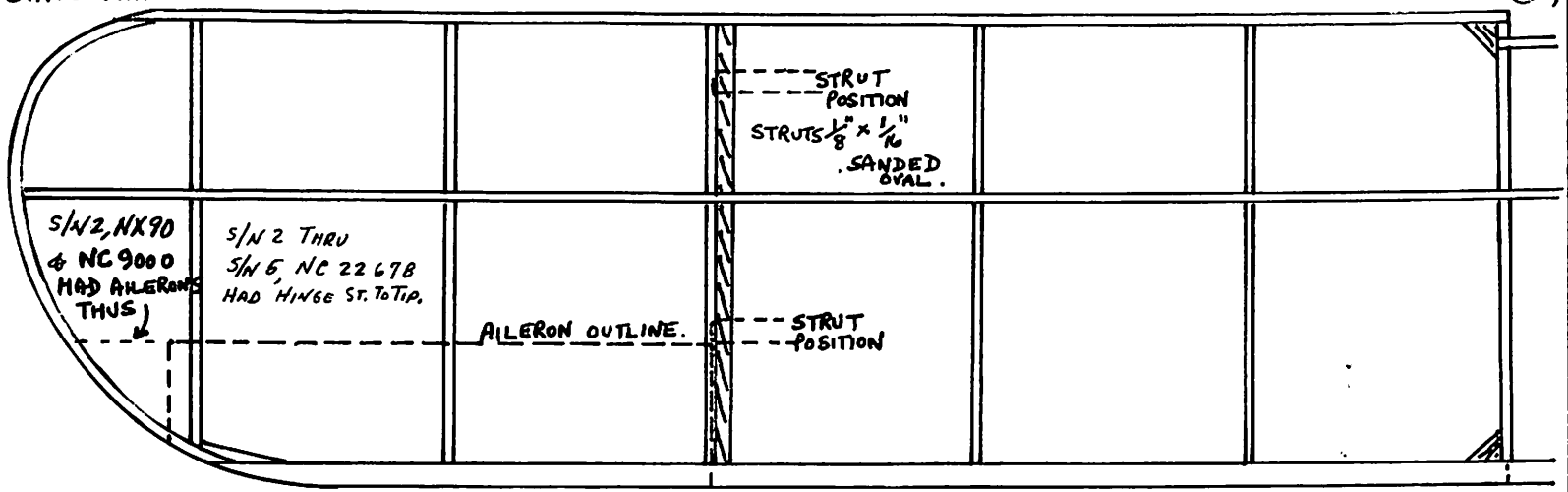
I have had various letters and I will just mention a few in passing. The hints'n tips in my last editorial were well received. The article by Lester Garber was not as well known as I thought and I had to ship out quite a few copies. The comments on the Lidberg strippers brought forth several letters to say that their senders also used them. One said his expensive stripper is not used any more, he's preferring these simple things. Claude Powell sent in one of his hints'n tips. It has since appeared in another newsletter, probably because of our tardiness in publication. I have tried it on wings, and it works so go to it! The idea is to eliminate the tedious close fitting necessary when fitting spacers between fuselage longerous or ribs between L.E. and T.E. Claude sticks his spacers to one longeron (the only one pinned down to the plan) and makes them a bit on the long side. Ribs are cut a bit to long at the T.E. and are stuck only to the L.E. When all are in place, they are trimmed to size using the plan and missing longeron or T.E. pinned into place and glued to the sticks or ribs. Neat, eh?

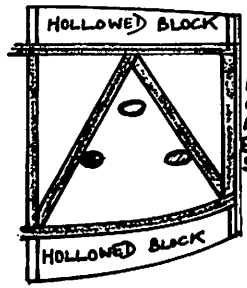
Here is a question for my readers. How are you getting along with the "tan" FAI rubber? I have bought several lots of the various sizes and I don't think much of it. I seems to be seriously down in power compared to the good old "black" FAI and my lots at least have a nasty habit of snapping on a lot less than maximum turns. Am I doing something wrong or does it vary seriously from lot-to-lot and you have the good stuff? Any advise, experience with this stuff etc. will be appreciated and passed onto other Crosswinds readers in due course. Incidentally, my last pound of 3/32" Black FAI is also seriously down in power compared to my previous lots. DRAT!

Here is something I picked up in "Aeromodeller". They have a continuing series of articles on electric power under the intriguing title of "High Potential", and in one of the more recent issues mention was made of electric motors supplied for Hasbro cars. Apparently these have heavy armature winding and carbon brushes and would probably be suitable for small free-flight models. A replacement engine pack is available containing also a pair of nylon gears and some grease. I went looking for these at our local Toys 'R us store and yes, indeed, these were on the shelves, on sale even at .98. There are two types of motors, the Super Turbo and the HiPro. "Aeromodeller" said Super Turbo, so thats what I got. These motors are great! Ungeared, and on 3.6 volts (3x110 MAH cells) and with a Top Flite 5¼"x3" nylon prop the motor will run for about 75 seconds (flat out for about 45 seconds) at several thousand r.p.m. The gears appear to be about 2.8:1 and using these would give the ability to turn a rather larger prop. It just happens



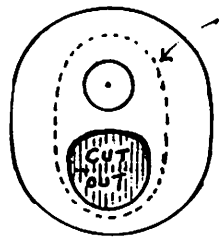
7/8" DIHEDRAL.

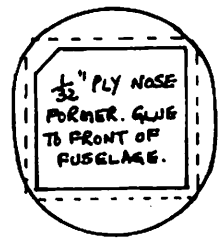




STARBOARD SIDE SHOWING LOCATION OF CARB. INTAKE AND TWO EXHAUST STUBS.

DREMEL TOOL IS GOOD FOR HOLLOWING OUT BLOCKS. USE SMALL GRINDING WHEEL.





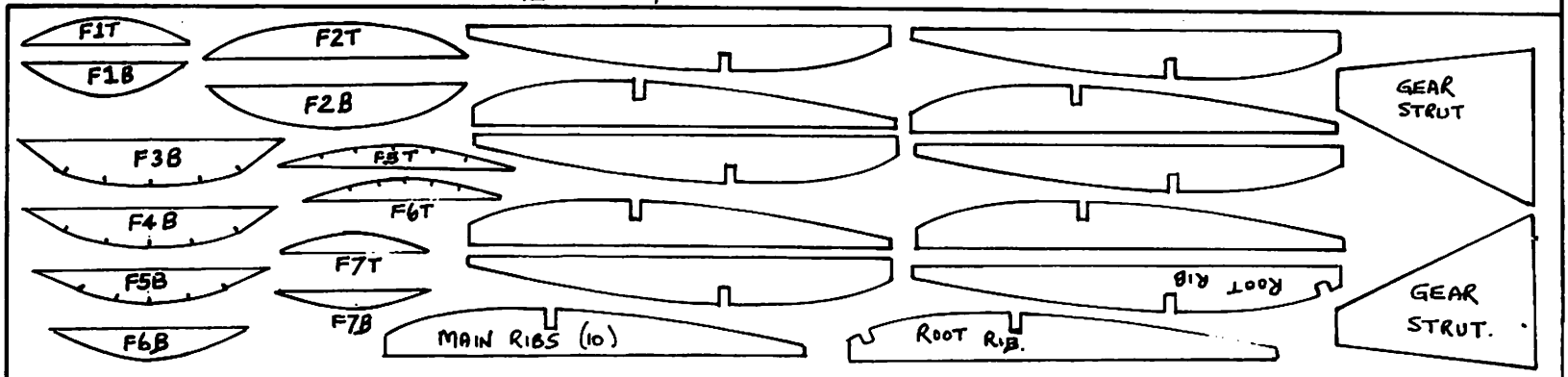
NOSEBLOCK. 3 LAMS. 3/32" SHT, CROSSGRAINED. CUT OUT INDICATED CIRCLES IN FRONT PIECE ONLY. TEMPORARILY ATTACH TO FUSELAGE AND CARVE AND SAND TO SHAPE. INSERT NOSE BUSHING IN TOP RECESS (DRILL 1/8" HOLE IN LOWER LAMINATIONS). GLUE IN WITH APPROX 2° RIGHT THRUST AND APPROX 2° DOWNTHRUST. REMOVE FROM FUSELAGE AND ATTACH PLUG AT REAR.

1/2" FUNK "B" — SHEET 2

PRINTWOOD PATTERN — 1/20" SHEET, LIGHT C-CUT.







that our local Electronic Surplus emporium sells completely wired and shrinkwrapped 3 packs of 110 MAH cells (Panasonics) for the pricely sum of $3.00. It is thought that the pack is intended for cordless phones. The motor shaft is 2mm diameter, and by a stroke of good fortune the DuBro Waterproof Pushrod Fittings (cat no. 214) are a tight push fit on the shaft (3 for $1.50), giving a secure fitting for the prop. You can be in the electric business for a total outlay of about $4.50 per motor. Not Bad!

My good friend Eric Clutton came up with the DuBro fittings brainwave-but then he does some R/C also (ugh!). Anyway, thanks Eric, its the icing on the cake. There is much cutting and sticking in the workshop as a 22" Funk "B" takes shape for the first of my motors.

Here is something that I picked up over the Christmas holidays. Your local fabric and dressmaking shop has a flexible, filled plastic cutting board-its self healing and should last us modellers for ever as we cut out our printed sheet wood and other bits and pieces. The one I have is called an OLFA Rotary Mat cutting base, and it survived the chopping-out of all the Funk parts this morning with not so much as a suspicion of a scar or cut. I'm sold on this, you will be too. The 11"x17" size is convenient.

Thats about it for this issue. Here's wishing you all good flying in 1992.

JOHN BELL NEEDS ORIGINAL REARWIN SPEEDSTER DETAIL AND COLOR DATA.PLEASE HELP!
FUNK 3 VIEW COURTESY JOHN BELL. JOHN HAS A 3/4 INCH FUNK B85C DRAWING IN WORKS

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Spiteful XIV	22 in.	F-4E Phantom II	19 in.
Hughes H-1	20 in.	P-80B Shooting Star	19 in.
Knight Twister	13 in.	P-40D Kittyhawk	28 in.
Lockheed Altair	37 in.	Spiteful XIV	26 in.
P-80B Shooting Star	24 in.	Curtiss R3C-3 Racer	8 in.
F-86D Sabre	23 in.	Funk B-85C	26 in.

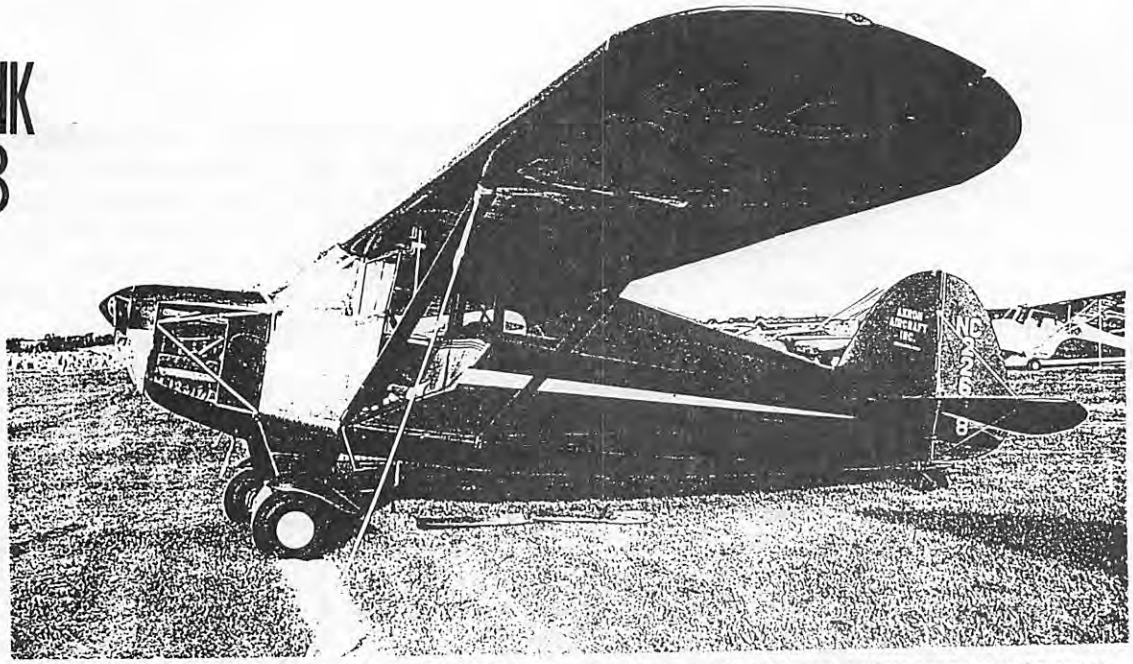
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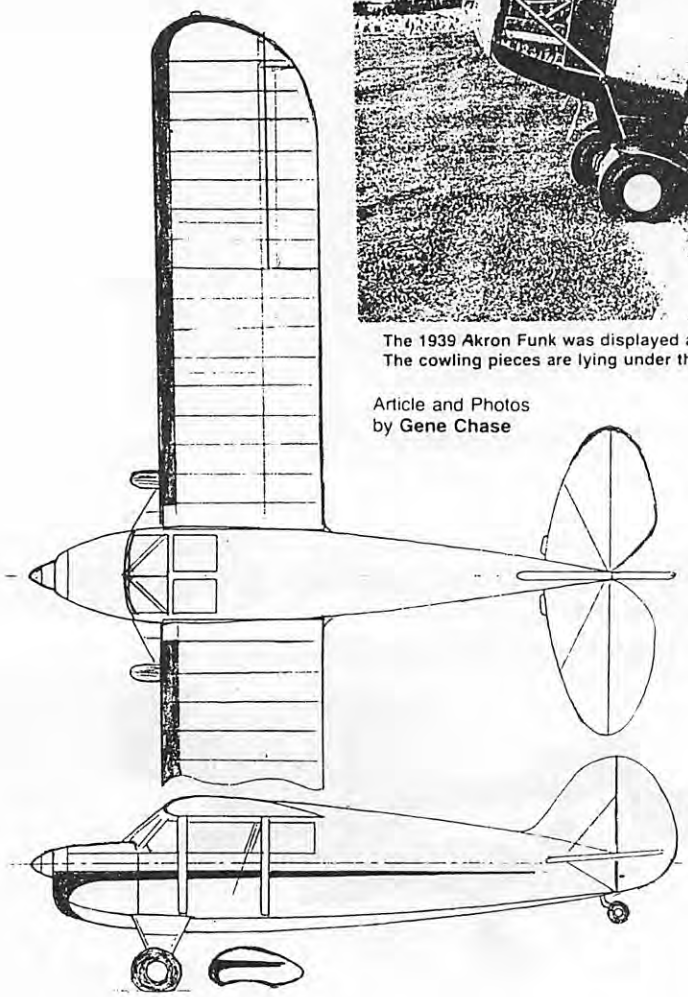


Plan list from Mike Midkiff, 20007 Pinehurst Trail Dr., Humble, Tex. 77396. Mike has many new plans since we mentioned him last. S.A.S.E. will get you his latest list.

AKRON FUNK MODEL B

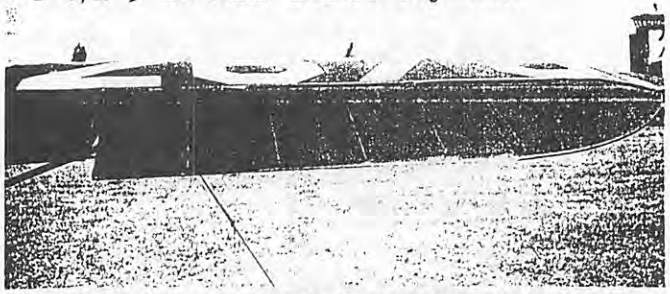


The 1939 Akron Funk was displayed at Oshkosh '85 with the engine cowling removed so the modified Ford engine could be viewed. The cowling pieces are lying under the fuselage. Engine weight of 350 lbs. results in short nose moment.



Article and Photos
by Gene Chase

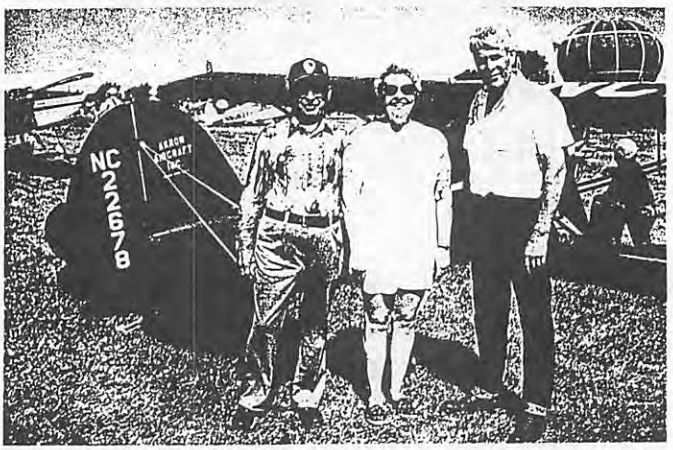
Funk B S/N 5, NC 22678 introduced the chin hook stripe and leading edge of wing trim with cream trim on a rich blue finish. Tom Higley of Basehor, KS was lucky to find it in well preserved condition with only 101 hours on the Funk Model E engine. Storage continued 'till Gene Ventress of Olathe, KS was fresh out of J-3 Cubs to restore. Gene talked Tom into the restoration job for a part ownership. 1985 Oshkosh photos by Gene Chase in EAA SPORT AVIATION Dec 1985. See this issue for text and photos, and look for S/N 5 at Funk Owners Fly-ins.



Ailerons are 20" wide and extend to the wing tip bow on the early Funks.

Funk book hawks Dale Beach and Drina Able are attracted to the factory fresh look of S/N 5 at Oshkosh '85. All agree, It's a Funk! Dale has a Df degree in Funk craftmanship, and Mrs. Drina Able knows all drawing and marking data needed in aviation publications like the Paul Matt drawings in two books. Drina advises us that Lou Chapo updated S/N-owner data for the Fall '92 book printing. We deeply regret the loss of Louis Chapo at the end of January '92.

Drawing scale above semi-span 2.91 inches equals 17.5 feet of 35 foot wingspan.(419½ in.) Funk B length is 20.08 foot.(20ft.-1 inch) Wheel pants were owner optional.



From left to right, G. Dale Beach, Treasurer of the Funk type club; Drina Welch Abel, sister of Orin Welch of Welch Aircraft and Gene Ventress.



The Goodrich-built D-2 after its transfer to US Army



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Russ Brown, Blue Fox Base
4909 N. Sedgewick
Lyndhurst, Ohio 44124 U.S.A.

Please check your mailing lable for an issue expiration number. Numbers below the issue No. 81 are a reminder for $10 donations. Thank you! Comments welcome. May the FUNK be worth waiting for!

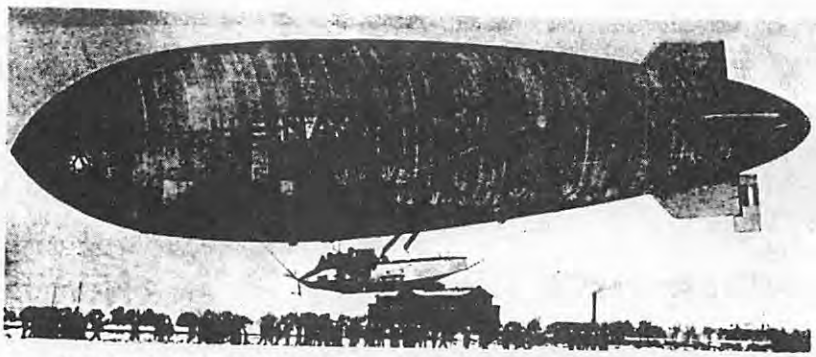
It's a Funk!

Flat Hattin' On Funk's Birds And Bees.

What came first, the chicken or the great sky eggs floating over Akron, Ohio? The chicken gets favorable consideration in many a recipe for tempting taste and good results (unless it's someone else's chicken as in " first steal one chicken. etc. " as the hard times joke goes.) Depression and chickens are comming around again Nes Paw? If you bought a Funk's chicken or airplane, what ever you could afford in the 1930's, you were into something good for the missed meal belly ache, or something really great to fly.

Stranger than fiction, chickens entered the Funk's shop, and the fliers choice light planes emerged! Perhaps more than a bit of alchemy by the twin wizzards of Funk fantasia was involved in converting chicken to gold. It sure wasn't easy in depression times, but with applied talent and great supporting teamwork, necessity inspired perfection in the best of light airplanes. The Funk B design combines " beautiful handling " with saftey, strength, and clean attractive lines, and innovative engine work for an affordable price. " Just a beautiful, beautiful little airplane " to quote admiring test pilot Ralph Goodman and similar quotations by famous skilled fliers in the golden years of aviation.

What's behind this special silver bird? Did the chicken or the famous blimps by Goodrich and Goodyear inspire all? Both came first in the broad picture of importance. Germanic heritage provided both the family funding, and entirely separately, technical inspiration. Before WW I, young Pennsylvania Dutch farmer Orbin Funk from Massilon, Ohio area moved to the city of Akron in 1907 to market farm produce. Success led to a chain of Funk's shops, and marrage to preacher's daughter Lille. Along with financial success and a big home, came a daughter Cleo, twin terrors Joe and Howard, and a little brother Richard. In grade school the twins enjoyed all things scientific and mechanical, with less concern with the traditional distractions of educators. Practical and inventive mechanical skills were to be developed rebuilding $10 junk Ford cars, building bright Klieg carbon arc spot lamps, and even experimenting with hydrogen explosions in small engines. The story is told in fascinating detail by flying instructor and Funk restorer G. Dale Beach in the book IT'S a FUNK, published by our WACO friend Drina Welsh Abel at Sun Shine House, P.O. Box 2065 Terre Haute, IN 47802 USA. A soft cover version may be on the way. we will keep you posted. Color data is generally overlooked in airplane text devoted to airplane detail and is short here too. But this humble servant has pursued Funk colors with a barrage of junk or Funk mail to the Funk team over the last year off for research. It takes longer to do it right. CROSSWINDS will provide the usual color support for our Funk features. Several bright color examples have been identified to S/N and NC number for replica color options. It's fun to learn at this late date of the remarkable safe and sturdy light airplane Funk series. Dale Beach is a flight instructor who learned of the exceptional flying qualities of Funk A/C by instructing a young owner how to fly his tail dragger. (All good airplanes have tail wheels or skids Nes Paw?). Dale was so impressed with the Funk, he researched the whole Funk story, and with the assistance of Funk historian Louis Chapo, wrote the book. Funk S/N and NC number, plus owner and present condition or fate data with occasional photo adds to the whole history. The book is a must if you are excited by this so far. We wish we were this far along when our late pal Andy Medovich asked for Funk information for his B85C/F2B.



The Goodyear-built C-7, first airship to be flown with helium gas. (*US Navy*)

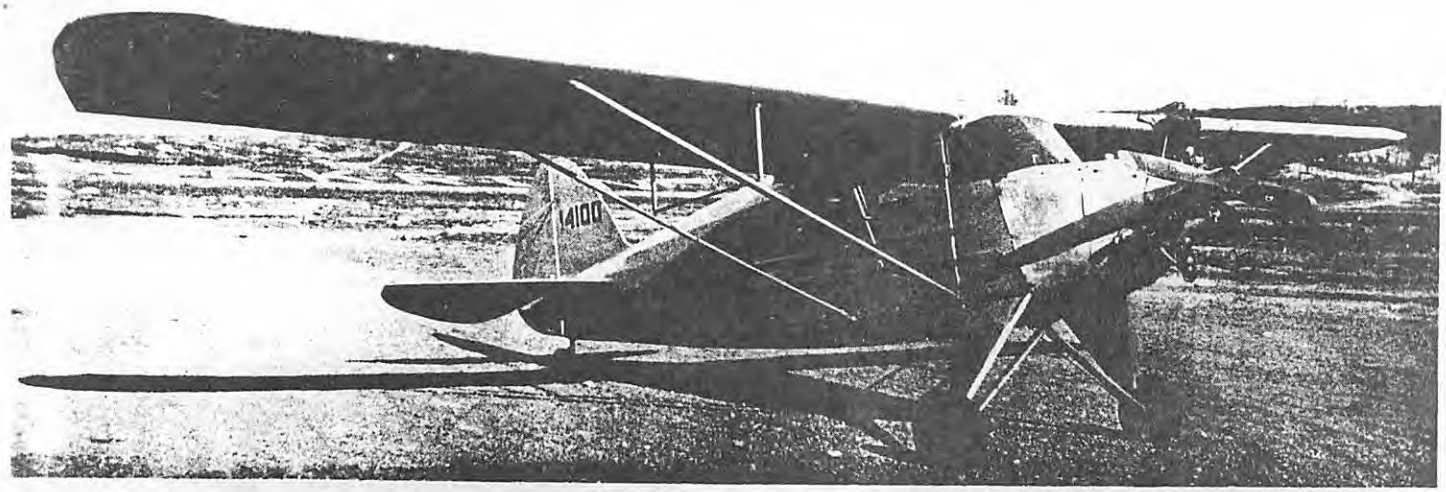
Another major Germanic influence to local men and boys was the presence of lighter than air ships over Akron. Joe and Howard Funk and several other youngsters were inspired by the great floating Goodyear and Goodrich airships to dream of flying airship goals. Yes, Goodrich had a blimp, along with Goodyear and Connecticut. Airship fabrication for U.S. services followed WW I success (and failure - they had their ups and downs) including the Zeppelin raiders (not the group from Chicago or Oakland/L.A.) over England and the French areas. Color was not inspiring, as the big egg shape sausages were all silverish. Goodyear had not yet decided Funk yellow was best for visual effects. Another matter remote to chicken scratching and it's fall out here. So here we have the infatuation with air transportation that inspires all ages of boys, combined with mechanical success in aero wizzardry squared by twin power. A switch of goals to flying aircraft in place of lighter than air was assured when Joe and Howard saved enough money to buy a flight in a WACO 9 biplane. Advance to aircraft was instantly assured (punnish line on WACO manufacturing by Advance Aircraft Co.) by the thrilling flight. But how to get there was a challenge.

Again the German post WW I efforts at aviation were a major influence. Zeppelin experts imported for Goodyear manufacturing included Dr. Arnstein, V.P.,Chief of Engineering and Dr. Wolfgang Klemerer of Goodyear Aerospace. Post WW I Germany was restricted from building up powered military aviation, so glider or sailplane flying was well supported. It follows that glider flying was supported by the German talent in Akron, and at Goodyear. At the same time period, a Dr. Franze Gross was hired by Baker McMillen to design the Cadet glider.

Glider flying instructions were available to Akron youth, including Joe and Howard Funk, Joe Conn, Bernard Goodman, Bruce Helvie, Pratt Jones, later Don Jones, an to Bernard Wade. Flying skill was learned in open frame Alfaro primary gliders by cautious short elastic tow impelled by 12 heaving crewmen. Very short tugs were progressively lengthened into short hops as skill with control was acquired. A tail tie down rope was cut by the 13th crewman to release the tensioned glider. In less than a year, the student might progress into flying the full structure strut braced high wing design Cadet.

Once, with only three on hand to fly, Howard Funk discovered one of their $10 cars could be usedin place of 12 crew to tension the tow line. Wind can be so damn variable. Just when we are all set flying from one spot, it loves to swing direction. While shifting tow sites, Joe Funk guided the glider under slow car tow, and observed lift off. From this, with yards of 1/16 inch dia. wire from the Funk store, car towing was invented. Really high starts resulted, and parachute line recovery was discovered to contain the line. Both Howard Funk and Bernard Wade found slope soaring lift along the length of the big air dock on the sun heated western side of roof in the evening. Altitude could be held all along the length, but turns at the end lost altitude (as always, except in a thermal).

Gliders were even towed slowly along behind the Goodyear airships for long flights at low but flyable speed, before release to glide back to the Akron City Airport. Night flying with bulb lighted tow lines and glider was another adventure when the days were not long enough to get in flying. Just a whole lot of exciting activity for such hard times.



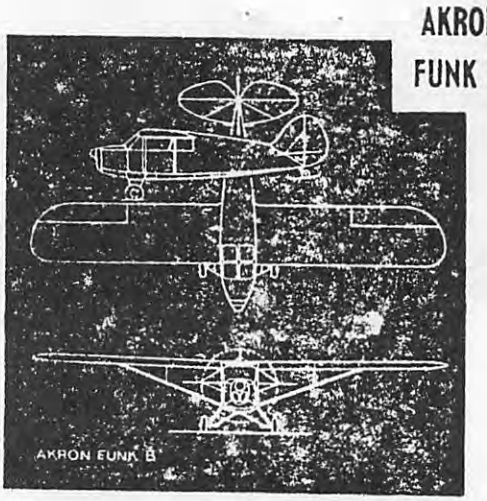
Flat Hattin' on Part One and Part B of Funk Aircraft

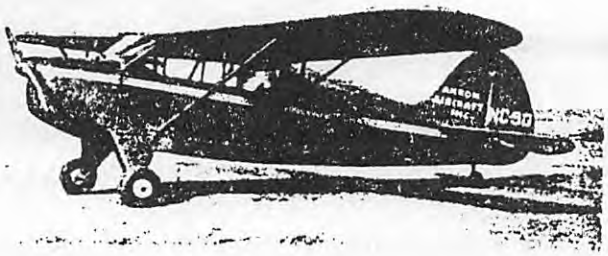
Photo courtesy It's a Funk book

Part One of the Funk brothers designs was the two place glider drawn near 1/1/'30 by Howard Funk at the age of 19. The twins were born 9/17/'10, in time to grow up in the pre depression boom years, and learn the Aircraft manufacturing business in a depression economy. The CG-2 NX 13507 was designed as a two place flight training glider to speed up the learning rate. The CG-2 was a strut braced high wing monoplane with box frame enclosed body and no dihedral folding rectangular wing for towing to flying site. A USA 35 airfoil was used in a two spar wing. Ailerons had angled ribs for torrosional rigidity. Structial design benefited from Dr. Wolfgang Klemerer's advice and the application of structural analysis from the book by Dr. Alexander Clem. The Funks attended aerodynamics classes at the University of Akron. A glider club was formed to help pay expenses, with about twenty members at $ 20 each. Young 19 year old (the glider first flew 6/26/33) Don S. Jones borrowed money from his grandmother to pay the fee. Don was to stay with the team untill production of the Funk E engine took him to Ferry Mfg. to supervise machining. Don later manufactured parts for Goodyear. Joe and Howard Funk and Akron glider fliers attended the National Glider contests at Elmira, N.Y. between 1931 and 1939. the CG-2 was flown in Akron until Oct. '36 & one flight in June 1939. Color of the CG-2 was aluminum all over. A **black** No. 26 is painted behind the rear strut in one photo shown in the book. It is doubtful if three views survived the '54 factory fire.

Part B

Part B followed 1931 needs for a powered airpland for more flying air time. Joe and Howard joined a flying club with a lumbering American Eagle biplane for flying time as funds came. Glider training and chicken sales from the Funk's shop provided for the airplane fund. Used Airplanes had far less appeal than building their own efficient design. Aerodynamic style was made to resemble the pleasing Fairchild 24 lines, but with shock strut enclosure in a WACO like taper strut. The choice and cheap availability of a 45 H.P. Szekeley 3-cyl engine allowed a sharp nose bullet shape cowl. Howard Funk drew plans by 1/1/'34, and the team had S/N 1, NX 14100 ready to fly 7/2/34. A welded tube A frame rear structure provided for good strength with triangle rigidity. Formers and stringers rounded out the fuselage sections. Exceptional strength and/or light landing touchdown qualities could be demonstrated by 100 foot high level **drops to** the runway with no parts bent. Exceptional resistance to spin came from ample rear fuselage area plus 11.5% fin and rudder area. Horizontal tail area was 15%. of the 169 sq. ft. wing. Power on with the nose high and the dual wheel single column stick back to the stop, full aileron control remained. As speed falls to 37 m.p.h., the Funk just D/T or parawing drops at 400 ft. per minute. A shock mounted tail wheel absorbs landing impact. A near 1½ degree wing tip washout (1½ degree dihedral) keeps ailerons in control in power,on or power off stall. Stall has to be forced in check flights with hands off recovery in either turn direction. The exceptional safe qualities inspired Joe Funk to the government CAB program to develop safe ecconimical aircraft. Another great story in the IT'S A FUNK book. The Air Commerce Bureau encouraged good visibility with stall, spin, and groundloop resistance at $700 target prices. Examples were the Watterman Arrowplane flying wing pusher, the Weick W-1 pusher "rudderless plane", and the winning design Hammond pusher designed by Dean B Hammond who moved from Michigan to California. LLoyd Stearman completed the ship for the Bureau order. The Stearman Hammond was rejected due to under power performance, leaving funds for the best of all designs , the Funk B.





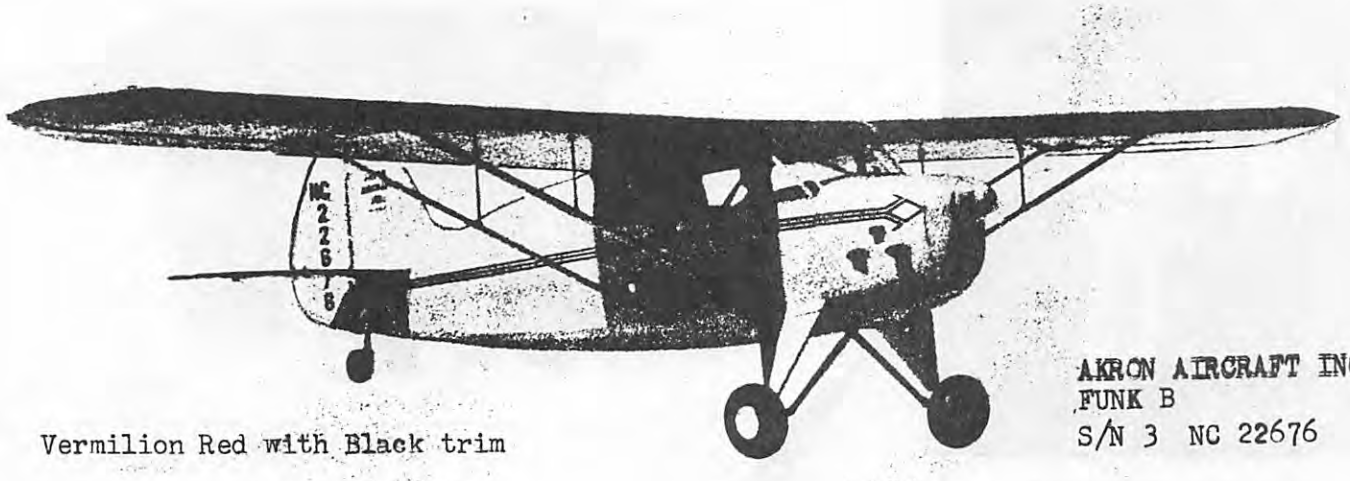
Air Commerce Bureau Funk B S/N 2, NE 90 with Funk Model E 65 H.P. engine has no step struts or wheel pants. Color was bright red Berry Brothers Stearman Vermilion with light contrasting (white?) fine three line stripes on fuselage. Fin marking is AKRON
The NX 90 was first NC 90 as shown above, and the C overpainted X. AIRCRAFT
Sold as NC 9000, S/N 2 was restored by Al Ball in Fiesta Red & Black trim. INC.

AKRON AIRCRAFT INC. S/N 2, NX 90

The Government flew on JAN 8, 1938 and sold for a bargain $ 1995 as S/N 2, NX 90, plus a Funk engine was provided for acceptance run test. S/N 2 endured much test flying by the Government, and was sold back to civil use as NC 9000. As described by SPORT FLYING Aug. 1974 Vol 8, No. 8 FAT & FRIENDLY AKRON FUNK B text, Al Ball found S/N 2 NC 9000 in 1956 at Torrance, California in flyable condition, and disassembled it for trucking home to Santa Paula, CA. Al fixed up the plane and flew it until storage in 1959. Full restoration begun in 1963 was completed in 1967 to new condition. Al found a spray of original bright red Berryloid Stearman Vermilion dope inside the cowl, and chose the nearest red shade of Fiesta Red for repainting. A black chin hook and fuselage side stripe charasteric of the Funk model E engined production Funks after S/N 5 and on was applied. Wheel pants with a squared off rear were added to NC 9000 to add to the sleek appearance. Aviation writer & aero historian John Underwood flew the Al Ball airplane a few years back. We envy him! Ownership of NC 9000 prior to Al Ball could be run down on microfiche from the FAA test Center at Oklahoma Indian Trearatory (Can't spell territory, a "Two Black Crows"line), for a whole $2. per number. We remain mildly curious about colors between the beautiful red options. Readers may write requests for favorite color schemes on the back of a $10 bill, and send it to CROSSWINDS at Blue Fox Base, 4909 N. Sedgewick, Lyndhurst, OH 44124. This advice is courtesy Car Talk attornies Dewey, Cheatem, and Howe. Thanks Click & Clack.

TEST FLIGHTS - A WRINGING INTRODUCTION 1936 AT CLEVELAND AIR RACES

Celebrity pilots were offered hops in the X ship to publicize it's good flying character. At the Cleveland Air Races, a German pilot was offered a flight in NX 14100. He raced off across the tarmac, climbing out at the runway into roll. First ever loops and aerobatics followed as WW I Ace and airshow performer Ernst Udet checked it all out. From the It's a Funk book, pg. 34, Udet is quoted " For a small airpland, ut's very goot, easy to fly. You haff a very goot aeróplane ". Go read it in the book for the whole story, as our fractured German is even worse than our fractured French 'Nes Paw? More celebrity flights follow.



Vermilion Red with Black trim

AKRON AIRCRAFT INC.
FUNK B
S/N 3 NC 22676

EARL ORTMAN TESTS THE FUNK B 85C

Earl Ortman is famous in air race circles for 1936 through 1939 Thompson Trophy Races flying the Rider R-3 Marcoux-Bromberg race plane. Earl may even have the best time in the '37 Thompson if Rudy Kling in the cream Folkerts SK-3 Jupiter got an extra lap by another cream racer. Another story as described in The American Air Racing Society Newsletter by Marcoux-Bromberg owner and Editor Rudy Profant. Now back to the Funk. Earl Ortman checked out a warm yellow and brown trimmed Funk B 85C S/N 263, NC 81133 as reported in SKYWAYS AUG. 1946. Earl praised the Funk's performance and handling. " The only way to get the Funk to fall off into a spin was to whip it in. You can say (grinning) that this ship won't stall at any normal attitude. It's a damn safe little ship"." A darn nice little ship".

CONTEMPORARY LIGHTPLANES

The Taylorcrafts and short wing Pipers are favorite lightplanes. But the Funk B is the choice of those blessed with Funk flying experience. " Just a beautiful, beautiful airplane " in the words of Funk and Taylorcraft test pilot Ralph Goodman. The Funk flight performance so impressed instructor G. Dale Beach, he researched Funk history and wrote the book It's a Funk. This book is a must if you waded through all these chicken bits and scratches. Getting a copy of the book may be nearly as hard as prying a Funk airplane loose from it's owner. Both actions are highly recommended! Watch for further news on It's a Funk in soft skin.

So why is such a wonderful machine so scarce? The big Depression of 1930 thru 1939 after the Oct. black friday stock market crash of 1927 limited aircraft sales. And in 1946 the boom of post WWII building of airplanes fell to zilch in 1947. Production ceased in 1948.

AIRCRAFT ENGINES

The high cost of aircraft engines created a need for creativity at the expense of the reputation for dependability. Unfortunately, a used 3 cylinder 40 H.P. Szekely engine was both cheap and available for NX 14100. It was most dependable to break down in less than 10 hours from repair. Breakdown at Detroit, MI led to the offer of a 4 cyl. inline Ford engine to try by flier Joe Deltin. A total reengineering of parts was necessary to up the power to 63 H.P. cruise, and eliminate failure parts one by one. Auto engines have not held up well in constant high RPM use, so much improvement or replacement was necessary. The Ford Model B engine was totally reworked as the Funk Model E engine. See EAA Vintage Airplane JAN 1990 for Vintage Literature/ Funk Airplanes and Ford Engines by Dennis Parks. FORD Motor Company was helpful with information for the engine rework. Don Jones was to be in charge of machining components for the Funk model E engine production. He did well!



Carl Schuppel

Funk Bros. visit Oshkosh

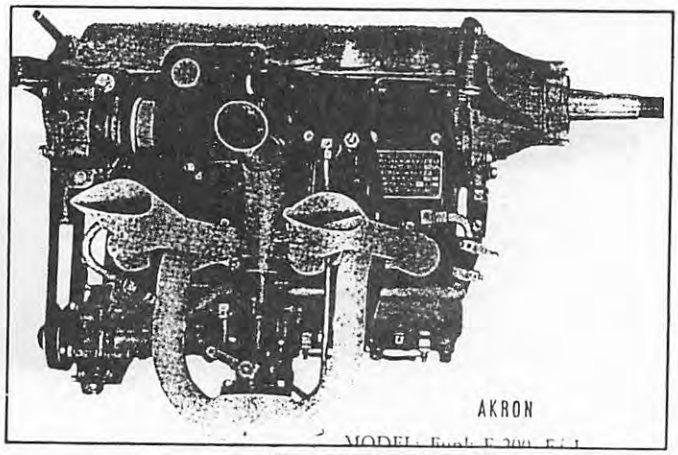
The tranquility of EAA Headquarters was recently set astir when the twins, Joe and Howard Funk of Coffeeville, Kansas paid us a visit. They had come to Chicago for an SAE meeting and had Joe's son, David drive them up to Oshkosh. It was near amazing how keen of mind these two fraternal twins are considering they were one week shy of their 80th birthday. It was fun to listen to them explain how they solved problem after problem to build the 300 Funk airplanes that proudly carry their name. EAA Director of Maintenance, Daryl Lenz was talked into hauling his B-85 Funk into the sunshine so the the brothers could pose for some pictures next to the genuine article. To really add class to the cute little two-placer, Daryl had Joe and Howard autograph the fabric just aft of the left door adding a new momento to aviation history. — N.P.

NACA 4412

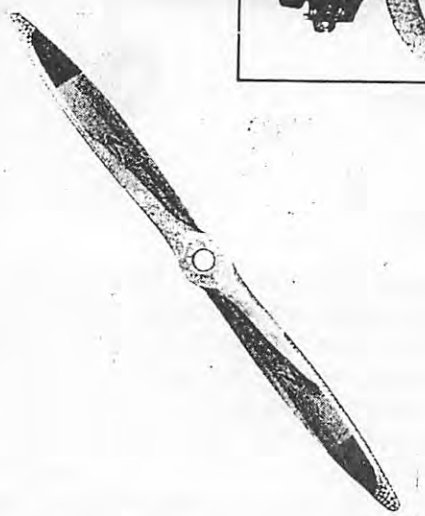
[Stations and ordinates given in percent of airfoil chord]

Upper surface		Lower surface	
Station	Ordinate	Station	Ordinate
0	0	0	0
1.25	2.44	1.25	−1.43
2.5	3.39	2.5	−1.95
5.0	4.73	5.0	−2.49
7.5	5.76	7.5	−2.74
10	6.59	10	−2.86
15	7.89	15	−2.88
20	8.80	20	−2.74
25	9.41	25	−2.50
30	9.76	30	−2.26
40	9.80	40	−1.80
50	9.19	50	−1.40
60	8.14	60	−1.00
70	6.69	70	−.65
80	4.89	80	−.39
90	2.71	90	−.22
95	1.47	95	−.16
100	(.13)	100	(−.13)
100	-------	100	0

L. E. radius: 1.58
Slope of radius through L. E.: 0.20



The Funk Ford. Model E



This photograph shows the characteristic appearance of all Lewis propellers named in this 1947 Directory.

The flight tests showed that the performance of the aircraft with the modified Ford was quite desirable. As the author reported:

"In fact, at this date, June 1936, there was nothing available from commercial light personal aircraft production which even approached the performance characteristics of this aircraft. Our engine produced 63 hp at 2,134 rpm., weighed 305 pounds.

"The inverted feature of the engine, together with what was at that time a very novel completely tunnelled radiator installation with manually controlled cooling flap, gave the aircraft a degree of cleanness which was at that time practically unknown to the light plane industry."

JAN '90 VINTAGE AIRPLANE

LEWIS **Model L55C**

PERFORMANCE: HP maximum (except take-off) 90; rpm maximum (except take-off) 2700.

SPECIFICATIONS: No. blades 2; diam. 72 in; weight 11 lb; wood blades.

BLADE PITCH: Fixed.

ENGINE SHAFT: Tapered L55C; flanged L55CK.

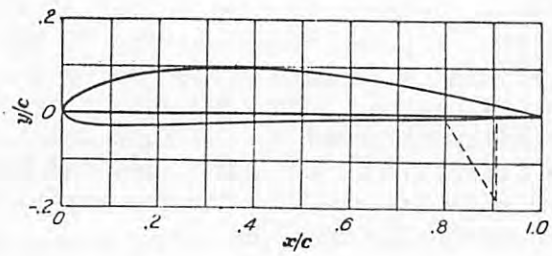
NOTEWORTHY FEATURES

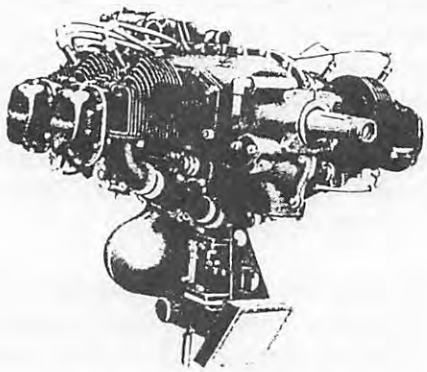
L55C design is a relatively wide, thin blade, made in pitch designations from 34 in to 49 in. L55C-2-31 (70 in) and L55C-38 (72 in) assure the ultimate for take-off and cruise on planes powered with Continental A-75 and A-80 engines. L55C-43 is standard equipment on the Funk F2H; also designated for the Commonwealth Skyranger 185. L55C-49 provides outstanding performance on the Ercoupe powered with C-75 Continental engine and is tipped with stainless steel.

A.T.C. No. 818

AERO DIGEST

1947 Propeller Directory





This engine is outwardly the same for Models C75 and C85

CONTINENTAL **Model C85-12F**

SPECIFICATIONS: No. cylinders 4; dry wgt 182.6 lb; octane rating 73 minimum; comp. ratio 6.3:1; bore 4.062 in; stroke 3.625 in; displacement 188 cu in.

ENGINE TYPE: Horizontal opposed; air cooled; direct drive.

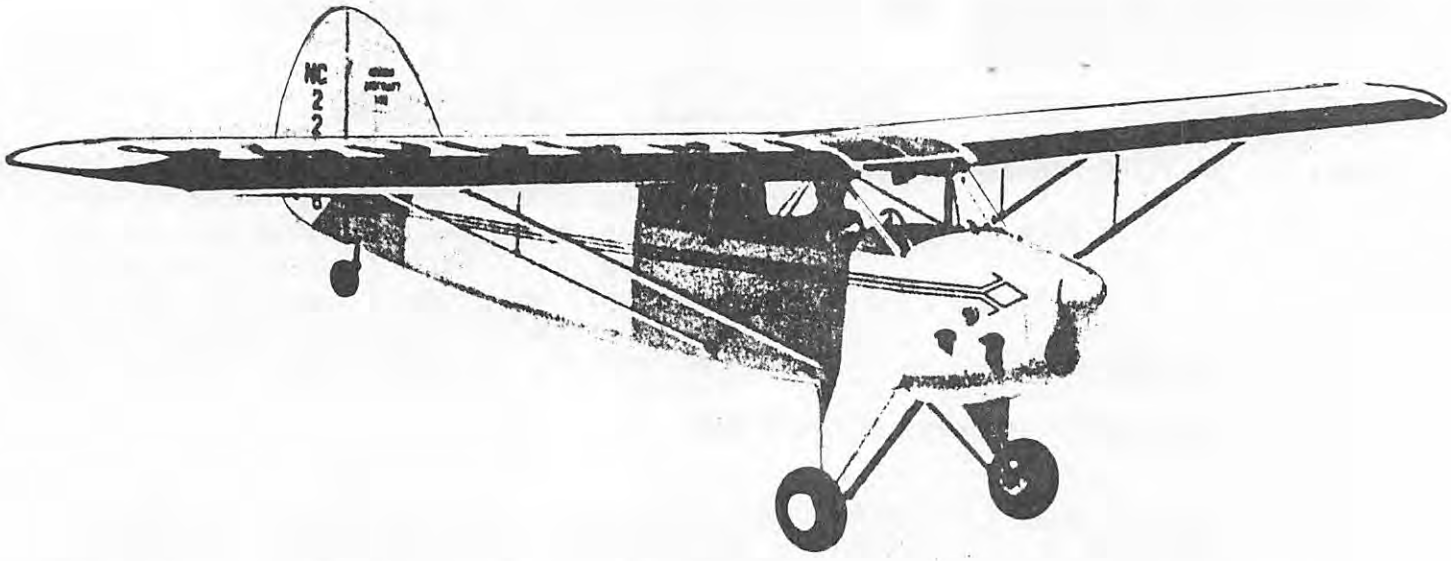
PERFORMANCE: Take-off hp 85; cruising hp 63; take-off rpm 2575; cruising rpm 2400 max.

NOTEWORTHY FEATURES

Equipped with SAE No. 1 flanged crankshaft; Stromberg float-type carburetor; automotive-type starter (Delco-Remy) and automotive-type generator (Delco-Remy).

Used in Taylorcraft, Luscombe Silvaire, Funk B, Cessna 120 and 140, and Commonwealth Skyranger.

A.T.C. No. 233



First production line Funk B S/N 3 NC 22676
continues 3 fine line stripe just below the
thrust line, adding diamond point arrow hd.
Color was Berryloid Stearman Vermilion (red)
with black stripes, wing leading edge and
fin lettering AKRON AIRCRAFT INC. & NC 22676
No door step strut, and no wheel pants.

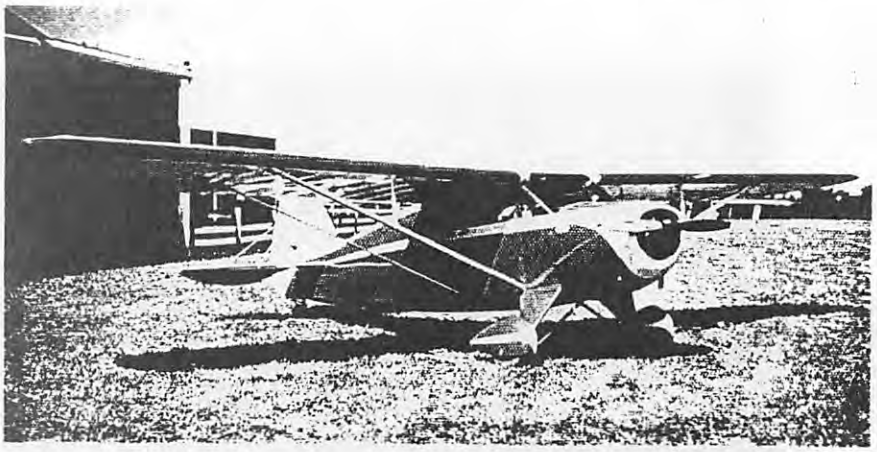
AIRCRAFT ENGINES CONTINUED

Early Ford block engines identified components that needed redesign by operational test. New parts included the Ford B heavy duty crankshaft, special E aluminum truck heads, enlarged pistons, plymouth oil pump and plymouth valves. Ford Motor Co. was helpful with engineering information. Take off 70 H.P. provided good power and now dependability. Location of the radiator within the cowl duct tunnel was a clever design idea to keep a clean nose. A Ford Model A radiator was cut up the center, and doubled to fit in the left side cowl rear. A baffel controlled air flow through the radiator, and a dash slot vent, or open left door provided cabin heat for winter flying. Liquid cooling adds to weight, and weight or wait is the enemy. Experiments with air cooled aircraft engines continued with 50 H.P. Lycoming and 65 H.P. Franklin engines. Percy Clough of Royal Radio bought the airframe identified as S/N 10, NC 22683 in metallic royal blue with cream trim. This may be like the Curtiss Blue Berryloid dope on the color chart shown in the WACO AIRCRAFT PRODUCTION Book by Ray Brandly pg. 77. The WACO Series books are available at the Annual WACO fly-in at Mt. Vernon, OH in late June. A Lycoming Engine was installed at Akron, OH. A photo of S/N 10 in the It's a Funk book pg. 77 in the data section, seems to have been reworked to the top ballanced rudder with the Frisel type ailerons that may have started about S/N 6. This airplane was used in the CAP Civil Air Patrol during WW II, and is under restoration for or by Clarence P. Winder of Grove City, PA? We beat on this now a B 75L airframe more than necessary because it is historically important as a flyable early airframe, and early use of Lycoming power. Production airplanes with Lycoming GO-145-C2 engines began with B 75L S/N 190, NC 24164 on Sept 16, 1940. This photo on pg. 82 of book looks like aluminum with black trim.

The Lycoming engines began to self destruct in the relatively fast speed of the clean Funk airplanes in spin recovery. The problem was found to be a loosening pin in the crank that held moving ballance weights. Press fitting the pin tighter solved this problem. (you cold shrink the pin and quickly put in a tight hole for an interference fit). Lycoming 27 to 17 gear ratio engine noise was discomforting or worse to some pilot ears. Empty weight saved 70 lbs, so more gas and baggage were carried.

FUNK B DETAIL AND COLORS BY SWAG, ENLIGHTENED RECALL, AND PHOTO ANALYSIS.

MODEL	S/N ID. No.	ENGINE	DATE	WHEEL PANTS	O/ALL COLOR	TRIM COLOR & NUMBERS
		3 cyl.				on fin 14100
Orig. 1	NX 14100	Szekely	4/27/34	no	aluminum	none black NO. top rt.& U/S left wing.
		"		no	aluminum	blk. 2 broad lines taper to rear
		Funk		no	aluminum	as above, no spinner yet. no step.
		"		no	aluminum	has X 14100 horizontal on rudder.
		"		no	lemon yel.	med green 3 fine line stripes, spinner. X14100 in green is verticle on rudder.
	at Maimi FL"			no	Fok. red	lt. or white X above 14100 on fin.
	Components reworked per Lou Chapo					
B 2	NX 90	Funk E	1/8/38	no	vermilion	lt. or white fine 3 line stripe
	was NC 90 on rudder, AKRON AIRCRAFT INC on fin. C chg to X. has spinner, no step. sold to Bureau of Air Commerce replacing Hammond as low cost safe design winner. NC 9000 Funk E sold by Gov't.					
	At Torrence, CA		pre '56	?	?	
	Owner Al Ball restored 1967 yes Fiesta red black fish hook trim like S/N 5 on. has black spinner and leading edge of wing trim. no step. no grill. 2 row vents. has gold wing script Funk decal on fin. Sguare rear wheel pants.					
B 3	NC 22676	Funk E	/39	no	vermilion	black 3 line stripes, diamond point.
	" fire engine red" no step. has spinner. has leading edge trim on wings. Large MISS AKRON over painted on fuse in temporal white at roll out parade.					
B 4	NC 22677	Funk E	7/10/39	yes	lt.	dk. may be aluminum with blask trim.
	or might be red with black trim? lst use of thin spear point stripes.					
B 5	NC 22678	Funk E	8/26/39	no	met. blue	cream with standardized chin hk. stripe.
	restored by Tom Higley, Basehor KS and Gene Ventress Olathe, KS. lst step on.					
B	Book photo pg 43 shows early				aluminum	with cream trim and no edge. no pants.
	May be between S/N 6, NC 22679 and S/N 9, NC 22682					
B 18	NC 22691	Funk E	Book pg 77	no	dk.	black probable red color, black trim.
B 28	NC 24102	Funk E	or ?		yellow	aluminum with thin black edge line.
or 29	NC 24103	Funk E	SWAG estimate of S/N with Ralph Goodman at nose.			
B 34	NC 24109	Funk E	no data			
	B 125 Lyc.conversion				lt.	dk. funnel stripe.might be yellow ?
	book pg. 78 uses skis in winter. owner Charles Knight, Athol, ID. Great power! Cowl has open face like B 85C cowls. dk. spinner, lt cowl face ring.					
B 10	NC 22683	Lyc conv.			met. royal blue,	cream trim with wing and vert.
	rudder reworked to post S/N ballanced rudder. Sold to Percy Clough at Akron Royal Radio store. Later light color with wide thrust line trim and CAP decal on fuselage. pg. 77 of book. Clarence P. Winder, Grove City, PA. Status uncertain. No wheel pants.					
B 12	NC 22685	Funk E	Air News Photo		dk	cream trim with stab l.e. trim.
	this may be another blue airplane, with wheel pants.					
B 176	NC 24150	Funk E	run of probable		red	black trim, gold edge. has wheel pants.
B 62	NC 24136	Funk E,	Lester Thomas,		red	black trim seen at Brownfield, TX.
B 64	NC 24138	Funk E	Test 5/17/40		red	black, gold edge? has wheel pants.



JACK & RUTH EBEY'S FUNK B85C IS S/N 401, N 1619 N IN BRIGHT BLUE AND WHITE WITH SMALL BLACK PROP SPINNER.

'RUTH EBEY IS PRESIDENT OF THE FUNK AIRCRAFT OWNERS ASSOCIATION NEWSLETTER IS $12 PER YEAR FROM JACK EBEY
933 Dennstedt PL.
El Cajon, CA 92020.

PHOTO VIA DICK HOWARD, CACTUS SQD'N

Lycoming power raised the cruising speed slightly to 103 mph and allowed for radios. the nose was slight longer too by an inch, with a neatly cowled engine and still small flat top oval grill, now with slant elements. Funk Part L for later on amigos, will continue with a Lycoming cowl nose to overlay on the model plans. More to come.

B 85C CONTINENTAL POWER

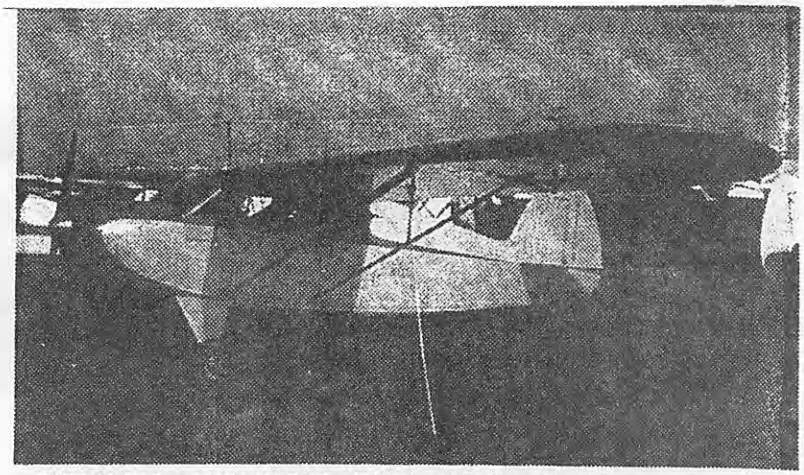
The trusty and powerful 85 H.P. Continental C 85 engine with built in starter was mounted in B 85C Funks as the supply of Lycomings was consumed. The first Funk built in 1946 after WW II was a B 85C nose S/N 223, NC 41741 advertised as the Funk F2B. A photo showing the blue with cream trim color scheme is shown in the Western Flying Magazine Funk Aircraft Company Coffeyville, Kansas add duplicated in book pg. 74. This B 85C configuration was the marking for the Andy Medovitch model that is the inspiration for this romancing with Funks. Color was standardized to a warm yellow-orange with either maroon or brown trim. A high stripe and window trim continues on foreward over the cowl , and C shape folds over the nose to the top rear edge of the landing gear strut. Color ends at the strut rear. Spinners may be either color or trim. Repainting by owner and marking regulations add to the variety of colors and numbers.

FUNK AIRCRAFT COMPANY AT COFFEYVILLE KS

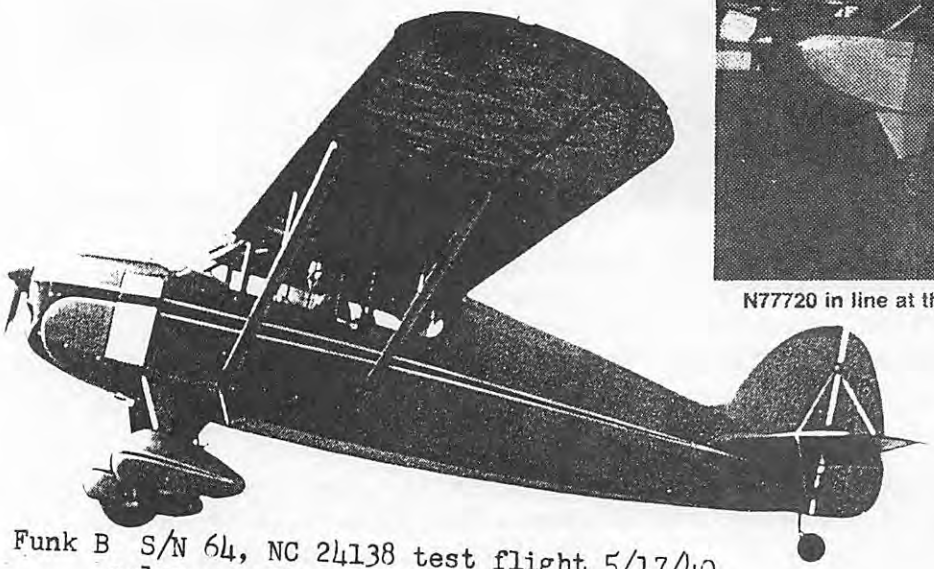
Akron Aircraft INC. folded in by legal consumption with tooling and manufacturing sold to the equal partnership of Joe and Howard Funk and the Bill and Ray Jensen brothers from Coffetville, KS. on July 1, 1941. Manufacturing of Funk B 75L's was on line by late Nov. '41 at the airport on the KS - Oklahoma border. Akron team members included the welding foreman Carl Schuster, and Ralph Goodman who was in charge of wing ribs. The high lift to drag ratio NACA 4412 airfoil ribs were made on a hard wood plank with metal pin keys.

Bernard Wade was in charge of manufacturing and developed forming tooling. Mr Wade was also in charge of static rigging of completed airplanes at a level bay in the factory. A near $1\frac{1}{2}$ degree wingtip washout was built in with a gradual twist or taper from the root to the tip by lengthening the rear strut at the fuselage rear strut attachment fitting. Dihedral was about $1\frac{1}{2}$ degrees also.

Welder Carl Schuster from Akron was welding foreman at Coffeyville. The fuselage frame was welded from SAE 4130 Chrome- Moly hardening steel tubing. Longerons were about 7/8 inch dia., with maybe 3/4 inch diagonals, and 1 inch tube at struts and landing gear connections. An uncomfirmed rumor heard in hanger talk at Coffeyville is that a welder from coffeyville was in the Army at Fort Sill,OK while pilots of Piper L 4 observation lightplanes were actually encouraged to flat hat under bridges to hone low flying skill! Lots of rewelding and part salvage followed and the welder got more points with extra favor welding. As war ended (was V.J. Day 8/15/'45 or a date yet to come?) an assembled bunch of Piper parts may have found a NC number and flown to an old barn at Coffeyville. The pile of parts may have collided with a title and number that stuck. Nawww. April Fool.



N77720 in line at the 1982 Funk Fly-In at Coffeyville, KS.



Funk B S/N 64, NC 24138 test flight 5/17/40
color vermilion with black trim, gold edge?
no AKRON AIRCRAFT INC. on fin. The LIGHTPLANE

Award winning B 85C "Rosebud" S/N 350, N 77720 of Bob and Sylvia Thomas is yellow with red trim and small aluminum prop spinner. No wh'l pants. Great colors 'Nes Paw? N 77720 on rudder only.

"NOT SOLD IN STORES!!"

1990 Nats mk VII
The Video
Presented by the
SWAMP SQUADRON, FAC

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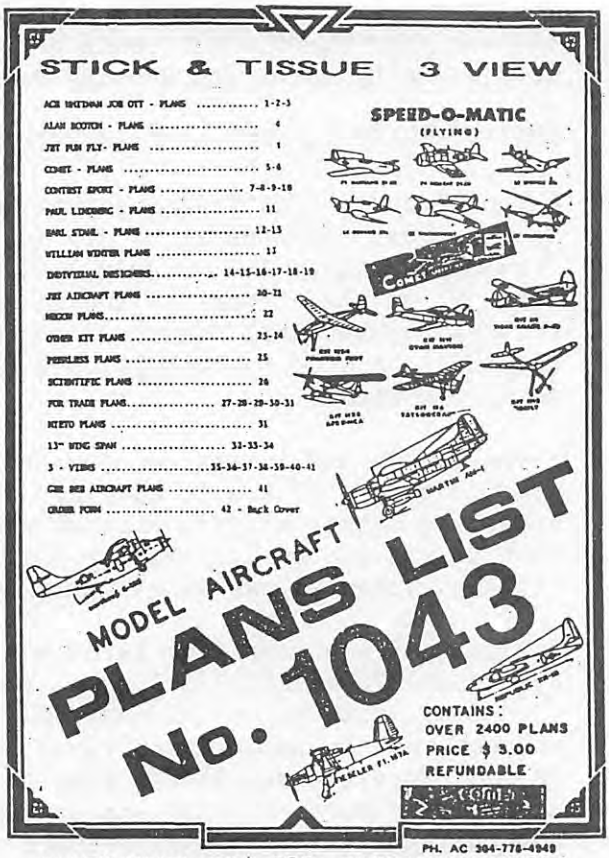
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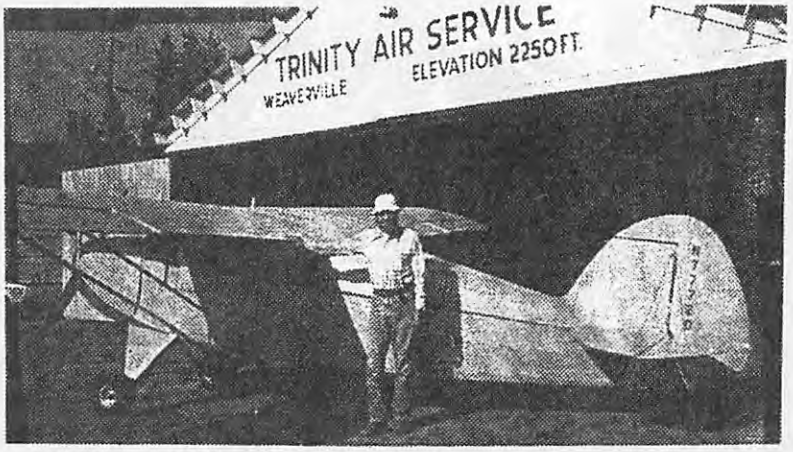
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"REMEMBER, NOT SOLD IN STORES!!"



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Bob Thomas (EAA 13666) ready to fly his newly restored Funk on July 19, 1982.

ROSEBUD IN WARM YELLOW WITH RED TRIM S/N 350, N 77720 WAS RESTORED 7/19/82 BY BOB AND SYLVIA THOMAS. PHOTO EAA SPORT AVIATION 1/83

SCALE MODEL RESEARCH HAS COLOR PRINTS # 1082, 15 FOR $ 18
SCALE MODEL RESEARCH
2334 Ticonderoga Way
Costa Mesa, California
92626 U.S.A

FUNK RAINBOWS

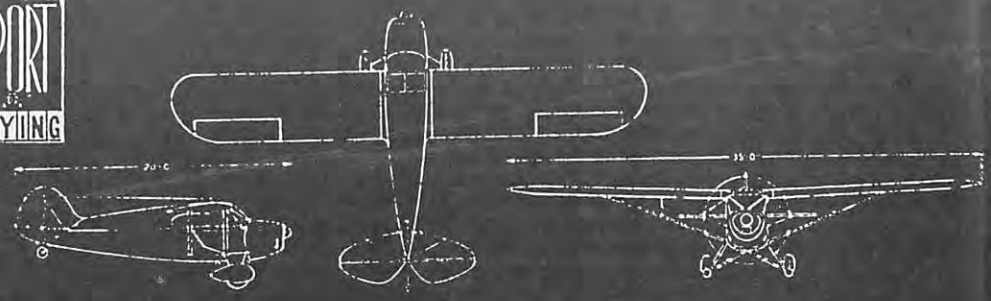
The Funk brothers were dedicated to maintaining an aerodynamically clean and attractive airplane. Attention to $ cash flow was another high priority. Keeping records of color and trim on each S/N and NC number never got close to the activities at hand. Painting in attractive colors was limited by the paint inventory. Some airplanes were finished in Berry Brothers Berryloid fine aluminum dope with cream trim., using less color. Even without records, and with only personal collection photos surviving the Coffeyville factory fire, a gleaming of brilliant color is shining through the shades of grey on the early photos. Today as in yesteryear, the search for color data comes as a suprise to builders and associates who didn't need to keep track of paint chips. Fortunately for this color doccumentation search, The Funk builders can be proud of their handiwork and memorable airplanes that lurk in the memory banks. All of these fellows have been most kind and helpful to the quest. These stumbling streaks through the Funk rainbow will find gold if it aids restorations or replicas to duplicate original brilliance. We are delighted with the kindness and results to date, but the thirst for even more brialliant Easter eggs and knowledge continues. Just out of fairness to those already pestered with all this, we hope to spread the questionaire to those innocents not yet tested. Later Funk Aircraft were finished in color from the Glidden Co. of Cleveland, Ohio.

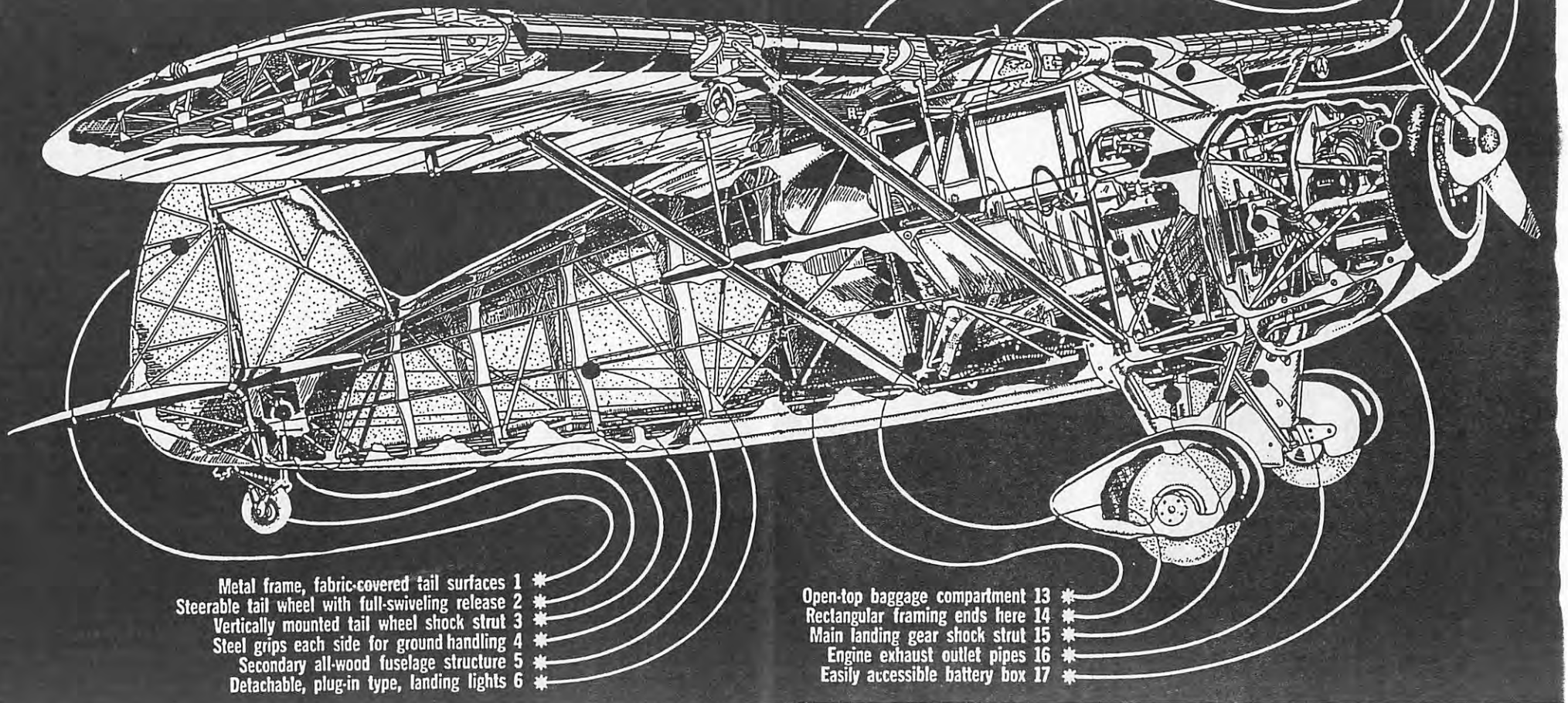
Lycoming power production began with S/N 190, NC 24164, and resulted in a slightly changed trim stripe and use of the warm reddish yellow with contrast trim. B 75L subjects present attractive cowl streamlining with still more variety in original and repainted colors. This great chance to extend the FUNK feature to future issues of CROSSWINDS. The FUNK discoveries are irresistible, like Peanut Power, 'Nes Paw? S/N 1 details and the B 75L's await feature coverage. High wing fans rejoyce, the FUNK rainbow fills your pot of needs.

Choice B 85C colors will follow. Bob Howard from Cactus Sector sent a photo of the Jack & Ruth Ebey B 85C S/N 401, N 1619 N in white with bright blue special trim, and black spinner. Send $ 12 to Jack Ebey, 933 Dennsted Pl., El Cajon, CA 92020 USA for FUNK owners newsletter. Bob Howard flew FUNK ferry hops from Coffeyville, KS to a California dealer. Thank's Bob. Another white B 85C with a broad blue stripe, S/N 266, N 81136 of Louis Schabilon, in less than pristine condition was photographed at Orlando, FL by FAC NEWS Ace Lin Reichel. In Toronto, CANADA, G. Art Doten photographed the dark brown with white trim B-85C now as S/N 436 C-FUNK, of Wm. Grenier of Toronto. Look him up Art, and report in at FAC NAT'S. A favorite here for yellow with red trim, and no wheel pants is the "Rosebud" B 85C of Bob and Sylvia Thomas S/N 350, N 77720, featured in EAA SPORT AVIATION JAN '83.

MODEL FUNK B Dan Driscol notched a win with his COMET Kit Akron Funk 20 inch span model at Maxecuters Indoor Contest when the talented Walt Eggert broke a prop on his Comet dH Puss Moth. Great strategy Don! The modifications included laminated wing tips and tail. Wing spars and edges are weak 1/16 sq. balsa. Dan recommends stiffer wood or bass wood. Dan picked red with black trim from IT'S A FUNK. Dan used a 5½ in. dia broad blade prop from " BREAKSTONE" brand 16 Oz. sour cream container plastic, on a 1/8 in. sq. Basswood hub at 45 degrees at hub. The Comet plan looks to be eyeball from S/N 4, NC 22677 with wing length elongated from 1/2 inch size to the 20 inch span. Color may be aluminum or red?

SPORT FLYING

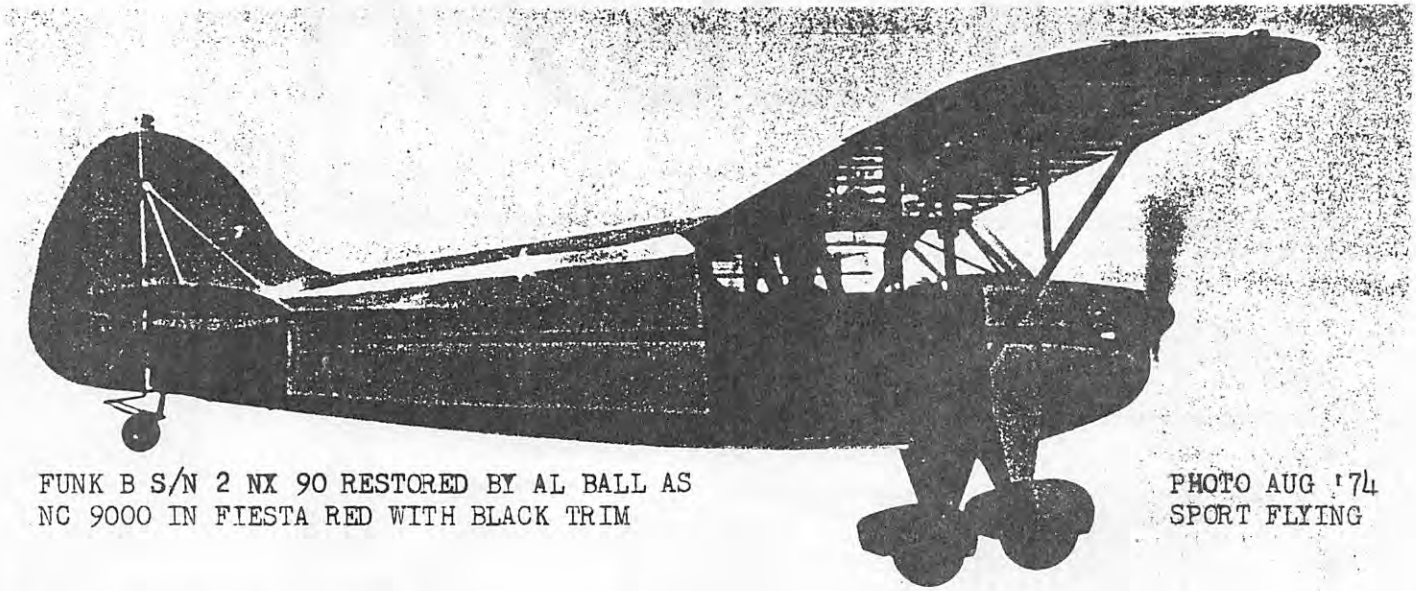




FUNK F2B

This two-place lightplane, powered by 85-hp Continental engine, cruises at about 100 mph, has range of 350 miles. Equipped with starter, generator, two-way radio, wheel pants, illuminated instrument panel, etc., the Funk F2B sold for $3,695.

OCT 67 SPORT FLYING



FUNK B S/N 2 NX 90 RESTORED BY AL BALL AS NC 9000 IN FIESTA RED WITH BLACK TRIM

PHOTO AUG '74 SPORT FLYING

MISSING MAN FORMATIONS

In Cleveland, we lost good friends Joe Brichacek and Bob Dombrowski, and air race historian Jim Butler. In Erie, PA. friend of all Emerson Elwell fell ill after much surgery and boarded the last plane West. Much skill companionship and dedication is left to fond memories.

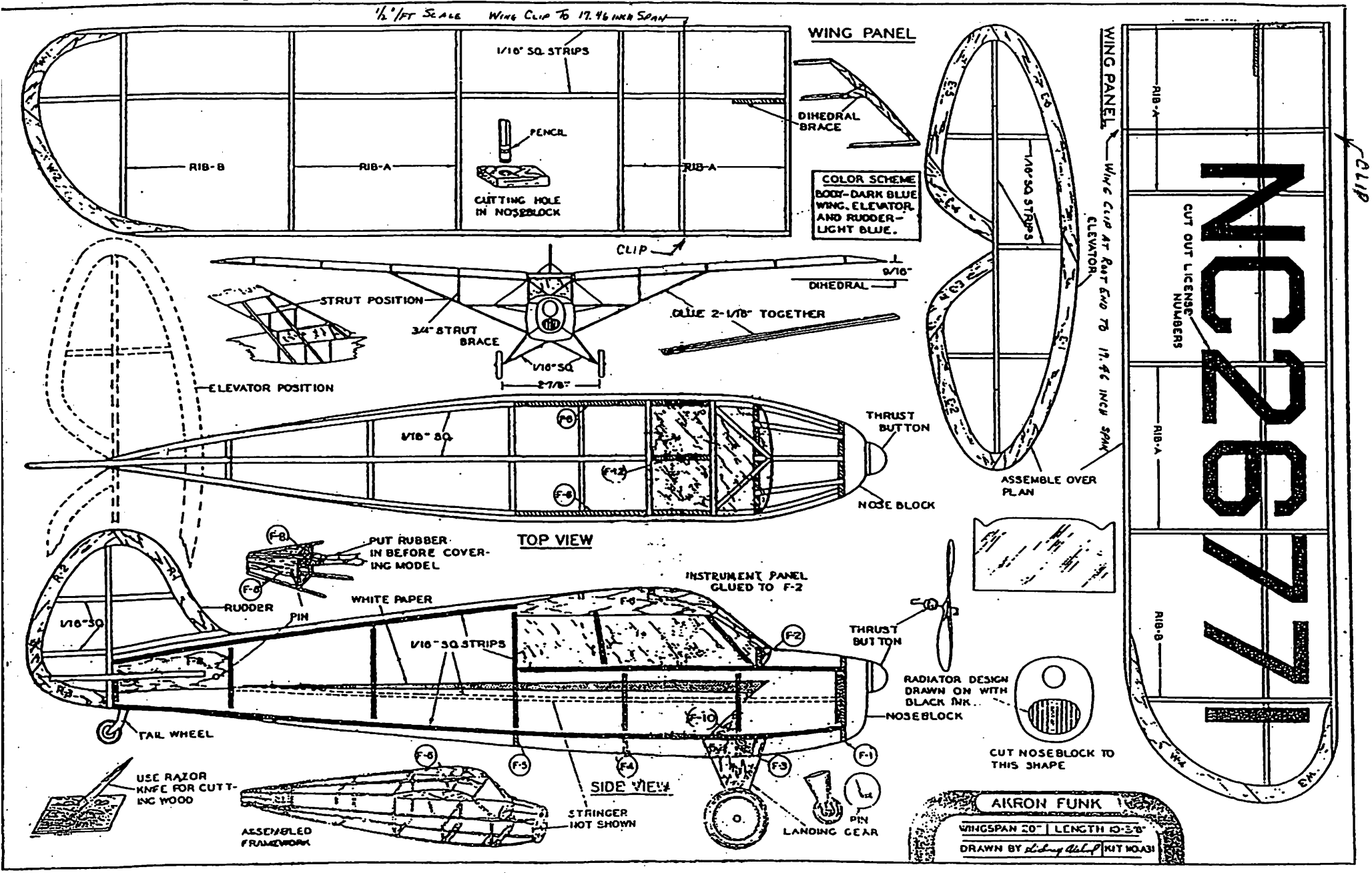
The brightest flower blossoms fall after the bees fly on. We deeply regret news from Dale Beach of the passing of Louis Chapo in Sacramento, CA in late January, 1992. Lou was dedicated to the preservation of Funk Aircraft history, and kindly supported this study with color data and direction. Father Time might do well to recalibrate the sand flow through the hour glass. it is fast. Remorse is tempered in reflection that our life experience was made brighter by the departed. This comes just two years since the Jan 23, 1990 passing of Andy Medovich.

FUNK REFERENCES

1. It's a FUNK book by G. Dale Beach, Sunshine House P.O. Box 2065 Terre Haute, IN 47802 USA. Drina Welsh Abel plans to republish this in late 1992.
2. FAT & FRIENDLY AKRON FUNK B SPORT FLYING 8/74 on S/N 2 NX 90 & Al Ball NC 9000.
3. Akron Funk Model B by Gene Chase, EAA SPORT AVIATION Dec 1985 on the darkish metallic blue with cream trim S/N 5, NC 22678 of Gene Ventress and Tom Higley in Olathe, KS.
4. The FUNK F2B by Max Karant, FLYING April 1947 on Yel & Brown S/N 405, N 1625 N/ N511.
5. Pilots Dream by W. Scott Boyer SR. in EAA VINTAGE AIRPLANE 8, JAN 1982 on B 85C S/N 404, N 1618 N. Scott Boyer Jr. is at 225 W. Maple St. Deshler, OH 43516?
6. The Functional Funk SPORT FLYING Oct 1967 V1, #5 Cutaway dw'g & S/N 176 & S/N 222.
7. Vintage Literature on Funk Aircraft and Ford engines by Dennis Parks in EAA Vintage Airplane January, 1990.
8. FUNK Plane of the Month by Roger Devlin SKYWAYS 8/46.
9. Akrons First Lightplane by Helen Waterhouse from a 1937 Akron Beacon Journal.
10. Rosebud's Oshkosh Adventure - 1982 by Sylvia & Bob Thomas. SPORT AVIATION JAN '83.
11. The Light Plane by John Underwood. Photo of test flt. of S/N 64, NC 24138.

& AVIATION 1/39 S/N 1 in Yel & 3 gr stripes. AIR NEWS 7/42. 1948 AERO DIGEST directory. and FUNK FLYER 1990 REUNION 3V c/o Jack Ebey 933 Dennstedt, El Cajon, CA 92020 $ 12/yr. See WACO AIRCRAFT PRODUCTION book by Ray Brandly for Berryloid dope color chart pg 77.

DIME SCALE COMET KIT PLAN REDUCTION to 13" SPAN COURTESY JACK FIKE FROM SCALE FLIGHT MODEL CO. 630 FAIRWAY LANE
SCALE CLIPS TO 11¼ INCH SPAN. BLOOMINGTON, IN 47401 PHONE 812/ 339-8274. Call JACK FOR 20" KIT PRICE.



THIS TRIM MAY BE TAKEN FROM PHOTOS OF S/N 4 NC 22677. WITH BLACK TRIM, PROBABLE COLOR IS RED.
ADVERTISEMENT PHOTO SHOWN IN IT'S A FUNK BOOK SHOWS A NARROWER STRIPE ON FUSELAGE AND WHEEL PANTS. (1ST PANTS)
S/N 4 MAY BE FIRST OF OPTIONAL WHEEL PANTS. SEE FUNK B DATA PAGE FOR OTHER RED, BLUE, YELLOW, OR SILVER CHOICES.

FUNK B 85C DETAIL AND COLORS BY SWAG, ENLIGHTENED RECALL, AND PHOTO ANALYSIS.

MODEL	S/N ID. No.	ENGINE	DATE	WHEEL PANTS	O/ALL COLOR	TRIM COLOR & NUMBERS
B	74 NC 24148	Funk E	JUN/40			
B 85C	conversion Thomas L.Funk, Lodi, OH Air Show 1985. No wheel pants. RB photo.				red	maroon gold No. on rudder at Cleveland red spinner. maroon wh'l strut, hub.

B 85C 60 NC 24134
Lyc. O-290 125 hp. conversion restored by the late Dean F. Muscott in July 1987. Photo SPORT AVIATION 9/89. white wing and tail, and funnel stripe and struts. Bright blue fuselage and wheel pants, and wing leading edge black NC 24134 verticle on rudder.

B 85C 223 NC 41741 1st C85 as F2B pants med. blue cream trim, single thrust line stripe, wing and stab edge trim, pants trim, and spinner. photo in book add Western Flying 6/46. Andy Medovich Peanut Scale model plan in Flying Aces Club News NOV/DEC 1989./ D. Norman

B 85C 401 NC 1619 N C-85 12/19/46 yes white wing and tail, bright blue fuselage, and wing leading edge, wheel strut, and pants. white high thrust line stripe and cowl face and pants trim. small black spinner. Funk Flyer Editor Jack Ebey

B 85C 350 N 77720 C-85 10/ 8/46 no yellow red standard over nose & window high stripe.verticle N77720 in red on rudder. has leading edge wing and stab trim.Yel.struts has a small chrome or aluminum spinner. red struts."Rosebud" Oshkosh Adventure-1982 Photo EAA SPORT AVIATION JAN 83. Bob & Sylvia Thomas P.O. Box 419 Weaverville, CA 96093

B 85C 345 NC 77715 C-85 yes yellow maroon trim over top wheel pants trim. NC over 77715 vert. on rudder. Newly restored by V. S. Petersen Circle Pines, MN. Photo in B & W EAA VINTAGE AIRPLANE APRIL 91.

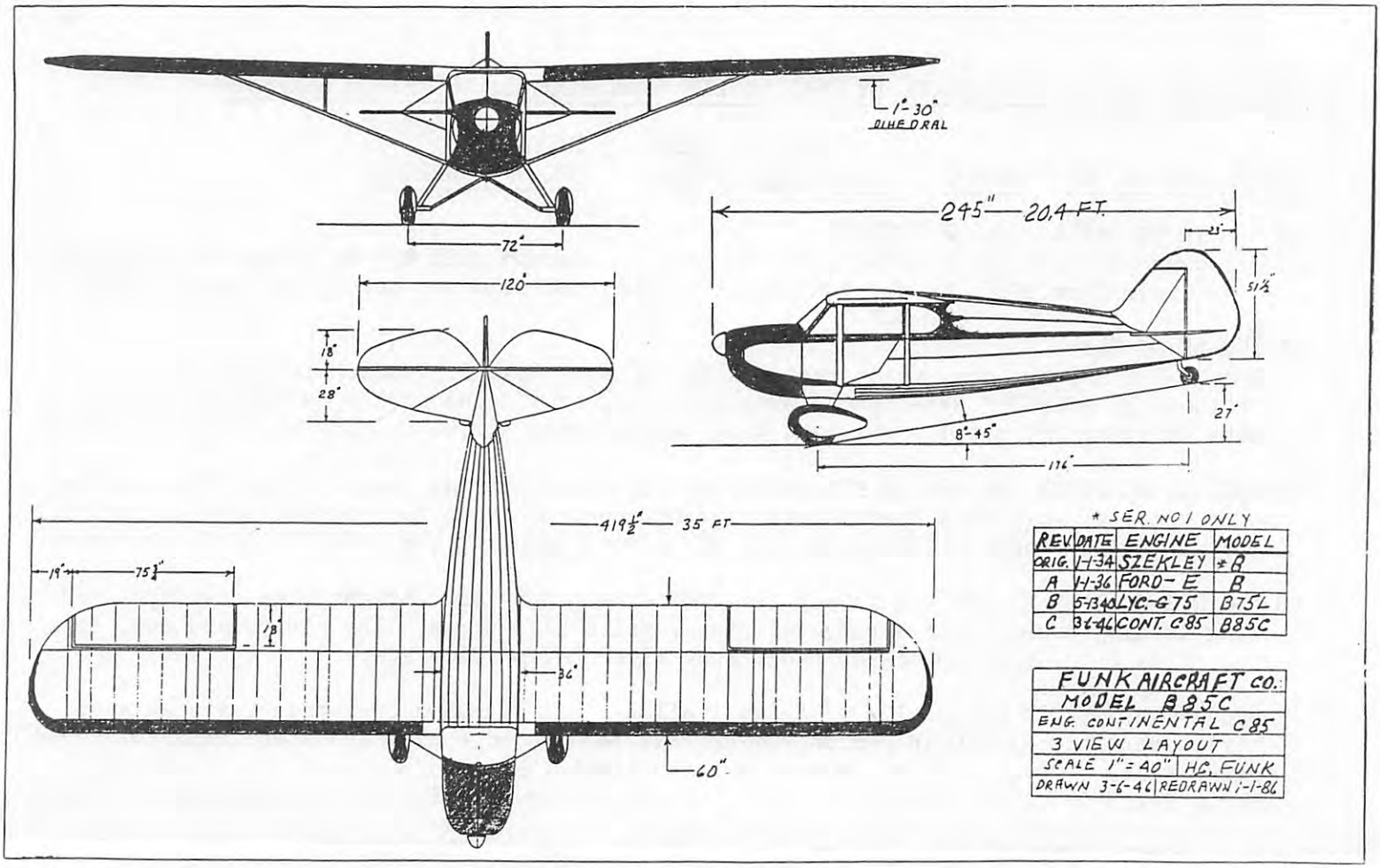
B 85C 405 NC 1625 N (now N 511) yes yellow brown trim. yellow spinner. FLYING APRIL 1947 pg 36,37,88,89. The Funk F2B.

B 85C 335 NC 77706 C-85 9/16/46 yes white bright red nose trim and wide tapered stripe with offset blue edge stripes. also on wheel pants. red ailerons, rudder and elevator control surfaces. red spinner too. Ray Albertson, Irving TX at 1st fly-in.

B 85C 266 N 81136 C-85 6/ 5/46 yes white broad blue taper stripe and edge lines. Louis Schabilon, Orlando, FL photo courtesy Lin Reichel, FAC CLUB NEWS 3301 Cindy Lane Erie, PA 16506. blue arc up top wedge fin & rudder trim & over pants top. white spinner. small horizontal N81136 on fin. blue wing leading edge. Bright royal blue color.

B 85C 253 NC81123 C-85 4/ /46 yes yellow brown trim with special point under nose trim. Std warm reddish yellow.Brown top wheel pants stripe. Yellow spinner. Earl Ortman test hop. FUNK Plane of the Month. SKYWAYS 8/46. Yellow struts. B'rn l.e.

B 85C 436 N 1651 N C-85 1/ 2/48
Now C-FUNK, Owner William Grenier, Toronto, CANADA. repainted all brown. special white stripe fuselage and fin trim. C. Art Doten photo at Ontario, CANADA. White on top of cowl extends back to just below stab front , window top high and tapers back to above stab, then breaks up to a point at rudder rear above ballance line level. has offset edge lines. white funnel stripe on brown wheel pants and small C-FUNK under stripe at rear of fuselage. Dark brown color looks metallic in photo.



* SER. NO 1 ONLY

REV	DATE	ENGINE	MODEL
ORIG.	1-1-34	SZEKLEY	* B
A	1-1-36	FORD - E	B
B	5-1-40	LYC. - G75	B75L
C	3-6-46	CONT. C85	B85C

FUNK AIRCRAFT CO.	
MODEL B85C	
ENG. CONTINENTAL C85	
3 VIEW LAYOUT	
SCALE 1" = 40"	H.C. FUNK
DRAWN 3-6-46	REDRAWN 1-1-86

Funk B 85 C Trim pattern shaded on drawing by Howard Funk. Rudder shape is sketched in to correct to production rudder form. see factory drawings for true shape.

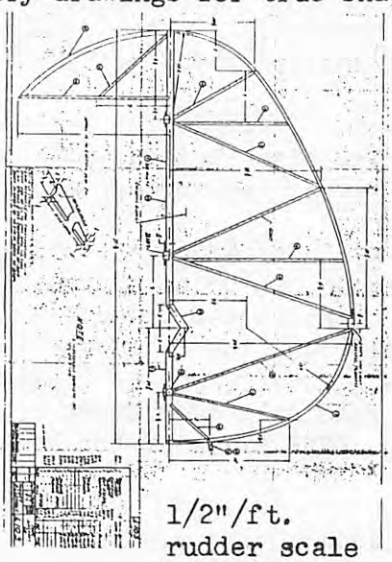
From The EAA Designee File

Information Submitted by Participants in the EAA Designee Program

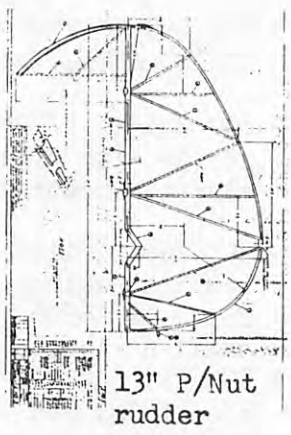
TIP TO MAKE NUMBER PAINTING ON HOMEBUILTS AN EASIER JOB

Prolific in his help to builders, Jack Denison, EAA Designee 115 of Stoneham, Mass., has this hint for those painting the numbers on their machines: "Laying out the license numbers on your fuselage sides can be a real time-consuming job. However, using a guide as shown below, it is no problem. Make the guide the dimensions you desire out of a stiff material such as aluminum or cardboard.

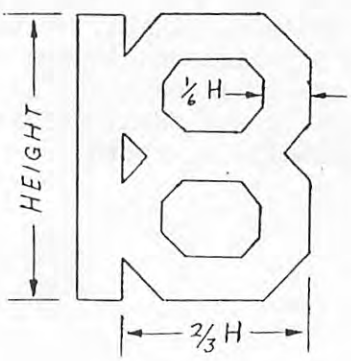
Using this guide as a template, the outlines of all numbers and letters can be quickly traced directly on the surface. This guide also aids in keeping the numbers uniform. Mask off and spray paint, using three coats. Before applying the first coat of paint, rub down the edges of the masking tape and apply a thin coat of clear dope along the edges. This will help prevent the color dope from bleeding under the tape."

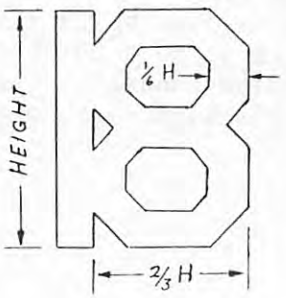


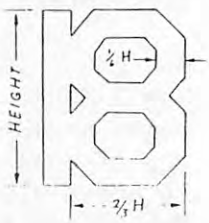
1/2"/ft. rudder scale



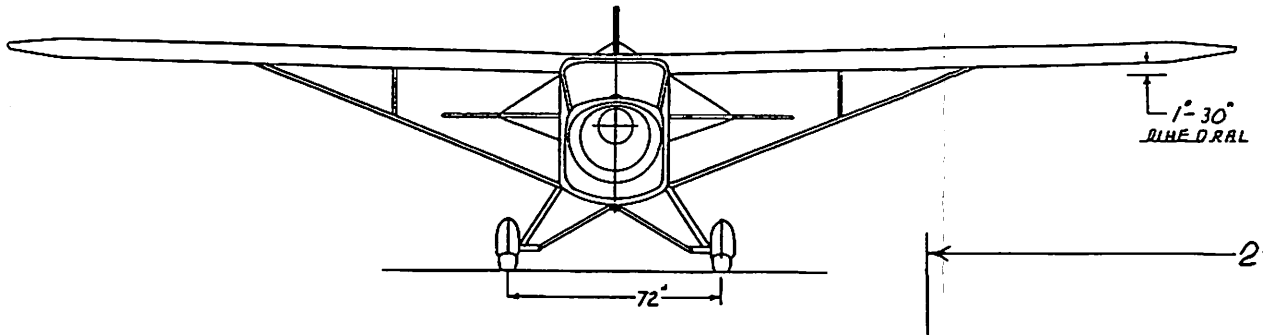
13" P/Nut rudder

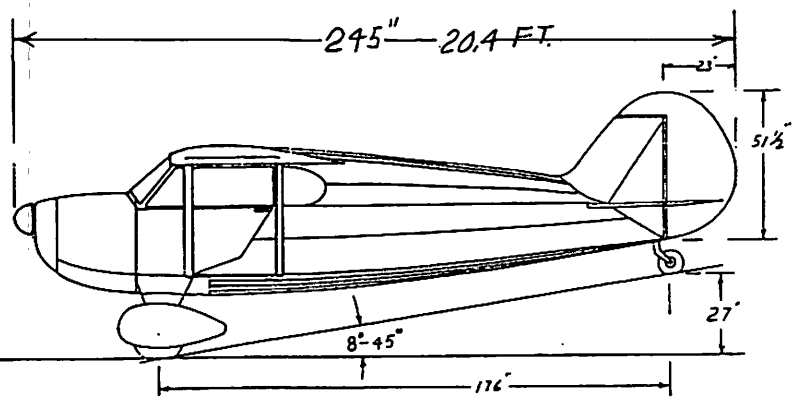


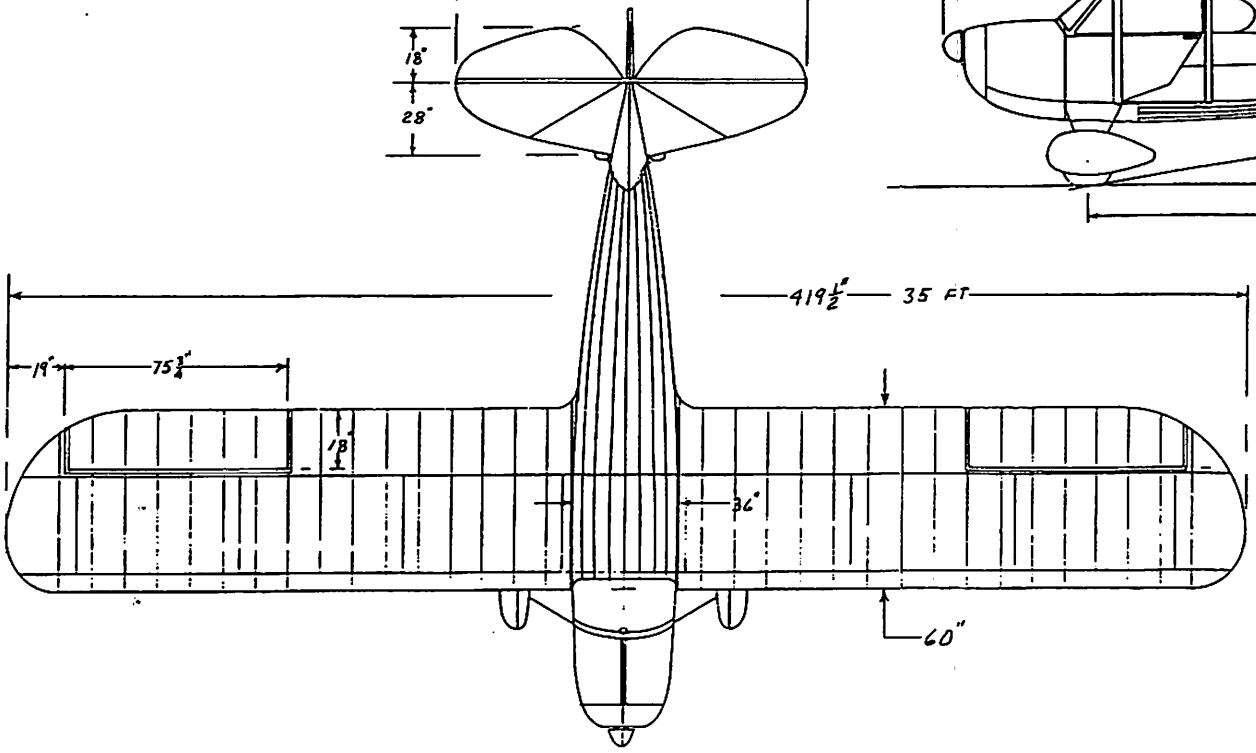




EAA SPORT AVIATION
GUIDE FOR 30" X 20"
WING NC NUMBERS
1/2 "/ft. at center
13" wing span right
36" X 24" at left.







* SER. NO 1 ONLY

REV.	DATE	ENGINE	MODEL
ORIG.	1-1-34	SZEKLEY	* B
A	11-36	FORD - E	B
B	5-1340	LYC. G75	B75L
C	3-6-46	CONT. C85	B85C

FUNK AIRCRAFT CO.	
MODEL B 85C	
ENG. CONTINENTAL C85	
3 VIEW LAYOUT	
SCALE 1" = 40"	H.C. FUNK
DRAWN 3-6-46	REDRAWN 1-1-86

1992 CONTEST CALENDAR

FEB 21-23	Cleveland National Model Plane Show at Parmatown Mall at Ridge & Ridgewood Parma, Ohio. Fri & Sat 10 A.M. to 9 P.M., Sun 11:30-5:30 P.M. Enter Free Flight models at FF Tables by Higbee Co. aisle by Sat. P.M. P/up 5:30 Sun.
MAR 15	Cloudbuster Indoor & FAC at Flint, MI. Dave Livesay 1911 Carmanbrook Pky.
MAR 29	CFFS Annual Indoor Contest at Normandy HS 2500 West Plesant Valley Road Parma, Ohio off I 77, South of I-480. 9:00 A.M. to 5:30 P.M. 9:15 to 12:45 EZB, Intermediate Stick, Novice Penny Plane. 1:00 to 5:00 No. Cal Profile FAC Scale, Peanut Grand Prix for each of: A. Hi-Wing/Parasol FAC Peanut, B. Low, Mid, Shoulder or Bi-plane Tractor props only(No Canards, Pushers, etc.) C. WW II Mass Launch at 2:00 P.M. and D. WW I Peanut Biplane Combat Mass Launch at 3:30 P.M. Also Events for WW II No. Cal Combat at 4:30 P.M. One single Mass Launch, Seven Gram Bostonian, and for Jetco R.O.G. flown from 1:00 to 3:30 P.M. M. Zand CD.
MAY 1-3	Annual Air Race Historians Symposium at Holiday Inn I-71 & W. 150 Cleveland.
MAY 2	Erie MAA Banquet.
MAY 3	Erie, PA FAC Indoor Contest at Edinboro St. U , McComb field house
MAY 17	Erie FAC at Prangmore Ross Mayo CD. 6725 Alan Lane Fairview, PA 16415.
MAY 21-23	AMA Indoor Nat's at Westover AFB Hangar, Chicopee, MA.
MAY 22-27	AMA Outdoor Nat'S at Westover AFB.
MAY 24	WNYFF Indoor at SU of NY, Buffalo,NY. 59ft. high. Vet Thomas CD.
JUN 4-7	U.S. NFFS Indoor Champs at Johnson City Tenn.
JUN 13	Erie FAC at Prangmore. Joe Barna CD. 3517 Kristie Dr. Erie, PA 16506
SAT 6/13	CFFS FAC Contest at Lorain County CC Events like 6/16/91
JUN 26-28	WACO Aircraft Fly-IN at Wyncoop Field, Mt. Vernon, Ohio.
JUL 3-5	Probable date of Taylorcraft Fly-In at Barber Field, Alliance, Ohio.
JULY 10-12	FAC Nat'S at Geneseo, N.Y. Lin Reichel & Vic Didelot CD.
JUL 19	CFFS FAC at LCCC Events like 7/21/91.
AUG. 2	CFFS FAC at LCCC. Events like 8/4/91.
AUG 8	Erie Picnic FAC at Prangmore Aerodrome, McKean, PA. 814/ 474-5229
AUG 8,9	Cleveland Budweiser 500 Auto Race. CFFS/ CAS Ushers here, Thank you.
AUG 12-14	Great Grape Gathering at Gananoque, Ontario, CANADA.
SEPT 5-7	Cleveland Air Show, No Race.
SEPT 5,6	FAC at NFFS & U.S. Outdoor Champs at Muncie. IN. Lin Reichel CD Phone:
SEPT 13	CFFS Fall FAC at LCCC. Events like 9/8/91 814/ 833-0314



Akron Aircraft Inc. test pilot Ralph Goodman hangs on Lewis prop of Funk Model B for photo courtesy Bernard Wade.

This airplane may be S/N 28, NC 24102, or S/N 29, NC 24103 in yellow with silver trim. A thin black edge line contrasts the silver or aluminum trim. Test flight of S/N 28 was 12/15/ 1939. S/N 29 was flown 1/9/'40. Photo shows Ralph is dressed lightly for Dec or Jan Winter! Photo may be later?

CFFS INDOOR MARCH 24, 1991

RESULTS

Intermediate Stick

Flyer	Best Flight
Don Slusarczyk	18:32
Chuck Slusarczyk	16:19
Larry Mzik	15:08
Ed Burke	11:56
Jim Buxton	9:12
Al Chute	7:07
Ron Ganser	7:06

Novice Penny Plane

Flyer	Best Flight
J. McGillivray	8:35
Roy Bourke	8:28
Larry Mzik	8:25
Ron Ganser	7:59
Larry Loucka	7:55
Curt Haskell	7:32
Stu Weckerly	7:21
Dan Briehl	6:12

EZB

Flyer	Best Flight
Don Slusarczyk	15:52
Chuck Slusarczyk	15:24
Larry Mzik	14:58
Jack McGillivray	14:42
Larry Loucka	14:26
Stu Weckerly	12:05
Warren Weisenbach	8:57
Al Chute	6:10
Fred Breisch, Jr.	4:45

Junior EZB

Flyer	Best Flight
Chris Sydor	1:56

Bostonian

Flyer	Aircraft	Best 2 flights			x C Factor	= Total
Stu Weckerly	Boston Mickey	129	+ 131	= 260	x 1.09	283.4
Gary Johnson	Back Bay Birdou	109	+ 128	= 237	x 1.19	282.03
Jim Buxton	Boston Wailer	108	+ 124	= 245	x 1.06	245.92
Ron Ganser	Merganser	117	+ 56	= 173	x 1.17	202.4
Jeff Briehl	Ghost	94	+ 93	= 187	x 1.04	194.48
Dan Briehl	Pacific Ace	89	+ 78	= 167	x 1.07	178.69
Curt Haskell	Whimsey	75	+ 76	= 151	x 1.18	178.18
Dave Livesay	Robin Red Sox		54	= 54	x 1.20	64.8

W.W. II No-Cal Combat

Ten flyers-one mass launch

Flyer	Aircraft	Place
Larry Loucka	Spitfire MKXVI	1
Jim Buxton	TBF Avenger	2
Roy Bourke	Spitfire MKXVI	3

500 • PLANS • 500

Looking for that hard to find plan? Chances are I have it in my files. Tell me what you are seeking. Send legal SASE for listing and information.

DICK GATES
Plans Designer/Draftsman
P.O. Box 2. Sheboygan Falls, WI 53085

No-Cal

Flyer	Aircraft	3 flights	total
Jack McGillivray	Cessna Cardinal	447-442-451	1340
Larry Loucka	Farman 400	406-424-447	1277
Roy Bourke	Cessna Centurion	331-261-361	953
Stu Weckerly	Stout 2AT	232-246-289	767
Jim Buxton	TBF Avenger	281-275	556
Gary Johnson	Curtiss XF1BC-1	208- 80-115	403
George Bredehoft	Hi-Max	53- 57- 57	167

17 models were entered in No-Cal

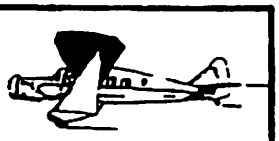
Jetco R.O.G.

Flyer	Best Flight
Roy Bourke	2:30
Chuck Slusarczyk	2:14
Warren Weisenbach	2:02
Jim Buxton	1:51
Rich Blacham	1:46
Michael Zand	1:23
Richard Rowe	1:19
Vernon Hacker	1:17
Jim Whelan	:54

Junior R.O.G.

Flyer	Best Flight
Jeff Briehl	1:10
Chris Sydor	56

GoldenAge REPRODUCTIONS



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Hi-Wing Peanut

Flyer	Aircraft	Time	Flight points	Scale points	Total
Don Slusarczyk	F.R.E.D.	99	79.5	58	137.5
Jack McGillivray	Curtiss XF13C-1	78	69	55	124
W. Weisenbach	Ramsey Bathtub	56	56	56	112
Fred Breisch, Jr.	Ganagobie	65	62.5	56	111.5
Gordon Roberts	Nesmith Cougar	53	53	46	99
Lad Plachy	Piper Cub	43	43	51	94
Dave Livesay	Waterman Gosling	32	32	59	91
Michael Zand	Wittman Tailwind	29	29	55	84

Non Hi-Wing Peanut	Aircraft	Time	Flight points	Scale	Total
Jack McGillivray	Isaac's Fury	92	76	77	153
Don Slusarczyk	Waco	70	65	67	132
George Bredehoft	Beech Staggerwing	49	49	68	117
Gordon Roberts	Chambermaid	54	54	59	113
Curt Haskell	Bucker Jungman	41	41	71	112
Stu Weckerly	SE 5	40	40	68	108
Dave Livesay	Mr. Smoothie	54	54	54	108
Michael Zand	1924 Farman Moustique	33	33	58	91

W.W. II Peanut Combat

Flyer	Aircraft
Jack McGillivray	Spitfire
Don Slusarczyk	P39
Dave Livesay	P51 D
George Bredehoft	Aircobra
Chuck Slusarczyk	Ambrosini
Gordon Roberts	Aircobra
Del Balunek	Me109F
Michael C. Zand	Hellcat
Warren Weisenbach	P51

W.W. I Peanut Combat

Flyer	Aircraft
Don Slusarczyk	D-7
Larry Loucka	DH 6
Jack McGillivray	SE 5
Warren Weisenbach	Berg C1
Gordon Roberts	D-7
Michael Zand	D-7
Stu Weckerly	SE 5
Del Balunek	Sopwith Camel
Dennis Norman	Fokker BII
Chuck Slusarczyk	D-7

GRAND PRIX

Flyer	W.W.II	W.W.I	Hi-wing	Non Hi-wing	Score
Don Slusarczyk	2	1	1	2	6
Jack McGillivray	1	3	2	1	7
Gordon Roberts	6	5	5	4	20
Michael Zand	8	6	8	8	30

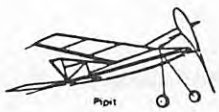
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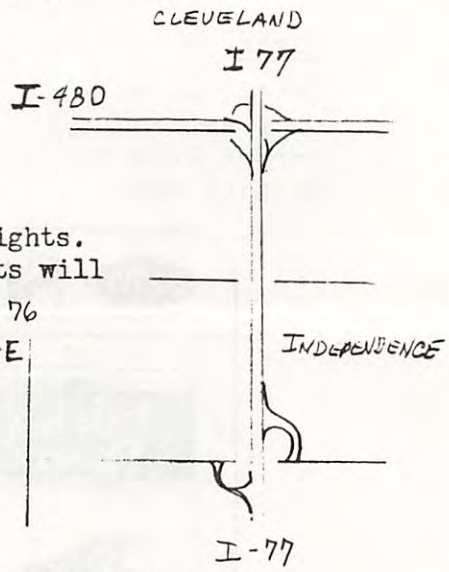
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THE CLEVELAND FREE FLIGHT SOCIETY
PRESENTS

Ninth Annual A.M.A. sanctioned contest for free flight model airplanes
Sunday, March 29, 1992 9:00 a.m. to 5:30 p.m. AMA Sanction No. 20086

Normandy High School
2500 West Pleasant Valley Road
Parma, Ohio 44134



8:30 a.m. to 9:00 a.m. -- Building opens and set-up.

9:15 a.m. to 12:45 p.m.

1. EZB -- Scoring will be the longest of five official flights. An official flight is 30 seconds and two attempts will count as one official.

2. Intermediate Stick

3. Novice Penny Plane

1:00 p.m. to ~~5:30~~ 5:00pm p.m.

4. No.-Cal Scale -- FAC Rules

5. Peanut Gran Prix -- Combined low score of FOUR SEPARATE EVENTS by place.

Contestants may enter models in four events. Events A and B will be judged and flown per FAC rules and bonus points. Prizes and FAC Kanones each event. Grand Prix winner is low point total of place in each of four events.

A. Hi-Wing/Parasol (plus 3 pt. Bonus) P-Nut -- Scale data shall be submitted.

B. Low, Mid, Shoulder or Bi-Plane -- No pushers, canards, or other weirdo types. Tractor props only, with scale data.

C. W.W. II - Peanut -- flown at 2:00 p.m.

D. W.W. I - Peanut Biplane Combat -- Flown at 3:30 p.m.

6. W.W. II - No. Cal Combat -- Flown at 4:30 p.m. One mass launch only.

7. Seven Gram Bostonian

8. Jetco R.O.G. -- May be flown from 1:00 to 3:30 p.m.

ALL events (JSO), except EZB and Jetco R.O.G. have separate Junior events. Open entry $5, first event, $1 each additional event. $10 max. Junior $2/ all.