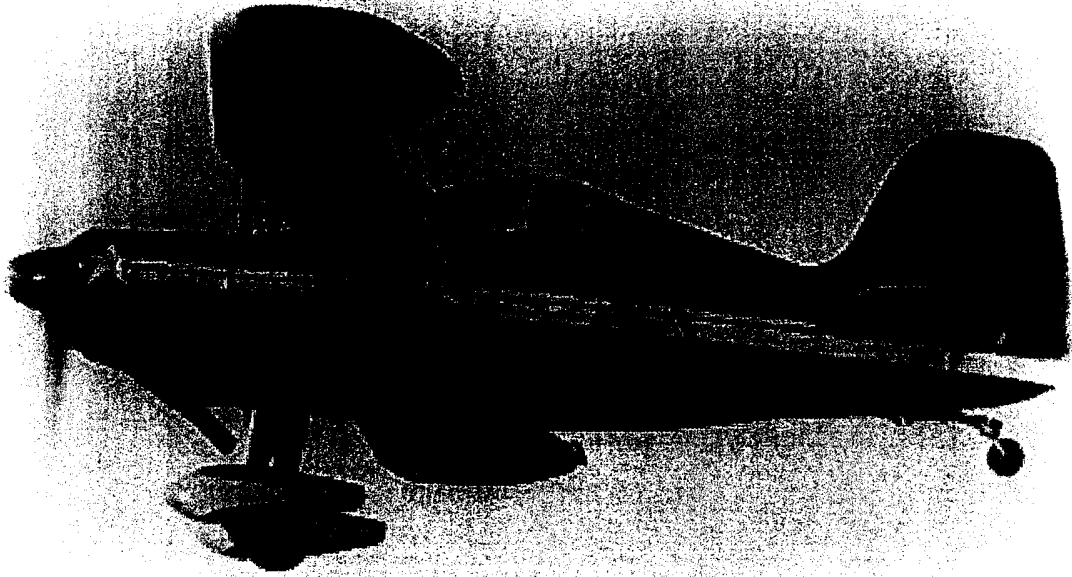


# SUPER STARDUSTER



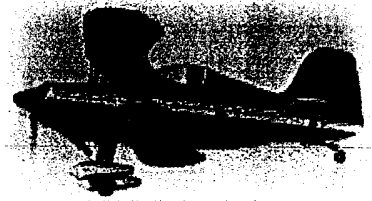
SA101

Information Packet

---

*Aircraft Spruce & Specialty Co. 225 Airport Cir. Corona, CA, 92880 • Sales 877-477-7823  
Int'l +1-951-372-9555 Fax +1-951-372-0555 • [www.aircraftspruce.com](http://www.aircraftspruce.com) • [info@aircraftspruce.com](mailto:info@aircraftspruce.com)*

# Super Starduster, SA101

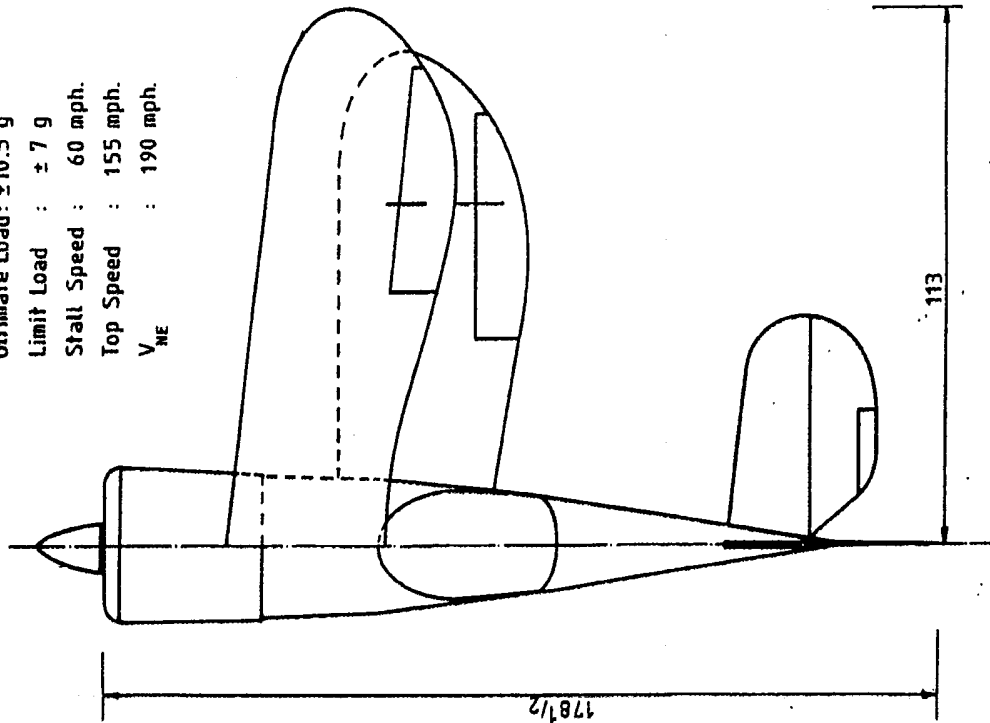
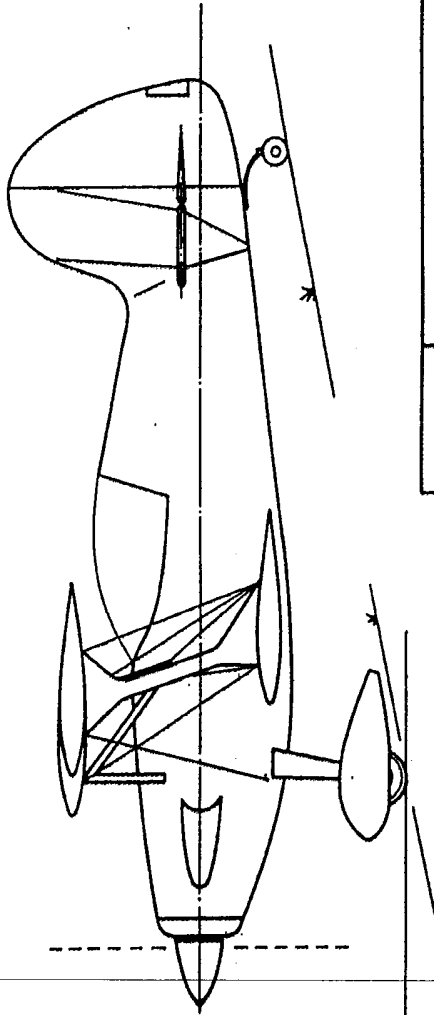
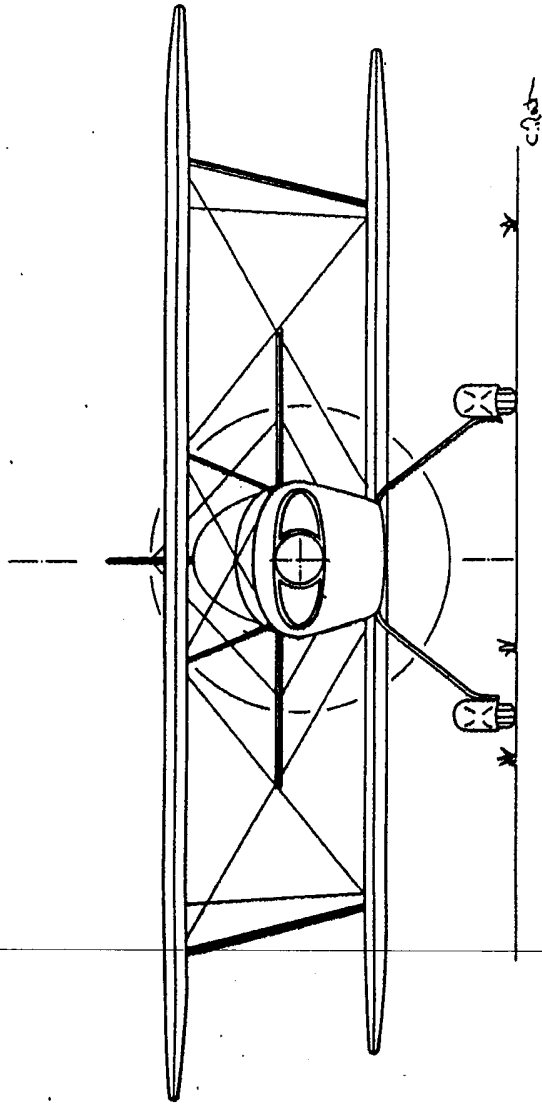



When you take all the starduster designs and planes, form beauty, add in the pure fun, performance and set up a single-place machine, you get the Super Starduster. If a single-place, unlimited-aerobatic, full-thrill biplane is in your future, check this one out. Take-off and landing is easy, 70-mph patterns are no problem, stall at 58, never exceed at 210 mph and rated at +/- 7 G, and turns that no one can match make this an outstanding machine. Engine size is the 180 or 200 HP Lycoming with a pumped-up engine really showing its stuff. Racing at Reno or just chasing the wind, the Super Starduster is hard to beat.

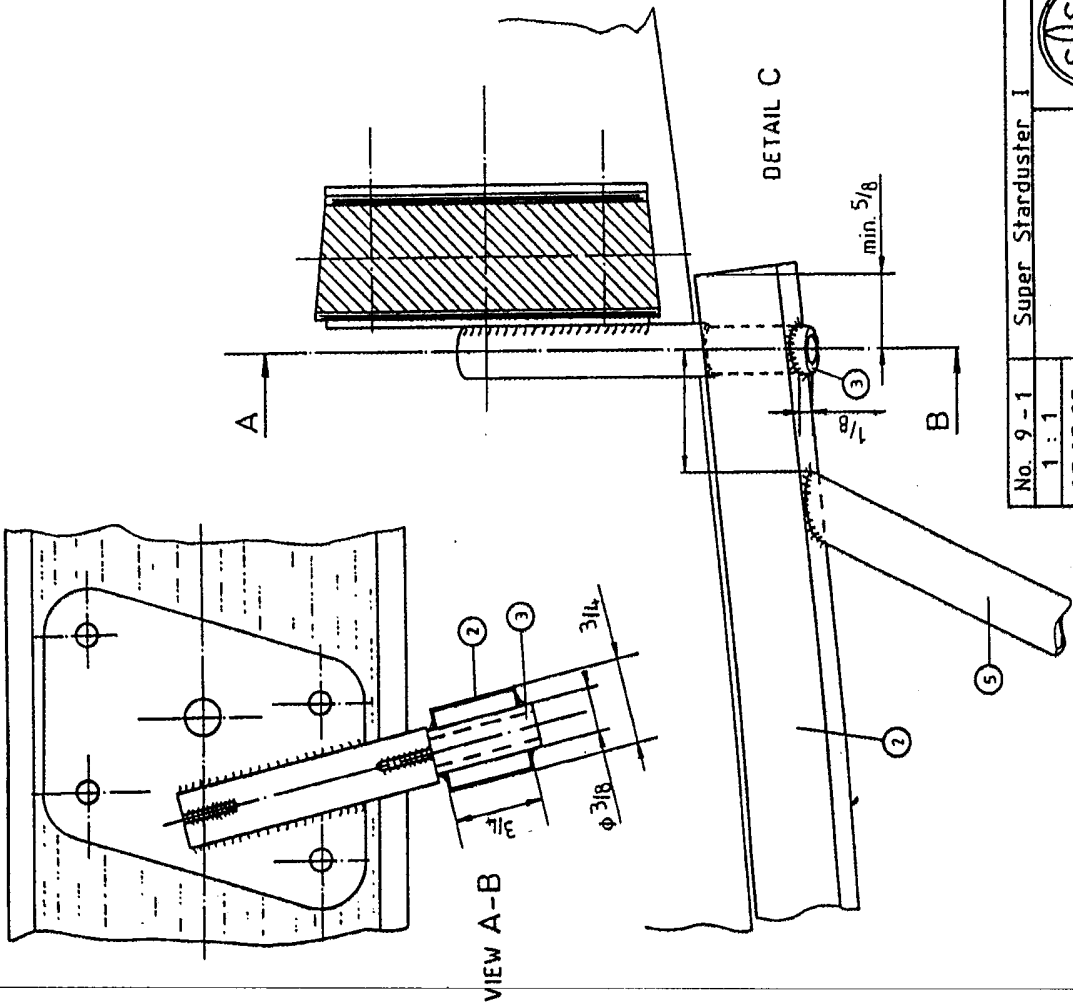
## *SUPER STARDUSTER SA101 specifications:*


<i>Upper span:</i>	<i>24 ft.</i>
<i>Lower span:</i>	<i>20 ft. 5 in.</i>
<i>Wing Area:</i>	<i>162 sq.ft.</i>
<i>Incidence:</i>	<i>0 deg. lower wing</i>
<i>Dihedral:</i>	<i>0 deg. lower wing</i>
<i>Airfoil:</i>	<i>symmetrical</i>
<i>Engine:</i>	<i>Lyc IO-360 AIA 180++HP</i>
<i>speed at:</i>	<i>5000 ft. over 170 mph</i>
<i>Vne:</i>	<i>220 mph</i>
<i>stall under:</i>	<i>60 mph</i>
<i>Empty weight:</i>	<i>840 lbs.</i>

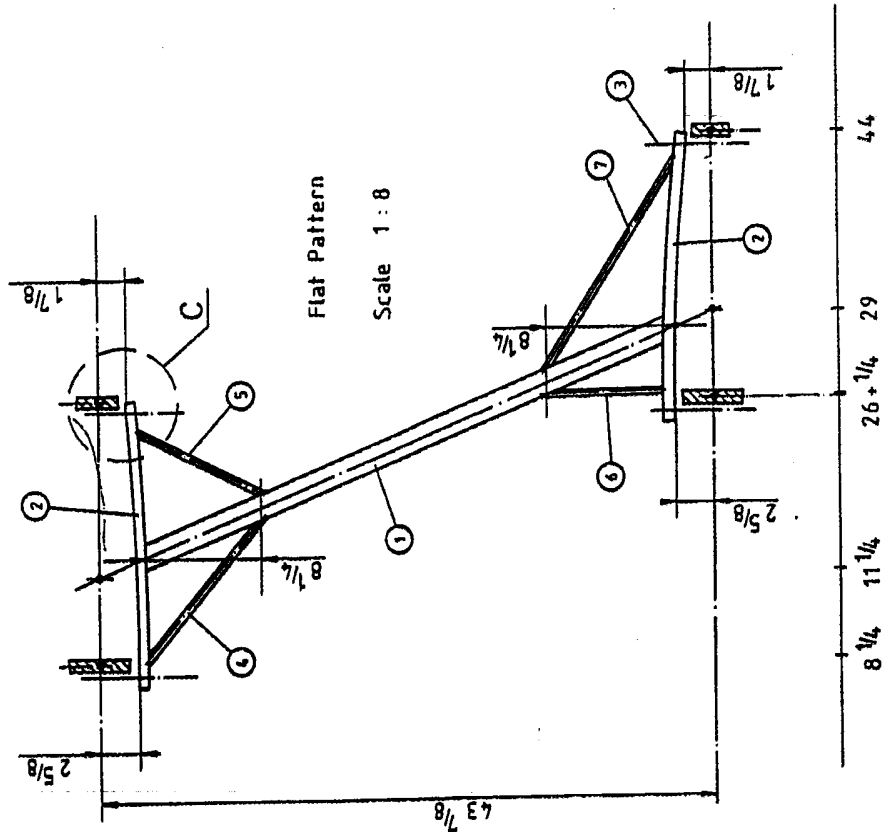
Engine : 180 hp  
 Gross Weight : 1200 lbs.  
 Wing Area : 98 sqft.  
 Ultimate Load :  $\pm 10.5 g$   
 Limit Load :  $\pm 7 g$   
 Stall Speed : 60 mph.  
 Top Speed : 155 mph.  
 $V_{NE}$  : 190 mph.



1 : 24	Super Starduster I	
12.04.85		
C. Reuter	Stolp Starduster Corp., Riverside, CA, 92509	



No. 9 - 1	Super Starduster I	
1 : 1	I - STRUT	
07.07.85	C. Reuter	
Stolp Starduster Corp., Riverside, CA, 92509		



“Sample Page of SAI01 Plans”

Archived Articles on the:

Super Starduster  
SA 101

---

*Aircraft Spruce & Specialty Co. 225 Airport Cir. Corona, CA, 92880 • Sales 877-477-7823  
Int'l +1-951-372-9555 Fax +1-951-372-0555 • [www.aircraftspruce.com](http://www.aircraftspruce.com) • [info@aircraftspruce.com](mailto:info@aircraftspruce.com)*



# Aircraft Spruce & Specialty Co.

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

## SUPER STARDUSTER

By Don Dwiggins

Fond du Lac, Wis. is the IN place for aerobatics, as illustrated by the EAA/IAC International Aerobatic Championships to be held there Aug. 8-12. There you can see the newest wonder planes in action, driven by the worlds hottest pilots, who spend half there lives flying upside down, sideways, or any which way they can. All are trained to do things the hard way and make staying inside "The Box" look easy.

Pilots accustomed to roaming the beautiful skies of America would feel claustrophobic while flying the Box, a hunk of sky 1000 meters (about 3300 sq. ft.); the topside altitude limit is 1000 meters and the lower altitude limit is 100 meters. All competition aerobatics must be flown within the Box's parameters. To stick a wing or nose outside the Box costs you penalty points. A little J-3 doing wingovers and loop-de-loops can pretty easily fly within the Box, but for a 200 mph bomb, it's a real challenge!

One man who is quite familiar with the Box is Continental Airlines pilot Dick Green. He has flown competition aerobatics for the past two years in a sleek little Acroduster Too, powered by a 260 hp 10-540 Lycoming, and while his maneuvers were perfect, the Box just wasn't the right size. His speed while doing fancy whifferdills caused him to need more room, or a more agile ship that could handle the velocities he wanted without any excursions beyond the prescribed limits.

That's when he and his dad, Tom Green, a retired Continental captain, decided to work with Bill Clouse, new president of Stolp Starduster Corp. in Riverside, Calif. In order to see if they could come up with something new. They did. The result of their cooperative effort is the Super Starduster, a variant of the earlier Stolp Starduster SA-100 single plane aerobatic bomb.

Although officially registered with the FAA as a "Starduster SA-100 Modified" it was so superior to the old SA-100 that they settled for the new name, Super Starduster.

The fine line of sport planes that was originated by Lou Stolp at Riverside's Flabob Airport has an interesting history. These aircraft include the SA-100 Starduster, SA-300 Starduster Too, the single seat SA-500 Starlet, the aerobatic SA-900 V-Star, the SA-700 Acroduster, the SA-750 Acroduster Too and now the Super Starduster.

Stolp Starduster Corp. was founded to market amateur plans, components and materials for the light single-seater SA-100. (The "SA" stands for Lou Stolp and George M. Adams, its designers.) SA-100 first flew back in 1957; plans for this model were discontinued in 1972. Recently Clouse also discontinued selling plans for the Acroduster 1, in anticipation of turning loose the Super Starduster.

The Stolp Starduster Corp. also markets plans for a replica of the Fokker D VIII, the G/B Special designed by Glenn Beets and the Knight Twister, designed by Vernon Payne.

For power, a 200-hp Lycoming 10-360 A1A was installed, swinging a constant speed Hartzell aerobatic propeller. This provided a top speed of 200 mph IAS, the magic number for 1 mph, and a 24-square cruise speed of 180 mph indicated. The Super Starduster stalls at 55 mph when you first feel the nibble, and can



# Aircraft Spruce & Specialty Co.

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

climb like a homesick angel at an easy 3000 fpm.

Tom Green likes to get off the deck in 200 feet, and land in 700. He says the max range is better than 500 miles; with 30 gallons of avgas in a fuselage tank, he allows 27 to burn, plus 3 gallons for reserve.

It was a few years ago that the Greens and Clouse began the Super Acroduster project. Clouse was responsible for building the fuselage, while Tom Green built the four wing panels. In all they spent some \$45,000 on the project, and I have never seen a more lovely aircraft, painted red and white.

The Super Starduster airfoil is a modified Osborne A-1 symmetrical with a 38-inch chord and a 4-inch thickness, for a thickness/chord ratio of 9:5. There's no dihedral or incidence to the wings, which sweep back 6 degrees for a more rearward Cp. The wing spars are of solid spruce, the ribs are birch and the covering is Dacron. The symmetrical ailerons, as stated before, are servo-boosted. Fuselage construction is of steel tubing and fabric, aluminum and fiberglass, stressed to 16 G's.

The tail unit is also built of steel tubing, fabric covered, and uses fitted elevators instead of all moving ones. It uses ground adjustable trim, servo-boosted on both rudder and elevator.

Landing gear is fixed, using spring steel for shock absorption. Wheels are Cleveland 500/5, the tires Lamb 11.4/5s. Cleveland brakes are installed, and the wheels are covered with specially designed fairings.

On the left side of the fuselage behind the cockpit area is a door for access to the 12-volt, 30-amp Globe gel-cell battery, (it won't leak inverted) and an APU attachment.

Behind the pilot's head position is a baggage compartment that holds a load of 2 cu. ft. Inside the cockpit you won't find any fancy IFR gauges or electronic equipment, just a simple little Terra 720 comm radio to get in and out of controlled airports. Any extra goodies would add extra weight that you don't need when flying competition aerobatics!

The Super Acroduster's dimensions make it seem about half the size of a Piper Cub, with a wingspan of only 19 feet 6 inches and a width of 16 inches. The elliptical wings, which have an average chord of about 38 inches, have an aspect ratio of roughly 9:1. The fuselage is oval-shaped, 30 inches wide and 36 inches high at the firewall. The plane stands 7 inches tall, its elevator span is 8 feet, wheel track width is 54 inches, and wheelbase is 108 inches. The 76-inch propeller blades clear the ground by a spare 6 inches.

At press time Dick Green had flown the first 25 hours on the Super Starduster along with his dad, and was set to compete in a regional IAC meet at Thermal, Ca., prior to heading east for the big show at Oshkosh and Fond du Lac.

Dick has already tried his new wings in the Super, and says it can do five successive snaprolls in one maneuver. Another achievement he may or may not try in the unlimited competition at Fond du Lac is what he calls a Torque Roll - you pick up speed and pull the nose straight up, rolling through aileron rolls until gravity takes over, then go into a vertical tailslide, unwinding on the way down!

FOOTNOTE: The next world Aerobatic Championships will be held at Bekescaba, Hungary, July 25 through August 15, 1984.

★ To our Starduster readers. This article was reprinted from the September 1983 issue of Homebuilt Aircraft magazine.





# Aircraft Spruce & Specialty Co.

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

Taken from Starduster Magazine-July 1994

## STARDUSTER HISTORY SA101 Super Starduster N191DG

The original single place Starduster and aerobatics were fine in the sixties, with the usual loop and roll, and although it was never intended for use at acro competitions, it did quite well for the weekend pilot. At the same time of course the Pitts was really starting to make a name for itself, and at its peak in the early 1980's, Dick Green, and his dad Tom, along with Bill Clouse decided that they would team up to design an aircraft that would compete with the new Pitts SIT.

The general plan, size and layout was based somewhat around the Acroduster One. The major difference was a .028 wall steel tube fuselage as opposed to the aluminum one used on the Acroduster. However it did retain the aluminum spring gear. The wings are wood, using much of the Starduster type construction. The other interesting thing about the airplane is the control system. It is a mixer control system designed by Vernon Payne of Knight Twister fame. It allows the ailerons to doop 1" when the stick is pulled back, and has the opposite doop when pushed forward. This helps in landing, and lowers the touchdown speed. The airplane has the Osborne A-1 symmetrical airfoil, a 28" cord, and is 4" thick. There is no dihedral or incidence in the wings. It does however retain the 6 degree sweep, and much of the Starduster look.

The ailerons are servo boosted with the interconnects inside the "I" struts. The performance with a 200 HP Lycoming is what you would expect, spectacular. VMAX 200 kts IAS, cruise 180 IAS, climb 3000 FPM, stall 55 MPH, takeoff 200 feet, landing 700 feet, ceiling 12,500 feet and range of 507 s/miles. The empty weight was 940 lbs and gross at 1,150 lbs. It was also designed to withstand 16 G's plus or minus. This airplane in my opinion would have competed in advanced and unlimited IAC competition, and in the right hands could have won!

The Greens competed locally and flew some airshows. They also planned on competing at Fond Du Lac, but apparently never did. The Greens, prior to this airplane, built two others. One was a Starduster Too N11TG and the second was an Acroduster Too N56RG. I have a picture off all three taken at Hemet, California sometime in 1984. Tom, at the time he sent me the letter and pictures, was working on a Lancaire (about Dec. 1986), and said that it was no easier to build than the Starduster.

All of the airplanes have since been sold. The Super Starduster 101 going to Ormand Lavoie of Corvallis, MT., he was a retired Delta Captain with a very interesting and colorful past. Having flown Ford Trimotors for Johnson Flying Service in the late 1930's before WWII, and later retiring on DC-10's.

Les Homan and I stopped by and saw him during our trip to Oshkosh in July of 1992. We landed on his grass strip in Corvallis, Montana, and had a wonderful visit with him and his wife Darleen. Les wanted to see this airplane as he was, and is currently building a Super Starduster One of his own.

It was interesting to hear him explain to Les how 360 degree rolling horizontal turns were made. He kept telling Les how easy it was.

When I was trying to find out about the airplane, I called the FBO at Hamilton, MT. to inquire about the airplane, as I had heard a rumor that the airplane had been wrecked. But on talking with the fellow he emphatically stated that if this indeed the case, he could assure me that Ormand was not the person who wrecked it. As it turned out, it was only a rumor. Apparently many of the locals who live in



# **Aircraft Spruce & Specialty Co.**

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

---

## **SA101 Super Starduster N191DG (Continued)**

the valley south of Missoula, MT. asked Ormand to perform aerobatics on many occasions for their relatives and friends who were vacationing there. He did and was happy to do so, not bad for a man in his mid 70s.

About a year and a half ago Ormand called me to see if I knew someone who might be interested in M191DG, as he could no longer pass the physical. This problem ended his flying days. There are so many things about Ormand to tell. I could write a whole story about him, his propane powered Skybolt, (yes propane). It was also powered by a 220 HP Continental W-670 radial! And his many stories about flying for Delta and even more after his retirement and reunions. It is sad that he had to quit. But he certainly stayed longer than most. I subsequently advertised the Super Starduster One in Starduster Magazine, and talked with several friends, Peter Cavallo and Dick Heath, who I thought had the ability and interest. Eventually Dick Heath, (a former Starduster Too owner) from Phoenix, AZ. bought the airplane and flew it to Arizona. It took him some while on the way home to get acquainted with the unusual control system. It spooked him at first, but now he really likes it. Ormand was not concerned to much with looks, so he removed the wheel pants, and CIS prop. He then installed big tires and a wood FIP prop. The general condition and appearance left something to be desired. After Dick bought the airplane he re-installed the small tires, wheel pants, and metal prop. Returning it to its original configuration.

It was at Prescott, AZ. for the dawn patrol breakfast and later attended Sedona, Arizona Open House. Dick next goal is to cosmetically touch up the wear and tear, and making it like it was. I can certainly say he is well on his way, as it looked pretty tired several years ago when we stopped to look at it in Montana. It now is in good hands and giving its new owner the aerobatic capability he has been looking for. Thanks Dick Heath for a job well done, and N191DG for giving him the opportunity to pursue his aerobatic interest.

That is the current history of the Super Starduster SA1011 - the only one Now Flying.

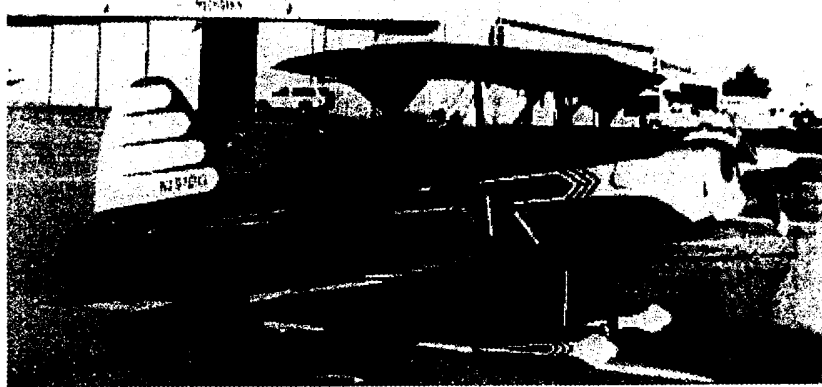
D.C.B. Editor - Historian



# Aircraft Spruce & Specialty Co.

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

## SA101 Super Starduster N191DG (Continued)



N191DG AT PRESCOTT  
AZ DAWN PATROL '94



N11TG, N56RG, AND N191DG AT  
HEMET, CALIFORNIA MID 1985



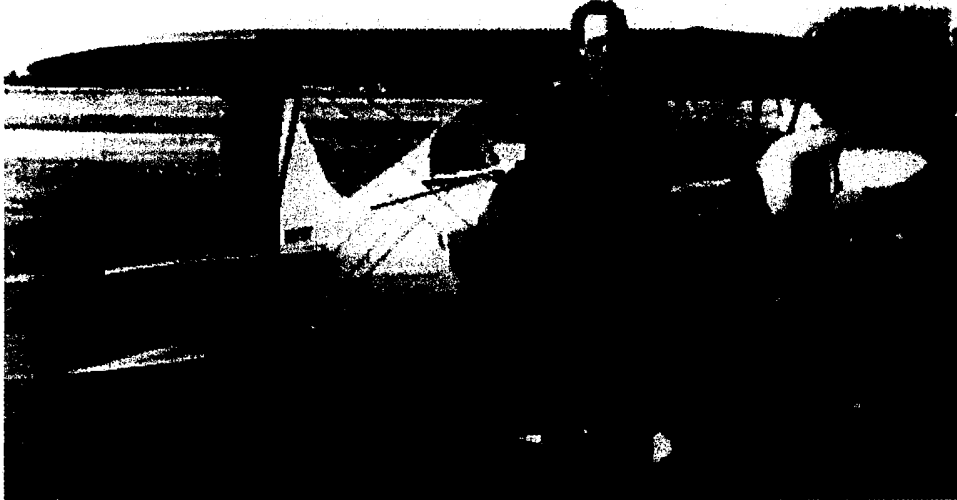
N191DG OVER  
SOUTHERN CALIF 1985



# Aircraft Spruce & Specialty Co.

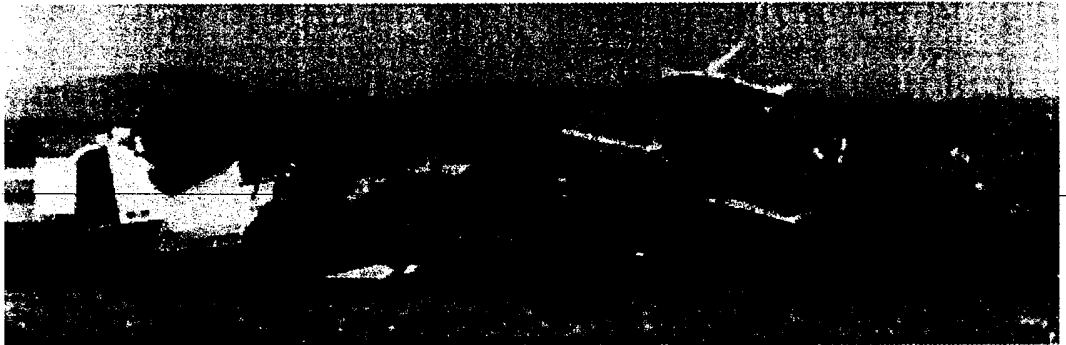
Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

Taken from Starduster Magazine-July 1996



LES' SUPER  
STARDUSTER ONE  
AT WILLOW'S FOR  
DAWN PATROL '96

LES HOMAN'S  
N9116Y AT WILLOW  
AIRPORT WITH  
N96576



SUPER STARDUSTER  
N9116Y AT  
MERCED CALIF  
NOW PAINTED  
GREEN&YELLOW



# Aircraft Spruce & Specialty Co.

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

Taken from Starduster Magazine-October 1996

## OSHKOSH/W AUTOMA 1996

The Grand Champion Award went to Kenny Ware Starduster Too N311JK.  
First Place was Bob Hammond's Acroduster Too N236RH.  
Second place went to Bob Griffen for his Starduster Too N507RG  
Third place went to Les Homan for his Super Starduster One N9116Y.  
The True Grit award went to Jeff Eisenbeiser because he just got here on Friday  
with his Starduster Too N81582 and had to turn around and go back to MD.



Early arrivals (left to right) Bill Clouse Acroduster Too N51826, Les Homan Super Starduster One N9116Y, Kenny Ware Starduster N311JK, Dave Baxter Starduster Too N96576, Glen Olsen Acroduster Too N34LG.



**Third Place Award**  
Les Homan, Super Starduster  
N9116Y, Byron, CA.



# Aircraft Spruce & Specialty Co.

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

Taken from Starduster Magazine-January 1997

## N9116 Yankee RACING AT RENO 1996

One may ask the question, why build a small biplane? Most answers have to do with aerobatics, however an answer I would give includes racing at Reno. This has been a long time dream of mine, thanks to Norm Weiss and his adventures in the Starduster One of years gone by. My Starduster Too was not fast enough, (by far) and being a Starduster type of person I could not become a trader and get involved in a Pitts. When I heard about the Super Starduster it peaked my interest. A trip to Hamilton Montana to visit the prototype started a yearning which was finally realized on April 20, 1996 at 8:25am.

Dick Heath currently owns the prototype and provided me lots of assistance during the building and preflight flight characteristics of the Super Starduster. The most important was pitch sensitivity. I'll save the first flight adventures for another time. After about 40 hours I pulled the ailerons and rebuilt them. Result was a roll rate which made me happy. I believe as fast as the Pitts S2B. I had ordered a propeller for racing and was getting my paper work and insurance in order for Reno.

With the Starduster fly-inn at Orville out of the way painting and aileron work was undertaken. Next came the trip to Flabob and then back to Watoma (Oshkosh) for those Starduster types. Lots of flying and fun then down to southeast Kansas to visit relatives. California was never so close in my Starduster Too. The best example of speed difference between the two planes was from Battle Mountain Nevada to Livermore, 3 hours and 18 minutes typical versus 2 hours and 4 minutes. Gallons per hour were the same in both cases. The canopy sure was nice. It was 38 degrees when I left out of Rawlins and I was not cold inside.

When I arrived home there was lots to do and little time to do it in. As normal the prop I had hoped to race with did not arrive until less than a week before race time. I had been talking to U. S. Propeller in Stockton and had a special prop they are building set up.

I had heard how racing required 4 to 6 G's in the turns so lots of practice going around a farmers field had been undertaken. I fly out of the Byron California airport, near sea level. On the straight always, approximately a mile long I was indicating 180 to 185. I practiced at altitude, hoping to approximate Reno's, 5,000 foot. Adjusting, trimming, fairing in, timing runs and runs on the GPS. Speeds seemed in the 180 range, looking good, or so I thought. Lots to learn coming up.

The first rule of great adventures is that adventure is made, it don't just happen. The Reno air races this year were Thursday, September 12 through Sunday the 15th. We had to be in place for briefings on Sunday the 8th. I wanted to get a good start so we were going to travel to Stead airport, were the Reno air races are held, on Saturday the 7th. Mary and Mike waited for me to get airborne and they started the four hour drive in our loaded down S-10 pickup. Now 16Y has a small gas tank and it is not full so I need fuel. Rio Vista is somewhat on the way so I drop in to get fuel. Some of the guys from the Livermore EAA chapter stopped in to get fuel also. Good chat, fill the tanks and ready to go. It takes me a while to get into the chute, into to plane and while thus involved everyone departs. Turn the old key and the starter moves the prop every so slightly, lots of humming and winning but no turn. Voltage OK, Starter seems to be having a problem. I had forgot to tell you Rio Vista is an unmanned airport, card key fuel and away you go, well some people do. After a couple of hours and remembering how to hand prop a hot, flooded engine I got it going. I still beat them to Reno.



# Aircraft Spruce & Specialty Co.

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

## N9116 Yankee RACING AT RENO 1996 (Continued)

The first order of business was changing out the starter. Had a spare just in case. Everyone was very friendly and a good time was had by all. The briefings on Sunday were for first time racers biplanes, first time racers all types, and for all racers. Other Sunday adventures included Tech inspections.

Monday adventures included that delightful meeting with the FAA, Papers in hand for the 16Y and me. I was extremely delighted and if all meetings with the FAA went like this I could start to have different thoughts about them. In case they are reading this I want to thank them very much for their help. The next adventure was pushing out and getting in line for new pilot testing and going around the course. My nerves were wound up tight. Density altitude 7,700 foot? What does that mean? Testing consisted of some formation flying and then flying in the prop wash of Mike Stubbs Pitts. Just like taking off with Dave Baxter, him lead and me drifting into his prop wash. Well that is another story. Now it is pylon time. There were two new racers this year so they told us to go around as long as we wanted.

One thing we were told is to keep the pylons in site at all time while rounding them and when you come out fine references to help target the next pylon. 16Y allowed for excellent visibility and it did take a while to find those references. The track is 3.011 miles long with 6 pylons, and a home pylon. Time around the track was in the 65 to 70 second time frame.. Straight away's are approximately 1 mile with a change in elevation of 175 foot. going around the # 4 pylon took a while to learn, you are moving fast, low the ground, turning left, pushing forward on the stick and applying left rudder. If you don't you climb. The biggest suprise was G's needed for the turns. After Practicing Monday, Tuesday, and Wednesday I found that 1 3/4 G's were all that were required. Any more and you slowed down, big time.

I was shocked to find my around the track speed was 162 to 163. I Qualified at 162.3 On Wednesday night we put the U. S. Propeller prop on and tested it. It was balanced and ready to run. A word about props. I have three props for 16Y, a metal Sensich 76 x 66, a Prince P-tip and the US prop. The first to have static RPM's for 2,400 RPM approximately and it is all you can do to hold the brakes. The US prop has a static RPM of 2950 and light pressure on the brakes is all that is required. The first two props max out at 3,000 RPM, US prop at 3,200. At about 140 you can feel the US prop dig in a away you go. Indicated air speeds were 165 to 168 at end of straight always and 155 out of the turns with the Prince prop. With the US prop I was seeing 185 at the end of straight always and 168 out of the turns.

Thursday was the most intense day yet, race day. Heat races. There are three classes, Gold, Silver and Bronze. Biplane races have a standing start, three planes in the first row, 2 planes in the second row and 2 or 3 planes in the third row with a 4 second lapse between starts. I had qualified third slowest so was in the Bronze class. A total of 7 planes were ready to run. I was originally scheduled to start in the second row pole with the two slowest planes up front. One plane did no start and the other asked for outside. That moved me to pole. Flag dropped and away we went. I worked had at staying low, inside, straight lines and no bobbles, no wasted motion. After the 2nd lap I leaned it out and waited for someone to pass. We race a total of 6 laps, 5 of which are timed with the 4 second start lapse subtracted from the plane in front. You may finish first and the plane 3 seconds behind may still beat you. On the back side of the last lap I stole a quick glance at the far straight away and saw the Pitts. I also looked at the CHT riched it out a little, sure put me forward in the seat. As I rounded the last pylon and headed for home I was still waiting to be passed. It did not happen, we had won. I taxied in and shut down, this was great. Bill was several inches above the asphalt and lots of pictures were taken.



# Aircraft Spruce & Specialty Co.

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

## N9116 Yankee RACING AT RENO 1996 (Continued)

As adventures go, ours and others, two planes in the silver heat had a mishap on roll out and were out of the race, no one hurt, physically anyway. One on the Pitts behind me Bob Blackwood and Myself had raced in the heat races faster than some of the silver and because of the mishap we were bumped into the silver. We did not get to race again as the silver class turned into the RACE THAT NEVER WA& This was a result of diode communications and things that can go wrong sometimes do.

As a result of my heat race time I was awarded 6th place, presented a trophy and a nice little check. What a time. I am going to do this next year, shoot for the gold though. See you in September At Reno.

I want to take time to thank Bill Clouse for sponsoring me at the Reno air races. He was a tremendous help and inspiration. Bill also played a part in my pit crew. This adventure took a lot of help, my wife Mary and Mike Rowan son-in-law played a big part keeping the plane tapped up and ready to run. Fritz Eisenbizer and his friend from back east also helped and I want to thank them all. I need to thank U. S. Propeller and Champion Spark Plug and the Reno Air Race Association.

SUNDAY, SEPT. 15

AtReno,Nevada

BIPLANESILVER

Six laps

90, Guy Paquin, Mong Sport, Buzz Job, 5:17.8,176.154, Torrance, CA.

20, Cris Ferguson, Pitts, Let the Good Times Roll, 5:22.2,173.732, Sunnyvale,CA.

10, Del Schulte, Perkins, Pitts, Thunder Chicken, 5:25.6, 171.945,Redding, CA.

13, RobertJones, Pitts, One Arm Bandit, 5:27.3, 171.041,Tranquility, CA.

11, Charlie Chambers, Smith Mini, Stinger, 5:31.0,169.114, Bend, OR.

95, Les Homan,Super Starduster,Dawn, 5:32.6, 168.3,Pleasanton, CA.

111, Bob Blackwood, Pitts SIS, After Sex, 5:36.0, 166.607,Sonoma, CA.







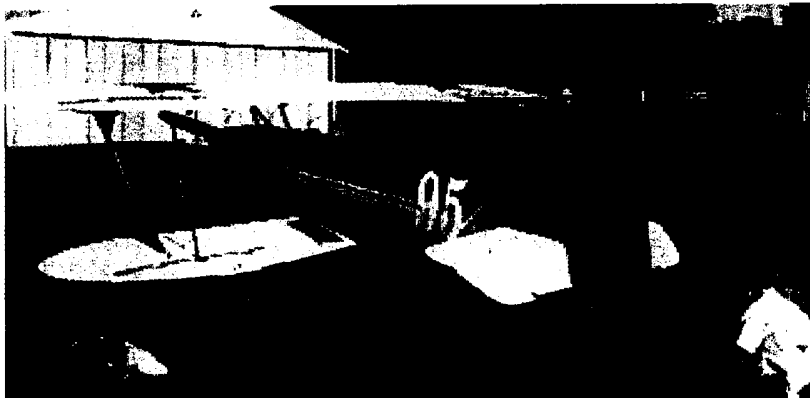
# Aircraft Spruce & Specialty Co.

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

Taken from Starduster Magazine-October 1997

## RACING IN RENO, OR WHY CAN'T I GO JUST A LITTLE BIT FASTER

We all have dreams. One of mine was shortly after the first time I saw a picture of Biplanes racing around a pylon. It seemed like a long way off for a 12-year-old, however I tucked it away and let it grow. In 1996 my dream came true. I had completed the first plans build Super Starduster (SA101) and was ready to try racing. When it was over I had won the Bronze heat race and received a 6th place in Silver. Not bad for the first year. This year I spent considerable time after Oshkosh/ Wautoma working on 9116Y to go faster. I should have spent it working on the catalog. Some changes made included rigging changes, wing root failings, new tapered nose bowl, removing slave struts and electronic fast response EGT/CHT for all four cylinders. This EGT/CHT proved to be an enormous aid. It worked better than the other changes. If you have wondered what happens when you remove the upper ailerons on a four-aileron biplane it begins like this. As you make the first take off and break ground, not accelerating at a high rate so you can get the feel, surprise, there is no feel, there is not much aileron, there is lots of stick movement and you start wondering if this was a wise move. After you pass 100MPH things begin to improve and around 140 it is ok. At 160 to 180 you hardly notice the difference. At slow speeds it is a different story. After some hours you become used to the idea. After returning home and connecting the upper ailerons it was sure a big difference. If I had picked up speed it may have been worth it. The new nose bowl included a 6' prop extension. I cut two slots for air inlet. They are approximately 1.5" high x 5" long. The raised cylinder head temperatures and with some playing, taping and modifying during race week we had the CHT and EGT peaking at the same time. Now this provided lots of amusement and challenges, but not an increase in speed. In the process we installed large radius surfaces on all areas exiting from engine cowling area. This looked good but none of this increased our speed. We added tape and seals to all control surfaces, to no avail. Now if you think we were running faster or slower the following should be considered. With the same prop we had last year, turning the same RPM at the same density altitude we clocked the same speeds around the course except for the day we qualified. We raced at 168 and qualified at 174.7 MPH. Our stopwatch indicted we had some laps at 179. We finished with a 8th place in Silver. Not bad, but next year we are going for the gold. We are talking about some trick ideas with leading edges. We will do lots of turf testing and we are going to do it. See how a dream gets started and then it becomes and obsession. Is this good? I don't know, depends on how many biplanes are behind me when if finish~ By the way, if you have done any scud running it is just like racing except you only turn left? I would like to thank my pit crew, Mary Homan, Mike Rowan, Fritz Eisenbeiser, Adolf, David and Jennifer. FLY LOW. FLY FAST.TURN LEFT See you in Reno in 1998. Les Homan and 9116Y (Dawn).



LES HOMAN YOUR  
NEW PREZ AND RENO  
RACER AND HIS  
SUPER STARDUSTER  
ONE N9116Y  
RACE #95 BYRON, CA



# Aircraft Spruce & Specialty Co.

Phone: 1-877-4-SPRUCE | International: +951-372-9555 | [www.aircraftspruce.com](http://www.aircraftspruce.com)

Taken from Starduster Magazine-October 2000

## First Flight - Super Starduster II N5462

by Gary DeBaun, Lakeville, Minnesota

Well, it's been 11 months since that gal drove thru Wautoma with that smashed-up Acroduster II tied down on the back of a trailer. She'd bought it at the junkyard in Oshkosh for \$2000 cash. She said she'd be back next year... and she would fly in with that same airplane. Most of you there probably said "Yeh, right lady, hehehe... no way." The wings were toast, the gear was broken, there was lots of fabric and sheet metal damage and there was no engine or propeller. One year? I don't think so...

On June 29, my wife, Chrissy, tightened her seat belt/shoulder harness up in the front cockpit and said "Hey! Let's Fly! We only got three weeks left." I slid into the back, strapped myself in and fired her up. 212 horses were roaring to go. It was 5:30 am.

At the end of the runway we did a short runup, checked the controls one last time, flipped on the boost pump and pulled onto the active. Power up, on the roll, stick forward, tail up... tracking straight as an arrow... 50-60-70- there goes my headset... there goes my hat... 80, she's off... a little forward stick here... hmmm, a little left aileron.. 120 mph IAS, all engine instruments looking good, no time to find the headset but I know its still in the airplane cause I had it plugged into the panel. Shallow turns in the pattern, climb to 3000 AGL. Watch the instruments, all OK except oil temp which is already 190 F. Check the wings, flying wires, look at the tail.. check the fuel vents... look thru the bottom lexan panel for signs of oil leakage. Listen to the engine, the wind... feel the airplane... feel the airplane... listen to her.

I see Chrissy turn around, she is wondering why I am not talking to her, then she realizes my headset has blown off. After leveling off at 3000, I scan the instruments again. The oil temp has pegged out. I checked the CRT, she's only at 350 degrees and the oil pressure is a steady 70 psi.. I'm sure it is a gauge problem but do not want to take any chances. I do a quick stall check and a little slow flight to feel the little biplane... talk to me babe, tell me you are not going to smash us in the ground unexpectedly on landing.



She feels pretty good. Descend into the pattern, oil temp back to normal, fly the downwind leg at 120, onto base at 110 and roll into final at 100 IAS. Get your head over, Chrissy, I can't see... Hey! I yell above the noise! Get your head out of the way!! Finally I poke her in the sides and she understands. Over the fence at 100,

slow to 90 and that's it... now just feel her... the mains touch, a little forward stick to keep them there, dance with the rudder, power back, tail down... don't touch the brakes... WOW, I can't believe it... almost like speed brakes when the power comes off. We turn off the active at the second turn-off at mid-field. Just like riding a bike, you never forget... It's been 10 years since I sold my Miniplane, but I never lost the feel...

She did not fly hands-off, as a matter-of-fact she was WAY out of trim. On opening the engine cowling there was no smell of hot oil, only the normal gurgling of fuel in the nozzle lines. No oil leaks, no fuel leaks. We got us a biplane!! We WILL make Oshkosh/Wautoma.

Over the next few hours we tinkered, we had some scares along the way, and still have a wing tank that will not drain into the main tank. She now flies with only light finger pressure, the oil temp runs a nice 215 on a hot day and everything seems to be a GO and we are looking forward to seeing everyone at Wautoma.

A few notes here: you will notice on the side of the airplane it reads "Super Starduster II." Most of you will say hey! It's an Acroduster II. This was the prototype, built back in '72 by Morgan Schrank out in Calif. Morgan and Lou Stolp designated this aircraft as the Super Starduster II, or SS2. I felt obligated to keep the name and the N number original although we elected to go with a different paint scheme.

My heartfelt thanks to Ken and Les at Starduster, and to all the guys who frequent the Starduster Website Forum (too many to list, but you know who you are). My biggest Thanks goes to Chrissy, my wife who's motto is "You can never have too many aeroplanes"... what a gal!, eat your hearts out guys...

# SUPER STARDUSTER SA101 LICENSE AGREEMENT

For and in consideration of the sum of \$ \_\_\_\_\_ Aircraft Spruce & Specialty Co. of Corona, California, does agree to extend to \_\_\_\_\_ the right to build one Super Starduster SA101, said airplane to bear serial number \_\_\_\_\_. Aircraft Spruce & Specialty Co. further agrees to supply one set of construction drawings and an illustrated parts catalog.

Your Customer order number is:  
\_\_\_\_\_

*This section to be signed by Aircraft Spruce representative*  
By \_\_\_\_\_  
Title \_\_\_\_\_  
Date \_\_\_\_\_

I, \_\_\_\_\_ address \_\_\_\_\_ do agree to the conditions set forth above and in consideration thereof I further agree that said drawings, instructions, and manuals will remain the property of Aircraft Spruce & Specialty Co., and specifically agree to the following:

- A. I will build one airplane only from these drawings and manuals and that said aircraft will conform to the specifications set forth in these drawings and manuals.
- B. I will not allow another party the use of these drawings and manuals to build a second airplane or part thereof.
- C. I will not transfer these drawings to another party without prior approval of Aircraft Spruce & Specialty Co.
- D. I will not allow these drawings, manuals or instructions to be duplicated.
- E. I will not use or permit the use of these drawings in the design, construction or manufacture of another aircraft.

It is further agreed and I understand that Aircraft Spruce & Specialty makes no warranty, expressed or implied, as to the quality or the safety of this airplane. The buyer understands that no warranty, express or implied, is being given by the Seller or the Buyer as to the accuracy, airworthiness, suitability or flyability of the Plans or the aircraft or engine to be built with the Plans or that the airplane or engine once built is able to be licensed by the Federal Aviation Agency. The Buyer of the Plans shall accept full legal responsibility for the construction, licensing, flight or operation of the aircraft or engine and hold totally and completely harmless from any legal liability or damages whatsoever the principals, owners and employees of Aircraft Spruce and Specialty Company. Further understand that any aircraft constructed with the Plans shall only be built and operated in strict compliance with the Federal Air Regulations promulgated by the Federal Aviation Agency. It is also agreed that while Aircraft Spruce will try to direct any questions regarding the Plans and construction to experienced builders, Aircraft Spruce itself cannot provide any technical builder support on the Super Starduster SA101. All subsequent buyers, heirs, successors, or assigns are also bound by all terms of this agreement.

Work Ph. \_\_\_\_\_  
Home Ph. \_\_\_\_\_  
FAX \_\_\_\_\_  
E-Mail \_\_\_\_\_

Signed \_\_\_\_\_  
Date \_\_\_\_\_  
Witness \_\_\_\_\_  
Address \_\_\_\_\_

Inasmuch as Aircraft Spruce & Specialty Co. has no opportunity to supervise the manufacture, installation or maintenance of the parts supplied by it, nor any opportunity to participate in the design or manufacture of the various certificated and homebuilt aircraft in which its parts are utilized, the purchaser by placing this order and accepting said merchandise from Aircraft Spruce & Specialty Co. agrees that all materials purchased will be solely at purchaser's risk and that purchaser will indemnify and hold Aircraft Spruce & Specialty Co., its owners and employees, free and harmless from all loss, liability or damage resulting from claims brought by reasons of any alleged failure or defect of any part or parts supplied by Aircraft Spruce & Specialty Co.

This form must be mailed back to Aircraft Spruce in order to process an order for plans.