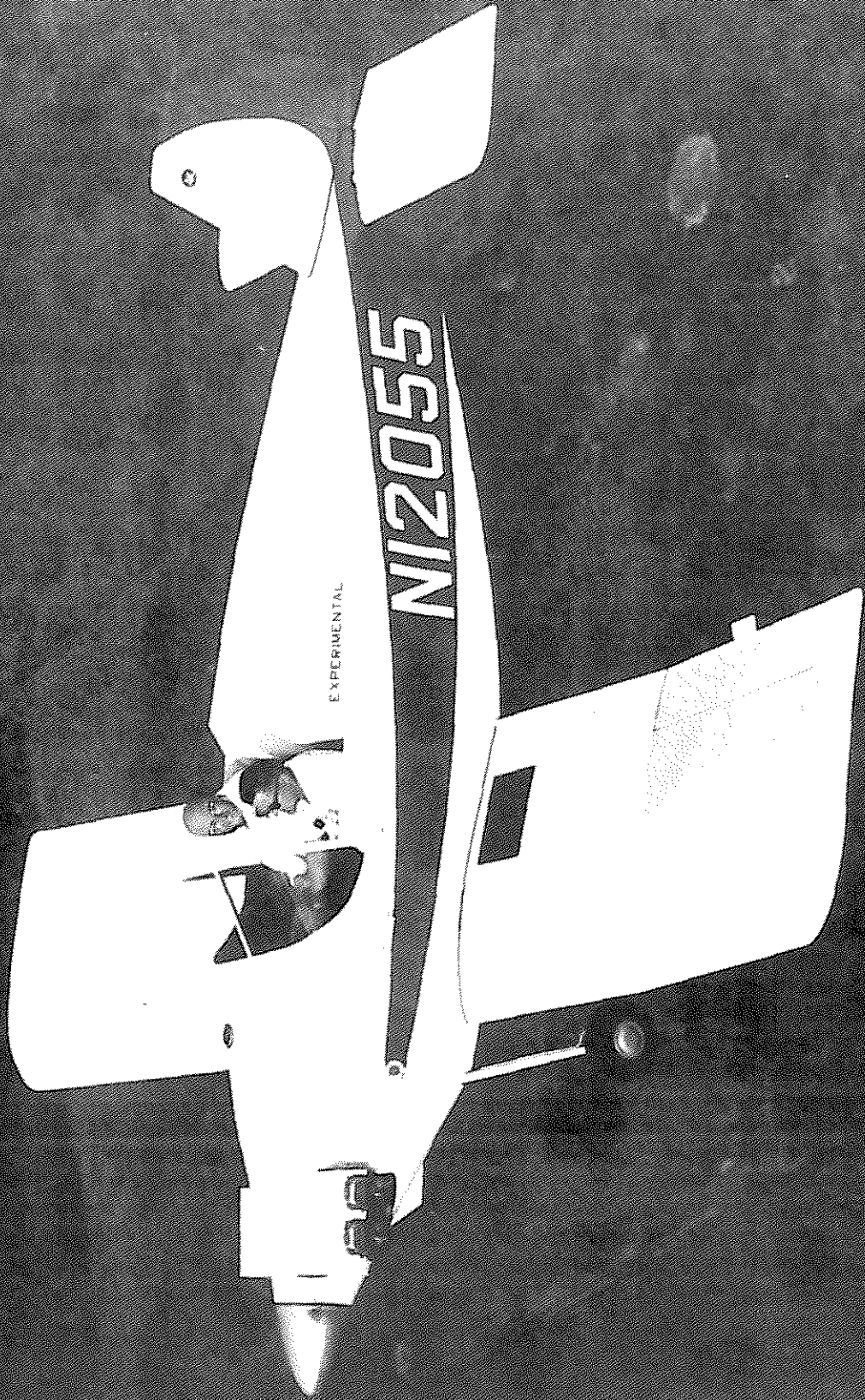
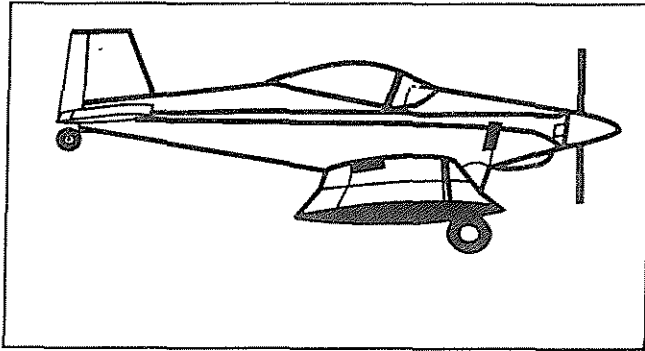


T-18 NEWSLETTER



SPECIAL EDITION NO. ONE HUNDRED



The Newsletter

In 1963 when Dick Cavin wrote the article "Reflections from Rockford" for Sport Aviation, telling about building the T-18 fuselage in three and a half days he probably didn't realize that he had started the T-18 Newsletter. Dick and Lou Sunderland got their heads together in Dallas and quickly realized the need to exchange information for the growing number of Thorp builders. From this meeting the Newsletter was started. As it has been for over 30 years the newsletter continues, with the support and efforts of members of the T/S-18 Mutual Aid Society. The early newsletters are rich with "how-to" articles on what tools to buy, how to rivet and hand forming metal ribs. All of the early newsletters (1-44) were condensed in 1986 by Lou in the book "The All-Metal Airplane". Both Cavin and Lou produced the first 5 newsletters, with Lou taking over after that to write and edit the newsletter until Dick retired from Braniff Airlines in 1979. Dick continued the newsletter until I came on board in 1990 for issue #73. With the present issue we have reached #100, not that the number is significant in itself, only that this little publication has spanned over 32 years and through it the builders and T-18/S-18 owners have shared the experiences of building and flying hundreds of airplanes. It is my opinion that all T-18 owners should take the time to read and reread the old newsletters and profit from the mistakes and misfortune of those that have been there first.

The newsletter circulation has started to grow, slowly we add new members that either build or

purchase a Thorp. It was a pleasure to look over the crowd at the T-18 forum this year and notice that we have some young folks that are now taking an interest in our great airplane. Those of us that started Thorp's back in the 60s are starting to have a lot of grey hair, or lack thereof, and will need help to continue the newsletter on into the 20th century. "Keep those articles coming".

FROM DICK EKLUND:

The T-18 Newsletter has always provided vital information for builders and owners. Although John Thorp started writing building instructions for the T-18 (14 were published in Sport Aviation), he relied heavily on Dick Cavin and Lou Sunderland to get information out to builders and operators of the T-18. The modifications required by the flutter test program and the warnings to stop the use of the cut down M74 Sensenich propellers are two examples of important safety data provided by the early newsletters. Material sources were publicized and much building instruction assistance was provided. Later safety additions, such as Tom Kerns's stall strips, have been documented in the recent newsletters.

Now that the T-18 is regaining recognition in the homebuilding community, many of the same issues previously covered need to be addressed. The aluminum materials business has changed and some substitution of alloys is now necessary to complete the airplane. Even though the aircraft is mature operationally, its age means that aircraft are being purchased and operated by new owners who did not build them. The newsletter will take the role of important information exchange for new owners.

Since the newsletter has many contributors, it can never be completely error free. Ken Brock picked up an error in the stick/stabilator position check detailed in Newsletter #34 with regard to the tab position when the stabilator is level with WL42. Since there is now a trim system involved in the tab angle rigging, the detailed

rigging procedure by Dave Neustal in NL93 and corrected in NL99, should be used to verify that the horizontal tail system conforms to drawing A-521.

I will do my best to provide any new information affecting the Thorp T-18 through publication in future T-18 Newsletters. Many thanks for the current tireless efforts of Rich and Roxanne in getting inputs from the membership and providing their own perspectives.

Richard Eklund
Eklund Engineering, Inc.

The Airplane

John Thorp started the T-18 design to enter it in a design contest sponsored by the Experimental Aircraft Association. The contest goals were to develop an aircraft that would be easy for a person with average home workshop skills to build, and could be converted for transport on the highway and kept in the family garage. Although John's design wasn't completed in time for the contest, it was still the winner in the end. It dominated the display area at Rockford and Oshkosh for many years and is still a very popular homebuilt. It has captured a number of records for homebuilts, including the coveted first homebuilt to fly around the world and to the North Pole. The T-18 was John Thorp's 18th design. Some of his other designs were the Fletcher agricultural plane, the Thorp Sky Scooter, Piper Cherokee 135, Lockheed P-2V Neptune, and Wing Derringer.

Although the original T-18 wing could be removed for road transportation, it proved to be a job for three people. In 1979 at John Thorp's suggestion Lou Sunderland design a wing that would fold for easier transportation to and from the airport. Thus was born the wide body S-18. Both the original T-18 plans and S-18 plans are available and both of the designs live on. The T-

18/S-18 individual parts are supplied by Classic Sport Aircraft, Ken Brock Manufacturing and Eklund Engineering Inc. Address and information on each supplier is included in this newsletter. In my opinion the Thorp plans are without equal, no designer today spends the time to produce a complete set of plans of full detail. As many other early builders I built my first Thorp making every piece of the airframe, using the detailed information included in the prints. Today builders are in a hurry to fly, so they look to suppliers for precut and bent assemblies, still the detail is there so someone without the bucks to spend can produce an airplane making all of the airframe himself and thereby saving a heap of money.

Our Suppliers

Eklund Engineering, Inc.
P.O. BOX 1510
LOCKEFORD, CA 95237
209-727-0318
FAX 209-727-0873
e-mail 75627.613@compuserve.com
6/20196

For the Thorp T-18 builder, the following components are offered:

Thorp #506 6061-T4 Tip - Horizontal Tail - \$90 per set plus shipping

These stretch formed aluminum skins have flanges for rivet joining the halves, or they can be trimmed and welded per the drawing.

Thorp #537-1 Upper Main Beam Channel Extrusion - \$125 plus freight Custom extruded 2014-T6 aluminum, 133 inch length by 2 x 1.25 inches to reduce waste and trimming time.

Thorp #537-2 Lower Main Beam Angle Extrusion - \$105 plus freight

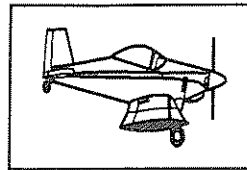
Thorp #1072, 4" Prop Extension, Clear Anodize with #905 Driving Lugs for the Lycoming O-360

engine - \$235 includes UPS standard delivery in USA International delivery quoted promptly.

Templates for all T-18 parts are available for use at the Lockeford California shop. These templates allow an individual to create a partial kit by pre-marking all hole patterns and bend line locations in flat stock and wing extrusions. Shop rental for this service is \$20 per day, by reservation only. Material coordination for on site sales or shipment to Lockeford should be accomplished in advance. E-mail correspondence is preferred, however phone messages will generally be answered promptly.



Ken and Marie Brock are familiar figures at both Oshkosh and Sun & Fun. Their sales booth is best known for Ken's gyroplanes but tucked away in it you will find most of the T-18 fittings. In addition he build the landing gear, which are then heat treated followed by a straighting process before shipping. Ken's Thorp spinners are the only ones made that fit the Thorp cowling correctly. They're about 1" larger in diameter than standard. Ken also sells Hartzell constant speed propellers and matching spinners. Ken takes great pride in the products he builds. Ken has two T-18, and by checking the flight line you will surely find his beautiful "Sweet Marie" Thorp at all major events.



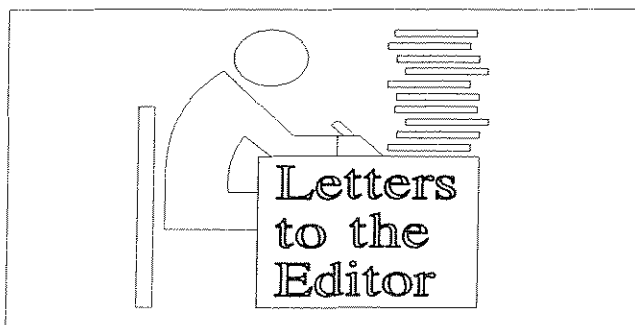
Classic Sport Aircraft
19426 Campbell Creek Dr.
Springville, CA 93265
Phone:209-539-2755

Located at the Porterville Airport in California Classic Sport Aircraft is now the major supplier of the T-18/S-18 airframe components. An update on how they are coming along with the new business follows.

It is time for an update for Classic Sport Aircraft. We finally completed our new info pac/catalog with current pricing. As you can imagine, this was no easy task and a few items are still in review. Also being sick for six weeks (Mike) didn't really help matters.

We have completed several orders and we want to thank everyone for their patience. Things should move faster as time progresses. Actions in work are as follows.

1. We have made contact with Lycoming for O.E.M. status. If things go as planned we will have new engines available with prices similar to Van's. Other products manufacturers have also been contacted.
 2. We are verifying all tooling against the prints and will adjust as required. Anyone who has found errors or items needing clarification, please let us know. We are updating drawings as well.
 3. We attended our first EAA Fly-In at Chino, Ca and received very good response from current builders, wanabe builders and those that thought the Thorp had disappeared. Our next outing is the EAA Fly-In at Camarillo CA. June 14 & 15.
- As many of you know, our office is located 17 miles from the shop so our answer machine is usually on. We will be in the office for calls from 6pm to 8pm M-F west coast time. That's all for now. We will get another update to you soon.



July 22, 1996

Dear Rich,

I had an unusual experience on my way to the Pecan Plantation Fly-In a couple of weeks ago. I left Tucson at 1:15 pm and headed for Odessa, Texas, about 510 miles to the east, my usual fuel stop. Every thing was fine until about 60 miles west of Odessa. Gigantic thunderstorm! The Kermit Texas airport was under the black cloud (many bright sparks emitting therefrom) so I prudently turned to the north to JAL, New Mexico. The name comes from a West Texas cattle ranch in the 1870's whose brand was JAL so that is how the town got its name. When I landed, the wind was blowing about 5 mph. By the time the plane was tied down and my bag out, the wind was somewhere around 50mph. You have to experience the suddenness of a West Texas thunderstorm to believe it. I was very lucky because there was a man there walking his dog and he helped me get the canopy cover on. He then took me into town, but the one motel was booked full, it being the height of the social season in JAL- they were having rooster fights that week. By this time it was raining like crazy. The power in the town went off and a few trees went down. (There are only a few trees in SE new Mexico to start with!) My new friend then very graciously offered to take me down to Kermit, Texas where there was another motel He said 23 miles was nothing to them in that part of the country. I accepted, thinking it had to be better than a park bench, especially since they were all wet. He took me down there and promised to pick me up at 7 in the morning. He

did. Boy was I grateful. We drove out to the JAL airport and my T-18 was gone!!! My immediate thought was that it had broken the chains and was blown back toward Tucson. We drove around the field looking for tan colored wreckage but didn't find any, thank goodness. I then went back to the tie-down chains and found a plastic bag tied to one of them. Some nice airport user had thought there would probably be heavy hail and locked my T-18 in a steel roofed hanger. I don't believe there was any hail but I sure did appreciate his thoughtfulness. I called the man and he came out and let my plane loose. I gave them a fly-by in appreciation and went on over to Odessa and then on to an uneventful trip to G-ranbury. Sure did have a good time at the fly-in and hope it wasn't so much work for Gary and Maxine that we won't have it there again. Their place is beautiful!

I have a complete set of maple form blocks to build a T-18. I will be happy to give them to anyone who needs them. They were built by Russ Bayse back in the '60s. He built the most beautiful T-18 ever built. It was tricycle gear retractable. He won the outstanding workmanship award at Rockford. He lost his life in it a few months later. He was a good friend. I bought all of his tools from his widow. I used the form blocks to build mine.

Thanks for all the work you do for all of us. I sure was sorry to hear about Dick Cavin.

Steve Hawley

Editor's Note: It's believed that Bayse passed out from lack of oxygen on a high altitude search mission. He was a heavy smoker.



Dear Richard and Roxanne,
8/18/96

This is something you can put in your Newsletter. I have about 100 hours on my Thorp now, and have finally gotten the carburetion to work. I have a 0-290 with an MA4 carb. I have tried three Venturies and each time it got worse. My

problem was mixture variation. At full throttle, all was fine. As soon as I backed off on power, the rear cylinders went lean to the point that I had to fly around 2300 feet to get an exhaust temp under 1400 degrees F on the rear cylinders.

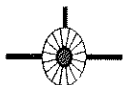
The fix: I machined a flanged tube with an I D of 1 15/16" , same as the MA4 that sandwiched between the carb and the oil pan, and extended up into the manifold area 1 1/2'. This cured the problem. I think that if I had this to do over I would use an MA3 with the same fix. Also I have been using auto gas (Union 76) 89 octane, and this was working about as good as av gas until the State of Calif screwed up the fuel. I was using 9 gal per hour. I changed to 80/87 av gas and now burn 7 gal per hour. Thank you, and keep up the good work. Larry Cresse, N4975K
P.S. Please note my new address Larry Cresse
P.O. Box 133 Acton, Calif 93510



Subj: Thorp T-18 for sale
Date: 96-08-16 07:07:42 EDT
From: aplit@conterra.com (Alvin Post)
To:Rsnelsonl@aol.com

Rich,

I have not been very aggressive in trying to sell my T-18 which I very reluctantly have to start doing. If you know of someone who would like to acquire a good little airplane, let them know about mine please. I have decided to offer it at \$26,500 (which is too cheap, yeah, I know) but I need to let it go to someone that will fly it more that once a month like I am doing. Alvin Post
Phone:803-493-0066



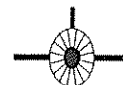
Subj: Homebuilt web site3
Date: 96-08-17 21:25:05 EDT
From: steveh@wt.net (Steve Holbert)
To:rsnelsonl@aol.com

Rich:

I was surfing the net and have ran across a number of web sites for homebuilts. In the ones that I have found so far there has been no mention of the T18 Newsletter. The last one that I looked at was <http://www.azstarnet.com/~cmddata/homebuilt/>. Most of them request readers to submit info, I was hesitant to start submitting your address, but it would be nice if there was a web page for the Thorp, or more specifcily the Newsletter.

I have canceled my subscription to AOL and have a direct Internet account now that costs me \$14 per month, unlimited access. I miss being able to read the mail about T-18s on AOL, but AOL is not a very economical solution. If there is something else available for you in your area, I highly recommend checking into it. It would be great if there were a home page for the T18 and maybe even a forum that those of us that are not on AOL can access. I feel much more comfortable plodding along hunting for info about T18's not that I am not being charged by the minute, but I haven't been able to find any sites devoted to the T18. Chris Belobrajdic comes the closest so far. Hopefully more will follow. Well I guess that's about it. If there is a T-18 site or forum that I haven't found, please let me know.
Keep up the good work!
Steve

Editors Note: I would like to set up a home page on the internet for the newsletter, but at the present we have no local access numbers and no local service provider, so everything would have to be done at the expense of a long distance phone call.



Rich,

I finally got hooked up online last week and have already burned up 10 free hours just trying to learn this computer stuff. I've barely avoided becoming a road kill on the info highway.

If you're interested in my prop it requires a crankshaft flange with holes for 7/16in. bolts. I think that's standard for an O-320 but am not positive about that. You'd certainly want to be sure it's compatible with your engine if you decide to change to this prop. In any event, if you're not interested I'd certainly appreciate it if you could include an ad in the next newsletter. Here are the particulars. Hartzell HC-F2YL-IBF/7663A-4, 0 time SOH, Woodward Governor, Was on O-320 LYC powered T-18, \$3900 or best reasonable offer. Dan Wolfe (513) 864-2781 or E-mail AirLobo@aol.com

We had dinner with Jim And Judy Paine last evening and talked about the Fall Fly-In at Kentucky Dam. Jim has scheduled the dates 11,12,13, Oct. Same procedures as previous years, ask for the Paine party to get the room discount. (KY Dam 1-800-325-0146) The Paine's are pretty busy as Jim's mother is with them full time now so I told them I'd pass the info along to you. Hopefully, it'll make the newsletter so we can draw a good number of T-18s. Thanks and say hello to Roxanne, Janey and Dan Wolfe

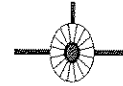
P.S. The newsletters are great. Don't know how you get all that work done as I'm sure you folks are as busy as anyone these days.



August 5, 1996

Hi, My buddy and I had a nice flight home Sunday morning - just 1hr and 55 min., Oshkosh to Romeo, MI. We both enjoyed the lunch (got there just in time) and banquet.

I have been using a Bracket air filter for many years, and it works just fine. The part number is BA 5705 and it will make two filters for the Thorp, just cut it with good scissors. Then I run a piece of safety wire thru it and attach to the screen on inlet to prevent blow out if a carb backfire should occur. Thanks again, Dick Amsden



Subj: Oshkosh Trip
Date: 96-08-29 01:45:44 EDT
From: T18THORP
To:Rsnelson

Dear Richard:

We would like to congratulate Les & Margie Conwell of Lutz Florida for receiving the award for best T-18 at Oshkosh 96.

Congratulations also to Joe Gauthier of Cronwell CT, Bill Essenburg of Viroqua WI, and Carl & Sue Daughters of Arroyo Grande CA, all of which we were pleased to present with an autographed copy of "Charlie Mike Charlie" for bringing their Thorp's to Oshkosh for the first time.

As those who attended Oshkosh may know, my airplane was hail damaged in Medford Oregon on the way to Oshkosh. Someone jokingly said that with all the dents in the wing that it looked like a golf ball surface and would probably fly faster! Well, it doesn't seem to have effected the performance one way or the other. One of our chapter members said that in a metal seminar he had attended several years earlier, they said that dents could be taken out by wrapping your wings in black plastic and letting the plane sit in the hot sun for a few days. It sounded too good to be true that something so simple would work. Well on returning from Oshkosh we here in Northern California were faced with 100+ degree weather

so I thought I might as well give it a try. My plane sat in 105+ degree weather for four days. When the black plastic came off, it appeared that the dents were some what relieved, but not enough to let it go. So much for the easy fix. I will eventually build a new wing.

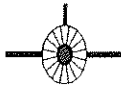
The control surfaces on Mike's Mooney were also damaged. We were told that the same storm destroyed three Cessnas north of Medford. A few bucks for an overnight hangar would have saved a lot of time and grief.

Thanks also to Lee Skillman for the "PLUG" he gave Classic Sport Aircraft during the homebuilt review at Oshkosh.

Mike & Frankie and Phyllis and myself certainly enjoyed meeting all the T-18'ers.

Finally, I would like to pass along our new AOL address, someone got our password so we had to get a new account, the new address is T18THORP@AOL.COM Hope to see you all at Copperstate.

Mike, Frankie, Phil & Phyllis
Classic Sport Aircraft



Dear Mr. Snelson

It was good meeting once again with the T-18 bunch at Butch's Anchor Inn. As I mentioned to you, here is my \$25 check for the newsletter. My address follows:

Worthy R. Warnack
3415 Maple Park Drive
Kingwood, Texas 77339
(713) 358-2892

I finished my T-18 (N2WW) In 1974, so it is one of the "old ones" -a "round back", started by the Dick Cavin group In Dallas. "Two Double

Whiskey" has been to Oshkosh three times, California once to the Mohave Air Races, many, many places In Texas— and even won first place at the Memphis Tennessee 1975 Fly In. But that was long ago, and the plane has been inactive for a couple of years.

Last year I passed my flight physical without a great deal of trouble- so I decided to put Two Double Whiskey back in the air also. The engine had been run occasionally during the inactive period, but that's about all. So I started at the tail and worked completely through the plane to the nose spinner. Surprisingly, I really didn't find any significant problem. The trim system had to be completely disassembled, cleaned and lubricated, one instrument had to be overhauled, and the carb air control had to be cleaned and adjusted. With general repair of "rash", thorough cleaning and lubrication, new tires, tubes, a new battery, and fresh oil- she flew just like always.

Have to admit I got another thrill from this second "test flight"- but couldn't have been nicer. Going through these planes from stem to stem has a lot of value, if nothing more than to renew confidence that all is like it should be.

Just wanted the group to know that one of the old ones is still in the air and providing a great deal of pleasure. Please keep up the good work and keep in touch.

Yours truly, Worthy Warnack

Our Prayers are needed !

I heard from Ed & Jeannette Ludtke this week and they had bad news for us. Jeannette has been diagnosed with a brain tumor. Surgery is not an option. It's still very small however and with your support and the help of some of the finest doctors in the world, there is hope! Their address for cards and letters is Ed & Jeannette Ludtke, 2301 Dartmoor Sioux Falls, SD 57106 Phone is 605-361-2301



Oshkosh 96

This year the Snelson's made the list of "Strange & Stranger" things that are seen in Camp Scholler. Arriving with our 24foot three horse/ camping trailer in tow, we were greeted with a strange look at the camp entrance, as I asked, "where do we tie up the horses?" After a good laugh and an assurance that we really didn't have any horses we were directed on into the fast growing tent/RV city. RoxAnne says the large bunk in the horsetrailer beats the heck out of sleeping on the ground.

After walking to the warbird area realized that the T-18s weren't in their usual area, the growing Rv fleet had finally pushed us out. The T-18s were south of the tower and I think it worked out better because the rows are deeper there and it allows getting the planes back from the flightline. I have always been nervous during airshow time with the zillion people and their lawn chairs, not watching were they are going.

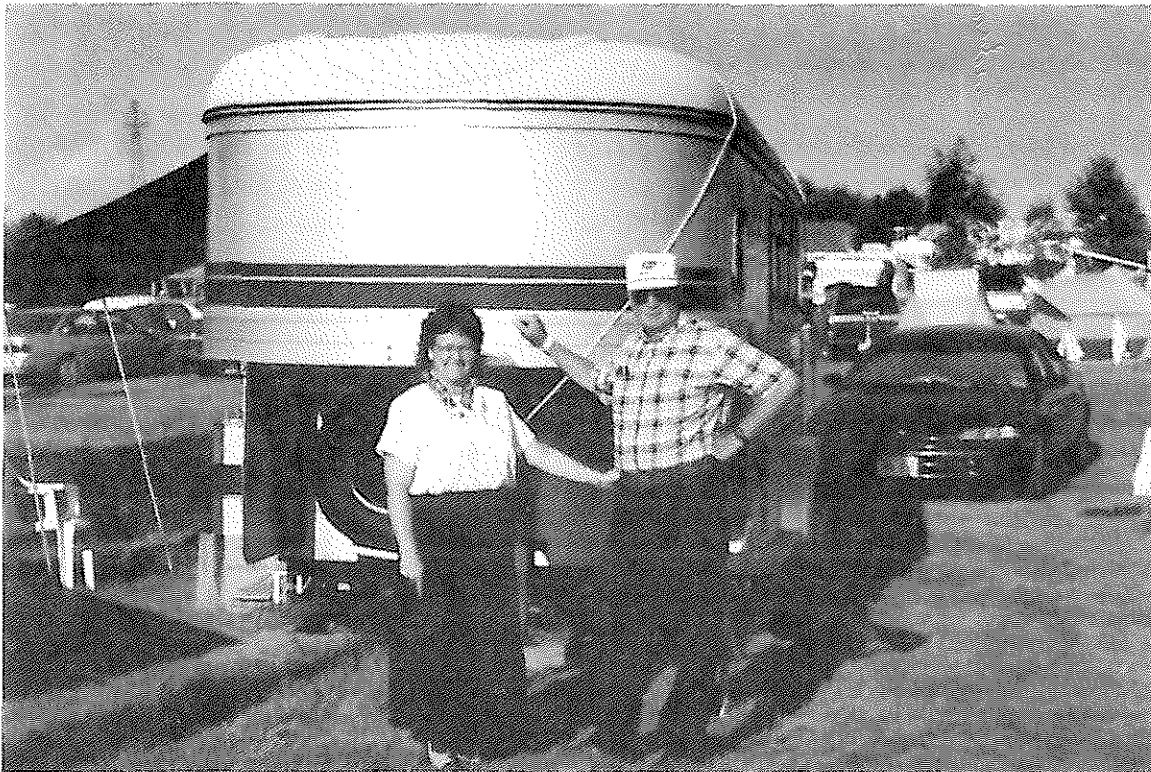
At noon the now famous beer soaked brats were cooking, in the nature center and the T-18ers was starting to arrive. I believe we set a record for attendance at the picnic and forum with a head count of over 100 people. Our thanks to Bob Highley and Bill Williams for cooking the brats and to RoxAnne for doing the shopping.

The forum started with a letter from "John Thorp", really, I found a letter John had sent to Don Taylor giving the "G" loading for various weights of the T-18 up to 2200 lbs. I don't recall seeing those figures before. Look for it in this newsletter. Dick Ecklund gave an update on his support for the T-18 builders and talked about things he has for sale. I have included a page in this newsletter that describes his T-18 items. The folks from Classic Sport Aircraft then brought us up to date on their new bussiness startup efforts. We were all glad to hear that the supply of T-18 parts will continue into the future. They have a write up in this newsletter. Several individuals contributed building ideas and safety suggestions to the group. For you that asked, John Even's oil separator is described in this newsletter.

Friday evening we again filled the downstairs banquet room at Butch's Anchor Inn. The award for the best T-18 went to Les and Margie Conwell of Lutz, FL. What a beautiful airplane it shows a lot of attention to detail in finishing and interior design. Les and Margie never fail to make the Midwest T-18 fly-ins. I understand they left Oshkosh and went on to the west, with the Highley. Must be a story there folks, start writing, Les and Bob! First time T/S-18s at Oshkosh included Joe Gauthier of Cronwell, CT, Bill Essenburg of Viroqua, WI and Carl & Sue Daughters of Arroyo Grande CA. I hope we didn't miss anyone! Weekend went fast and the weather was beautiful. Hope you enjoy the pictures from the flightline and banquet.



Carl & Sue Daughters, Les & Margie Comwell and Bill Essenburg



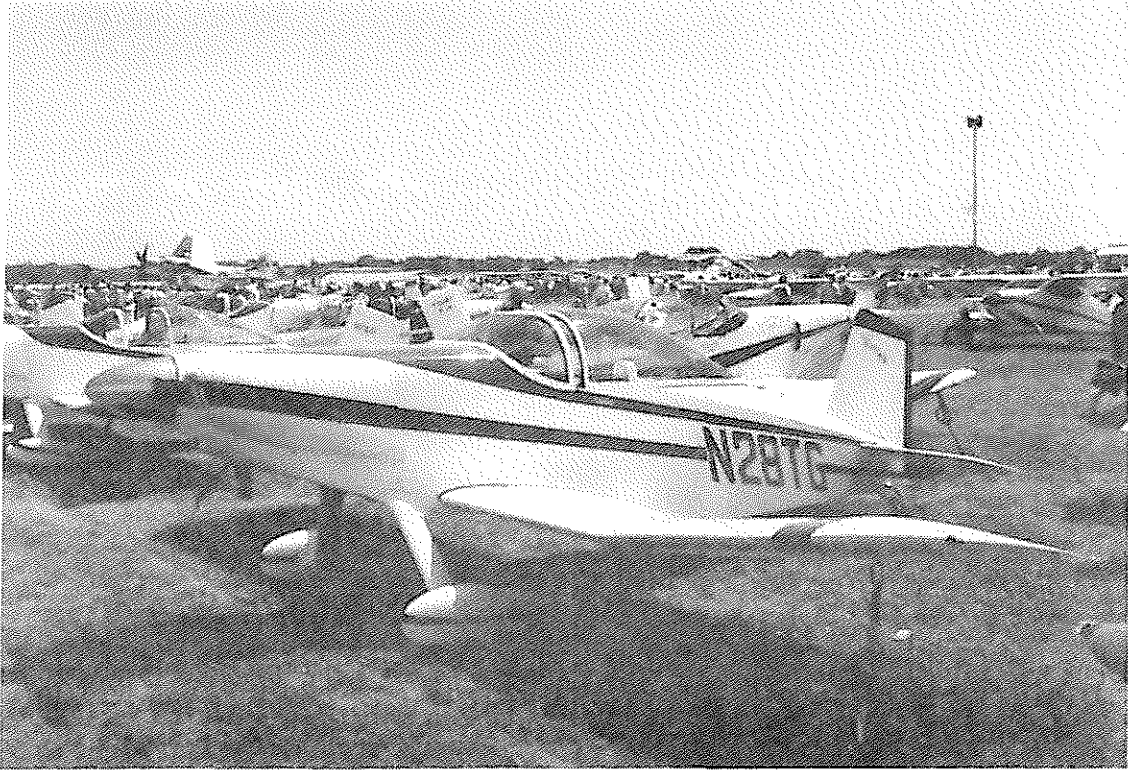
Richard, RoxAnne and "The Horse Trailer"



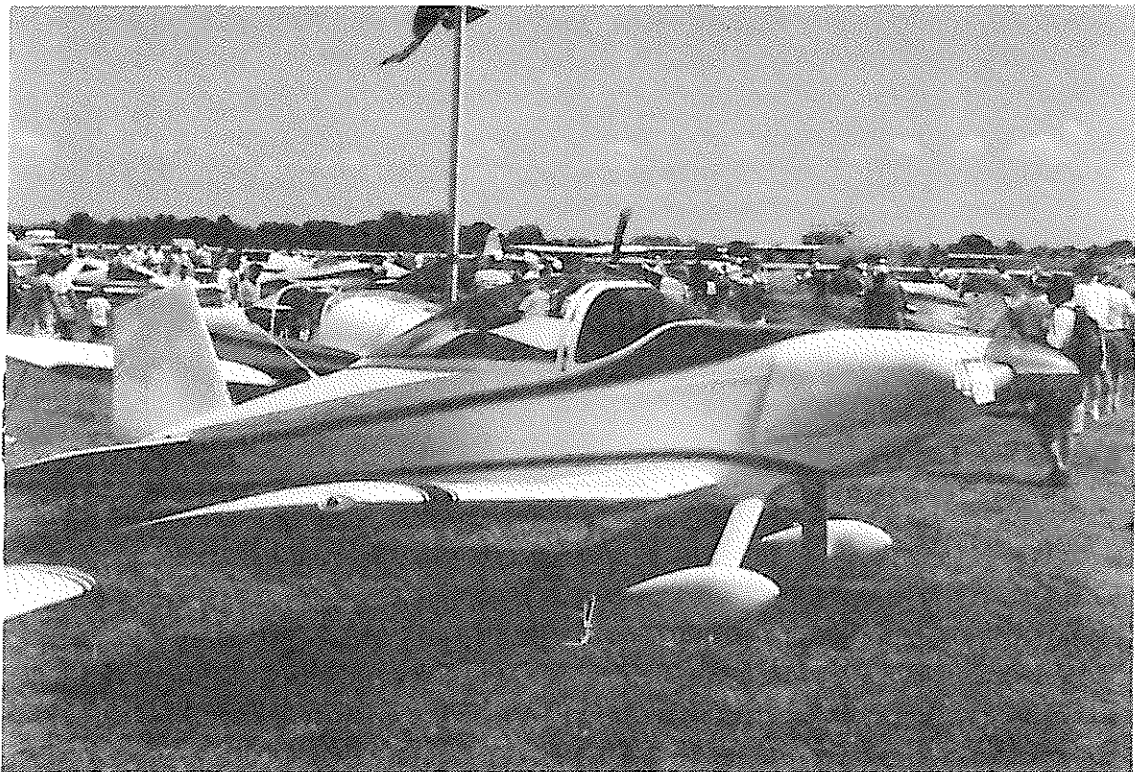
*Carl & Sue Daughters of Arroyo Grande, CA. Check out that different cowling folks!
No two T-18 are alike. Ain't it grand!*



*Joe Gauthier of Cromwell CT, another first time at Oshkosk T-18. Beautiful yellow with
green trimmed Thorp.*



Bill Essenburg's Thorp, first time at Oshkosh, he's from Viroqua, WI, Nice work Bill!



And we have our winner for the "Best T-18 Oshkosh 96. It was built by Les & Margie Comwell of Lutz Florida

THORP Engineering Company

P. O. Box 516, Sun Valley, California 91352

March 28, 1973

Col. Donald Taylor
Star Route, Box 316
Hemet, CA 92343

Dear Col. Taylor:

For your information, the T-18 airframe structure is designed in the F.A.A. aerobatic category at a gross weight of 1,250 pounds. The limit load factors for this condition are +6.0 and -3.0.

At 1500# the maneuvering limit load factors are +5.0 and -2.5.

At 1600# they are +4.7 and -2.3.

At 1800# they are +4.1 and -2.0.


At 2000# they are +3.7 and -1.8.

At 2200# they are +3.4 and -1.7.

These load factors do not include the beneficial effect of any fuel weight carried in the wings.

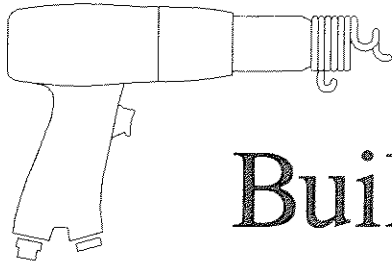
Very truly yours,

THORP ENGINEERING COMPANY


John W. Thorp

JWT:k

Editor's Note: I found this letter that John Thorp wrote to Don Taylor. I don't think this information has ever been in the newsletters. It's important because it is a reminder that at the airplane is designed around 1250lbs, and at higher weight the "G" capability is much less.



by John Evens

Builder's Corner

Dear Richard,
It was good to see you and all the T-18 guys at Oshkosh. We are also planning to be at Placerville in September, weather permitting.

As promised, I'm enclosing a crude drawing of my oil separator. If anyone interested in building one has questions, they're welcome to call me (303-420-2724, evenings). A few comments-- First, I wrote an article about a breather system for the newsletter, many issues ago, which used a check valve, and a tube going into the exhaust pipe. It is now my opinion, that is probably not a good way to go. It seems to work alright, but there is a possibility (strong) that the check valve or exhaust pipe tube will clog or become carboned up. I've done quite a bit of experimenting with oil separators and I think they're fine, but just dump your output overboard (down gear leg, or whatever). We go to such extremes, sometimes, just to avoid a little oil on the belly. Sometimes the old tried and true ways are the best ways.

About the separator-- It's light, compact, and as efficient as any I've tried. Keep in mind though, that even if a separator causes all vaporous oil to drop out and be collected, the oil will still creep along interior surfaces, and anywhere the air is going the oil will eventually find it's way also. Most of the oil is collected, but a small amount will come out. I let mine collect in the separator,

and drain it every so often. You can easily feed it back into the engine, but I don't like the dirty look of the oil that's collected, mixed with moisture, etc.

There are a couple of details not shown on the drawing. First, I use some "Scott" foam (air filter material) loosely packed inside to increase efficiency. Since I did that, I added a little pressure relief valve to the top cap in the form of a thin, springy, stainless steel "reed" with a small rubber gasket covering a 1/4" hole, just in case oil and moisture froze in the winter and clogged the foam. The engine compartment is warm, but you never know. The thought of a blown propeller shaft seal is not pleasant.

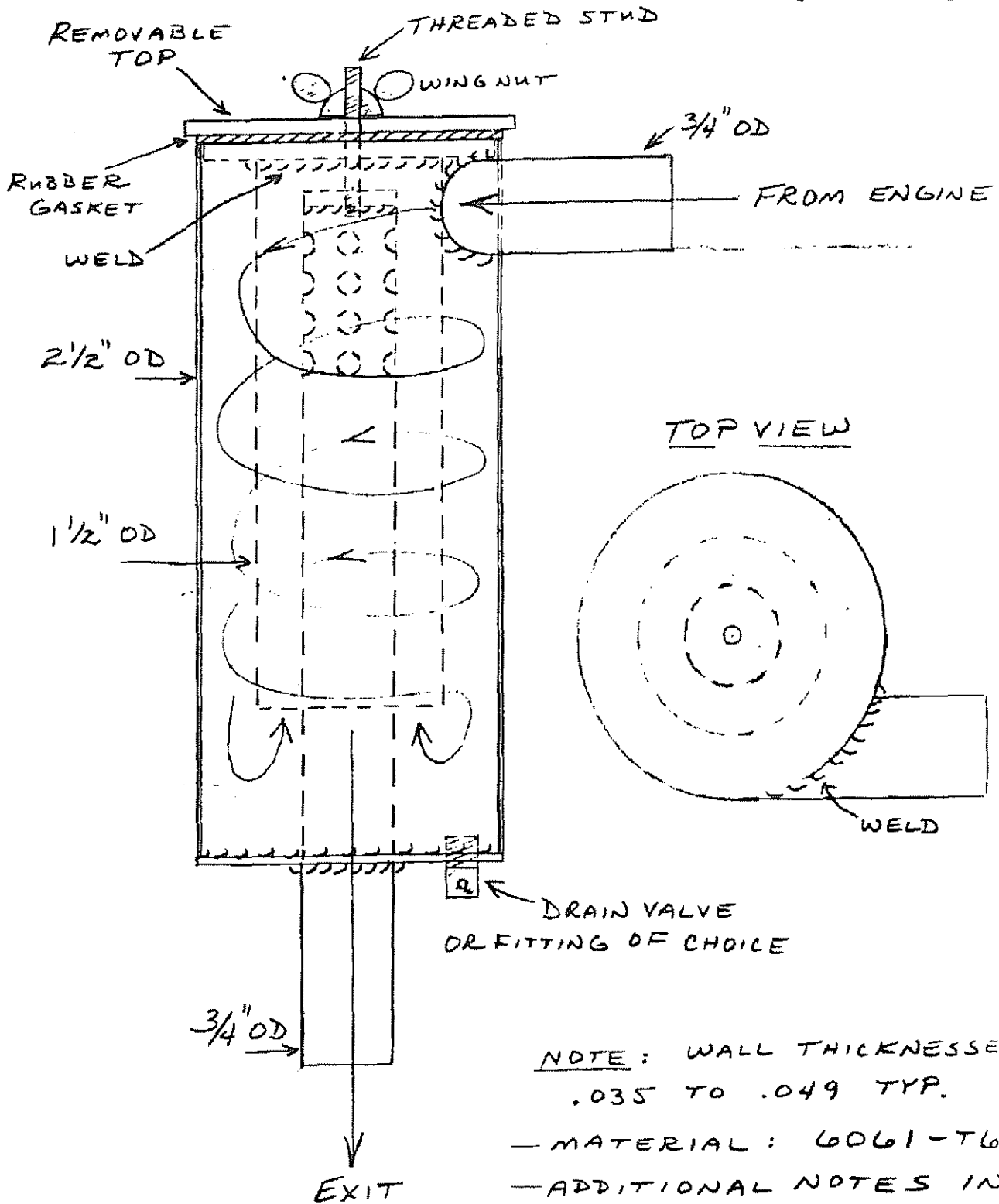
A few guys have asked me about the propeller leading edge tape. It is very effective protection against rock nicks & rain erosion of the leading edge. I haven't seen any performance problems, but I'd be interested in other people's experiences. I've had this stuff on the leading edges of my props for about 6 years now - it is extremely durable. It's a polyurethane tape with acrylic adhesive made by 3M. It has excellent UV resistance. It comes in 2 thicknesses -- #8671 is .014" and #8672 is .008" thick. I like the 3/4" wide #8671 tape. You can stretch it and make it conform to a curve. A friend in Boulder, Colorado used to sell it in a kit, but not anymore.
Best Regards John Evens N71JE Arvada, CO

OIL SEPARATOR

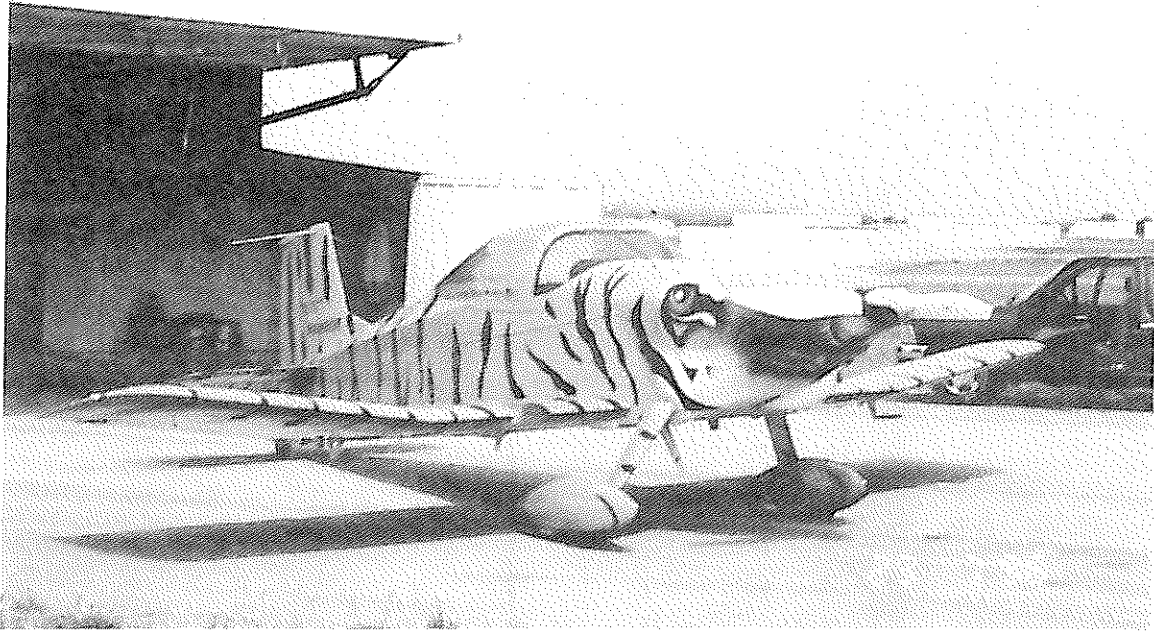
APPROX. FULL SIZE

BY:

JOHN EVENS



NOTE: WALL THICKNESSES
.035 TO .049 TYP.
— MATERIAL: 6061-T6
— ADDITIONAL NOTES IN
TEXT.



FAT CAT REPORT

by Harvey Mickelsen

Why She Was a No-Show at OSH '96!

Performance Data

It was the night before launch to OSH. Fat Cat was positioned at Reid Hillview Airport in San Jose to get out from under the coastal fog that plagues Half Moon Bay in the Summer. I fueled the main and both wing tanks (a total of 56 gallons), stepped back and watched as the right wing tank started leaking! A pail was positioned to catch the fuel, and about 15 minutes later the leak stopped. Thinking that it was the sender unit gasket and that it had swollen when wetted by the fuel we put her in the borrowed hanger and I drove home.

When my wife, Steffie, heard of the fuel problem she decided that she was not going to go to OSH. There were just too many things not quite right or that were not fully tested. Disappointing as it was for me, I decided that I didn't want to go without her, so I canceled our trip to OSH for '96. It was a good decision when I looked at it from a more detached point of view. We then received a phone call that the tank had started to leak again and Fat Cat had been ejected from the hanger. The mag compass had not yet been swung, the airspeed indicator had not been calibrated, and the fuel pump and fuel injector servo only had two hours on them.

Shortly after the 40 hours were flown off, the engine driven fuel pump diaphragm broke. Stephe noticed fuel running out of the left wheel pant! At first I doubted her report until I remembered I had routed the fuel pump vent line to the gear leg to get it away from the engine compartment. I got a new pump from the mechanic who had rebuilt the engine and installed it myself. Flying with the new pump I could get no more than IO gauhr flow, and the engine ran very lean at full throttle. It was the wrong pump! It was

only putting out 6 psi, my fuel injected engine needs a 30 psi pump. I exchanged the pump, and while at it, I got a rebuilt injector servo unit since the diaphragms in it had the same history. They had all sat dry for 17 years while I built the plane.

While you were enjoying OSH, I swung the compass and calibrated the airspeed indicator by flying formation with a C182. The static ports have been moved from the under-wing pitot tube to the aft fuselage correcting a large low speed error. The following tables give Fat Cat's performance today with a 180 hp 10-360 and a fixed pitch Prince prop. There are some improvements that will be made so the numbers will get better.

Climb Rate: 1300 fpm at 100 mph I 100 fpm at 120 mph (a more comfortable deck angle)

Stall Speeds:	Flaps	IAS	CAS
	0 deg	68 mph	74 mph
	15	65	72
	30	63	70

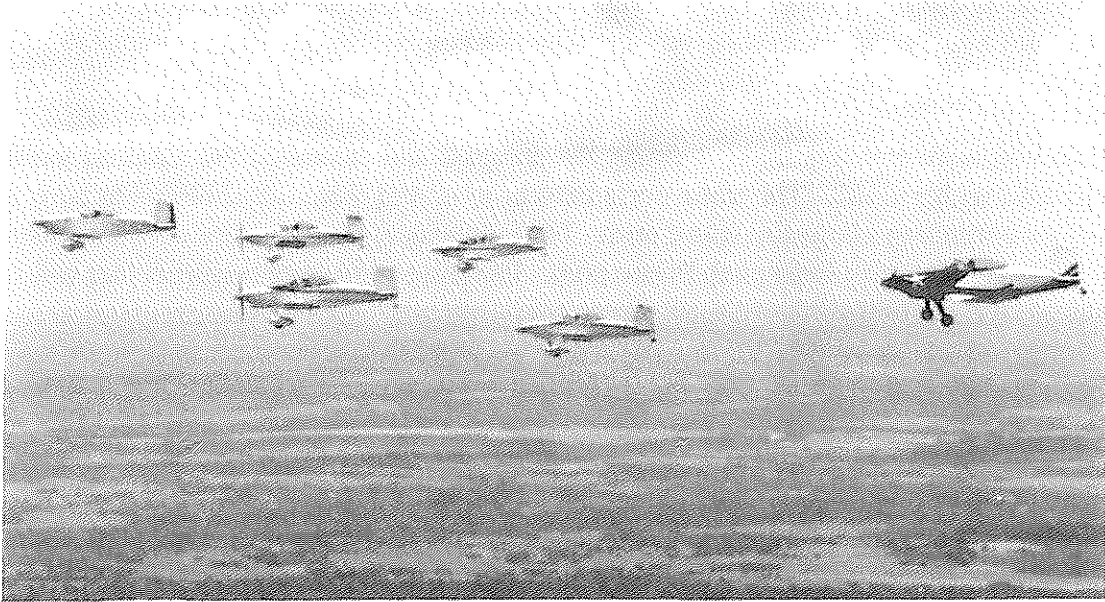
Performance:	Power	CAS	TAS at 7000 ft	GPH	MPG
	65%	145 mph	156 mph	8.5(1)	18.4
	75%	159	170	9.5	17.9
	85%	172	185	12.5 (2)	14.8
	95%(3)	186	200	13.5	14.8

- (1) Best economy mixture
- (2) Best power mixture
- (3) Maximum with current fixed pitch prop

The basic paint job you see in the pictures was done by Don Copeland of Arizona Aeropainting in Eloy, Arizona. The job took 2 1/2 weeks with me helping every day. Temps were in the 100s every day, 110 3 days and 120 1 day! Every bit of the Bondo work I had done came off and the prep work took a week. Masking the stripes took me 3 1/2 days. A local flight instructor judges paint jobs by how close you are when you first see imperfections. The flying club plane has a 6 foot paint job. He says Fat Cat has a 1 inch paint job! I recommend Don if you have the time and the money and want perfection.

The face and paws were done by airbrush by Cindy and Kathy of Gilly's Signs in Placerville, California. They did the detailing on the latest Gee Bee to be flown (see Sports Aviation June '96, page 9 1). Fat Cat really draws attention on the ramp!

I intend to show her at Hayward, CA August 3 1, at the T- 1 8 Fly-In at Placerville Sept 6, the Half Moon Bay Airfair Sept 28, and the Tracy, CA EAA Fly-in Oct 5. Now the fun begins!



Thorp's over Texas, Spring fly-in at Grandbury picture by Pete Reinhart's brother.

T-18 FALL GATHERING KENTUCKY DAM VILLAGE STATE RESORT PARK

OCT 11-12-13, 1996

Come to this event if you enjoy flying, flying, flying. It's true we do spend a little of the weekend looking at the gathered Thorps, but a lot of the time is spent giving folks Thorp T-18 rides. Kentucky Dam State Park Airport is 30 miles east of the Cunningham VOR (Paducah) on the 90 degree radial, 8 miles south of V178. The runway is paved, 4000 feet long. Phone number for the lodge is 1-800-325-0146. I doubt if you will be able to get a room there at this late date! Call anyway and ask for the Paine Party. If you can't get in there, try the Ramada Inn its not far. Bring your own tie downs.

ABOUT OUR COVER

As I was going through the hundreds of Thorp photos in my file cabinet looking for just the right one to use on this very special 100th issue of the Thorp Newsletter, our friend B.C. Roemer sent me this great air to air shot. His timing couldn't have been better. The pilot and builder of this airplane, one of the first five to fly, is Bob Keargaard, of Chicago. It looks as if Bob and his passenger are having a great time in the open cockpit beauty. As B.C. states in his letter, this is where we started! The T-18 as John Thorp conceived it.

July 15, 1996

Rich,

Some T-18 pilots might want to know what its like to fly without a canopy as in the photo. As I flew in this airplane it was very pleasant-so to speak-but noisy! You didn't have to wear a helmet and could wear your glasses. The turtle back and doors keep this air flow on the tail fairly smooth.

Now more than one "modern" T-18 has lost a canopy in flight-and landed just fine.

We deliberately took our's off and Peter Roemer flew the pattern few times then I did the same. I can report that on take off and landing I could tell no difference than with the canopy on, but in cruise (if you want to call a loss of 80 MPH "cruise") of 130-135 MPH the drag is so great that's all we could get (we have an 0-360 fix pitch). The air noise is terrific. The tumbling air hits the tail and it is shaking to a point where something is going to let go.

So — If you lose a canopy—no sweat—just slow down to 90 or so and fly to an airport.

We flew at least 10 times—even to another airport—without the canopy. It's just not practical without the turtle back.

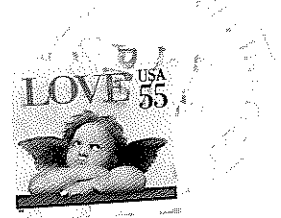
BC

The Thorp T-18 Mutual Aid Society

It the goal of the Mutual Aid Society and it's newsletter to provide an information exchange that will aid in the safe building and flying of T-18/S-18 model aircraft. Each of us who is building or has built a Thorp has spent time calling and asking other members, questions on the fine points of getting one of these air-machines together. Without the help of others, I'm not at all sure that I would have gotten that job done. As the fleet of Thorps exchange hands and new owners face the problems of maintaining and safely flying them, it becomes even more critical that we continue the sharing of past experiences and new ideas. It's through the contribution of this material by the members of the Mutual Aid Society that the newsletter will continue and contribute to all.

Richard O. Snelson
Thorp T-18/S-18
Newsletter Editor

T-18 NEWSLETTER
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CLINTON, IL 61727
1-217-935-4215
Issue #100, Sept 15, 1996



[REDACTED]

25

Red circle "No dues for 96" please!!

**Don't forget Kentucky Dam Gathering is Oct 11-13
See you There!**

FOR SALE

New MA4-5 Carbuerator PN 10-464-1
Never been used Asking \$1050

Woodward Prop Governor PN B210776
Has 13 hours time since new, has been
flushed, resealed tested and yellow tagged
Asking \$800

4 inch Prop Extension, \$175
Call, Ed Ludtke at 605-361-2301

Hartzell HC-F2YL-IBF/7663A-4, 0 time SOH,
Woodardward Governor, Was on 0-320 LYC powered
T-18, \$3900 or best reasonable offer. Dan Wolfe (513)
864-2781 or E-mail AirLobo@aol.com

Thorp T-18wc, serial #001. TTAF 450hrs. TTEngine,
550hrs. since new. Electric Stab. Trim. Aileron Trim.
Electric Flaps. Cleveland Brakes. Scott Tailwheel. wing
tip strobes, Lyc 0-320A2C. Harmonic Prop Balancer.
4cyl EGT/CHT. 2 Terra 720 CH Comms.& Nav
Recvs. Terra 350D Audio Panel/MKR/Inercom. Terra
Xponder & encoder. Narco ELT. Flybuddy GPS.
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