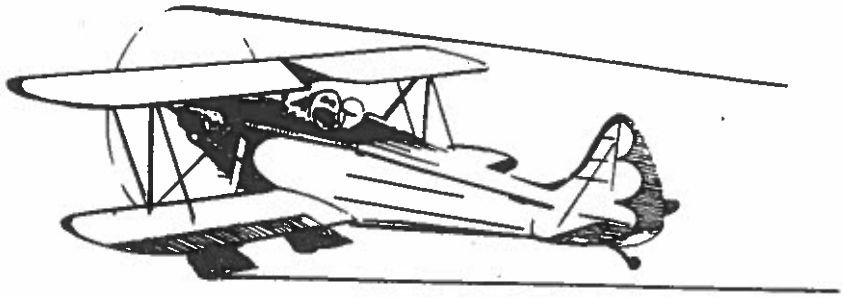
PARRAKEET PILOT'S CLUB
P. O. BOX 127
BLAKESBURG, IOWA 52536
(515) 938-2773

Thanks for your interest in the Parrakeet Pilot. The organization is dedicated to the exploration of the history, development and flying of these fine biplanes and their offshoots. We will also explore the technical advances that made the Rose A-1, the Rhinehart-Rose A4C, a bonafide aerobat for the sport pilot. There are several replicas under construction and we hope to become a clearing house for these folks also. Hope you will join us.

Barry Taylor, Editor



MEMBERSHIP APPLICATION

The Parrakeet Pilot's Club is a type club dedicated to the finding, building, maintaining and flying the Parrakeet airplanes. Its purpose is to provide communication and assistance amongst those who are involved in this type of airplane. The Parrakeet Pilot's Club is also interested in the historical aspects of all Rose/Rhinehart built or designed airplanes and the "Parrakeet Pilot" will reflect the historical aspects as well as technical features and activity reports on this great trademark of aviation. We solicit your participation as a member of this club and photos and information on your Parrakeet project.

Annual dues are $15.00 for three 16 page Parrakeet Pilot's Club publications with additional services. Dates of publication not set, but we guarantee you 48 pages of Parrakeet news, photos and data for your $15.00 subscription. Aircraft ownership not required to join.

Name_____ Phone Number____/_____

Address_____

City_____ State_____ Zip Code_____

Other Country_____ Province_____

AIRCRAFT OWNED
OWNERSHIP OF A PARRAKEET NOT REQUIRED FOR MEMBERSHIP

Make_____ Date Built_____ N #_____

S/N_____ Engine_____ H.P._____

Being Restored Yes_____ No_____ Airworthy & Licensed Yes_____ No_____

Make_____ Date Built_____ N #_____

S/N_____ Engine_____ H.P._____

Being Restored Yes_____ No_____ Airworthy & Licensed Yes_____ No_____

ROSE AEROPLANE & MOTOR COMPANY

MODELS: Rose Parakeet A-1, 1 POLB

T.C. NUMBER: 2-514

Engine	Continental A-40, A-40-2, A-40-3 or A-40-4
Placard limits	For all operations 2575 rpm (40 hp)
Fuel	10 gallons (one tank in fuselage)
Oil	1 gallon
No. passengers	None
Baggage	None
Standard weight	728 lbs.
C.G. limits	(+0.5) and (+0.75)
Specification basis	Aero Bulletin 7A, Section 3
Serial numbers	101 and up eligible (See NOTE A)

QUIPMENT: (Datum is lower wing L.E.) (* Means net increase)

Class I:

101. 14x3 wheels (Rose model D) with 16x4 tires
102. 10 strands of 5/8-inch shock cord on shock strut
103. Tail skid
104. Propeller - wood (fixed pitch)

Class III:

301. 3-inch wheels (Goodyear 3TW) 3 lbs.*

NOTE A. Each aircraft certificated must satisfactorily pass:

(a) An inspection for workmanship, materials and conformity before any covering, metal priming or final finish is applied. All woodwork may be varnished.
(b) A final inspection of the completed aircraft.
(c) Check of flight characteristics.

Supplemental Type Certificate

STC Number:
SA787SW

This certificate issued to:
Rose Aeroplane and Motor Company

STC Holder's Address:
Box 32
Ingleside IL 60041
United States

Description of the Type Design Change:
Install Continental C85-8FJ engine and McCauley 1A90, 70-inch diameter propeller. Gross weight 860 lbs., rear C.G. limit 1.50 engine limits; 2575 rpm, 85 hp. Eligible only on Rose Model Parakeet A-1, serial number 105, registration number N14881.

Application Date:

Status:
Issued, 07/05/1967

Responsible Office:
ACE-115C Chicago Aircraft Certification Office Tel: (847) 294-7358

TC Number -- Make -- Model:
2-514 -- Rose Aeroplane & Motor Company -- Parakeet A-1

Full Text of STC:

Comments

Comments:

Supplemental Type Certificate

STC Number:
SA1040SW

This certificate issued to:
Rose Aeroplane and Motor Company

STC Holder's Address:
Box 32
Ingleside IL 60041
United States

Description of the Type Design Change:
Convert to Model A4-C, install Continental O-200-A engine, and McCauley 1A90 propeller. Engine modified per STC SE870SW is required. Limited to Rose model Parakeet A-1, converted to A4-C, serial number 505 and up.

Application Date:

Status:
Reissued, 09/26/1978

Responsible Office:
ACE-115C Chicago Aircraft Certification Office Tel: (847) 294-7358

TC Number -- Make -- Model:
2-514 -- Rose Aeroplane & Motor Company -- Parakeet A-1

Full Text of STC:

Comments

Comments:

Supplemental Type Certificate

STC Number:
SA10067SC

This certificate issued to:
Pellegreno Dominick

STC Holder's Address:
318 Dillavou Lane
Rhome TX 76078
United States

Description of the Type Design Change:
Remove Teledyne Continental Motors A-40 engine and replace with Teledyne Continental Motors C90-8FJ and McCauley DCM6948 propeller and modify airframe from A-1 to A-4C per STC SA458SW, SA787SW, SA1040SW. Approved for installation on model Parakeet A-1, serial number 103 ONLY.

Application Date:

Status:
Issued, 08/27/2002

Responsible Office:
ASW-190 Ft. Worth Special Certification Office Tel: (817) 222-5190

TC Number -- Make -- Model:
2-514 -- Rose Aeroplane & Motor Company -- Parakeet A-1

Full Text of STC:

Comments

Comments:

The Rose Parrakeet

Ramblin' Rose, Last Of A Bouquet Of Eight, May Be First Of Garden Full.

Article and Photos By Ed Dover

WHEN THE HANGAR flying session gets around to the subject of aerobatic aircraft, what names do you hear bandied about most often? Citabria, of course, and Jungmeister; a few remarks about Stearman and Mentor; and, perhaps lately, Beech's newly-designated "Acrobatic" Bonanza and Musketeer, along with a few vague references to lesser-known European birds. Restrict the conversation to those aerobatic craft that also qualify as antiques and what happens? Well, most of the names go by the wayside and you're left with Jungmeister and Stearman.

Now, let's narrow it down further and require consideration for the bird only if it's aerobatic, antique, standard-category certificated, and the smallest, cutest bug of an aerobatic biplane ever designed and built commercially in the United States, and what are you left with? Give up? Well, I'll tell you: it's the Rose Parrakeet.

You are now promptly excused if the name doesn't ring any bells, because at the height of its commercial production, during the late '20's and '30's, there were all of eight Rose Par-

rakeets built. Today only six of the original craft are known to be in existence and three of them are in the hands of one man: Doug Rhinehart of Farmington, N. M. This shortage may soon be rectified, however, if Doug has his way. He is working virtually single-handed to bring forth a redesigned prototype model of the Parrakeet which may serve as the forerunner of a limited production project.

Doug's interest in the Parrakeet goes back to his early days in Missouri. As a youngster in Springfield, around 1940, he was working at the airport when he saw his first Rose Parrakeet. "I was fascinated by the airplane," Doug says, "I didn't have any idea, at the time, that there were only eight of them around. I watched for another but never did find one until about 1964. I bought it then, and for a long time it was the only fully licensed Parrakeet. It was thought that all the others were gone, but after the news got around that I was flying a Rose Parrakeet, I found these others."

About this time Doug met Jack Rose, of Ingleside, Ill., the original designer and builder of the Parrakeet. Jack, according to Doug, is about 66 years old now. He's still active as a machinist with the Johnson Motor Company. A self-taught engineer, Rose built his first Parrakeet in 1928. It was an outgrowth of his experimentation with low horsepower and high performance. It had a Heath-Henderson engine – actually a motorcycle engine originally converted for aircraft use by Ed Heath of Heath Aircraft fame. Rose improved it and got 28 horsepower out of it. The performance of the craft was well-noted around Chicago. Shortly afterwards a corporation was formed to produce the Parrakeet for public sale.

The first production model was 13 lb. heavier than it should have been. Rose cut the biggest part of the excess weight out of the landing gear. He redesigned it and developed his own "Model D" wheel. A small change in the cowling took care of the rest of the weight problem. Certification followed under a "Group 2" category. Final approval came in 1934. By this time the engine was a 37-bhp Continental A-40-3 with single ignition.

About the time he built the eighth machine Rose installed a 65 horsepower engine. It had received most of the engineering approvals and was just short of getting flight test approval when World War II came along and things pretty much came to a halt. As a result, there was no Parrakeet licensed in standard category with more than 37 horsepower until several years later when Doug Rhinehart obtained a supplementary type certificate for his model equipped with the 65-bhp engine. It was during the course of this work that Doug got in touch with Jack Rose, in the winter of 1964, to get more engineering information and advice.

The FAA instrumentation test flight for the STC required a full-power climb at an altitude that would hold the airspeed to 70 mph. "I had to check those instruments at one-minute intervals," Doug relates. "I went to 17,500 before I could get shut down. Like to froze my fingers off on that!"

The Parrakeet that Doug now uses for airshow work is a further outgrowth of the 65-bhp model, but it is STC'd for the 85-bhp engine. Rate of climb is a healthy 1500 fpm, even from the Farmington airport elevation of 5503 MSL.

It is the 85-bhp model that Doug would like to develop for limited production. But it is easier to get the higher-powered engines these days, so he has decided to go for the 100-bhp version provided the prototype model works out. Performance should be just slightly better than Doug's own 85-bhp *Ramblin' Rose*.

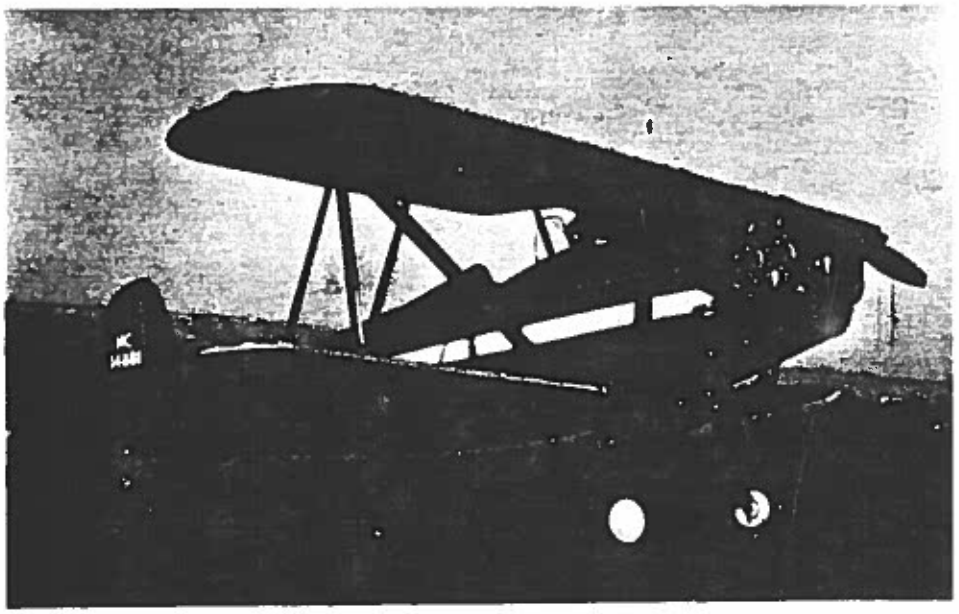
Even though Doug is working on the prototype strictly as a speculative venture, he already has several requests for copies of the plane. The first higher-powered version is slated to go to Jack Polk and Bob Myres in California. They have provided Doug with the 100-bhp engine and will use the first model as a demonstrator.

According to Doug there are so many changes that undoubtedly will have to be made as the prototype testing goes along that he is not prepared to say, at this time, how a final model suitable for production is going to work out. This goes for the price as well as the specs, but Doug hopes to keep it "under $10,000." A comparison of this price with an old advertisement for the 37-bhp Parrakeet makes for an interesting comment on the value of our money today: The early '30's ad boasted a price of $1,475, flyaway Chicago!

Meanwhile, Doug has been opening a good many eyes at airshows whenever he performs with *Ramblin' Rose*. "I haven't been in any competition yet, other than just friendly competition," Doug relates. "I flew back at Ottumwa during the international antique show, against some of the professionals. I'm sure that . . . well . . . the airplane will beat them. It's better than I am and as good as anything I've seen. There's no doubt about it. However, there wasn't any official competition; everybody just said the Parrakeet made the best showing."

"The performance – rates of climb, and things like that – your wing loadings, if you figure the thing down, just makes a doggone good aerobatic airplane. You have a wing loading of 6.8 and a power loading of around 9.1 with the 85 engine. The 100-bhp version will weigh a few pounds more."

Doug claims the loading figures are considerably lower than other aerobatic aircraft. While he thinks the power loading is high, he feels that the lighter wing loading makes up for it. "Recovery on the airplane is instant, with or without power," he says. "Your glide ratio is good, so it's a good, safe airplane. It won't stall upside-down;



POSING PRETTILY for her portrait, the 85-bhp "Ramblin' Rose" shows off her petite lines. Smoke generator for airshows is under fuselage.

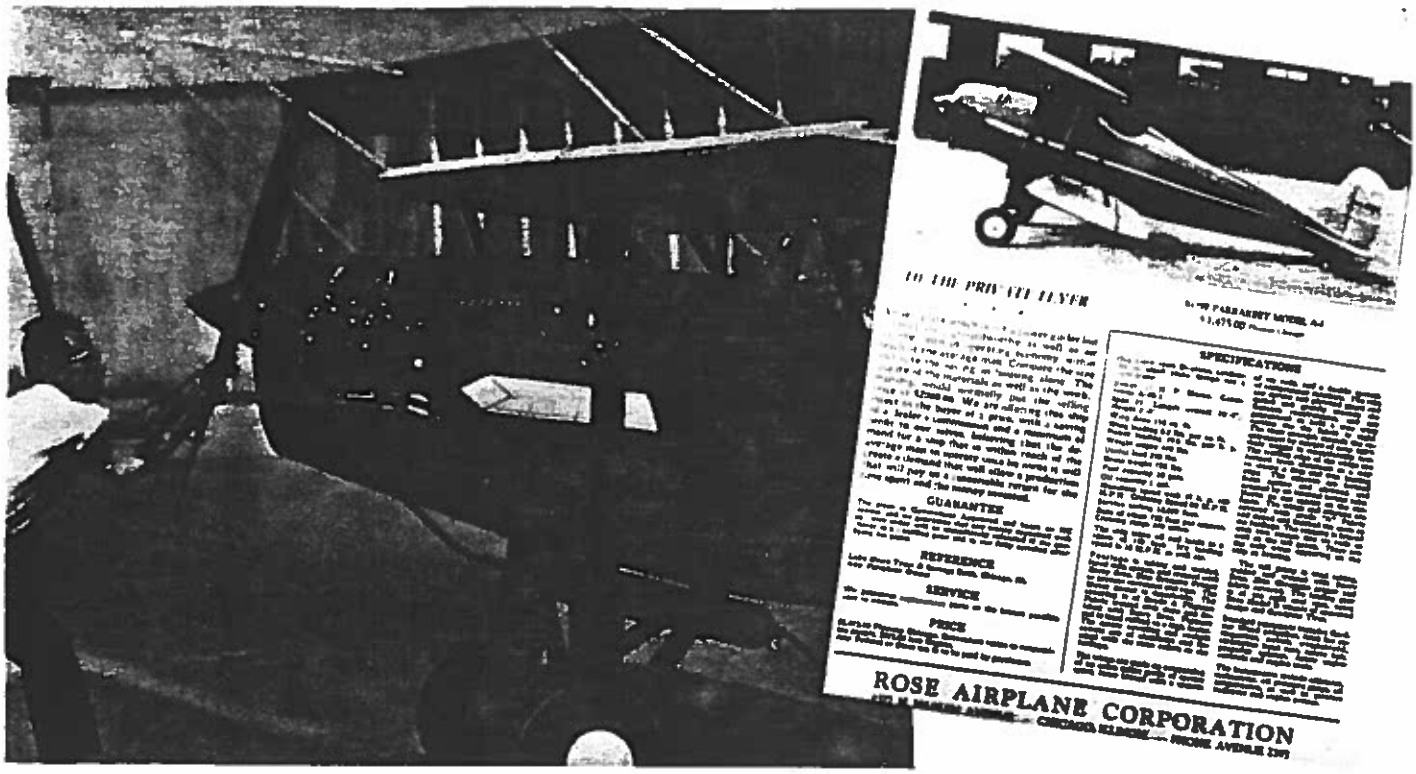
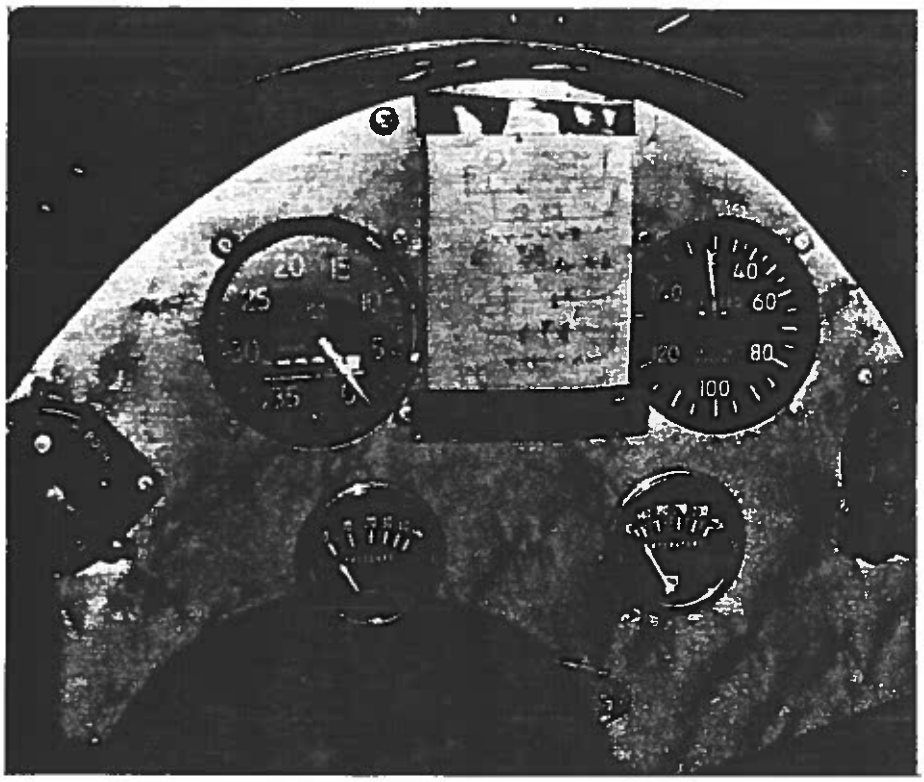


PHOTO SHIP pilot Carl Pierson of Naturita, Colo., props the Rose Parrakeet to get the snappy little biplane and Doug on their way.

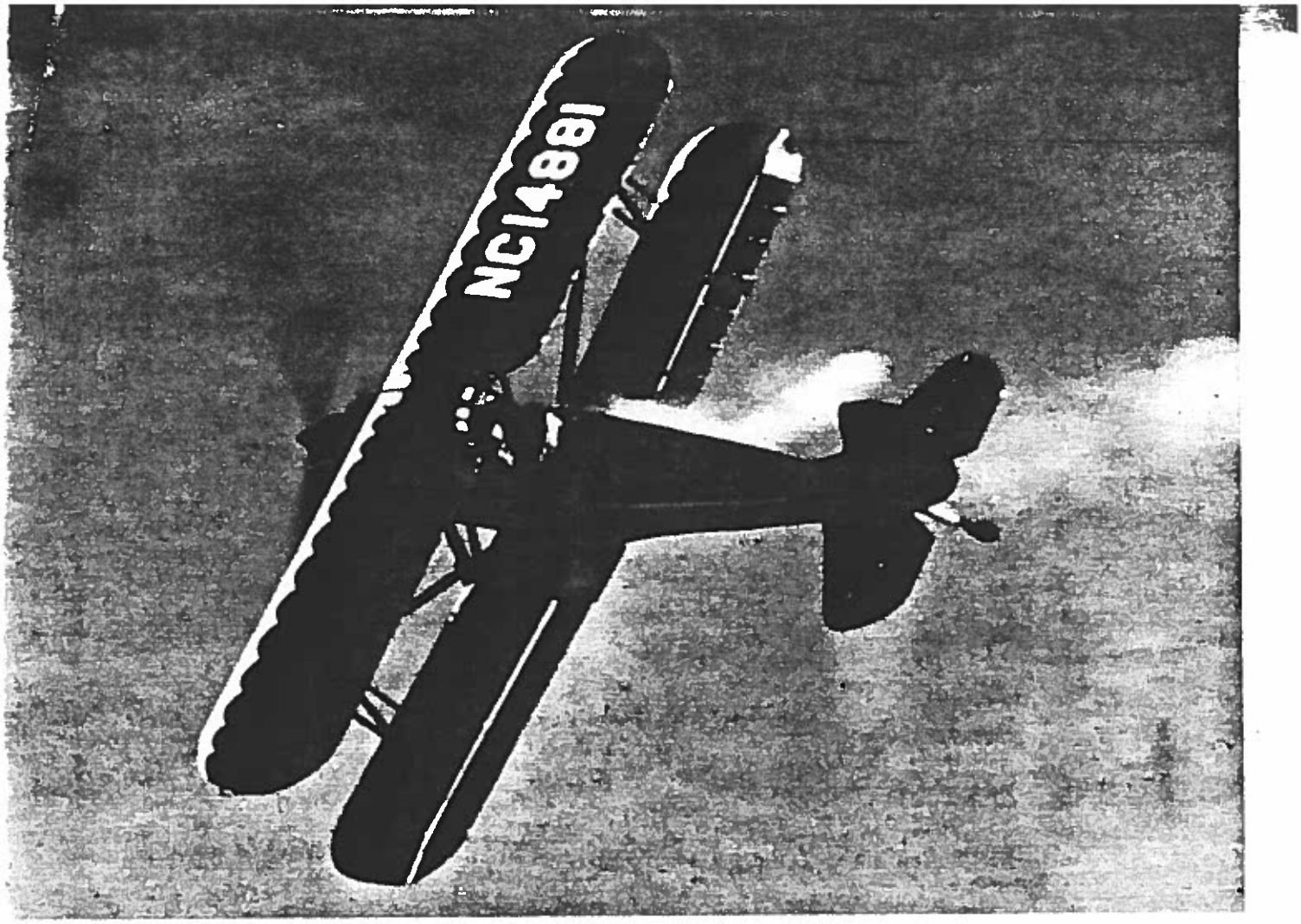


BASIC PANEL means just that — room for only the most essential instruments and the ever-necessary aerobatic sequence diagram.

it'll roll over. I mean, if you put it into an inverted stall and don't hold it with ailerons, it'll roll over like a cat. If you'll notice, it's pretty clean for a biplane. It's much cleaner than most biplanes that you see. There's not as much parasitic drag. It's one of the most efficient biplanes ever built, and, incidentally, it's the smallest biplane ever manufactured in the United States.

"Your rate of roll is fast," Doug goes on. "Recovery on the airplane, from any position, from anything, is very fast. Now, usually for aerobatics I weigh out at 777 lb., even though I have an available gross of 860. The ride is not for comfort, it is strictly for pleasure; but in turbulence it handles just like a big airplane. It doesn't cork around in the air. Hands-off stability isn't like you'd find in a modern airplane but the airplane goes exactly where you point it, and there's no hesitation about it. It's just like having a spirited horse . . . a thoroughbred."

Recent local newspaper articles gave the impression that Doug plans to set up an elaborate aircraft factory in Farmington. This is not correct, certainly, and Doug takes particular pains to make clear his intentions: "Well, we . . . Mr. Rose and I, that is . . . have this prototype to finish up. We've already had the wings inspected and built up. What we are doing is working on small changes in the airplane to bring the safety margin up even higher than it is. After we get this prototype airplane built then we can duplicate it. That's what we're working on right



TRAILING SMOKE, Doug Rhinehart rolls past the photo ship in bright red Rose. Straight and level seems to be an abnormal attitude for it.

now. But this is a one-man operation and it goes pretty slow. Mr. Rose is back in Chicago, and when I need technical data I've got to phone him."

Doug did expect to have the prototype ready for flight by last fall or winter. Most of the earlier summer was taken up with airshows, which helped out financially but took him away from the job of working on the prototype. He says he has no idea how much he has invested in the Parrakeet, but it doesn't seem to be his main concern. His work is a labor of love, which, like Topsy, "just grow'd" into its present status.

As of now Doug is not looking for outside backing, even though there have been offers from interested parties. He feels the future of the venture, at this stage, is too uncertain to justify the kind of risk any big-money participant would have to take. Another consideration is his desire to maintain control over the development of the Parrakeet as the project moves along. He feels he could lose much of this control if outsiders began having too much to say about it. So, for the time being, it's at most a two-man show: Jack Rose, who owns and provides all the technical data, and Doug, who does most of the actual work on the prototype.

Regardless of the future of the project, however, it looks as though the Rose Parrakeet might turn out to be the sleeper of the year among aircraft suitable for aerobatics. The Parrakeet is the kind of plane that just naturally attracts the attention of pilots. All Doug has to do is take his *Rose* out of the hangar, park it on the ramp, and within a very short time he'll have an audience of curious plane jockeys.

Shortly after returning from a session of air-to-air photography, we were interrupted by a fellow who identified himself as a transient delivery pilot. He'd been waiting for commercial space back to Wichita and saw the Parrakeet taxi up to the ramp. The last I saw of him, he and Doug were deep in conversation back at Doug's hangar. I wouldn't be surprised if that guy turns out to be another potential customer once Doug gets his prototype off the ground. It's that kind of plane.

My interest in aviation developed at an early age, but like most youngsters, I didn't have enough money to do much about it. I was employed at Chanute Field as a construction hand when the first OX5 Jennies arrived in 1917. It was a big thrill to watch them coming in. Later on I managed to slip into the maintenance area for a closer look. I would have swapped my right arm for a ride in one of those crates. The base officers' lounge had a good library and I would sneak in at every opportunity to read the latest aero magazines. They threw me out time and again and finally gave up.

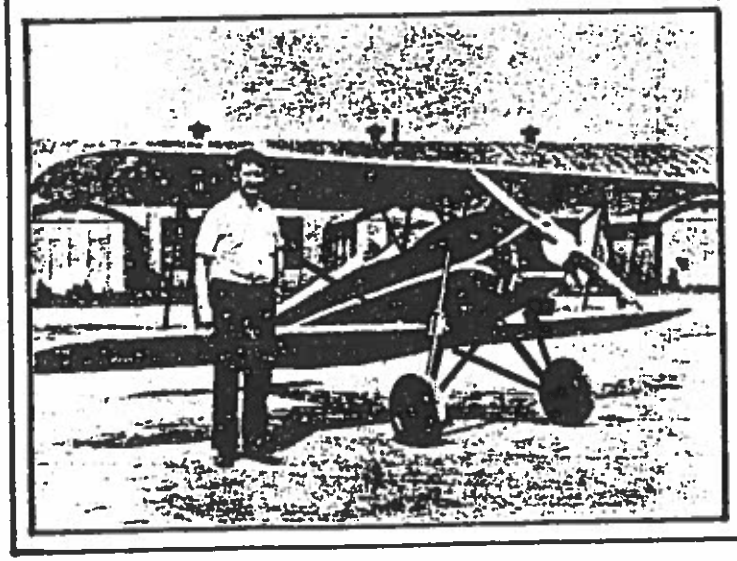
The determination to learn to fly persisted and I eventually received an appointment as a flying cadet. They sent us to Brooks Field, Texas, in the spring of 1923. The training equipment consisted mainly of Curtiss JN-6Hs, which were Hisso-powered versions of the famous Jenny. After leaving Brooks Field, I headed west and spent a few weeks in California. There were dozens of homebuilt craft around the Los Angeles area, and the exposure to so much flying activity strengthened my ambitions. I went back to my home in Chicago determined more than ever to break into aviation, even if it meant working for nothing to get a start.

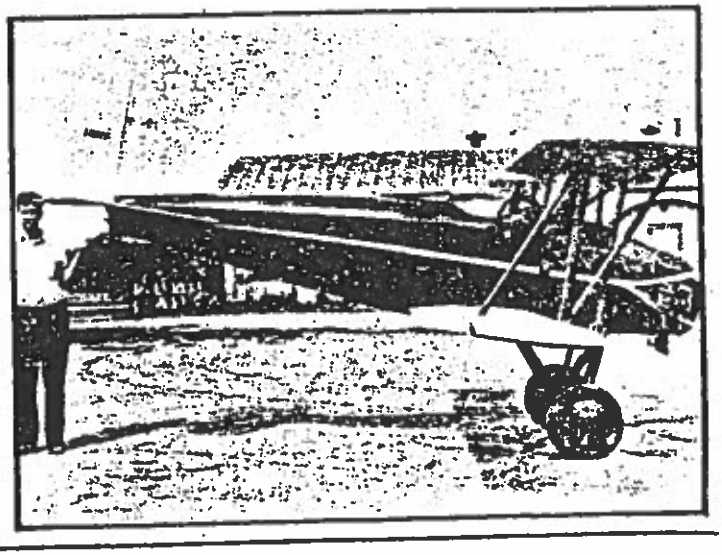
In the spring of 1924, I bought an old Curtiss Oriole from Tex Marshall and Randolph Page, both Air Mail pilots flying out of Maywood, near Chicago. The airplane had originally belonged to C. S. "Casey" Jones of the Curtiss Company and was the one he raced quite successfully at all the early meets. It was a nice flying job, but short on power. After that I built up an OX5 biplane using a Canuck

The Parrakeet Story

Production aircraft cost too much, so Jack Rose

First Model A-1 (s/n 101) was built in 1934, received ATC 2-515 in September, 1935. Designer/builder Jack Rose is shown with plane.





fuselage and Avro wings.

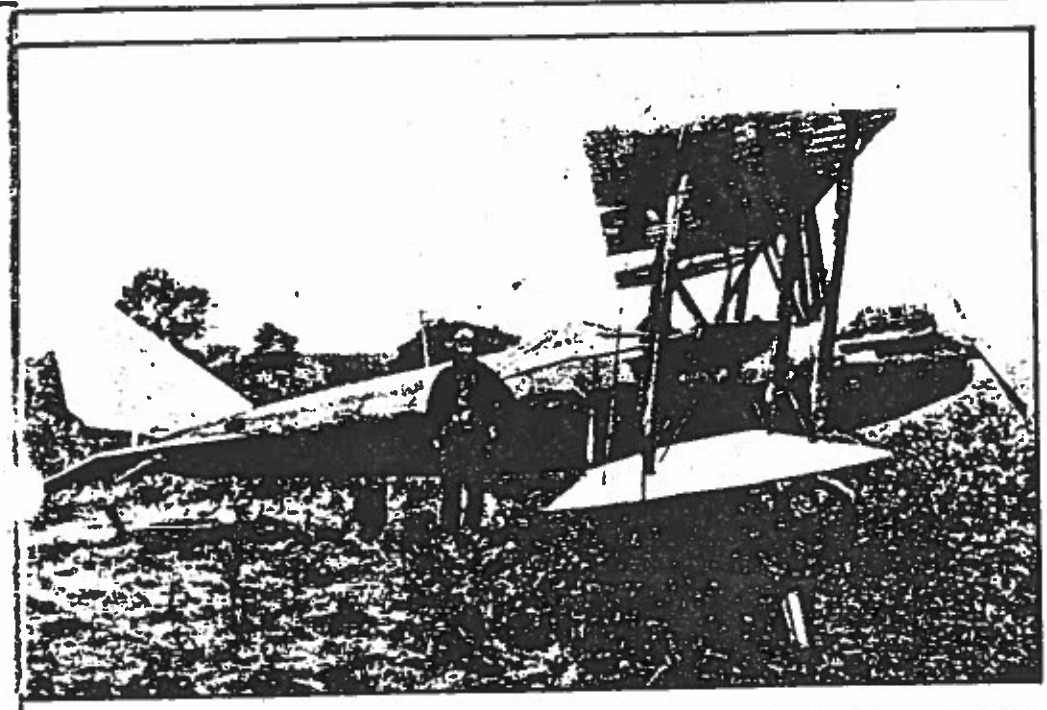
By 1929 I had a Waco 10 and some students. Flying was beginning to pay off, but just barely. The cost of owning even an OX5 job was prohibitive for most people. However, there was a little fellow in Chicago who had come up with a low-cost, easy to build airplane designed for the average enthusiast. His name was Ed Heath, and he'd been in the flying game since 1908. We spent a lot of time at Heath's place discussing various technical developments. Ed's little Parasol, which was powered by a converted 20-hp Henderson motorcycle engine, performed reasonably well, but it was far from ideal. Eventually I put together some ideas of my own and designed the original Parrakeet.

The first airplane, X-12084, known as the Rose Model A, was built with the help of friends and was flying in 1931. We used a converted Henderson at the beginning, but it overheated and quickly lost power. I made some thirty test hops and about the same number of forced landings before replacing the Henderson with one of the first Continental A-40s. The Continental kicked out 37 hp and thereafter the Parrakeet really flew!

The A-40 installation was a hasty affair with a makeshift cowling. The airplane handled beautifully, though, and in a few days a group of Continental executives drove out for a look. It was mid-winter and the ground was blank-

Below Left: Curtiss Oriole was purchased by Jack Rose in 1924.

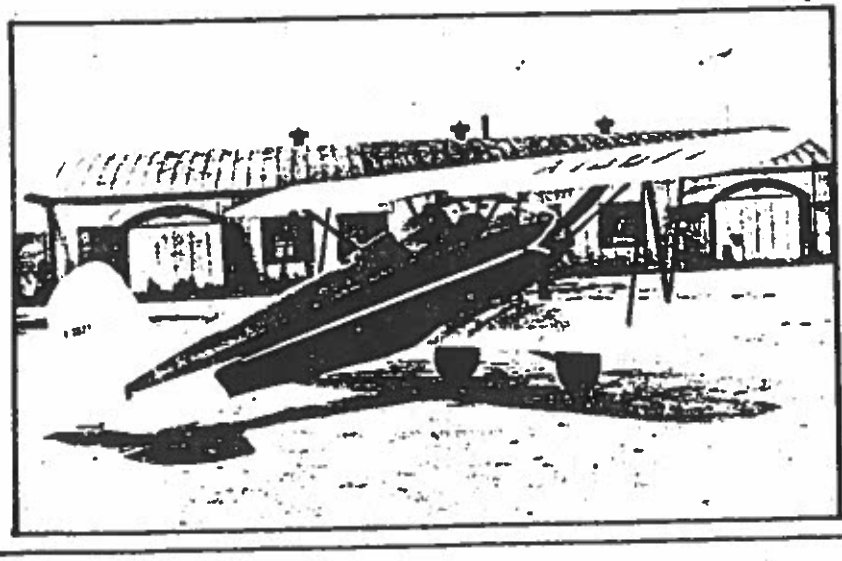
Below Right: Rose built hybird biplane in 1925 from Canadian-built Canuck fuselage, British Avro wings, American OX-5 enigne.

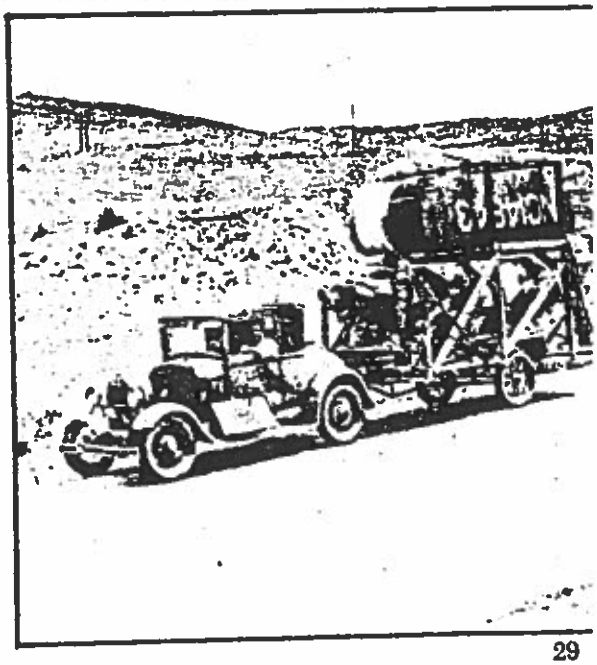


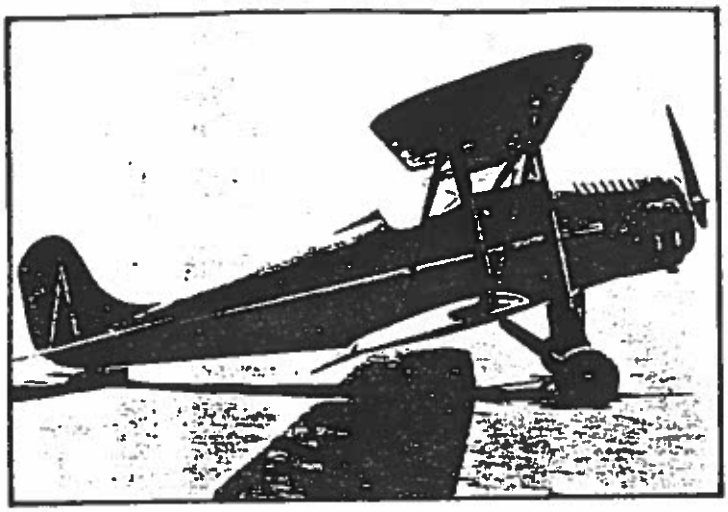
produced his own birds.

By Jack W. Rose as told to John Underwood

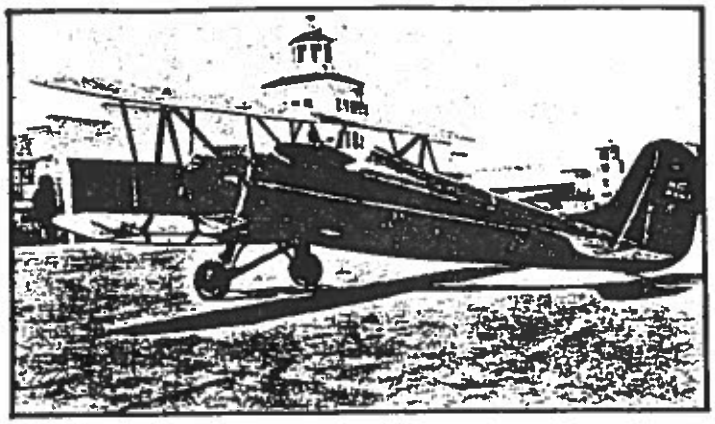
Planemaker Jack Rose delivers a pair of Parrakeets to California buyers, June, 1936.







NC14843 (s/n 103) was delivered to Conwalt Flying Service, San Francisco, June, 1936.



eted with a foot to 18 inches of snow. It was the kind of weather that grounded ships a good deal larger than the Parrakeet. The engineers expressed serious doubt that I could even get the airplane moving, much less off the ground. But fly it did! The fellows from Continental jumped for joy, like a bunch of school kids.

It was at this time that Ed Heath approached me with an offer to sell out. It was a wonderful opportunity because the inventory was easily worth twice the asking price. I had no money to speak of and I told him so, but he persisted. "You've got friends with money," he told me. "Get them to put up the down payment and you can work it off in easy payments." That was how Ed did business; he must have been the first to sell planes on the installment plan. I scraped together several thousand dollars, but it wasn't quite enough. Ed told me to raise a little more and he'd sell. Just then my associate (O.K. Szekely) was called away to Hungary on family business. Heath couldn't wait and sold out to some sharp operators. He felt as badly about it as I did and told me he was going to do something for me to make things right. Several days later he was killed testing his low-wing. I never knew what he had in mind.

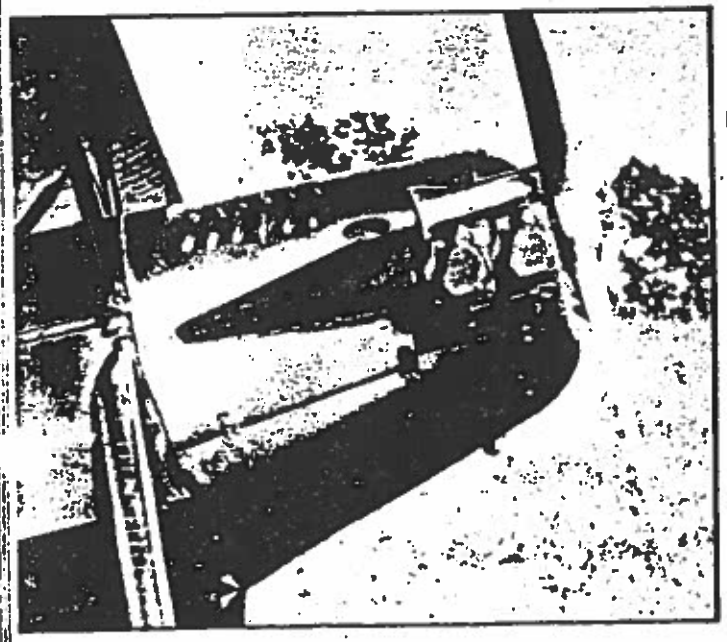
At first I had no intention of getting the Parrakeet approved. There was just too much red tape involved, even in those days. Ed had felt the same way about his Parasol.

(Text continued on page 61)

SPECIFICATIONS

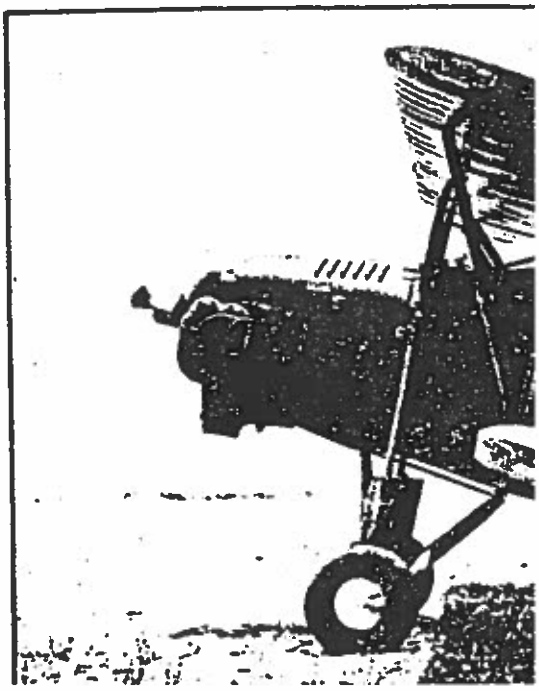
Model A-1: Powerplant, 37-hp Continental A-40: Span, 20 ft; Length, 16 ft 4 in; Height, 5 ft 8 in; Wing Area, 116 sq ft; Empty Weight, 410 lb; Gross Weight, 728 lb; Maximum Speed, 100 mph; Cruising Speed, 85 mph;Land'ng Speed, 35 mph; Initial Rate of Climb, 750 fpm; Service Ceiling, 12,000 ft; Range, 340 miles.

Model A-4C: Powerplant, 65-hp Continental A-65; Span, 20 ft; Length, 16 ft 3 in; Height, 5 ft 8 in; Wing Area, 116 sq ft; Empty Weight, 490 lb; Gross Weight, 780 lb; Maximum Speed, 125 mph; Crusing Speed, 110 mph; Initial Rate of Clim.., 1,5000 fpm; Range, 300 miles.

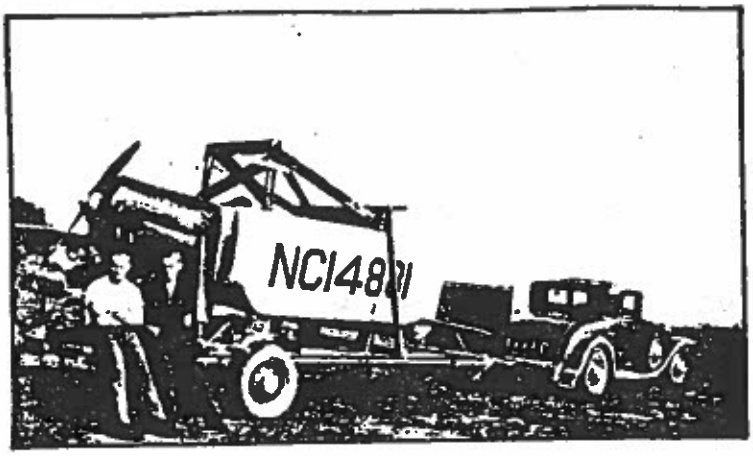


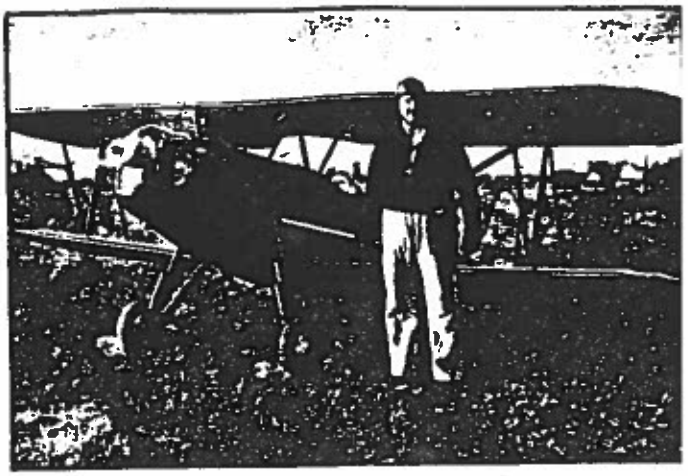
Fifty-horsepower Franklin engine was installed in Model A-2

NC18252 (s/n 107) was last Model A-1 delivered. Note improved cowling, revised rudder. Plane was owned by Navy pilot, hence stripe.

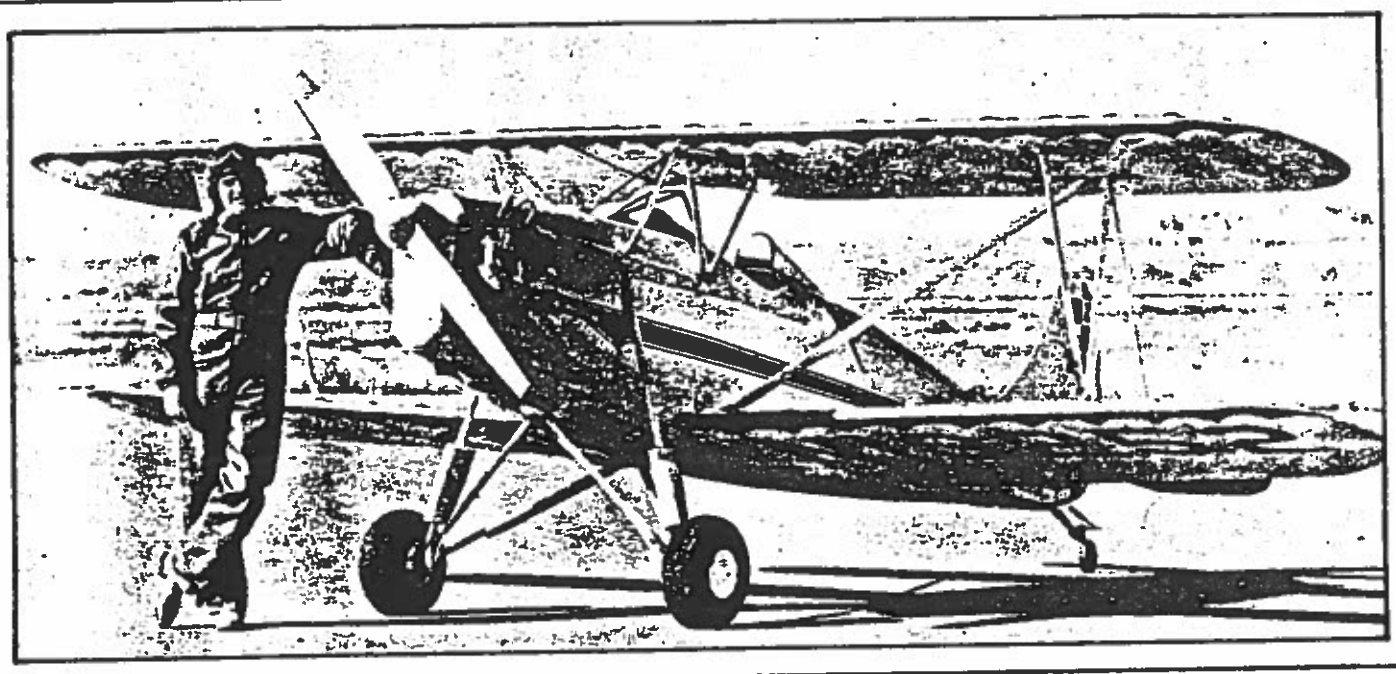


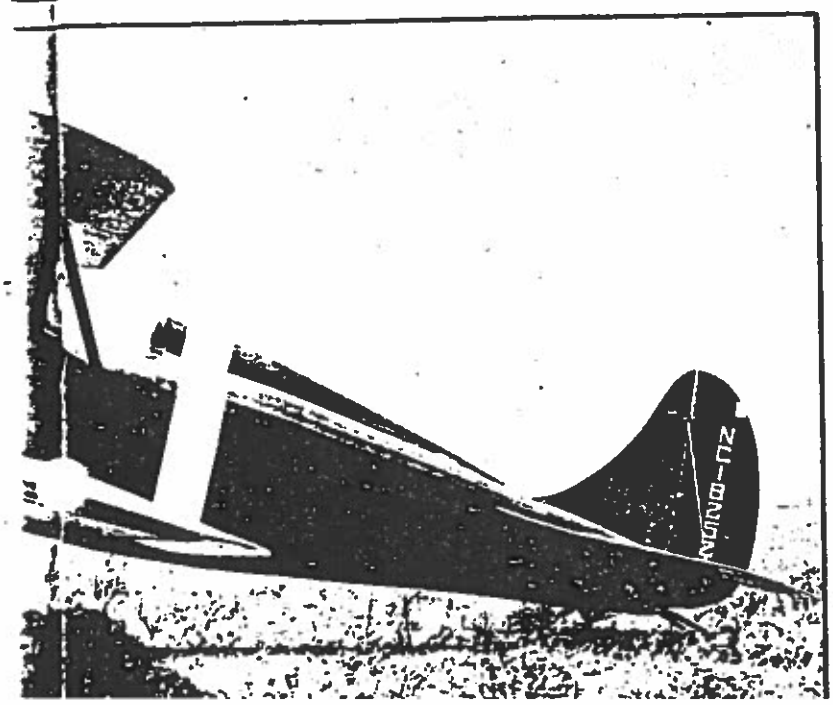
S/n 105 was delivered to W. J. Viau of Los Angeles, in June, 1937. Ship was later sold to famed race pilot Marion McKeen. Ray Milland and other Hollywood celebrities flew Parrakeet regularly.





NX18252 (s/n 107) started life as Model A-2 Parrakeet (50-hp Franklin) in October, 1938. Craft later was fitted with 40-hp Continental and sold in 1940. Current owner is Doug Rhinehart of Farmington, New Mexico.

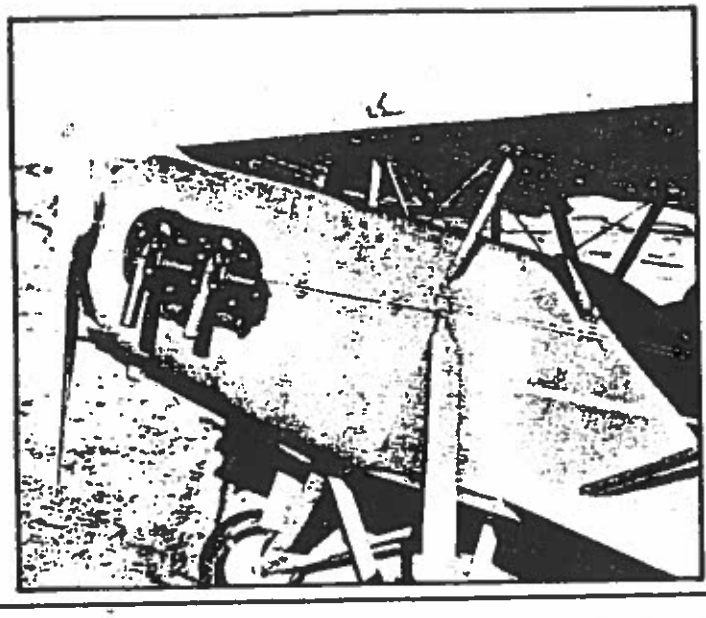


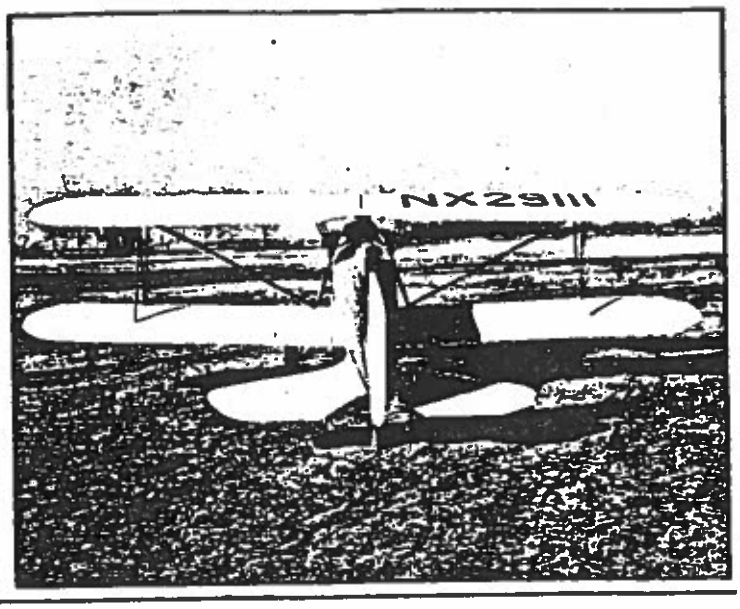


Above: Current owner Doug Rhinehart restored s/n 107 in 1964 and added 65-hp Continental engine.

Jack Rose's experimental Tornado engine developed 53 hp, yet was smaller than 40-hp Continental.

(Please turn page)



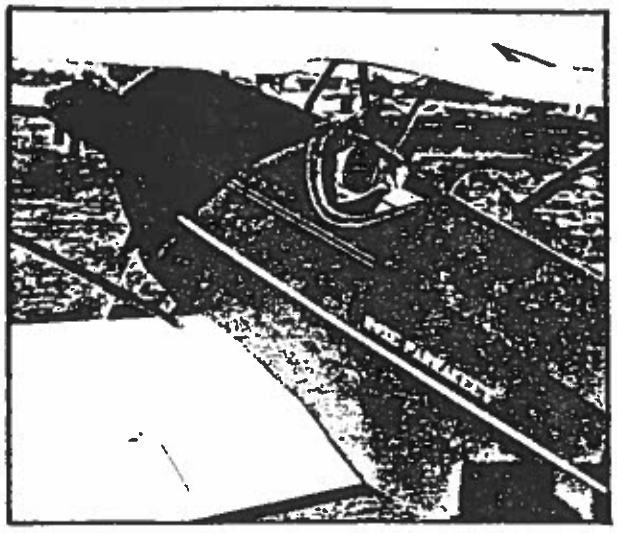


Parrakeet Model A-4C had fuel-injected 65-hp Continental. Prop failure caused fatal crash after Bill Fischer won second place in National Akro Championships with craft in 1948.

N14842 was flown by Dick Owens with the Cole Brothers Air Show. (See SF, Vol. 3, No. 4, April, 1969, p. 14 for Cole Brothers Story.) (Pratt)

(Text continued from page 30)

Parrakeet Model A-4C had fuel-injected 65-hp Continental. Prop failure caused fatal crash after Bill Fischer won second place in National Akro Championships with craft in 1948. Note complex panel. Pictured with plane is engineer Ray Bittner.



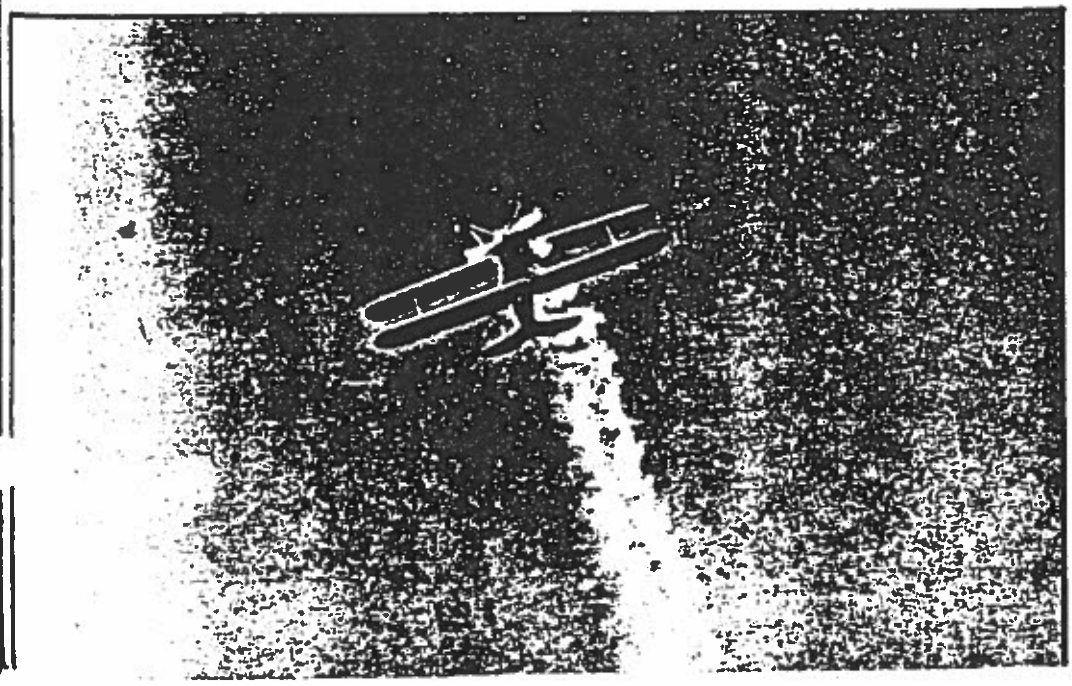
In fact, he had sold out, so he told me, in order to devote all of his time to fighting the Washington bureaucrats. He hated the Aeronautics Department and, to put it mildly, wouldn't have given a Fed the right time of day! However, I was introduced to a young engineer, Bill Stieglitz, fresh out of M.I.T. Bill couldn't find a job in aviation and was anxious to gain experience, so he offered to do a complete stress analysis for Department of Commerce approval. We figured he'd be finished in 90 days.

We completed the test Model A-1, X-13677, early in 1934 and discovered that it was too tail heavy to meet the Department's requirements. I stacked some lead on the engine 'til the airplane balanced and Bill recalculated the c.g. The A-40 had to be moved forward 4½ inches. That solved the balance problem, but we still had to get rid of excess pounds. The empty weight exceeded the estimate by 13 pounds. We discarded the Buhl Bull Pup shock absorbers and made our own. Then we welded up a new motor mount and made a better cowling. After that we scrutinized every structural detail for superfluous ounces. It took us months to trim off 13 pounds.

My own weight at that time was 230 pounds. This eliminated me from flying the official tests, since we were limited to 190 pounds, 'chute included. I called Art Bender, an old acquaintance, and asked him if he would take over the flying chores. Art was skeptical of 37 hp at first, but became genuinely enthused after the first flight. The Parrakeet was really a delightful little airplane to fly.

The Department of Commerce tests were scheduled six weeks in advance. While we were marking time, I loaned the A-40 to a chap who had built a small racing job but couldn't afford a motor. The ship failed to perform as expected and my friend returned from the races as broke as ever. We put the A-40 back in X-13677 and made a few hops just before the test date. To our dismay, the motor cut out intermittently each time. Weeks later we discovered that someone had tampered with the carburetor.

The A-40 was still acting up when the Aeronautics Bureau inspector, Harold Nealy, arrived on the scene. We explained the problem, realizing he had every right to cancel the tests. He advised us to proceed, however,



Doug Rhinehart performs in airshow with NC14881 (s/n 105), 1967.

The Parrakeet Story

(Text continued from page 61)

The Parrakeet Story

since he was unable to return for weeks, perhaps months. The tests took all day and Art Bender did a fine job of flying, despite the engine trouble. Nealy also flew the Parrakeet and declared that it was hard to believe his own performance calculations. "You've got a wonderful little airplane," he said, "even if you do have to nurse the motor." In my opinion, Harold Nealy was one of the few D/C engineers who would go beyond the line of duty in performing his service. He was always most cooperative, a characteristic which contrasted sharply with many of his fellow workers.

We obtained government approval for the Parrakeet in September, 1935, and started building five ships. In the meantime, Continental had increased the A-40 from 37 hp to 40 hp. The C.A.A. told us they wouldn't license the airplane with the 40-hp engine without reviewing the stress analysis. More delays! Another young engineer, Ray Bittner, took over after Bill Stieglitz left and he got the airplane licensed for 40 hp after proving it would take 50 hp. By that time the 50-hp Continental was on the market and the A-40 was obsolete.

While we were being stalled by the C.A.A. in Washington, we made arrangements to manufacture a promising 50-hp three-cylinder radial developed by Guy Poyer. We made the endurance run—50 hours at full throttle—and calibration tests under C.A.A. supervision. The inspector in charge was not an engine man, nor could he even read a micrometer. As I recall, he was most anxious to sell me his Ford at a price which was about double the market value. I didn't buy the Ford and the C.A.A. turned us down on the Poyer.

Originally we listed the Parrakeet at $975 flyaway, Chicago. This was a genuine bargain, since we had to pay Continental $475 each for their engines. Later the Parrakeet's price was raised to $1,475, which was still a bargain. A lot of people reasoned that a 40-hp airplane couldn't be much good. Those who knew otherwise wanted dealerships, with the usual 40 to 50 percent discounts. I personally delivered four Parrakeets to Cal-

more had it not been for government red tape and delays in licensing.

In 1939, the Culver Aircraft Company offered to take all the Parrakeets we could build. Culver agreed to buy a minimum of 50 airplanes the first year and asked for an option on any others we might produce. They wanted the 50-hp Franklin Model A-2, which was then in the final stages of approval. The C.A.A. kept us waiting needlessly for 18 months, however, and by that time the Culver company had changed hands. Beech was in control and they were no longer interested in single-place aircraft. After that, my bank advised me to forget the whole business and get into something I could control, meaning non-government-regulated.

Later, in 1940, we received an order for a 65-hp version of the Parrakeet from Ron Kendall of Des Moines, Iowa. I explained to him that we were unable to deliver a licensed airplane with that much power. Kendall replied that he wanted the ship for exhibition work and would handle the paperwork himself. We had the airplane nearly ready for cover when Kendall informed me that he had failed to secure any kind of license. I was busy with high-priority defense work and had neither the inclination nor the time for another tedious bout with the C.A.A. However, we did submit new engineering data which the C.A.A. approved in about four months and the airplane was eventually licensed.

Shortly before World War II, I built a four-cylinder lightplane engine called the Rose Tornado. It was smaller than the Continental and developed 52 hp at 2050 rpm and 75 hp at 2375 rpm. C. G. Taylor of Taylorcraft once sat all afternoon watching it run on the test stand. He was amazed by the low (2½ gph) fuel consumption. The war came along, of course, and my machine shop was soon fully occupied with other business. The Tornado never went beond the experimental stage.

During the postwar boom in private flying, a Rockford, Illinois, businessman asked me for advice on getting into aircraft manufacturing. His nephew wanted to open a factory in Rockford and he, the uncle, was debating whether or not to back the venture. I told him to send his nephew to see me, which he did. To make a long story short, I told the chap that it would cost at least $250,000 to get in-

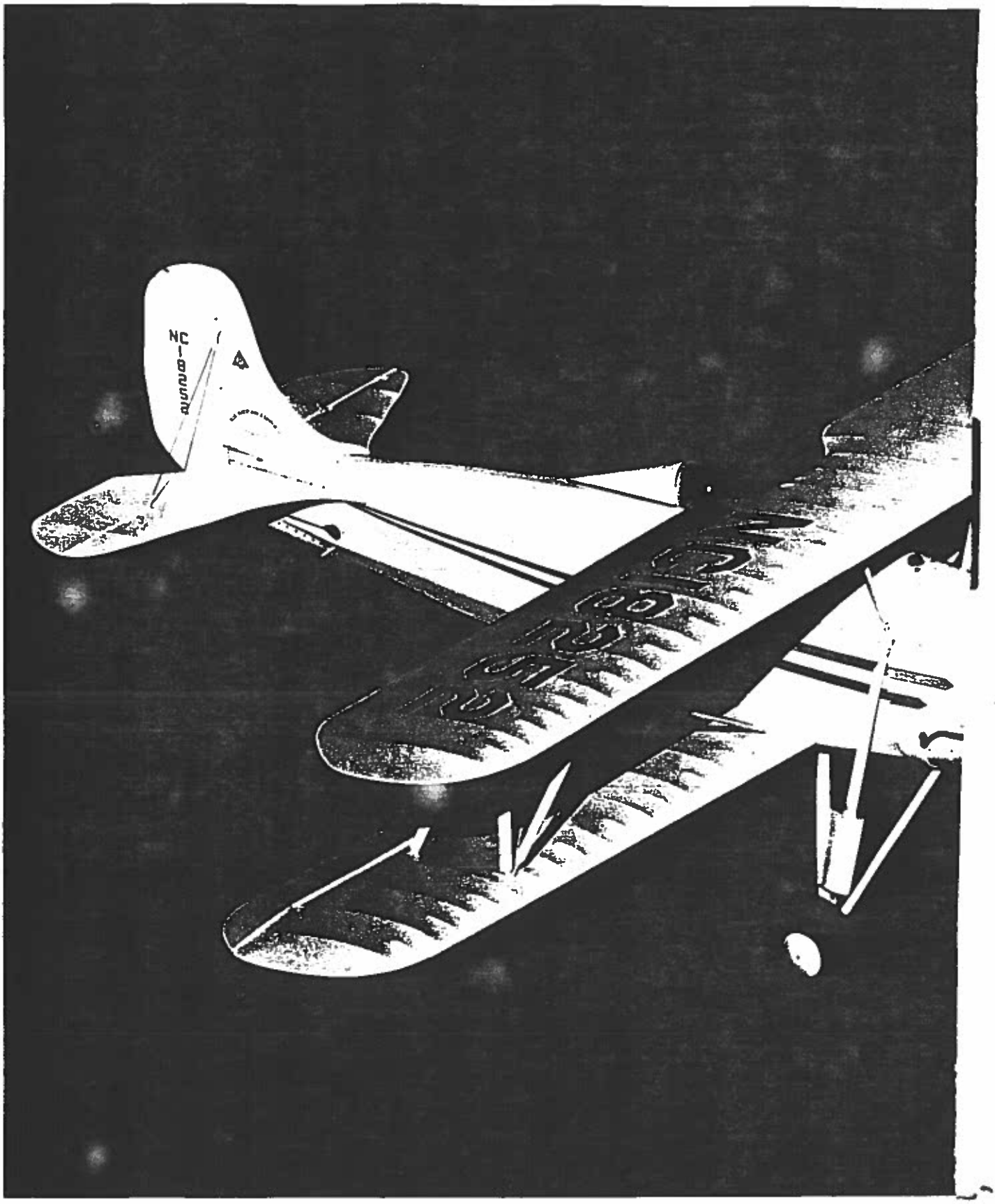
uncle balked, of course, but the nephew still wanted to build planes. The upshot was that I agreed to let him build the 65-hp Parrakeet under license for a royalty of $25 per airplane. He incorporated as Blackhawk Aircraft and rented the second floor of my machine shop in Chicago. I helped him get started by welding up five fuselages myself.

One airplane was finished and passed for covering by the C.A.A. At this point the Blackhawk company decided to move to Rockford, where more space was available. All the remaining working captial went into a new factory building with offices in front. By the time it was finished, there wasn't enough cash left to finish the other four planes.

Soon afterward I received an inquiry from another young fellow who had his eyes on the Parrakeet. He was wealthy and owned several planes. It occurred to me that he might be interested in picking up where the other party had left off, and indeed he was. He subsequently arranged to take over the Blackhawk inventory of unfinished airplanes. I agreed to let production continue under the same royalty arrangement, specifying that the airplane was to remain the "Rose Parrakeet." To my dismay I later learned that the second party had applied for C.A.A. certification on an 85-hp Parakeet under his own name. The necessary blueprints, obtained from the C.A.A. files, had all been copied and the title blocks reflected new ownership. I immediately obtained an injunction against further exploitation of the design.

Altogether, ten Parrakeets were completed under my supervision, including the original Model A of 1931. We sold six Model A-1s with Continental A-40 engines during the 1936-40 period, plus one without an engine. This airplane was delivered to Leland L. Scott (Scott Motors) of Kansas City, who used it to test an experimental 2-stroke twin. The one-and-only Franklin-50 job was later fitted with an A-40 and sold as a Model A-1. The last two were the aforementioned 65-hp jobs. I believe two of the four unfinished airplanes were later completed and licensed with 85-hp Continentals, but were not registered as Rose Parakeets.

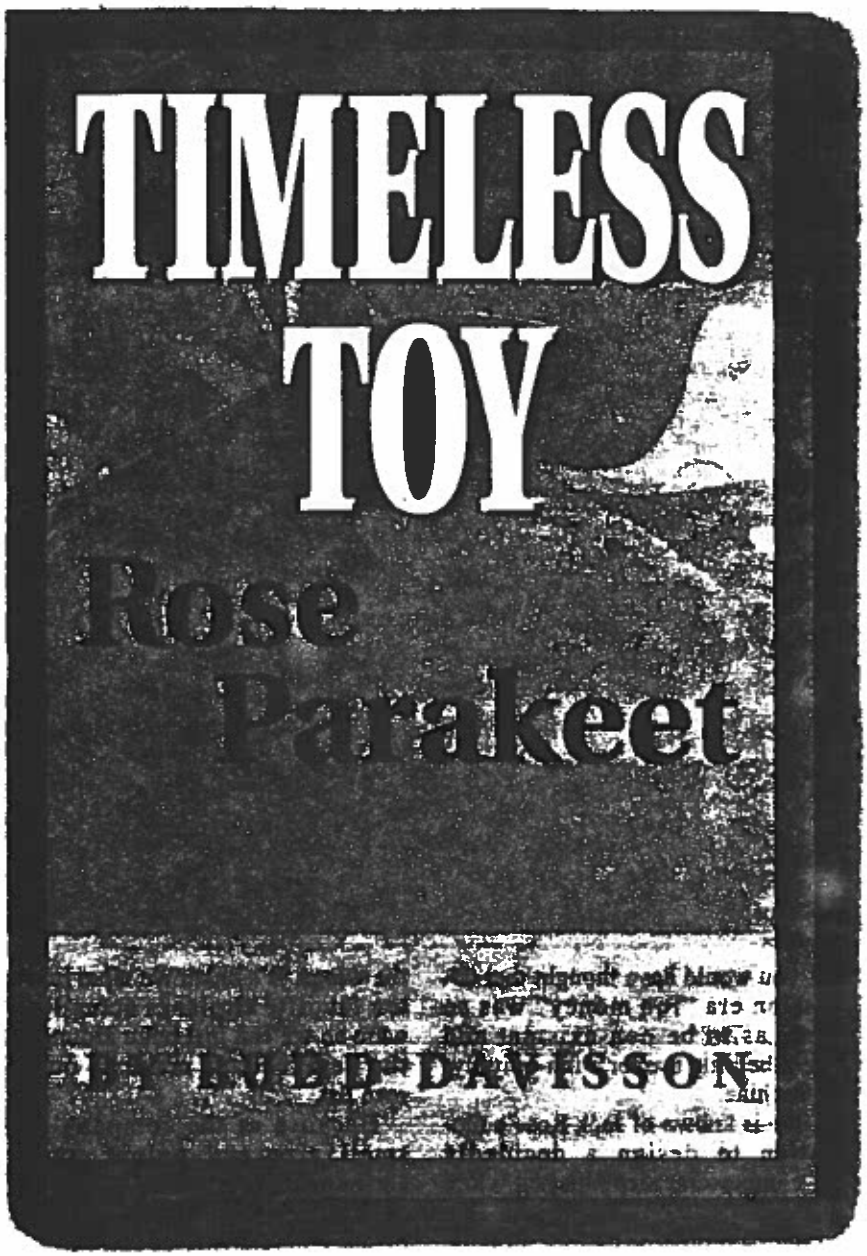
Editor's Note: At the time of writing, Mr Rose was in the proces of converting a VW engine for possible aircraft applications.



34 JANUARY 1999

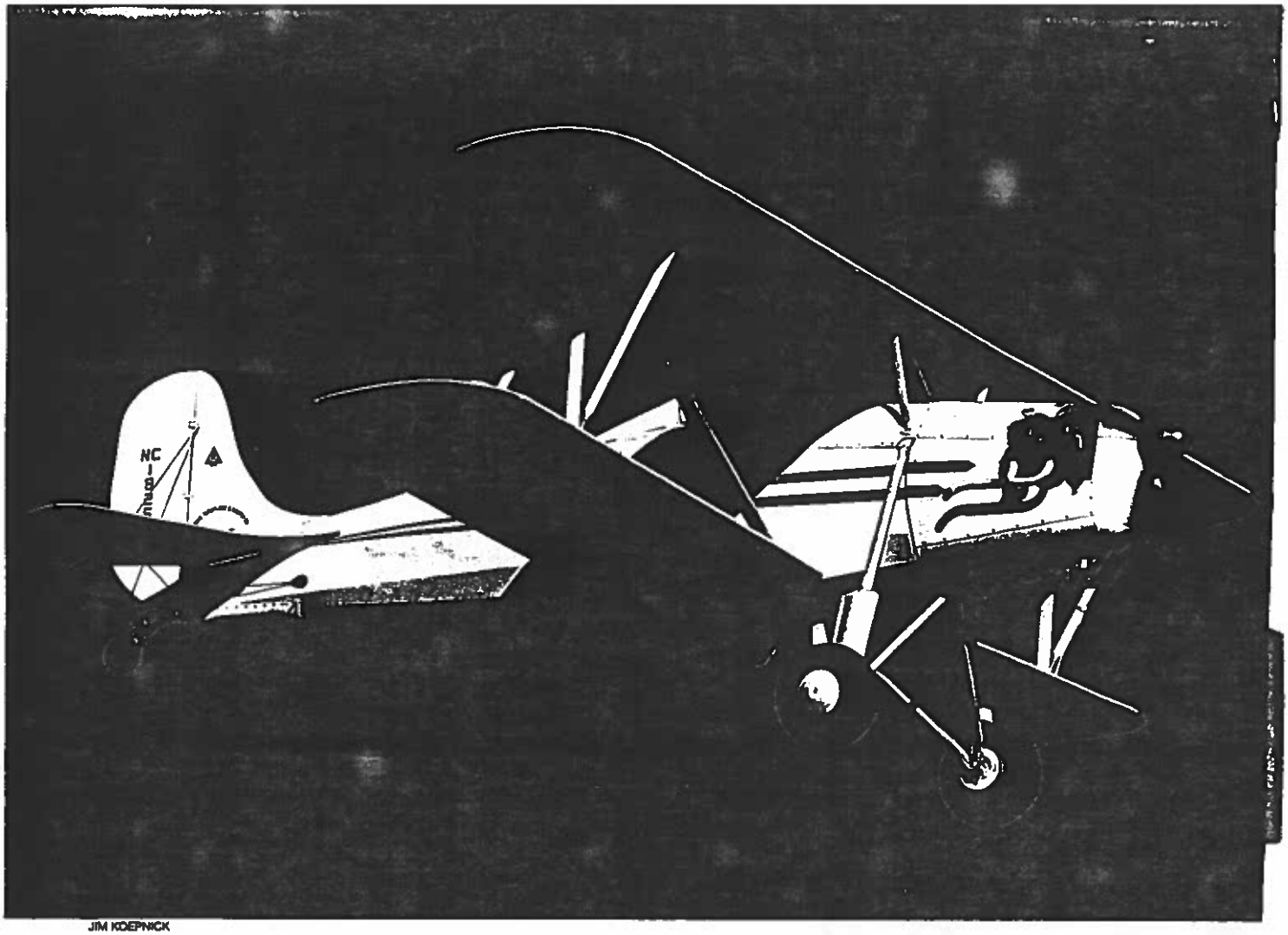
TIMELESS TOY

Rose Parakeet



There was a time when certification wasn't a hopeless burden. It was a time when the authorities had a sense of humor and aviation was still more of a calling than a business. The Rose Parakeet was born into that time. A happy little bird, a surprising number of the few certified have survived to remind us of fun times past. Harold Steiber of Brownwood, Texas doesn't have to be reminded of those times. He has a Parakeet that is constantly chirping to remind him.

The Rose Parakeet is one of those antiques that doesn't seem to fit the mold, if nothing else because of its tiny size. Most airplanes of the era dwarf its 20 foot wing. The airplane also seems as if it would have been out of step with the time of its birth because it's obvious it wasn't being built to serve any other purpose than having fun. Most airplanes of the era were intended to be either trainers or working machines. While fun was a recognized ingredient of avia-



JIM KOEPNICK

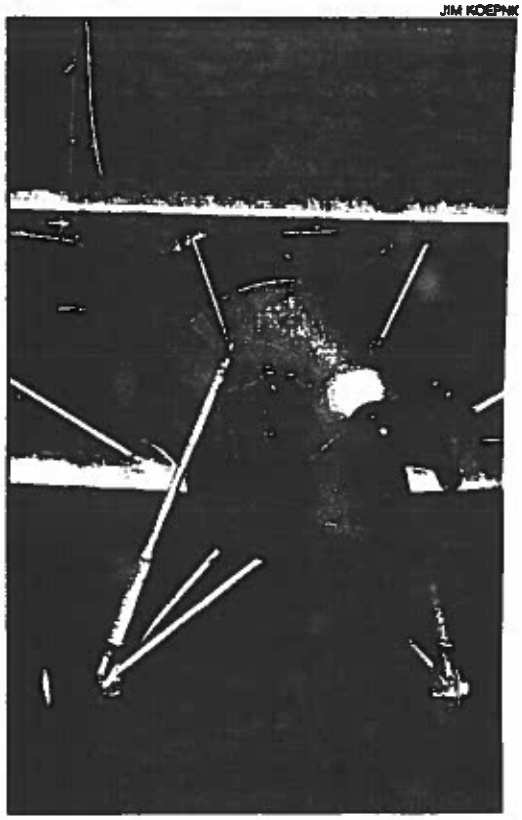
tion, you would have thought that depression era "fun money" was so scarce as to be non-existent and there'd be little use for a fun-only flying machine.

Little is known of Jack Rose's motivation to design a decidedly non-commercial airplane just when the depression was its deepest. He had built a prototype parasol airplane in 1931, so he knew about market problems and what it took to build an airplane. Still, he moved ahead and had the Parakeet flying by 1934. At the time, he was using what was being praised as the best and most efficient light airplane engine built to that date, the flathead, Continental A-40 of 37 horsepower.

Reportedly part of Rose's design philosophy was that the airplane would include features of his ten favorite airplanes. This accounts for the vaguely Fairchild-like tail and STA nose. The landing gear shows a little Great Lakes influence (or maybe RNF Waco) and there is some Bücker in the wings. It's unknown what his ten favorite airplanes actually were so we can just poke around the Parakeet and make up our own list.

Because of the company's small size and output, the Chicago-based Rose Airplane Corporation doesn't occupy a lot of space in reference books. Most references, however, agree that Jack Rose's total production was eight finished airplanes with one partially-built airframe going to Hannaford, who bought the company from Rose. All eight Rose Parakeets were built in the 1936-1940 time frame. The subsequent owner, Hannaford, had planned on building airplanes right after the war, but according to Jim Hayes, who lives next to Harold Stieber in Brownwood, Texas and infected him with Parakeet fever, Hannaford never actualy built any airplanes.

Of the original eight airplanes,



JIM KOEPNIK

DEKEVIN THORTON

Harold Stieber

warbird pilot and duster, Lefty Gardner. He was 24 when he soloed a Cessna 150 but knew that wasn't the kind of airplane he wanted to continue flying so he bought a 1941 Aeronca Chief. He laughs when he talks about his first flight in the airplane with no training.

"I skipped and bounced around on the landing and ground looped it three times in different directions on the same landing without ever getting a wingtip. That's when I decided I needed more training."

He's owned a number of airplanes one of which is notable as it was a J-3 Cub built on Friday, December 5, 1941: it was the last Piper built before WW-II.

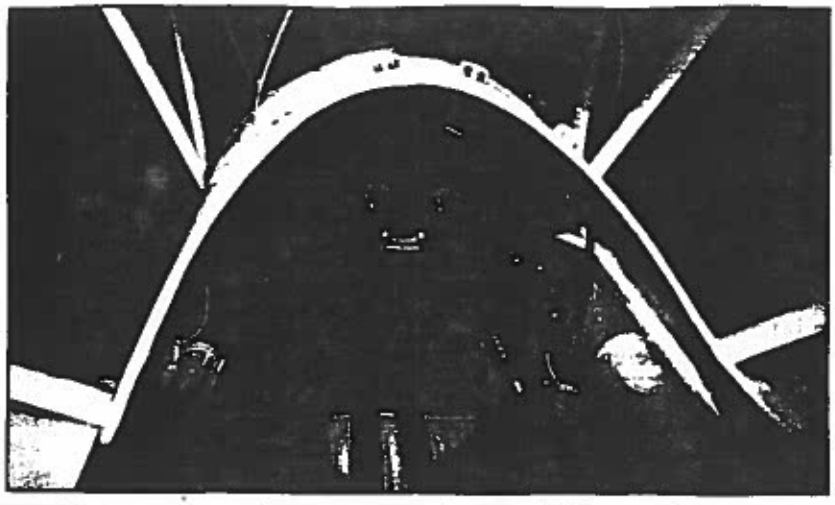
Stieber has restored or refurbished a number of aircraft which started with a Bowers Fly-Baby. It was a complete

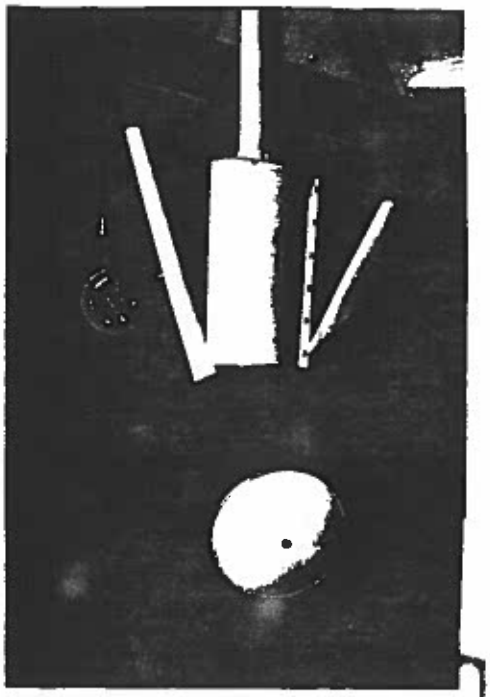
Stieber has #108, and Jim Hayes has been threatening to get #102 flying for some time. Number 109 was destroyed and several others are known to exist. Of the original airplanes, a number are un- accounted for and only two are known to be flying. As small as they are, a disassembled Parakeet wouldn't take up even a corner of an old attic. Makes you want to start looking, doesn't it?

Hannaford reportedly sold a few plans sets after the war but it wasn't until Doug Rhinehart bought the rights in the 1960's that any more Parakeets left the nest. Even then, however, they didn't exactly flock into the air. Rhinehart reportedly built and certified five airplanes, 1969 through 1975, all of which, are said to still be flying. Incidentally, the airplane was originally certified under an old CAA Group Two Memo. This was a slightly relaxed form of certification which apparently included less stringent testing in view of the Parakeet's rather limited passenger carrying capabilities.

Harold Stieber had always wanted a Parakeet. Always. Born in Sheboygan, WI, Harold says his was "a family of fliers." His dad had been a 35 mission B-17 pilot and all of his brothers flew in one form or the other. Stieber's first flight was at the controls of a DC-3 when he was ten years old with his dad who was an FAA inspector at the time.

He eventually moved to Texas where log book entries for his early flight training include the well known





DEKEVIN THORTON PHOTOS

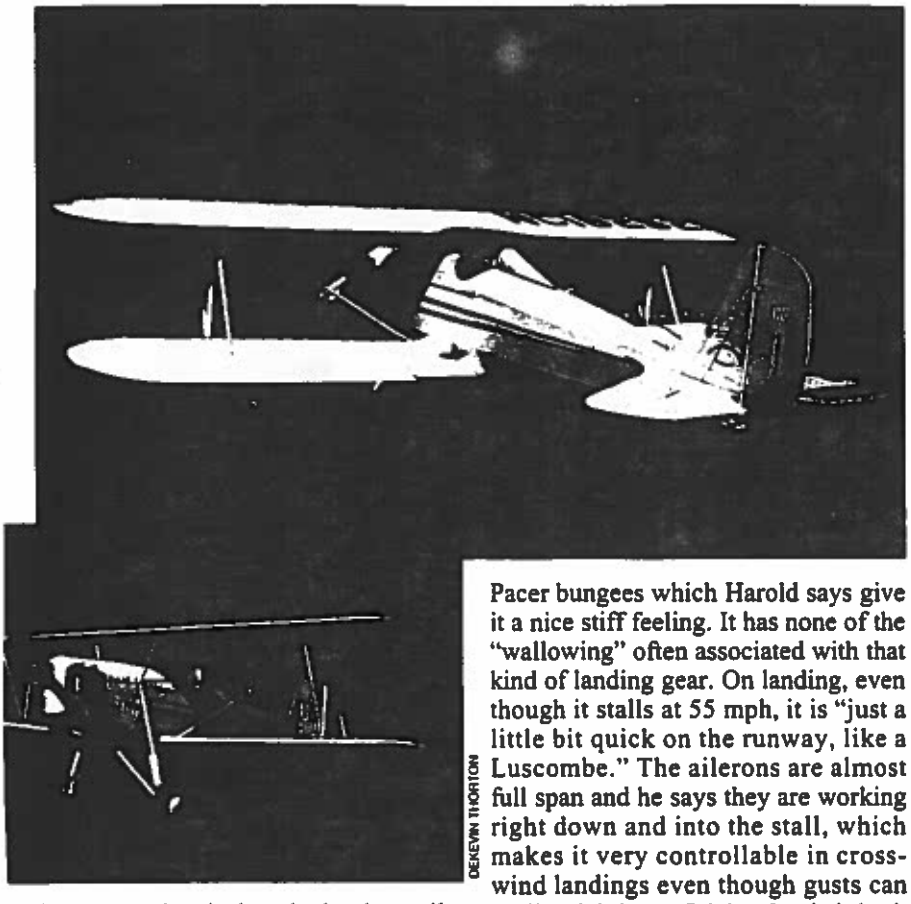
airplane but Stieber went through it and totally restored it. His A-65 powered Pietenpol had been built by Bob Rowe and he then did a ground-up restoration of a Luscombe 8A. He points with pride to the fact that every one of his airplanes has won best of show at the local fly-in. It was at this point in our conversation that he made a comment he begged us not to repeat, but you know how untrustworthy writers can be. He said, "I'm going to win Oshkosh with the J-3 I'm restoring."

Well, Babe Ruth pulled it off when he pointed at the far wall, so why not Harold Steiber? Everyone needs a goal. Stieber, however, pointed out that besides having the desire and the vision, he also needs a set of smooth 8.00x4 tires as he only has one. Even the Babe needed the right bat.

Harold makes his living with a string of dry-cleaning plants but is also developing a fly-in community two miles due east of the Brownwood, Texas airport. It's known as Flying S Ranch.

Stieber's Parakeet was restored by Marvin Bein who owned the airplane for ten years. Harold would periodically call and bug him about the airplane, but to no avail. Finally, Bein decided to sell it and Stieber had his Parakeet.

When Jack Rose designed and built the Parakeet, he knew he had a good engine, but it still was limited in its output. Thirty-seven horses aren't a lot and they were often unhealthy



DEKEVIN THORTON

horses, so the airplane had to be really light. For that reason, he built his own super light weight wheels. It had no brakes and utilized a tail skid. Stieber's airplane has a much better finish than the originals ever had, as well as having modern brakes (if you consider straight-axle Shinns modern), normal wheels and a tailwheel. In addition, the much more powerful A-65 carries with it a weight penalty over the A-40. Even so, the airplane barely tips the scales at 560 pounds which sounds amazingly light until looking at the original specs. The references all say the original airplanes weighed in at a dainty 470 pounds. Now there's a weight goal for new designers to shoot for.

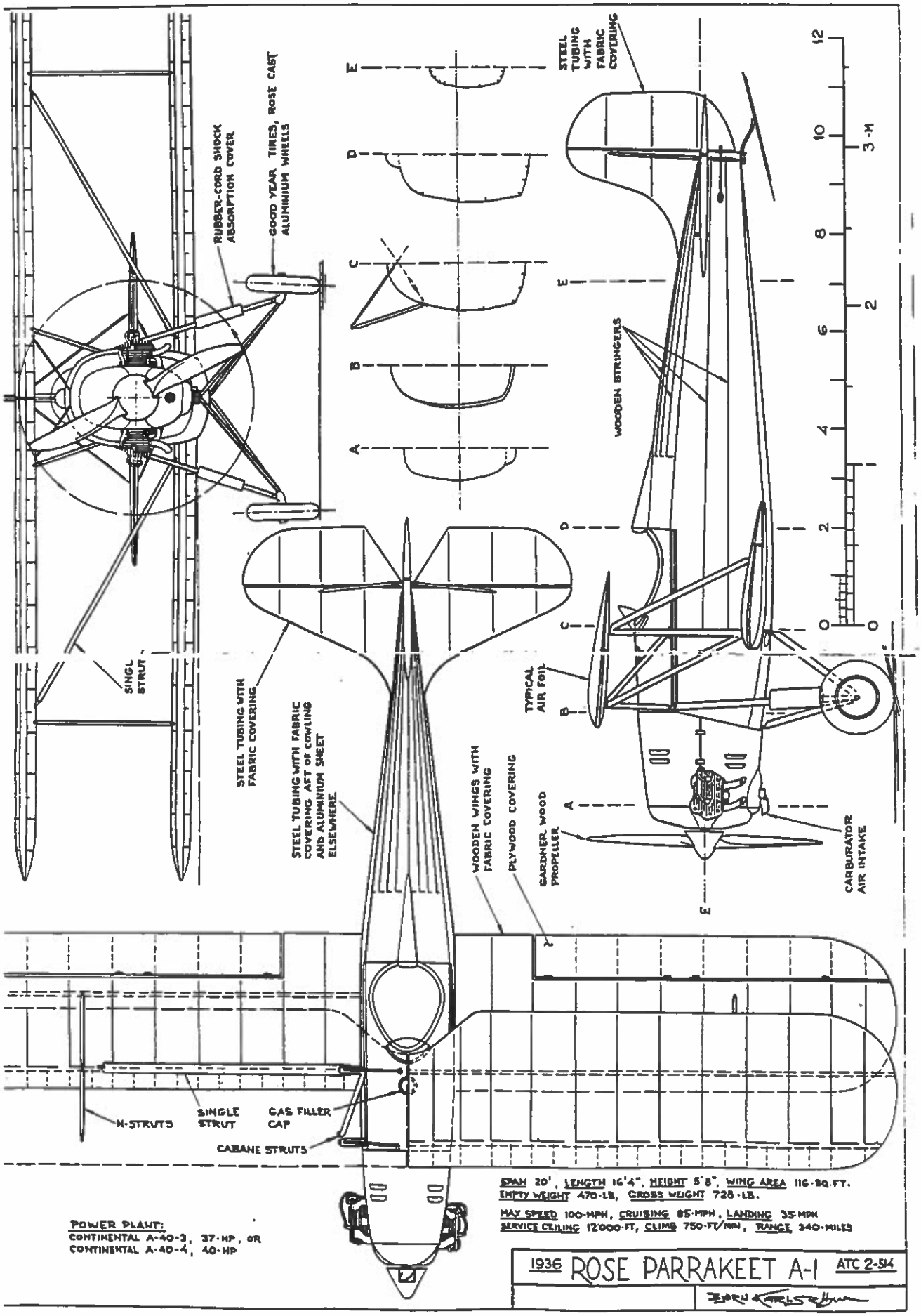
Since owning the airplane Stieber says that other than flying it, the only work he has had to do is a little paint touch up here and there.

As far as flying, he says it flies at least as good as it looks. He sums up its flying characteristics by saying it takes off like a Cub and lands like a Luscombe. With the A-65 it really scoots along when the throttle is pushed forward. The outrigger Lakes type landing gear is sprung by Tri-Pacer bungees which Harold says give it a nice stiff feeling. It has none of the "wallowing" often associated with that kind of landing gear. On landing, even though it stalls at 55 mph, it is "just a little bit quick on the runway, like a Luscombe." The ailerons are almost full span and he says they are working right down and into the stall, which makes it very controllable in cross-wind landings even though gusts can easily pick it up. Stieber lands it both three-point and on the mains and says the wheel landings are super-direct and no-sweat because of the stiff landing gear.

In the air, he reports it is more Luscombe than Cub and when it stalls it has a slight break with only a little roll. On the long flight up from Texas he had a chance to double check speeds and verified that the airplane cruises at 95 mph at 2,150 rpm and about 4 gallons per hour.

An awful lot of people mistake the Parakeet for a homebuilt and, in fact, there are a number of them flying. Considering the recent trend in which we are seeing more and more antiques being replicated, this is one antique that would make that task relatively simple. Okay, so it's only single-place. But, it's so small you could build two in the amount of time it takes to build something like a two-place Waco which would then give you two seats.

In the meantime, Harold Stieber is out there enjoying what has to be one of the cutest, most fun flying machines from a golden era of aviation. And we're all just a little bit jealous. ◆



POWER PLANT:
CONTINENTAL A-40-2, 37-HP, OR
CONTINENTAL A-40-4, 40-HP

SPAN 20', LENGTH 16'4", HEIGHT 5'8", WING AREA 116-SQ.FT.
EMPTY WEIGHT 470-LB, GROSS WEIGHT 728-LB.

MAX SPEED 100-MPH, CRUISING 85-MPH, LANDING 35-MPH
SERVICE CEILING 12000-FT, CLIMB 750-FT/MIN, RANGE 340-MILES

1936 ROSE PARRAKEET A-1

ATC 2-514

BJORN KARLSTROM

EAA AVIATION CENTER
P.O. BOX 3086
OSHKOSH, WI 54903-3086

PHONE 920-426-4800
FAX 920-426-4873

ROSE PARAKEET ARTICLES IN EAA PUBLICATIONS

(Biplane)

YEAR	MONTH	PAGE	MAG.	TITLE
91	04	24	EXP	History of Rose Parakeet
91	04	C, 02	EXP	Springer award-winning Parakeet
91	05	05	EXP	Parakeet plans available
91	06	38	EXP	Sweat Rose Parakeet (has plans, parts...)

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Information

The holder of the type certificate for the Rose Parakeet is the estate of Jack Rose and the Executor for the estate is Linda Nierenhausen, 1036 Briar Cliff, Rantoul, IL 61866, telephone (217) 893-1532. This is the only legitimate source of plans to the aircraft. We also understand that Ed Sweat, 612 E. LaPlata Street, Farmington, NM 87401 also had been selling plans at $150/set. At this time there are five aircraft built from the factory known to carry N numbers. These aircraft are as follows:

N Number	Serial #	Owner
N1367G	101	Owner unknown
N14842	102	Dorr B. Carpenter, 225 Saunders Rd., Lake Forest, IL 60045
N14843	103	John L. Anderson, 308 S. Lake, Farmington, NM 87401
N14881	105	D.C. Rhinehart, 105 S. Behrend, Farmington, NM 87401
N18252	107	Jerry L. Wilson, 16170 NW Jenne Lake Ct., Beaverton, OR 97006
		Merwyn Taylor, W5499 Greening Rd, Whitewater, WI 53190-4030

Information Services
RosePara
11/94

ROSE PARAKEET ACCIDENTS/INCIDENTS

NOTE: This information is compiled from FAA accident reports, which are reported to the EAA daily.

DATE	CAUSE
08/30/69	Meyers OTW overran Rose Parakeet, which was in #1 position for takeoff, substantial damage, no injury.
09/07/69	In turn started to spin, recovery made, tail caught power line and aircraft flipped to ground. Extensive damage, no injuries.
01/30/77	Failed to recover from bad landing, ran up runway through a fence and nosed over. Substantial damage, no injuries.
07/17/80	Left wheel brake locked landing, substantial damage, no injury.
06/03/86	Lost control landing. Substantial damage, no injuries.
08/26/94	N163MS ground looped and flipped upside-down, Fernandina Beach, FL. There was substantial damage to the aircraft and no injuries to the pilot.
06/02/95	N2125 A homebuilt Rose Parakeet collided with terrain during its forced landing near Tuscaloosa, AL. Tower controllers reported that the pilot was cleared for takeoff on Runway 11. They said that they saw the aircraft make a left turn after departure. It appeared to be returning to land on Runway 29. They tried to clear the pilot to land on that runway but he did not answer. The aircraft then collided with terrain roughly 300 ft. short of the approach end of Runway 29. The pilot made no statement after the accident and has not returned telephone calls from investigators. The aircraft's propeller did not show any signs of chordwise scratching or twisting toward low pitch. The aircraft was substantially damaged and the airline transport pilot/owner received minor injuries. (N) THE PILOT STATED THAT HE HAD BEEN INVOLVED IN AN INCIDENT WITH THE AIRCRAFT DURING A FLIGHT THE PREVIOUS WEEK. HE SAID THAT THE AIRCRAFT VEERED OFF THE RUNWAY AND STRUCK A RUNWAY SIGN DURING A LANDING ATTEMPT. HE SAID THE ONLY VISIBLE DAMAGE TO THE AIRPLANE WAS A SCUFFED MARK ON THE LEADING EDGE OF THE LEFT LOWER WING. HE DID NOT HAVE AN AIRFRAME MECHANIC LOOK AT THE AIRPLANE PRIOR TO THE ACCIDENT FLIGHT, AND THE ACCIDENT FLIGHT WAS THE FIRST FLIGHT AFTER THE INCIDENT. DURING THE ACCIDENT FLIGHT, HE SAID THAT EVERYTHING WAS NORMAL UNTIL ABOUT 200 FEET AGL. HE SAID THE AIRCRAFT ABRUPTLY ROLLED TO THE LEFT,AND YAWED TO THE RIGHT. HE SAID THAT HE COULD MAINTAIN STRAIGHT FLIGHT WITH FULL DISPLACEMENT OF THE CONTROLS TO THE RIGHT, BUT THAT HE COULD NOT TURN TO THE RIGHT. HE MADE A SHALLOW LEFT TURN TO RETURN TO THE AIRPORT, BUT COULD NOT ARREST THE TURN WITHOUT REDUCING POWER TO REDUCE TORQUE. AFTER REDUCING POWER, HE COULD NOT MAKE IT BACK TO THE AIRPORT, AND CRASHED INTO THE TERRAIN SHORT OF THE AIRPORT. EXAMINATION REVEALED THAT THERE WAS AN OLD FRACTURE IN THE LEFT LOWER WING LEADING EDGE BOW, AND PIECES OF THE BOW WERE MISSING. **The National Transportation Safety Board determines that the Probable Cause(s) of this Accident was:** The pilot's inadequate preflight. Factors in the accident were the previous wing damage, and the obstruction of air flow over the aileron.

ROSE PARRAKEET DRAWING NUMBERS

1000	Three View Drawing
902	Fin and Rudder
903	Stabilizer and Elevator
904	Turtle Deck
1001	Upper Wing
1002	Lower Wing
1003	Engine Mount (Old)
1008	Spar Fittings
1009	Root Section
1010	Strut Fittings
1011	Fittings
1012	Fittings
1013	Fitting Strap
1014	Fitting Lugs
1015	Fitting Strap
1016	Fabric Covering
1017	Firewall - Cowling
1018	Cowl - Nose Piece
1019	Firewall - Cowl
1020	Floorboards
1021	Struts
1022	Control Stick - Rudder Pedals
1023	Controls
1024	Gas Valve - Exhaust
1025	Gas Tank
1026	Gas Tank
1027	Gas Tank
1028	Fuselage Fittings - Shock Strut
1029	Axle - Shock Strut
1030	Ailerons
1031	Power Plant - Brakes
1032	Landing Gear
1004	Rib
1004-A	Rib
1007	Fuselage
101	Cockpit Wood
102	Engine Mount
102-A	Engine Mount - 2-Views — part drawing
ES1	Belly Stringers
ES2	Gear Opening
ES3	Belly Stringers (Front View)
ES4	Fuselage Wood (Side View)

Damaged Dwgs -
with Ale Hose

1025-5
1031-2
1028-3
1022-3 control stick

ROSE PARRAKEET DRAWING NUMBERS

1008 (-2-4-5-6) - Rear lower spar outer
1008 (-1-3) Fabric Rear upper spar
*1009 (-1-3) Fit lower spar Rear
*1009 (-2-4) Rear upper, lower Rear
1010 (-2-4-5) - Fuselage
Fort Change upper spar - 1010 *(-1-3) - under strut - Rear upper spar
1011 (-3-6) - Blocks
new 1011 (-2-5-8) See 1012-2-7
1011 (-1-4-7) - ? Fit upper spar
1012 (-3-6) —
? 1012 (-2-5-8) — Rear Filler
1012 (-1-4-7) — ? upper spar
— *1013 (-3-6) - Front Fit upper spar
1013 (-2-5-8) — Front lower spar
1013 (-1-4-7) - Blocks
New pillow Block Dwg = 1014 & 1023-1 *Tongue Horn Brkt
1014 (-2-3-5-6) - Fit upper spar
See 1015-3 - 1014 (-1-4-7) - Aileron strut upper spar
1017-1 - cowling
1017-2 * Firewall
1016-2 - Fabric Layout
1016-1 - Panel
1024 - (-1-2-3-4) Fuel system
1024 - (-5-6-7-8) - Exhaust valve
1023-2 * control layout
1023-3 * stick controls *
1029 (-1-3) Front spar Fit Top Long.
1026-2 - Tank Bottom
1026-1 - Tank top
1020 - (-2) Fitting wing rear upper spar Strut, Flying wire
1020 (-1-3) Wing Rear upper Lower Beams
1021 (-2-4) - struts
1021 (-1-3) - struts, Flying strut
Aileron change 1030 (-2-3-4) - *Aileron op. Rig.
1030-1 - AXLE - Brake
1029 (-2-4) shock strut
1019-3 - * Fuselage front side
1022 (-5-6) - Throt. cowl, stick
Drawings [1025 (-3-4-5) + Tank Fittings cross
1025-1 - Gas tank & cap & strap
1025-6 - Gas tank Fit End.
[1031-2] - Brake syst - missing drawing plate
→
*1031-1 - new Engine Just
1004-A - Tip Rib
See Engine unit: 1000-1 - Engine mount (Hammond)
1003 - seat

(18 x 24)

1015-1 - Drag wire Block - hinge
1015-2 * Aileron arrangement rear upper spar
1015-3 - Fitting strut outer strut rear upper spar wing Incidence Angle
1019 * Rigging - (See Also 1030)
1019-1 * Firewall
1019-2 - Throttle
1022-1 — Aileron torque tube insert
1022-2 — (11 x 17) - Aileron ope. tube cross Bearing
1-22-3 - Number obliterated by mice
1022-4 - Rudder pedal & shaft
1025-2 — Gas tank - Rear
1028
1028-1 — Fuse Attach - Rear L.G. strut
1028-2 * Fuselage Attachment Fitting Rear lower spar *
[1028-3] - (Fuse Attach Rear & cabane) [Damaged]
1028-4 — Fuselage Attach Fitting - Front L.G. strut
1028-5 * Fuse Attach Front lower spar
1028-6 - Tail Brace wire & tail skid fittings
1028-7 - Front cabane - shock strut Attach
1028-8 - Fuselage Attach Fit cabane & shock strut
1032-1 - Landing Gear detail.
1-32-2 (18 x 36)
1015-4 - Spar plate Blocks

1000 - 3 view
902 - Fin & Rudder
903 - stab & elevator - see ES-10
904 - Deck Bulkheads - Same as Hammond.
1001 upper wing (24 x 36)
1002 lower wing -
1018 - cowling new - Half Hammond - Half Pleschner
1027 - Gas tank
1004 - Ribs - 1/1004 (Clark Airfoil ?)
[1007] - Fuselage welding - [Damaged]
101 - wood Filler blocks
102-A
ES1 * Bottom View - Gear Fitting opening to stringer
ES2 - Bottom (photo) Gear Fitting opening
ES3 * Bottom Former Strs B
ES4 — Bottom Filler wood Blocks - *
ES5 — AXLE *?
ES6 — Rudder pedal
ES7 — Inst. Panel - new

ES9 - Shock strut cuff ends
[ES10 - Tail Brace wires Attach - * (Damaged drwg)

→ Engine mount - No # —

I compared these drawings with the Hammond drawings - very similar - most of them drawings are identical. I bought these plans from another individual - mice ate some of the sheets badly -

HANNAFORD-ROSE PARAKEET
DRAWING LISTING
BILL OF MATERIALS

DRAWING/TITLE

901 Fuselage Structure (Cage section BB on DWG. 1032)

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
4130 Steel	Tubing	0.065x7/8"
	1'	
	0.049x1/2"	2'
	0.035x3/4"	7.2'
	0.035x5/8"	56.5'
	0.035x9/16"	3.7'
	0.035x1/2"	44'
	0.035x3/8"	17.1'
	0.028x5/16"	1.1'
	Sheet 0.049"	0.1'Sq
	0.065"	0.1'Sq
Spruce	Strip 1/8x1/2"	90'
Hardware	Bolts An3-6	2
	Nuts An515	4
	Screws No.8/Nuts	Misc.

DRAWING/TITLE

902 Fin and Rudder

902-1 Fin
902-2 Rudder
902-3 Rudder Horn
902-3A Gusset
902-4 Hinge
902-5 Wire Lug
902-6 Hinge Bracket
902-7 Bracket
902-8 Hinge Bracket

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
4130 Steel	Tubing	0.058x7/8"
	0.5'	
	0.035x5/8"	8'
	0.035x1/2"	4.5'

	0.035x1/4"	13.5'
Sheet	0.065"	1'Sq
	0.049"	1'Sq
	0.035"	1'Sq

DRAWING/TITLE

903 Stabiliser and Elevator

903-1 Stabiliser
903-2 Elevator
903-3 Elevator Horn
904-4 Wire Lug
904-5 Wire Lug
904-6 Brace

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Tubing	0.035x5/8"
	27'	
	0.035x1/4"	25'
	Sheet (Material covered in 902)	

DRAWING/TITLE

904 Turtle Deck and Bulkheads

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Sheet 0.035"	Misc.
Aluminium (Unspec)	Sheet 0.032"	3.5'Sq
Spruce	Cap Strip 3/16"x6'10"	11
Plywood (Unspec)	1/4"	1.5'Sq
	1/8"	0.5'Sq

DRAWING/TITLE

1001 Upper Wing

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Tubing 0.028x3/8"	15'

Aluminium (Unspec)	Strip 0.032x2"	13.5'
Spruce	Front Spar 5/8"x3"x9'10"	2
	Rear Spar 1/2"x2-3/8"x9'11	2
Birch	Strip 0.475x1.44x8'6"	2
Mahogany	Ply 3/64"(22"x20")(2)	6.5'Sq
Hardware	Tie Rods 6-40x28-1/2"	4
	6-40x30-3/4"	12
	6-40x34-1/4"	4

DRAWING/TITLE

1002 Lower Wing

1002A Torque Tube
1002B Operating Tube

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
4130 Steel	Tubing 0.049x5/8x6'4"	2
	0.035x5/8	0.1'
	0.028x3/8	7'
	Sheet 0.035, 0.049	Misc.
Aluminium (Unspec)	Strip 0.032x2 (Include. Aileron)	16'
Spruce	Front Spar 5/8"x3"x8'10"	2
	Rear Spar 1/2x2-5/8x9'	2
	F.Spar 1/4x2-11/16"x7'6"	2
Birch	Strip 0.475x1.44x7'10"	2
Mahogany	Ply 3/64"(20x22)	6.5'Sq
Hardware	Tie Rods 6-40x26-3/4"	4
	6-40x32-3/4"	8
	6-40x34-1/2"	4

DRAWING/TITLE

1003 Engine Mount and Cockpit Seat

MATERIAL	**SIZE/CONFG.**	**QUANTITY**

Engine Mount

4130 Steel	Tubing	0.058x5/8	0.5′
		0.049x3/4	5.5′
		0.049x5/8	9.1′
	Square	0.058x5/8	0.2′
		0.049x5/8	5′
	Sheet	0.049, 0.065	Misc.

DWG. 1003 Cont.

Seat

4130 Steel	Tubing		0.035x1″
	2′		
		0.035x1/2	11′
	Sheet	0.093	Misc.
	Strip	0.035″x3″	2.5′
Aluminium 1/2 Hard	Sheet	0.032	7.5 Sq.

DRAWING/TITLE

1004 Rib Details

1004-1 Full Rib 24 Req.
1004-2 Compression Ribs 22 Req. (See DWG's. 1012,13,14)
1004-3 Rib at Aileron 14 Req.
1004-4 Upper Wing Tip Rib 2 Req.
1004-5 Lower Wing Tip Rib 2 Req.
1004-6 Aileron Rib 16 Req.
1004-7 Upper Wing 2nd Rib From Root 2 Req.
1004-8 Upper Wing Root Rib 2 Req.
1004-9 Upper Wing 1st Rib From Root 2 Req.
1004-10 Nose Rib 44 Req.

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
Spruce	Cap Strip 3/16″ (Longest 40″ app.)	982 Ft
	Sheet 3/16	4′Sq.
Mahogany	Ply	3/64
	60′Sq	
	1/8	4.75′Sq
	1/16	3.5′Sq

DRAWING/TITLE

1008	Details of Spar Fittings, Fitting Strap,

and Adjustment Bolt

1008-1 Cabane Attachment Fitting, Rear Upper Spar
1008-2 Cabane Attachment Drag Wire Block, Rear Upper Spar
1008-3 Front Lower Spar Outer Strut Fitting
1008-4 Rear Lower Spar Outer Strut Fitting
1008-5 Adjustment Bolt, Interplane and Cabane Struts
1008-6 Fitting Strap, Rear Lower Spar Outer Strut Fitting

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
4130 Steel	Sheet 0.049"	1'Sq
2330 Steel	Hex Bar 9/16" Flats	2.5'
Spruce	Cap Strip 5/8" (All Compression Ribs)	70'
	Sheet 3/64"	2'Sq
Ash	Sheet 9/16" (All Drag Wire Blocks)	1'Sq
Hardware	AN6-14	4
	AN4-13	10
	AN310-6	4
	AN310-4	10

DRAWING/TITLE

1009 Details of Root Section Fittings for Spars

1009-1 Front Lower Spar Root Section Fitting Details
1009-2 Root Section Fitting, Rear Upper Spar
1009-3 Root Section Fitting, Front Lower Spar
1009-4 Root Section Fitting, Rear Lower Spar

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
4130 Sheet	0.065	1'Sq
	0.049	1'Sq
Birch	Sheet 1/4"	Misc.
Hardware	AN6-20	2
	AN4-14	4
	AN4-6	4
	AN310-6	2
	AN310-4	8

DRAWING/TITLE

1010 Details of Strut Fittings and Fitting Lugs

1010-1 Outer Strut Fitting, Rear Upper Spar
1010-2 Front Upper Spar, Outer Strut Fitting
1010-3 Cabane Fitting, Front Upper Spar
1010-4 Fitting Lug, Front Upper Spar Outer Strut Fitting
1010-5 Fitting Lug, Front Lower Spar Outer Strut Fitting

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Sheet 0.065	0.5'Sq
Hardware	AN6-13	4
	AN4-14	14
	AN310-6	4
	AN310-4	14

DRAWING/TITLE

1011 Details of Fitting Straps, Fitting Lugs, and Drag Wire Blocks

1011-1 Fitting Strap, Front Upper Spar, Outer Strut Fitting
1011-2 Drag Truss Fitting, Rear Upper Spar 1st and 2nd Sta. From Cabane
1011-3 Drag Wire Block, Front Upper Spar Outer Strut Fitting
1011-4 Drag Truss-Tip Fitting, Upper and Lower Front Spars
1011-5 Drag Wire Block, Front Lower Spar Outer Strut Fitting
1011-6 Drag Wire Block, Front Upper Spar Root Sect. Fitting
1011-7 Fitting Lug, Root Section Fitting, Front Upper Spar, Upper Right Wing
1011-8 Reinforcement Strap, Root Section Fitting, Both Upper Spars.

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Sheet 0.049"	0.4'Sq
Spruce	Sheet 5/8"	Misc.

DRAWING/TITLE

1012 Details of Fitting Lugs, Drag Wire Blocks and Reinforcement Blocks.

1012-1 Drag Wire Block Tip Fitting - Upper and Lower Rear Spars.
1012-2 Root Section Fitting Front Upper Spar.
1012-3 Fitting Lug, Rear Lower Spar Outer Strut Fitting.
1012-4 Drag Wire Block, Rear Upper Spar Root Section Fitting.
1012-5 Drag Wire Block, Front Upper Spar Cabane Attachment.
1012-6 Drag Truss Fitting, Front Upper Spar 1st and 2nd Sta. from Cabane.
1012-7 Fitting Lug, Root Section Fitting, Both Spars Upper Left Wing.
1012-8 Reinforcement Blocks, Outer Strut Fitting.

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Sheet 0.065"	Misc.
Spruce	Sheet 1/4"	0.25'Sq
	Sheet 3/16"	0.25'Sq

DRAWING/TITLE

1013 Details of Fitting Straps and Drag Wire Blocks

1013-1 Drag Wire Block, Rear Upper Spar Outer Fitting.
1013-2 Fitting Strap, Front Lower Spar Outer Strut Fitting.
1013-3 Drag Wire Block, Rear Outer Spar Outer Strut Fitting.
1013-4 Drag Wire Block Tip Fitting - Upper and Lower Front Spars.
1013-5 Drag Truss - Tip Fitting, Upper and Lower Rear Spars.
1013-6 Front Upper Spar Root Section Fitting Strap.
1013-7 Drag Wire Block, Rear Upper Spar, 1s and 2nd Sta. from Cabane.

1013-8 Drag Wire Block, Front Upper Spar, 1st and 2nd Sta. from Cabane.

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Sheet 0.049	0.4'Sq
	Sheet 0.035	0.4'Sq

DRAWING/TITLE

1014 Details of Fitting Lugs and Control System Bearings.

1014-1 Fitting Strap, Cabane Strut Fitting, Front Rear Spar.
1014-2 Fitting Lugs, Front Upper Spar Cabane Strut Fitting.
1014-3 Fitting Lug, Rear Lower Spars Root Section Fitting.
1014-4 Drag Wire Block, Rear Lower Spar, 1st and 2nd Sta. from Root.
1014-5 Drag Truss Fitting, Rear Lower Spar, 1st and 2nd Sta. from Root.
1014-6 Drag Truss Fitting, Front Lower Spar, 1st and 2nd Sta. from Root.
1014-7 Fitting Lugs, Rear Upper Spar Outer Strut Fitting.
1014-8 Control System Bearings.

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Tubing 0.049x1"	Misc.
4130 Steel	Sheet 0.065	0.7'Sq
	0.049	0.5'Sq
	0.035	Misc.

DRAWING/TITLE

1015 Details of Fitting Strap, Reinforcement Blocks for Spars

1015-1 Drag Wire Block, Front Lower Spar, 1st and 2nd Sta. from Root.
1015-2 Aileron Opposing Hinge.
1015-3 Fitting Strap, Outer Strut Fitting, Rear Upper Spar.
1015-4 Reinforcement Blocks for Spars.

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Sheet 0.035	Misc.
Spruce	Sheet 3/8	Misc.
Birch	Ply	1/4
	1.25'Sq	
	3/16	0.4'Sq.
Hardware	Bolt An3-30	2
	Nut (Unspec.)	2

DRAWING/TITLE

1016 Details of Fabric Covering and Instrument Panel

MATERIAL	SIZE/CONFG.	QUANTITY
Aluminium (Unspec.)	Sheet 0.064	1.5'Sq

DRAWING/TITLE

1017 Details of Firewall and Cowling Installation.

MATERIAL	SIZE/CONFG.	QUANTITY
Stainless (Unspec.)	Sheet 0.028	6.5'Sq
Hardware	Misc. TBD on Fabrication	

DRAWING/TITLE

1018 Details of Upper Cowl, Lower Cowl, and Nose Piece.

MATERIAL	SIZE/CONFG.	QUANTITY
Aluminium 1/2 Hard (24ST)	Sheet 0.032 (Largest 62"x32")	24'Sq
Aluminium 1/4 Hard (52S)	Sheet 0.064	5'Sq
4130 Steel	Sheet 0.065	Misc.
Hardware	Stop Nuts AN366F-DF832	9
	Screws AN515-8-32-10	9

DRAWING/TITLE

1019 Firewall Assembly, Throttle Details, Fuselage Front Side Cowl, Detail.

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Sheet Misc. 0.035	0.065 Misc.
Aluminium 1/2 Hard (24ST)	Sheet 0.024	6.5'Sq
Spruce	Sheet 9/16"x20"x2"	2
Hardware	Misc. Grommets for Firewall	

DRAWING/TITLE

1020 Details of Fitting Straps, Fitting Lugs, and Floor Boards.

1020-1 Fitting Strap, Cabane Attachment Rear Upper Spar.
1020-2 Fitting Lugs, Rear Upper Spar Cabane Strut Fitting.
1020-3 Floor Boards.
1020-4 Reinforcement Strap, Flying Strut Lower Fitting.

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Sheet 0.049 Sheet 0.035	0.5'Sq Misc.
Mahogany	Ply 1/4"	11'Sq

DRAWING/TITLE

1021 Details of Flying, Interplane and Front Cabane Struts.

1021-1 Flying Strut.
1021-2 Interplane Strut.
1021-3 Cabane Struts.

1021-4 Front Cabane Strut

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Streamline Tube	
	0.050x2.953x0.984x70	2
	0.035x2.344x0.782x33	2
	0.035x2.0x0.75x16	2
	0.035x1.5x0.5x36	4
	0.035x1.5x0.5x16	4
	0.035x1.5.0.5x21	2
	Tube (Bushing)1/2x3/8x1	2
	0.083x1/2	1'

DRAWING/TITLE

1022 Details of Control Stick, Rudder Pedal, Aileron Torque
Tube Insert & Front Pulley Fitting.

1022-1 Aileron Torque Tube Insert
1022-2 Aileron Operating Tube Central Bearing
1022-3 Control Stick
1022-4 Rudder Pedal and Shaft
1022-5 Throttle Control Bracket.
1022-6 Front Pulley Fitting, Pulley and Torque Tube Assembly

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Tubing	
0.065x7/8(or 0.035)	1.3'	
	0.049x7/8	0.5'
	0.049x3/4	1'
	0.049x5/8	1'
	0.049x1/2	0.75'
	0.035x5/8	2'
	Streamline Tube	
	0.035x1-1/2x1/2	1'
	Bushing 1/4x5/16x7/8	1
	Bushing stock 3/8x1/4	
	Sheet 0.065	Misc.
	0.049	Misc.
	0.035	Misc.
Hardware	Bolt AN4-11	1
	AN4-10	1

	Nut AN310-4	2
	Bolt AN3-11	4
	Nut AN310-3	4
	Pulley SAE No.3 2"	1
	Pulley Formica 1-1/2"	1

DRAWING/TITLE

1023 Details of Stick Control Assembly, Centre Operating Tube, and Control System Layout

1023-1 Stick Control Centre Operating Tube
1023-2 Control System Layout
1023-3 Stick Control Assembly

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
4130 Steel	Tubing 0.049x7/8	2.1'
	Sheet 0.065	0.2'Sq
	0.035	0.2'Sq
Cable	1/8" 7x19	30'
	3/32 7x7	30'
Pulleys (Formica)	2" dia.	1
	1-1/2"	1
Hardware	Turnbuckles 6-40 AN130-8S	6(2)
	12-28 AN130-21S 6(2)	
	Ball Joints AN276	2
	Bolts/Nuts AN3/AN6 (Det. on Inst.)	

DRAWING/TITLE

1024 Details of Gas Valve, Gas Manifold, Front and Rear Exhaust Stack.

1024-1 Gas Valve Extension (Det. Confg. on Inst.)
1024-2 Finger Strainer
1024-3 Outlet Fitting, Gas Tank
1024-4 Gascolator Bracket
1024-5 Gas Manifold (Det. Confg. on Inst.)
1024-6 Gas Manifold Assembly
1024-7 Exhaust Stack - Front (Det. Confg. on Inst.)
1024-8 Exhaust Stack - Rear

MATERIAL	**SIZE/CONFG.**	**QUANTITY**

4130 Steel	Sheet 0.049	Misc.
Hardware	Finger Strainer 1/4"ID 3/8"OD	

DRAWING/TITLE

1025 Details and Assembly of Gas Tank

1025-1 Gas Tank Assembly and Gas Tank Cap
1025-2 End - Gas Tank
1025-3 Fitting for Tern Plate or Aluminium Tanks
1025-4 Return Fitting - Gas Tank
1025-5 Gas Gauge
1025-6 End - Gas Tank

MATERIAL	SIZE/CONFG.	QUANTITY
52S Aluminium (Tern plate may be substituted)	Sheet 0.064	3.2'SQ
Aluminium (Brass if tern plate)	Stock for fitting	Misc.
Tern Plate	Strap 0.024x3/4"	6'
4130 Steel	Strap 0.064x1/2"	6'

Gas cap (Modify Cub type cap)

DRAWING/TITLE

1026 Details of Top and Bottom of Gas Tank

1026-1 Top - Gas Tank
1026-2 Bottom - Gas Tank

MATERIAL	SIZE/CONFG.	QUANTITY
52S Aluminium (Tern plate may be substituted)	Sheet 0.064	6.25'SQ

DRAWING/TITLE

1027 Gas Tank Assembly

MATERIAL	SIZE/CONFG.	QUANTITY

Filler flange M-142 Air Assoc. (Use Cub Type)

DRAWING/TITLE

1028 Details of Fuselage Attachment Fittings, Tail Skid & Shock Strut.

1028-1 Fuselage Attachment Fitting, Rear Landing Gear Strut
1028-2 Fuselage Attachment Fitting, Rear Lower Spar
1028-3 Fuselage Attachment Fitting, Rear & Diag. Cabanes
1028-4 Fuselage Attachment Fitting, Front Landing Gear Strut
1028-5 Fuselage Attachment Fitting, Front Lower Spar
1028-6 Tail Brace Wire & Tail Skid Fittings
1028-7 Front Cabane & Shock Strut Attachment Fitting
1028-8 Fuselage Attach Fitting, Fr. Cabane & Shock Strut

Installation DWG.

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Sheet 0.065	1.1'Sq.
	Sheet 0.093	1'Sq.
	Tube 25/32"x0.035	1.25'

DRAWING/TITLE

1029 Details of Axle Ass'y. & Shock Strut

1029-1 Attachment Fittings, Tail Surface Fr. Spars
1029-2 Installation Assembly, Landing Gear "V" Fuselage

Attachment Fittings
1029-3 Axle Assembly
1029-4 Shock Strut

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Sheet 0.065	0.10'Sq
	0.083	Misc.
	Tube 0.083x1-1/8	5.9'
	0.083x1/2	0.7'
	0.065x1-1/4 (Or subs.	
	1.5'	
	0.058x1-1/8 dwg.1030)	
	1.5'	
	0.049x1	4.5'
	0.049x1/2	0.6'
	Bushing 1-1/2x1-1/4x3/4	6

	(NR w/DWG. 1030 inst.)	
Hardware	AN3-42 2	

DRAWING/TITLE

1030 Details of Aileron & Axle Assembly with Brake and Aileron Operating Details.

1030-1 Axle Assembly with Brake Installation.
1030-2 Aileron
1030-3 Rigging Details
1030-4 Aileron Operating Details

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
(1030-1)		
4130 Steel	Sheet 0.95	0.10'Sq.
	Bar Stock 1x2.5Sq	2
	1/4x1.75Sq.	2
	Tube 0.125x1-1/4	1.5'

Wheel and brake hardware as listed on DWG.

(1030-2/4)		
4130 Steel	Sheet 0.83	0.10'Sq
	0.049	0.10'Sq
	0.035	0.30'Sq
	Bar 3/8Sq	2"
	5/8 Sq.	2"
	Tube 0.095x1/2	2'
	0.049x3/4	0.05'
	0.049x5/8	2.7'
Spruce	Front Spar 1/4x2-1/16x7.5'	2
	RR Spar 1/4x1-7/16x7.7'	2
	5/8	0.25'Sq
	3/16 Sq.	6'
Hardware	AN3-16	6
	AN3-3	6

Trailing edge material from DWG. 1002

DRAWING/TITLE

1031-1 Power Plant Installation

MATERIAL	SIZE/CONFG.	QUANTITY
See list on DWG. determine applicability on installation.		

DRAWING/TITLE

1031-2 Brake System with Mounting Plate

MATERIAL	SIZE/CONFG.	QUANTITY
Steel 4130	Sheet 0.65	0.6′Sq
See parts list on DWG. for brake installation. (Goodyear 5.00x5 wheel and brake)		

DRAWING/TITLE

1032 Landing Gear Assembly

1032-1
1032-2

MATERIAL	SIZE/CONFG.	QUANTITY
Steel 4130	Tube	0.065x1
(31″ ea.)	5.5′	
		0.049x7/8
(33″ ea.)	6′	
	0.035x5/8	4.2′
	0.035x1/2	0.5′
	Sheet	0.083
	Misc.	
	0.065	0.4′Sq
	0.049	Misc.
	Bar Stock 3/4Sq.	1′
	Sleeve 0.745x0.870x1.5	2
	Sleeve 0.652x0.770x1.5	2
	(Subs. 7/8 dia.bar)	0.5′
	Bar Stock for 5/8Sq.	1′
Shock Cord	10x5/8	
	9′	

Hardware	AN5-15 4 AN5-13 2 AN5-11 2

DRAWING/TITLE

ES-1 Gear Fitting Opening Detail
ES-2 Gear Fitting Opening Detail

MATERIAL	SIZE/CONFG.	QUANTITY
Aluminium 2024T3	Sheet 0.030	Misc.

DRAWING/TITLE

ES-3 Lower Fuselage Stringer Installation Detail.
ES-4 Lower Fuselage Stringer Installation Detail.

MATERIAL	SIZE/CONFG.	QUANTITY
N/A		

DRAWING/TITLE

ES-5 Axle Configuration for 6.00x6 Cleveland Brake

MATERIAL	SIZE/CONFG.	QUANTITY
Axle	6.00x6 ACS P/N 11704-1	2
Steel 4130	Sheet 0.090	Misc.

DRAWING/TITLE

ES-6 Rudder Pedal

MATERIAL	SIZE/CONFG.	QUANTITY
4130 Steel	Tube 0.049x7/8	1'

	Streamline Tube 1.349x0.571x0.049	2.2'

DRAWING/TITLE

ES-7 Instrument Panel

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
2024T3 Aluminium	Sheet 0.080 24"x12"	1 (2'Sq)

DRAWING/TITLE

ES 8 Rib Profile

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
N/A		

DRAWING/TITLE

ES-9 Shock Strut Cuff Ends

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
Mild Steel	Sheet 0.025	1'Sq.

DRAWING/TITLE

ES-10 Tail Brace Wire Attach Fittings

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
4130 Steel	Sheet 0.049	Misc.

DRAWING/TITLE

101 Fuselage Stringers

MATERIAL	**SIZE/CONFG.**	**QUANTITY**

Spruce	Sheet 5/8"	5.25'Sq

DRAWING/TITLE

102 Engine Mount (For C-90/0-200 Installation)

MATERIAL	**SIZE/CONFG.**	**QUANTITY**
4130 Steel	Tube 0.050x1/2	1/2'
	0.049x3/4	9'
	0.049x5/8	5.5'
	Washer 1-5/8	4

ROSE PARRAKEET ENTHUSIASTS

You can now build and own a replica of the finest small biplane ever built.

We offer fully welded components, built in the factory fixtures at a fraction of what you would expect to pay.

FUSELAGE (w/torque tubes, control stick, rudder pedals, spar fittings, cabane fittings, tail wheel fitting, seat frame, cockpit, gear fittings)

RUDDER
VERTICAL
HORIZONTAL
ELEVATOR
ENGINE MOUNT
LANDING GEAR

Prices on request

In addition we offer building support for first time builders.

Plans - $150.00 - UPS address required

Rose Parrakeet Material List

FUSELAGE:

1/4 x .035 - 12'
3/8 x .035 - 20'
1/2 x .035 - 60'
1/2 x .049 - 8'
9/16 x .065 - 1'
5/8 x .035 - 85'
3/4 x .035 - 9'
3/4 x .058 - 1'
5/8 x .058 - 2'
1/2 x .095 - 2'
1/2 x .065 - 2'
3/4 x .049 - 2'
7/8 x .049 - 6'
5/8 x 5/8 sq. x .049 - 1'
1.349 x .571 x .049 - 2' (streamline)

TAIL FEATHERS:

1/4 x .035 - 70'
1/2 x .035 - 21'
5/8 x .035 - 21'
3/4 x .058 - 2'
1.349 x .571 x .049 - 2' (streamline)
5/8 x .065 strap 12'

LANDING GEAR:

7/8 x .049 - 6'
1 x .065 - 6'
1.5 x .120 - 2'

SHOCK STRUTS:

1 x .049 - 4'
1.125 x .049 - 7'

ENGINE MOUNT:

1/2 x .065 - 1'
5/8 x .049 - 10'
3/4 x .049 - 6'

GEAR FITTINGS:

7/8 round - 1'

NOTICE - Some of the changes in the latest model Parrakeet are:

1. Vertical (Fin) - The tip of the fin uses the same radius (shape) as the tip of the horizontals.

2. Tail Brace Wires - Tabs for the tail brace wires are NOT welded to the tailpost or horizontals. Use modern construction techniques.

3. Rear spars in both upper and lower wings are 5/8 in.

4. The shock strut cuff is lowered to give about 3 in. of travel. Appearance only.

5. Gear legs are 1/8 in. larger in diameter than shown. 7/8 & 1 in.

6. Use modern wheels/tires. (6:00x6)

7. Use new engine mount.

8. Torque tubes use pillow block construction.

9. Cabane, drag & antidrag, tail wires are No. 10 S.S.

10. Fuselage engine mount fittings have inserts.

Building Support - 505-325-7947 - Please call before you start construction.

8-17-98

Dalph —

These Drawings were to be for certification of the A-4C Parrakeet - 65-85-90-0-200 Rev possibly Ltr C 0-235 -
Doug Rinehart died before these could be submitted for certification - These should replace the Hannaford Drawings and are virtually all of the changes except -

① - 4130 lower longeron to rear spar - with Liner of 4130 Next size smaller tube

② 4130 spars in stabilizer / elevator

③

I'll send you a copy of the Rose Airfoil (Rib-Spar) which differs from the Hannaford drawing (NACA 2412)

The Reverse side of this is some sketches of what Rinehart did to the Dwg-wings — Better than the original Rose & Hannaford drawings.

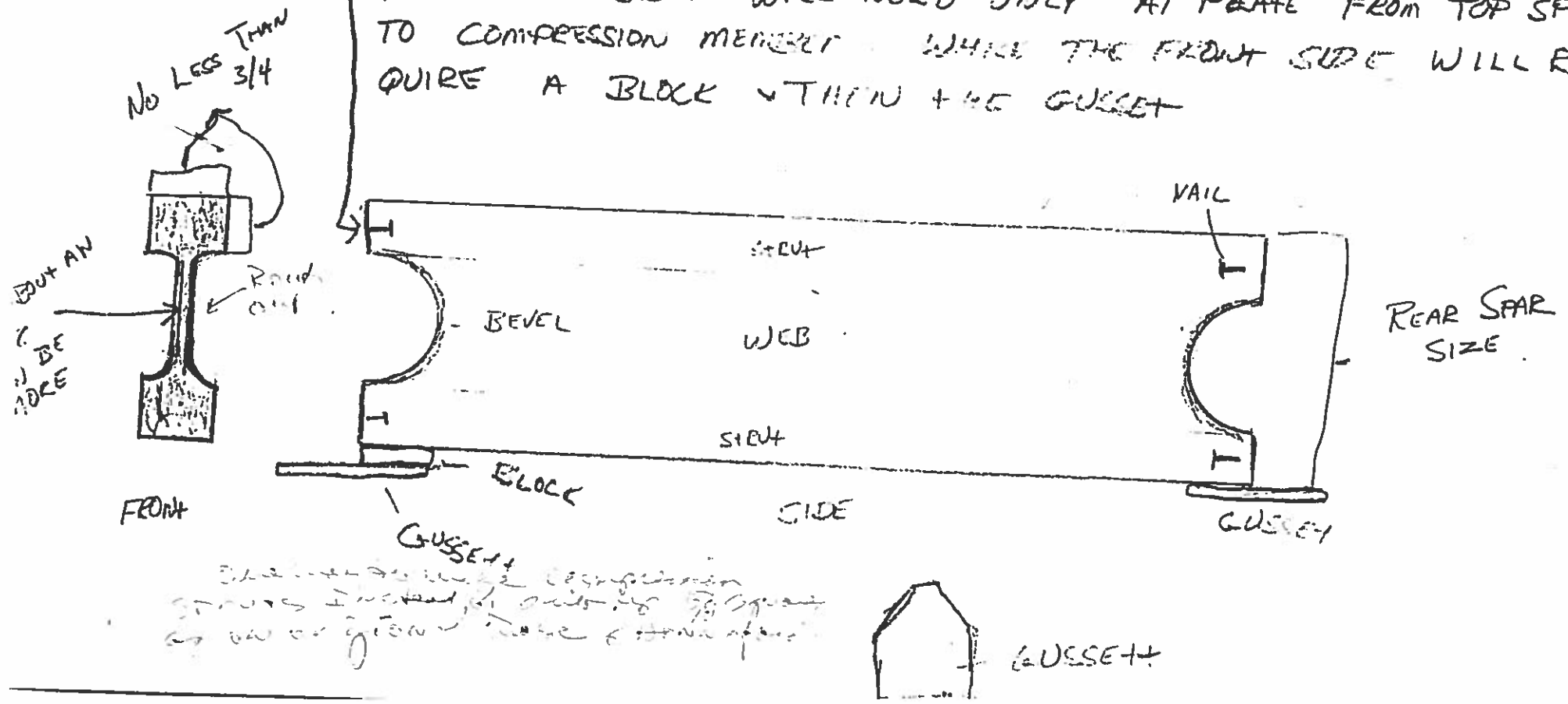
I'll check for copying services - may take a month.

Jim.

THESE COMPRESSION STRUTS (MEMBERS) ARE CUT OF SPRUCE CAN BE NEW OR EVEN AN OLD SPAR CUT UP. CUT THEM LONG, PLANE THE STRUT SURFACES SMOOTH THE ROUT TO ACHIEVE THE WEB. THEN CUT THE HALF MOONS ON BAND OR JIG SAW. BEVEL THOSE EDGES INTO WEB + STRUT, SO ITS PRETTY - NO EDGES EXCEPT WHERE IT ATTACHES TO SPAR. WITH SPARS CLAMPED THE RIGHT DISTN APART START FITTING THESE - THEY MUST BE SNUG BUT SHOULD NOT PUSH THE SPARS OUT OF LINE IN ANYWAY. WHEN YOU GET CLOSE JUST SCRATCH A PENCIL OVER WHICH END YOUR WORKING THEN SAND UNTIL THE MARK IS GONE, NO MORE, THEN CHECK FIT + REPEAT AS NECESSARY

ONCE FIT GLUE THE ENDS + ATTACH WITH FINE NAILS

THE REAR SIDE WILL NEED ONLY A PLATE FROM TOP SPAR TO COMPRESSION MEMBER WHILE THE FRONT SIDE WILL REQUIRE A BLOCK WITHIN THE GUSSET



GUSSET

Doc - THIS IS MEMORY, CAN'T REMEMBER WHETHER THE RECTANGULAR GUSSET BELONGS OR NOT. PROBABLY DOES. THIS WAS THE METHOD WE USED ON A-4's. CAN'T REMEMBER MANY SIZES BUT THE FITTING MUST BE .049 - .065 SOMEWHERE IN THAT RANGE

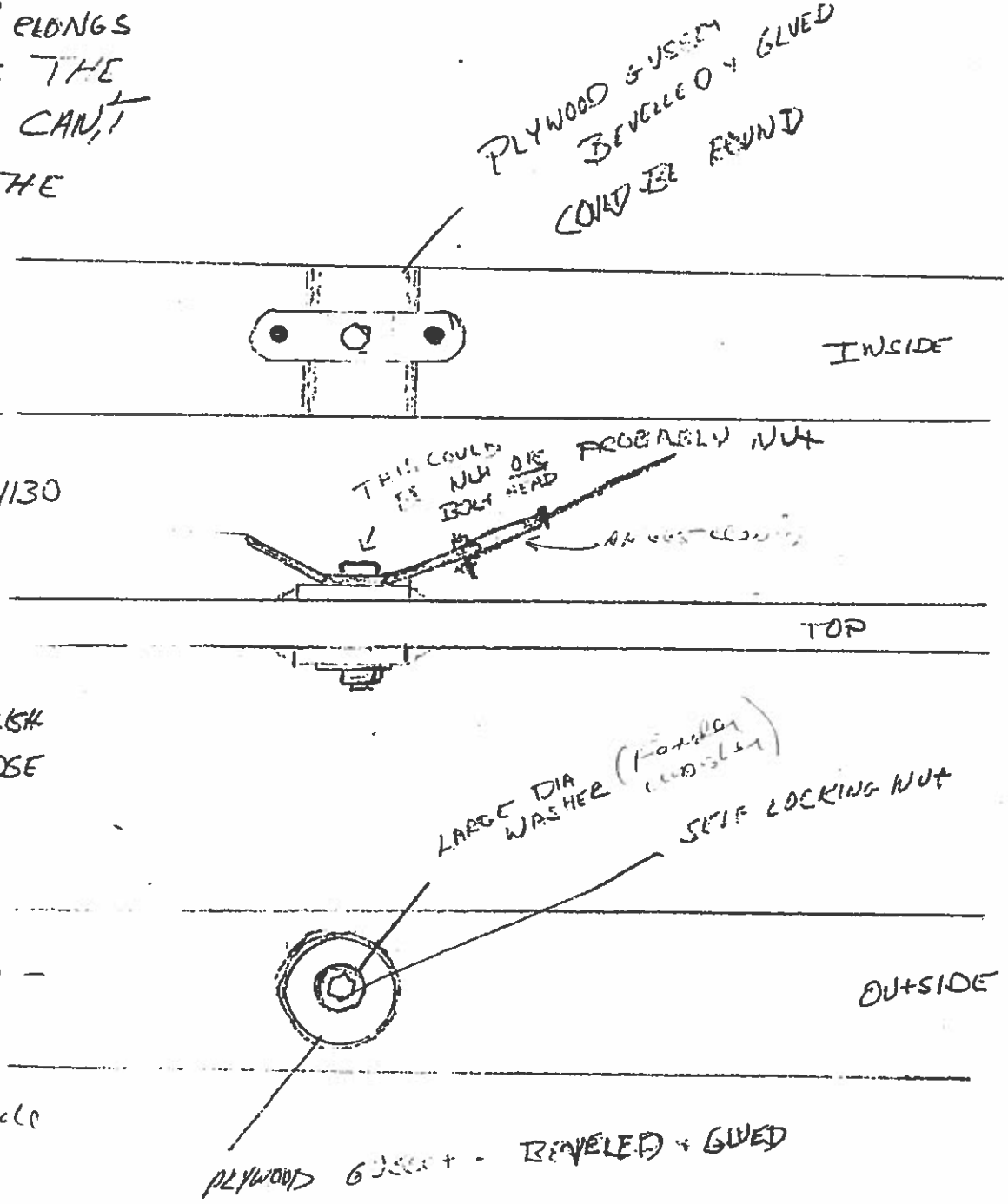
WE CUT THEM OUT + STACK DRILLED; BENT THEM ON A DEAL WITH 2 BLOCKS THEN PULL A HINGED LEVER OVER THE CENTER

AND FIGURE!

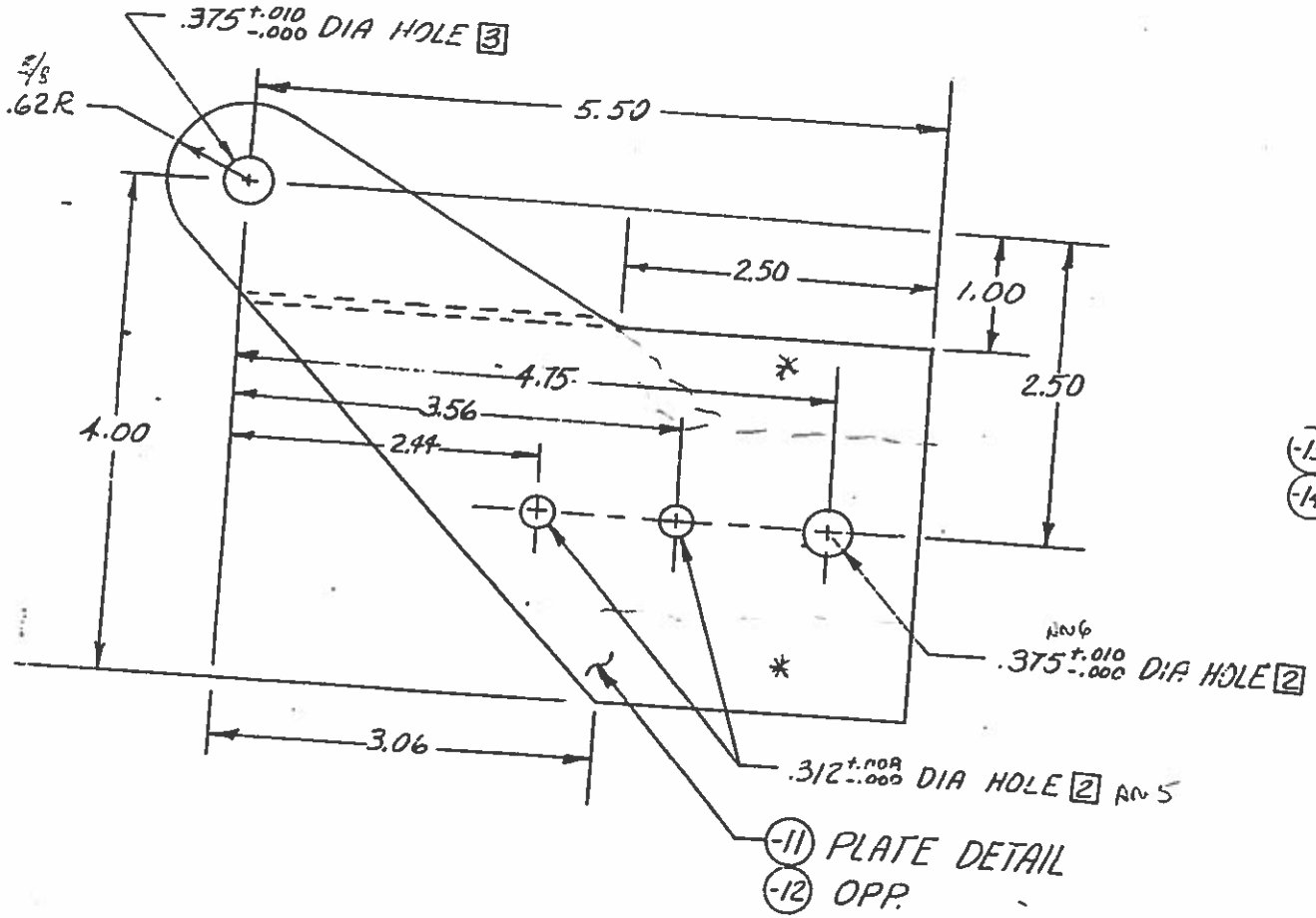
ANYTHING METHOD-WISE CAN ACCOMPLISH THE BENDS BUT THEY MUST BE CLOSE TO THE SAME

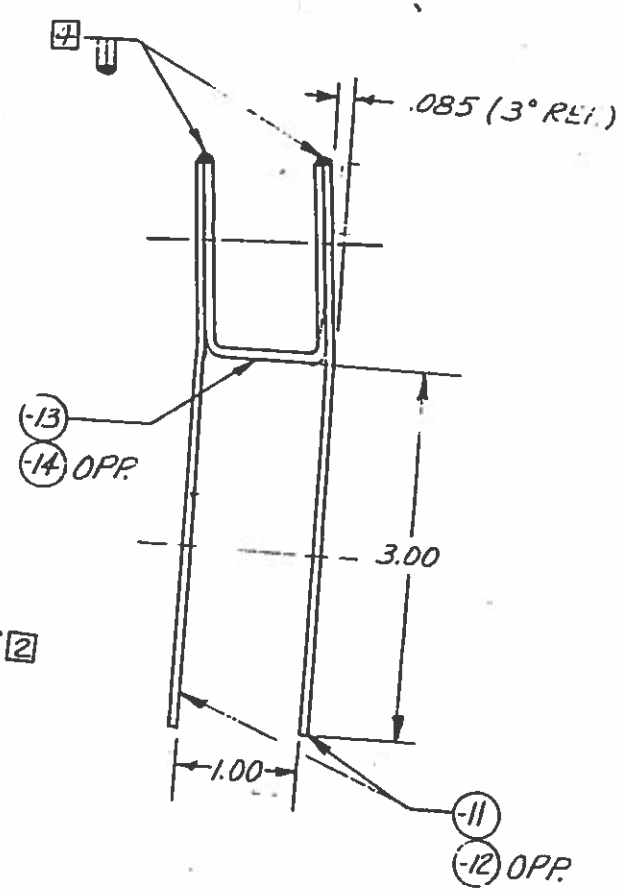
Note from Barry Taylor - No welded [illegible] Riveted in [illegible] Plywood gusset on other

Note: The other end of the drag [illegible] could be bolted (motorcycle [illegible])



T

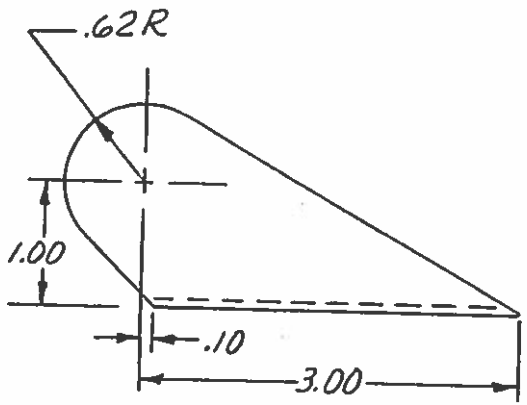


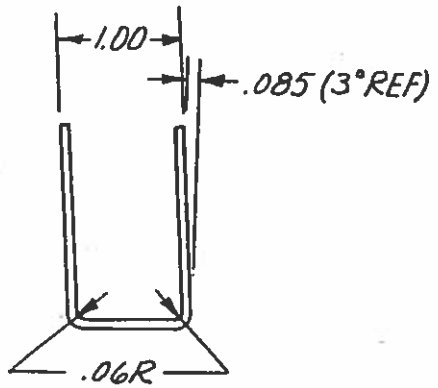


-1 FITTING ASSY.
-2 OPPOSITE 5

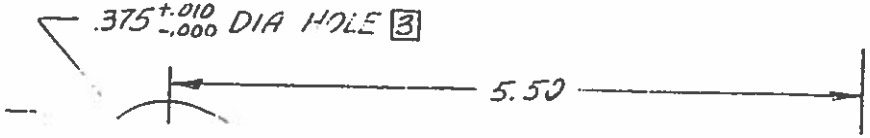
RRA4CF103-2
Front Spar Butt Closure

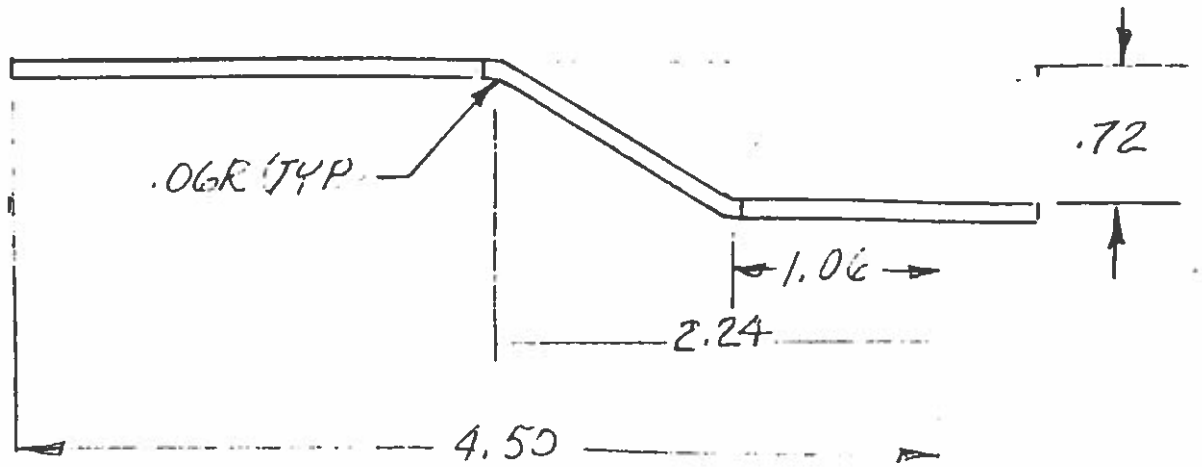
Comment
5/8 radius is only good change from rose part. Yellow * is dead weight and rib clearance problem.

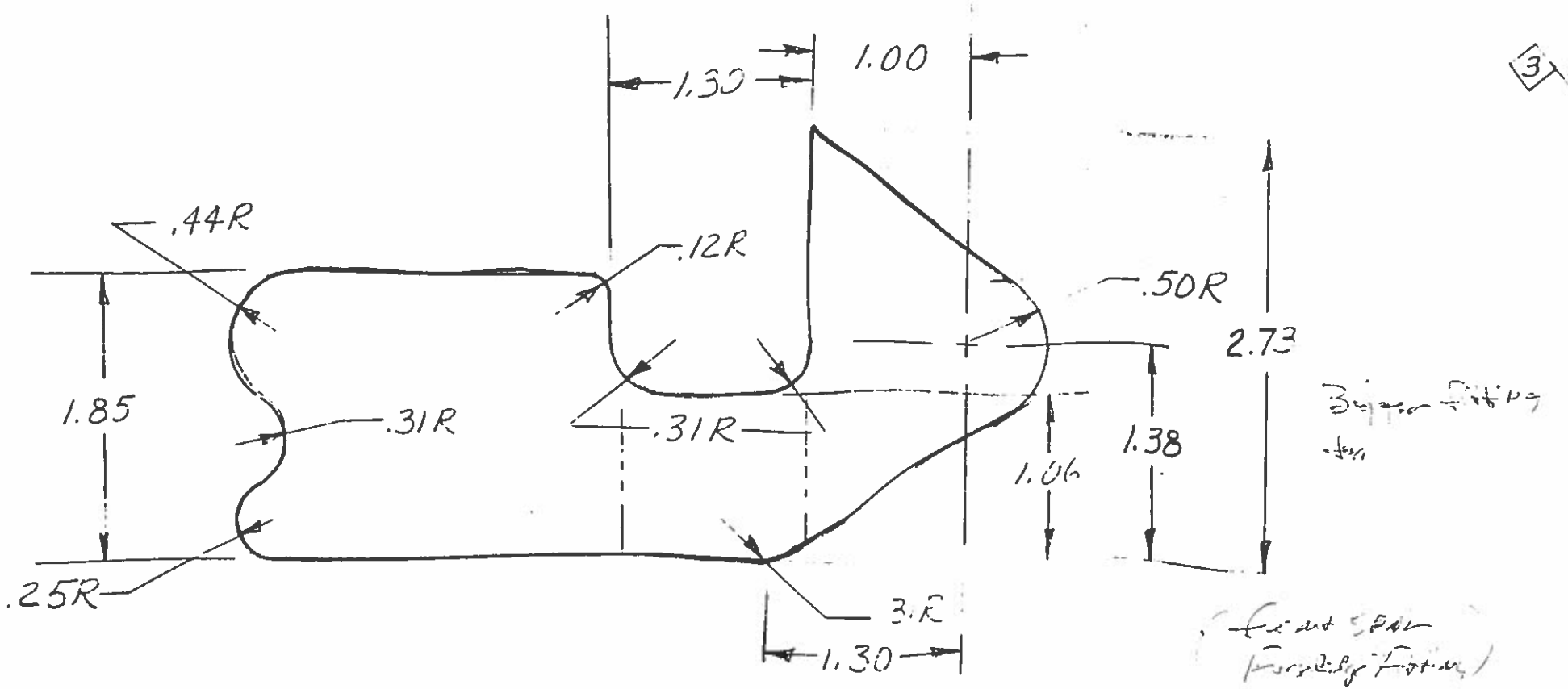


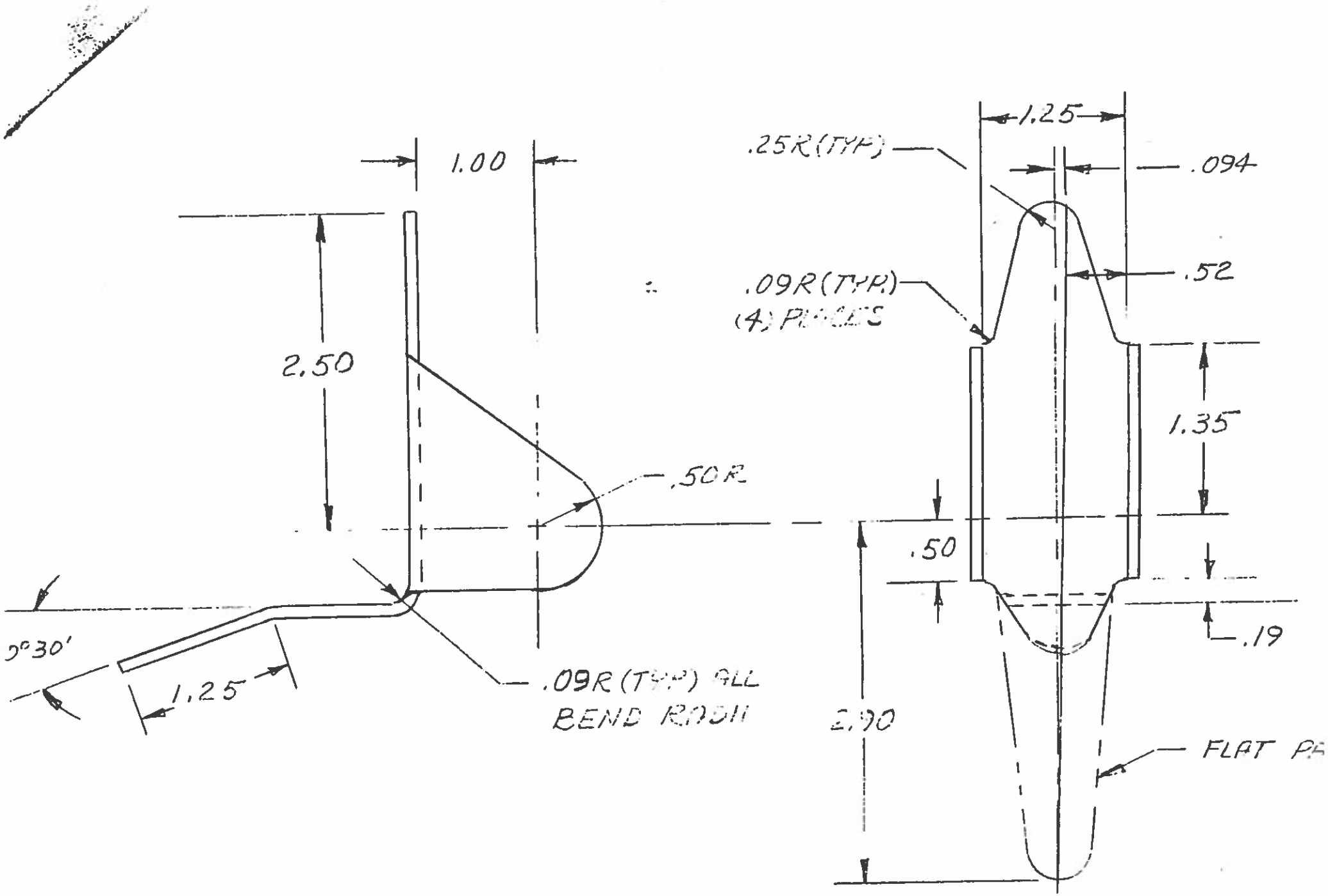


DETAIL -13 LUG
-14 OPPOSITE




.06R TYP
.72
1.06
2.24
4.50


1.30
1.00
.44R
.12R
.50R
2.73
1.85
.31R
.31R
1.06
1.38
.25R
3.R
1.30



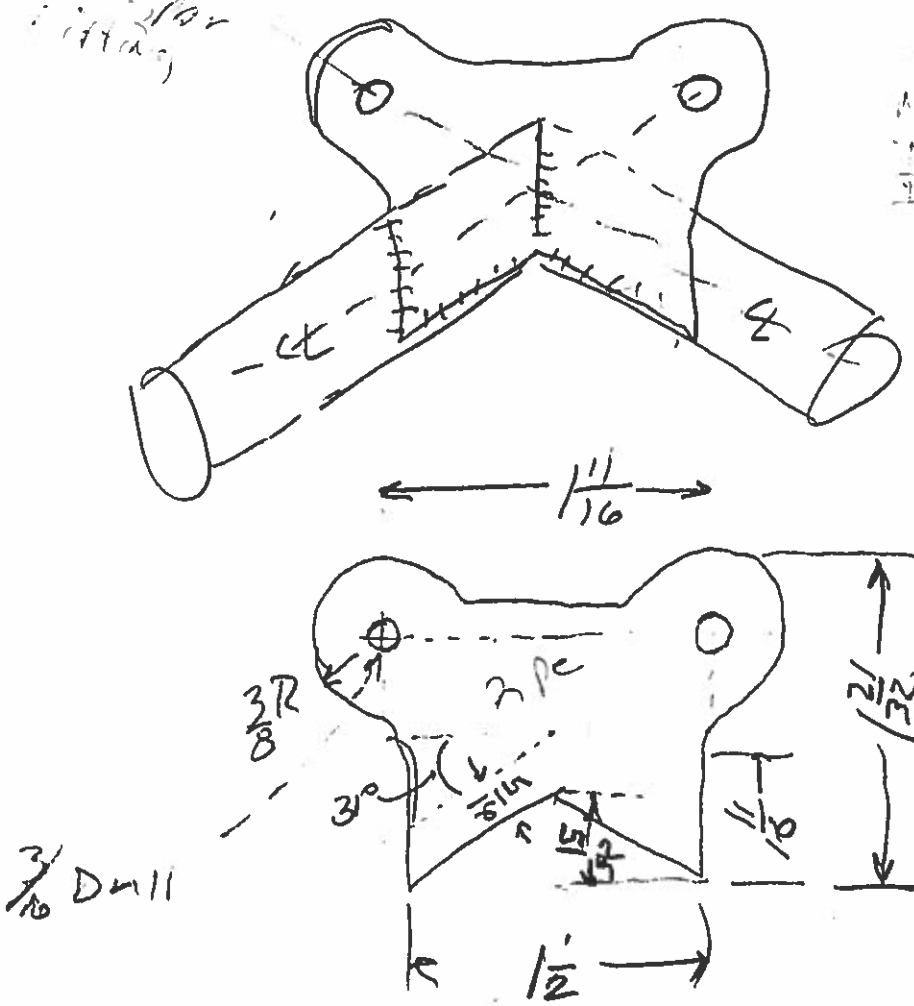
-11 LUG

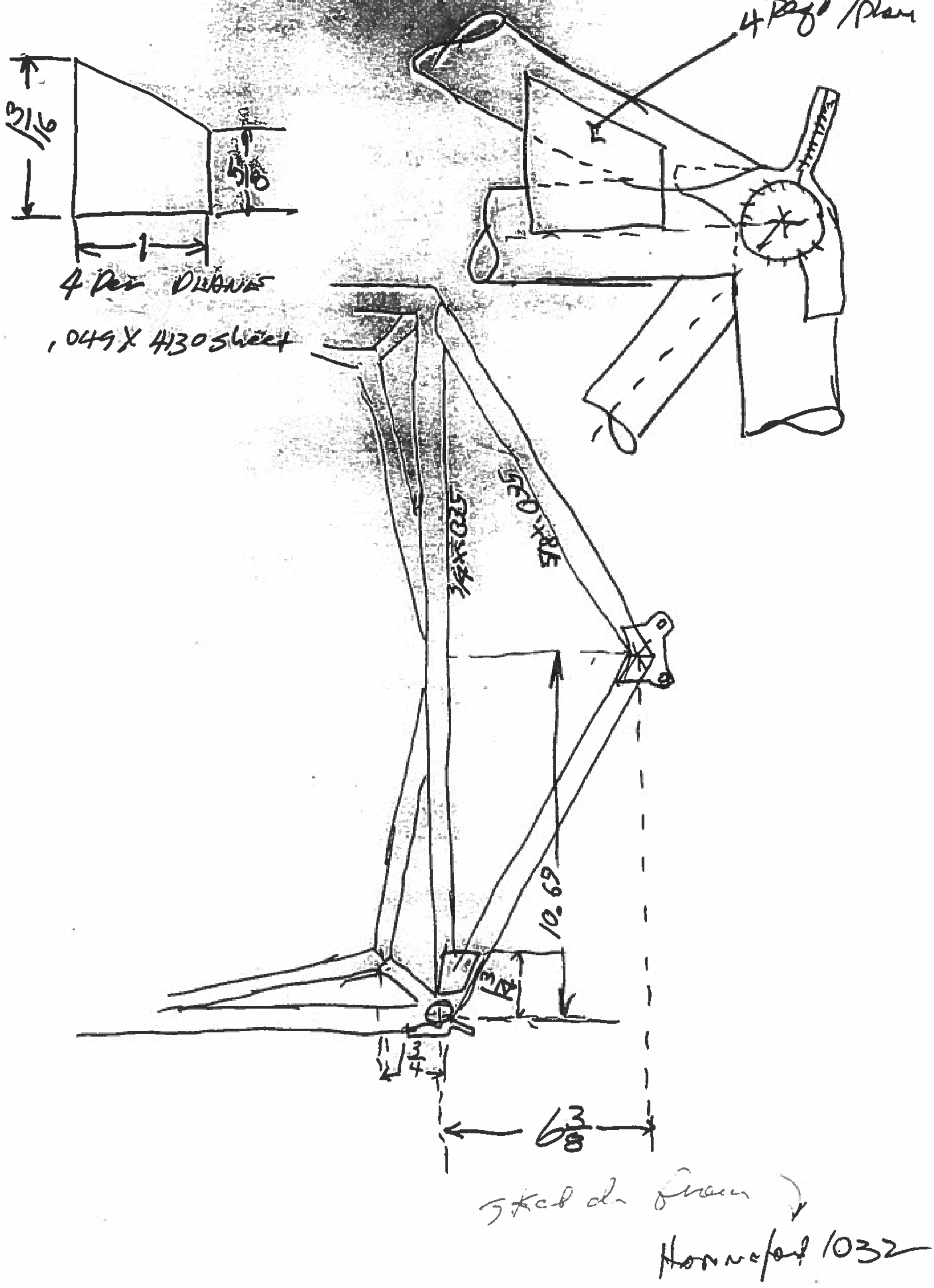
LO OPPOSITE

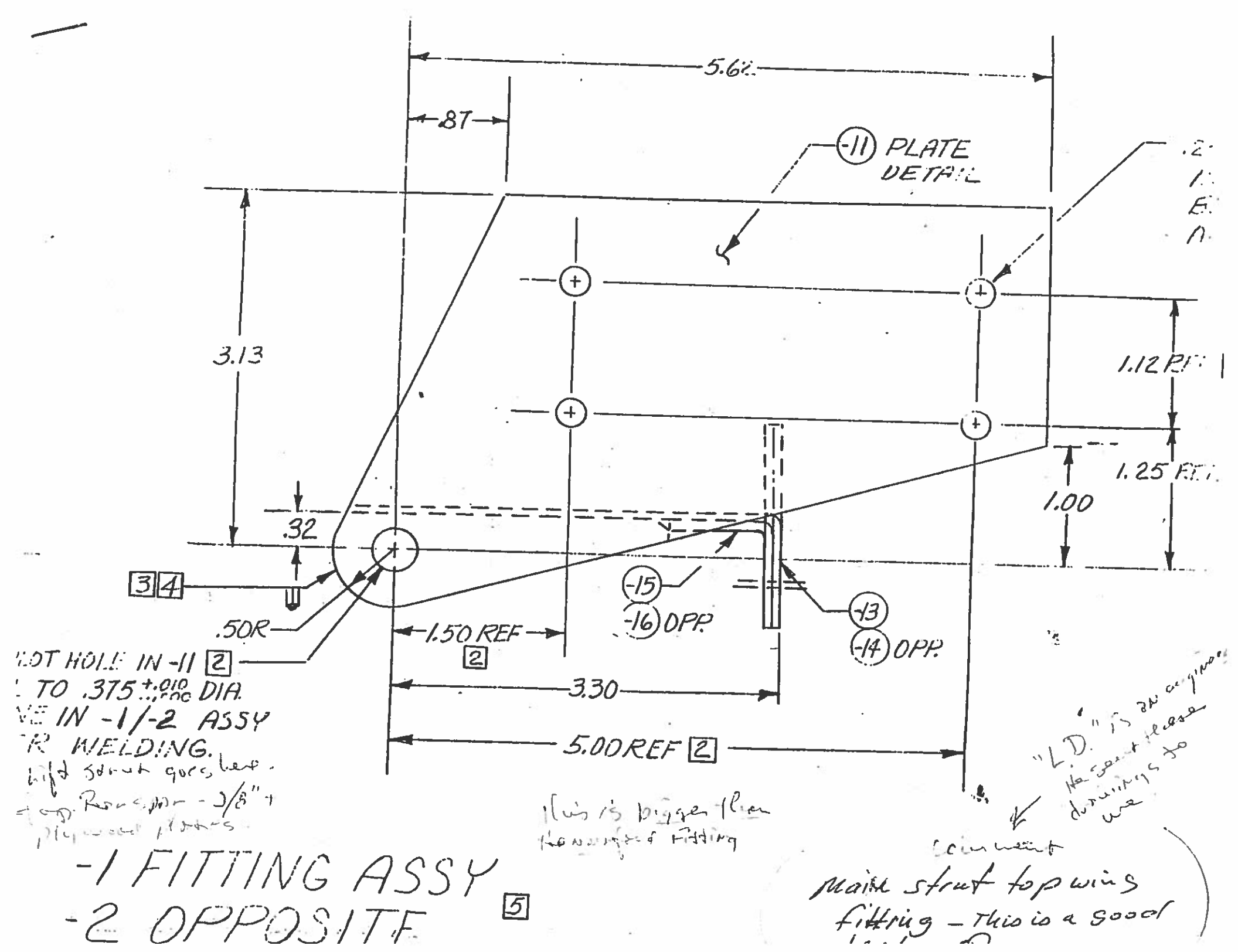
Torque tube Drill #12 (.1890) Hannaford 1002-B 1002-A
& open end wrench (Note 16 7/8 apart.

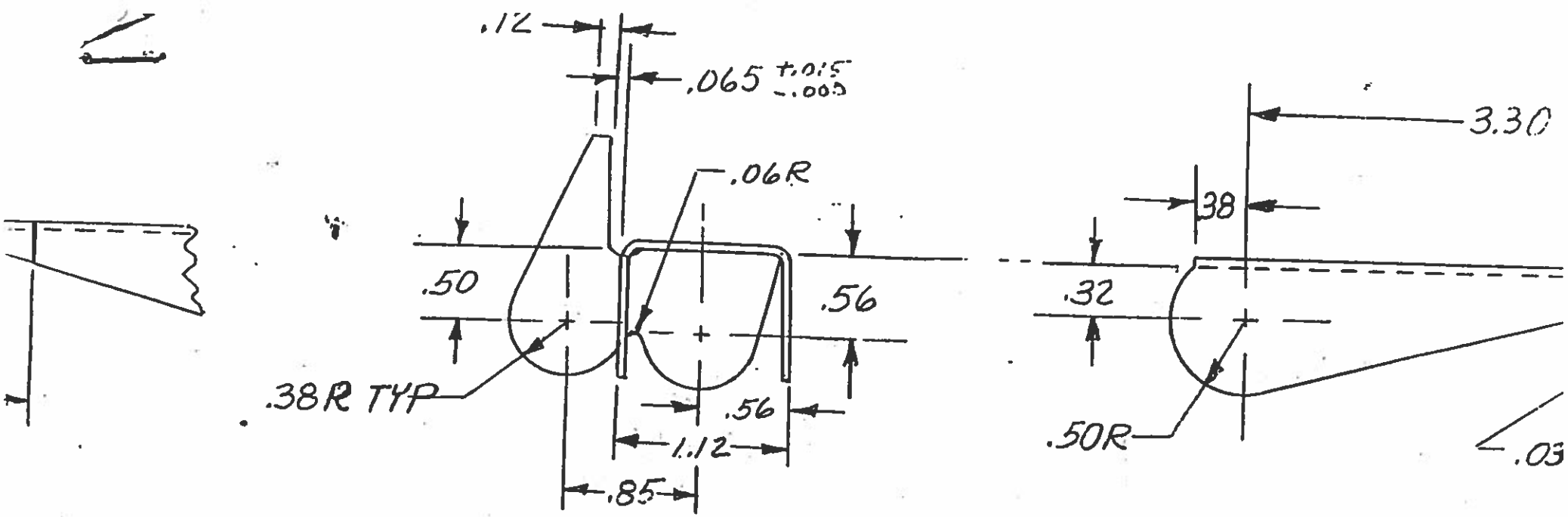
Rear Cabane Vee Brace See Hannaford 1032-2

5/8 X 035 Struts. "Mouse ear" Fittings
CL upper hardpoint to C/L of top Vee = 6 3/8"
CL top vee to CL Rear Brace wire hole Center 17/8
Dwg shows 1/2" before mouse ears bent to
weld !!. - A problematic template

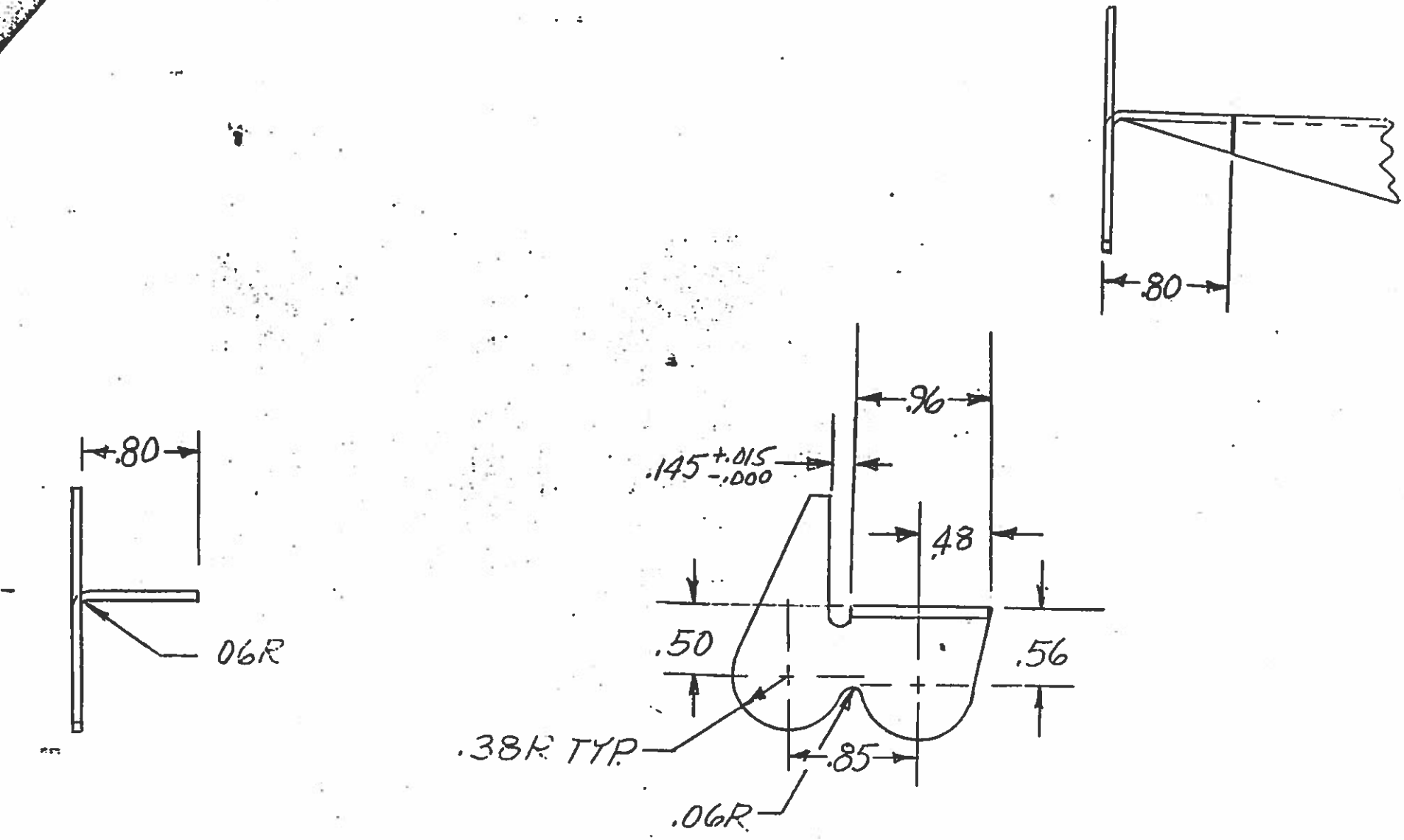



4 Deg / plan
13/16
5/8
1
4 Deg Dihedral
.049 X 4130 Sheet
3/4 X .035
5/8 X .035
10.69
3/4
6 3/8
Steel
Hornafold 1032

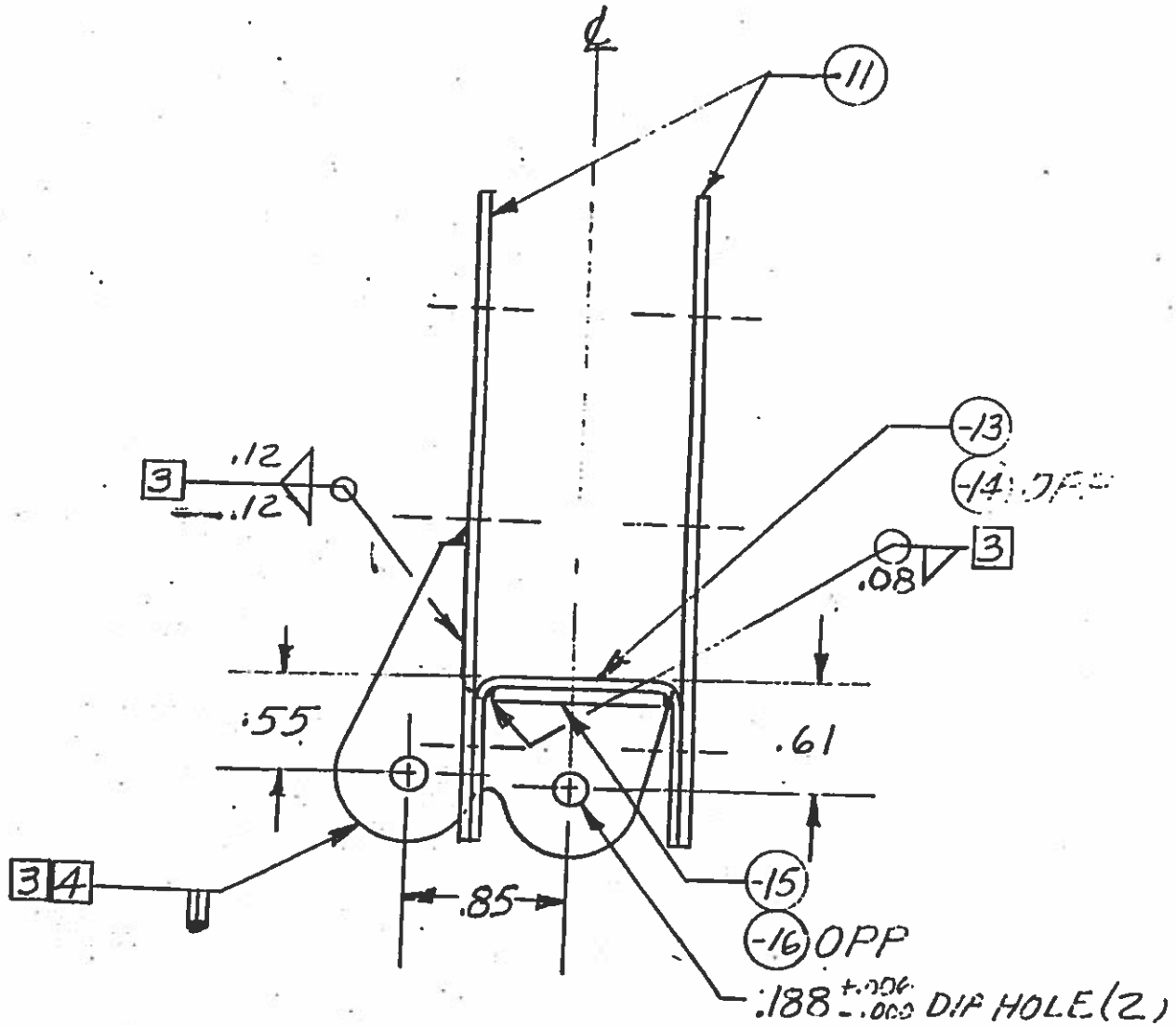

5.62
.87
-11 PLATE DETAIL
3.13
1.12 REF
1.25 REF
1.00
.32
3 4
.50R
1.50 REF
2
-15
-16 OPP.
-13
-14 OPP.
3.30
5.00 REF 2
-1 FITTING ASSY
-2 OPPOSITE
5
This is bigger than the width of fitting
main strut top wing fitting - This is a good



DETAIL -13 LUG.
-14 OPPOSITE



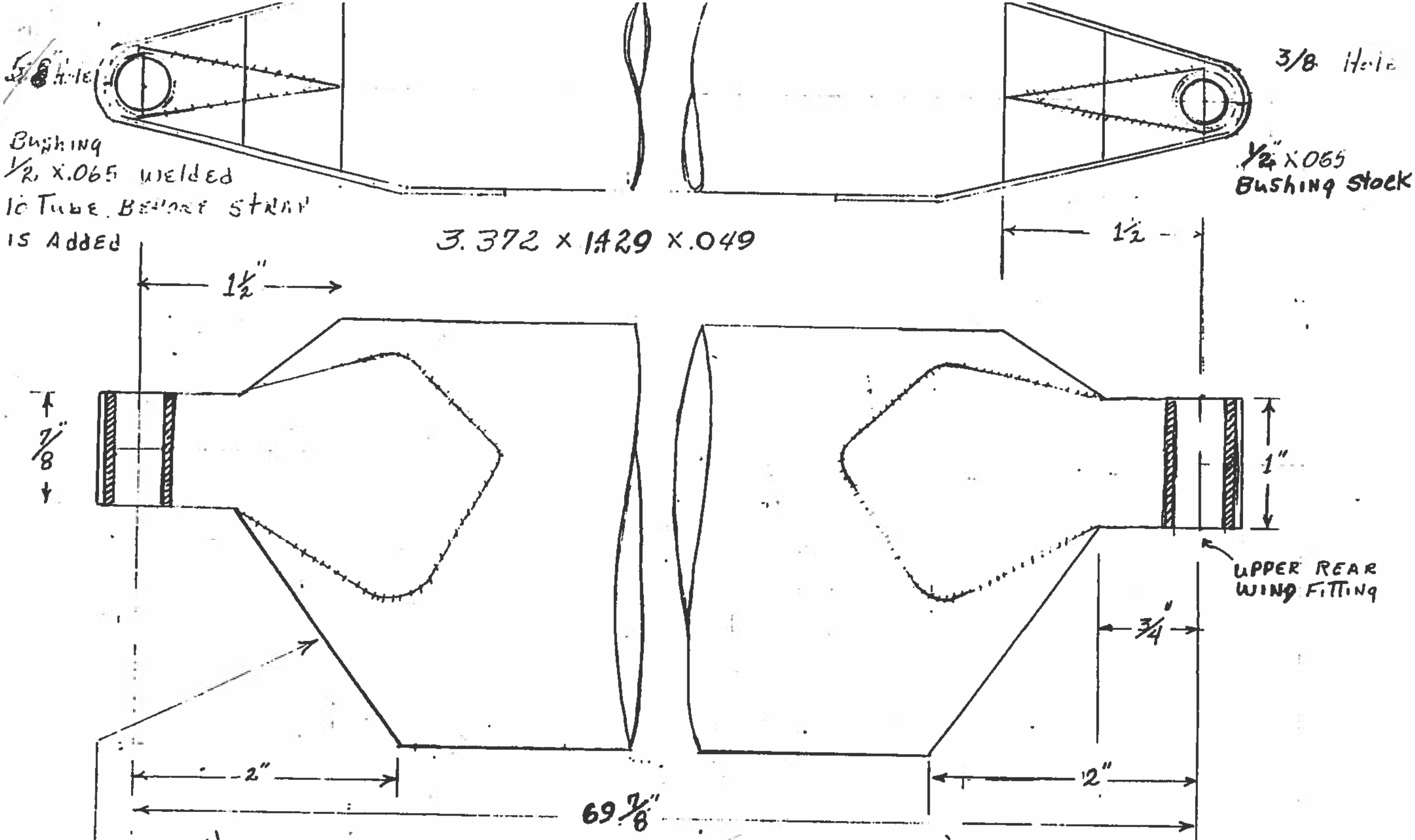
DETAIL -15 DOUBLER
-16 OPPOSITE



3 11

.25 PILOT HOLE IN
DRILL TO .375
IN LINE IN -1
AFTER WE

-11
-2



Both leading and trailing edges are slotted and bent 90° and welded closed [illegible]

This is bigger than the original [illegible] [illegible]

This is the weak link in the positive G stress analysis. The bushing to strut weld and strap carry the load.

ROSE PARRAKEET

FLYING STRUT

OVERKILL - Z.D. OPINION

104

FROM [illegible] CALCULATIONS
APPROVED BY FAA FOR 95HP
at gross weight 860LB.

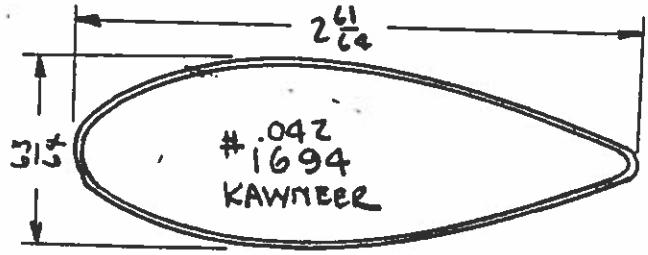
STATIC TEST OF FLYING STRUT :

THE STRUT IS CONTROLLED BY COMPRESSIVE LOADS IN CONDITION V.
THE LIFT DISTRIBUTION IS ASSUMED SIMILAR TO CONDITION III AND THE LIMIT LOAD IN PROPORTION TO THE LIMIT LOAD FACTOR. THE RATIO OF LOAD FACTORS (SEE P. 4 OF REPORT A&R1) = 2.75 / 5.33 = .515
THE TENSILE LOAD IN CONDITION III = 2990# (SEE P. 16 OF REPORT A&R2)
SO THE LIMIT LOAD = 2440 × .515 = 1260# COMPRESSION.
THE DESIGN LOAD = 1260 × 1.5 F.S. = 1890#.
ADD 15% PER ¶ 04.3021 : 1890 × 1.15 = 2170#

IT IS PROPOSED TO STATICALLY LOAD A TYPICAL STRUT TO A COMPRESSIVE LOAD OF 2250# TO PROVE THE DESIGN IS STRUCTURALLY ADEQUATE. AS A COLUMN

ESTIMATED STRENGTH :

THE STRUT IS 68 3/16 ℄ TO ℄ PINS AND IS SAME AS KAWNEER #1694 EXCEPT THAT #1694 IS .042" #1010 STEEL AND THE DRAWING (A-1103) SPECIFIES .035".



A-1103 GIVES
2.953 × .984 × .035

THE I OF THIS STRUT IS ABOUT THE SAME OR SOMEWHAT GREATER THAN A STANDARD 1 3/4 × .035 STREAMLINE (2.360 × 1.000) WHICH HAS AN ALLOWABLE COLUMN LOAD OF 1600# AT 68 3/16" CENTERS WITH C=1 AT EACH END (X-4130 STEEL) = 28/29 × 1900 = 1740# IN 1010. SINCE THE "I" IS SLIGHTLY GREATER AND "C" IS GREATER THAN 1.0 AT THE WING THE ALLOWABLE OF THE ACTUAL STRUT IS PROBABLY CLOSE TO 2100#.
(RATIO 2.953 / 2.360 = 1.25 × I OR 1 3/4 × .035 = 1.25 × .0694 = .0866 = 1 7/8 × .035)

USING C = 2 : ALLOWABLE LOAD = 3700
C = 1 " " = 1900
} MIDPOINT = 2500#

ASSUMING C = 1.5 AND 1.0 ALLOWABLE LOAD = ~ 2100#

STATIC TEST :

DURING A STATIC TEST THE STRUT HELD A MAXIMUM LOAD OF ONLY 2000# SO AN ALTERNATE SECTION HAS BEEN SELECTED.

NEW STRUT :

A 1 3/4 × .049 STREAMLINE (2.360 × 1.000 × .049) #4130 WAS SELECTED. - 75,000 Y.P.
ASSUMING C=1 AT BOTH ENDS THE ALLOWABLE COLUMN LOAD = 2000#
" C=2 " " " " " " " = 4200
" C=1½ AT OUTER END AND 1.0 AT THE INNER END = ~ 2300#

MS = 2300 / 1890 − 1 = .22 ON BASIS OF C = 1½ & 1.0
MS = 2000 / 1890 − 1 = .06 ON BASIS OF C = 1.0 BOTH ENDS.

I used today 2.7 × 1.1 × .049 ED

Jerry —

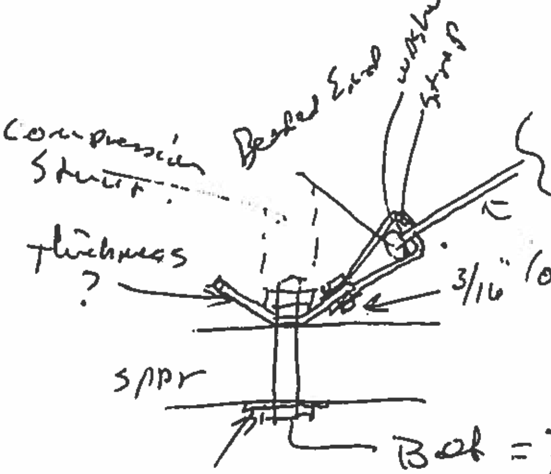
6-24-96

Larry DeCamp will relocate in the next few months. He will have the castings & molds for the Race wheels with him.

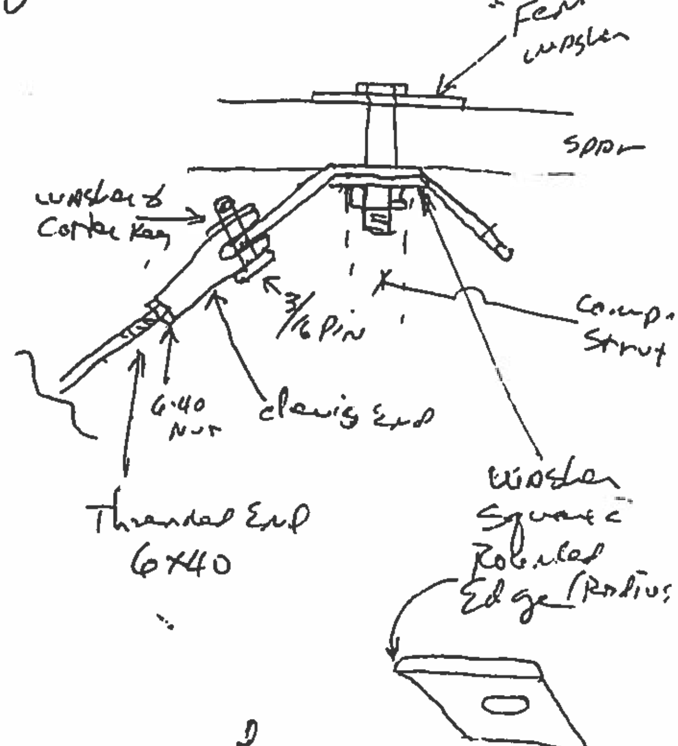
Coker Tire Co makes a 3.50 x10 and a 4.00 x10 tire for Allstate & Cushman scooters. Looks just right for the Race wheels. Goodyear [illegible]

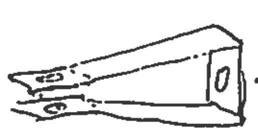
These motorcycle people will sell an unthreaded " spoke — the short ones are 95¢ each.!! but 3.00 each for the 30 & 36" spokes — 0.141 dia - very hard & tough tensile strength Bead on one end;

Suggest you consider;

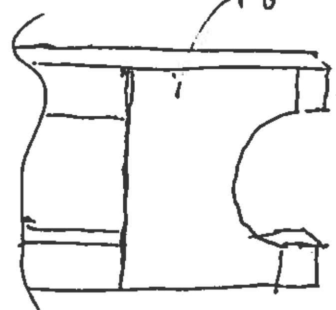


I will call Marvin Brian & talk to him about this.





Strap to adapt Beaded end of wires — Saves one-half of $1.45 clevis ends



This is the way Rheinhart did it on his parrakeets S/N 505 - 509 1967-70

Compression struts need to look like this for this type of wire