



NEWSLETTER – SECOND QUARTER 2008  
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### INTRODUCTION

In the last newsletter I wrote about Waldo Wright's newly purchased Boeing Stearman PT-17 and detailed how owner/restorer Dick Hansen had found the airplane that crashed in California's Sierra Nevada Mountains in 1941. In this issue we discuss how Dick Hansen restored this aircraft to an airworthy condition. Your humble newsletter author had a small hand in helping Mr. Hansen reach his goal of restoring and flying the airplane. Once again I reprint with Dick Hansen's approval his incredible story and, as in the last newsletter, his words will appear in *italics*.

#### RESTORING BOEING PT-17, SERIAL NUMBER 41-8091

*I knew when I brought the airplane out of the mountains that it would be my hope to restore it and put it back into the condition it was in when I first saw it. In my mind, I can see it sitting there, ready to fly, or with me in it flying above the clouds, with my leather helmet and goggles and my white scarf around my neck, and the thrill that would come from knowing that I had saved it from being just some rusty old scrap metal on the side of a mountain. This wouldn't be just the restoration of a complete airplane. This would mean starting with just the parts that the Army had left behind, and had not destroyed.*

*The first step would be to return to the crash site with a metal detector to see if anything had been overlooked previously. Having returned to the site with the detector, other than a few bolts, a small cowl that had been bent in half and a large washer that came from the engine, I found nothing of importance. I am now convinced that the engine was disassembled and carried out piece-by-piece. Because of the steepness of the terrain, it still amazes me how many of the parts were carried out by the men. One thing that did turn up was a broken hacksaw blade. There was a tube on the fuselage that had been partially cut with a hacksaw. I am assuming that in doing so, they had broken the blade, and with no spare blades this may have saved the fuselage from being destroyed.*

*There were obviously many pieces missing and I was fortunate to find a project that someone had put together, hoping to build a Stearman someday. For whatever reason, it didn't work out and it was offered to me at a very fair price. This would eventually turn out to be the deciding factor, as the project would include most of the major parts I did not have.*

*I mentioned Don Huston in the first part of the story. Don and I have been friends for over 30-years and we shared many adventures together. Don had a shop that was big enough to hold the fuselage and he offered it willingly. And so the restoration of the fuselage began on September 23, 1988. The first step was to strip the fuselage to the bare frame to find out how much damage was done in the crash. There was a fuselage in the project that I acquired and it could have been used, but I really wanted to use the original. After stripping the fuselage and inspecting it thoroughly, I was delighted to find it was a good sound frame with only slight surface rust, and damage that was easily repaired.*

*While the fuselage was taking shape I continued to meet nice people that were willing to share their knowledge with me. Norris Norsegian was one of them. Norris had been working on and flying Stearman biplanes for over 50-years, having flight instructed for Tex Rankin at Rankin Field in Tulare, training WW2 pilots. I found a Continental R-670-5 engine in Reno, Nevada and Norris and I drove there to get the engine that would go in the airplane. I would disassemble the engine, clean and paint all the parts, then stand back and watch as Norris put the engine together.*

*Harold Kinsvater was another person who was very helpful in the beginning. Harold taught me how to work aluminum and consequently I was able to make many of the parts that I needed, including the baggage compartment door and all fuselage top sheet metal and inspection doors. It was a very interesting and satisfying part of the restoration process.*

*I began flying again and eventually bought an Aeronca Champ and soloed again. I hadn't touched the controls of an airplane in 33-years but soloed after only 4.6 hours of instruction in the Champ. Eventually I would put over 150-hours on it, preparing to fly the Stearman some day.*

*The fuselage was really taking shape now. It was on the gear with the engine on and was just about ready for cover. It was now time to start thinking about the wings. The wings were undoubtedly the most extensive part of the restoration and required the most work and time. I was able to use probably 70% of the wing hardware from the wreck, and there was some in the project I had bought, so I was off to a pretty good start. It was at this time that I met Bob Lock. Bob was in the process of building the wings for his Stearman; I was fascinated and encouraged by Bob to build my wings. I thanked him for sharing his knowledge with me, but I also thanked him for encouraging me. I did build my wings from scratch. Bob gave me some original Stearman spars for patterns. I took the spars and the material to a planning mill and had them trued along one edge.*

Your humble newsletter editor heard about a person in Fresno who had discovered a damaged Stearman in the mountains near Balch Camp. When I tracked down the owner it turned out to be Dick Hansen. Dick was an excellent craftsman and just needed a little coaching to build the wings. When he completed the wings and center section it was one of the most beautiful woodworking jobs I had ever seen. One would have thought that Dick had been building wings for most of his life they were so good. At this time I

became involved with his project and offered any spare Stearman parts I had for no charge; my reward would be seeing this magnificent airplane fly again. But, now back to Dick's story.

*Norris gave me some original wing ribs and wingbows for patterns. I used the same materials that were originally used. I used brass coated steel wire nails to make the wing ribs, per original. This was easy for me because I could put the nails in my mouth, and then use my upholsterers' magnetic tack hammer and use the nails like I would tacks.*

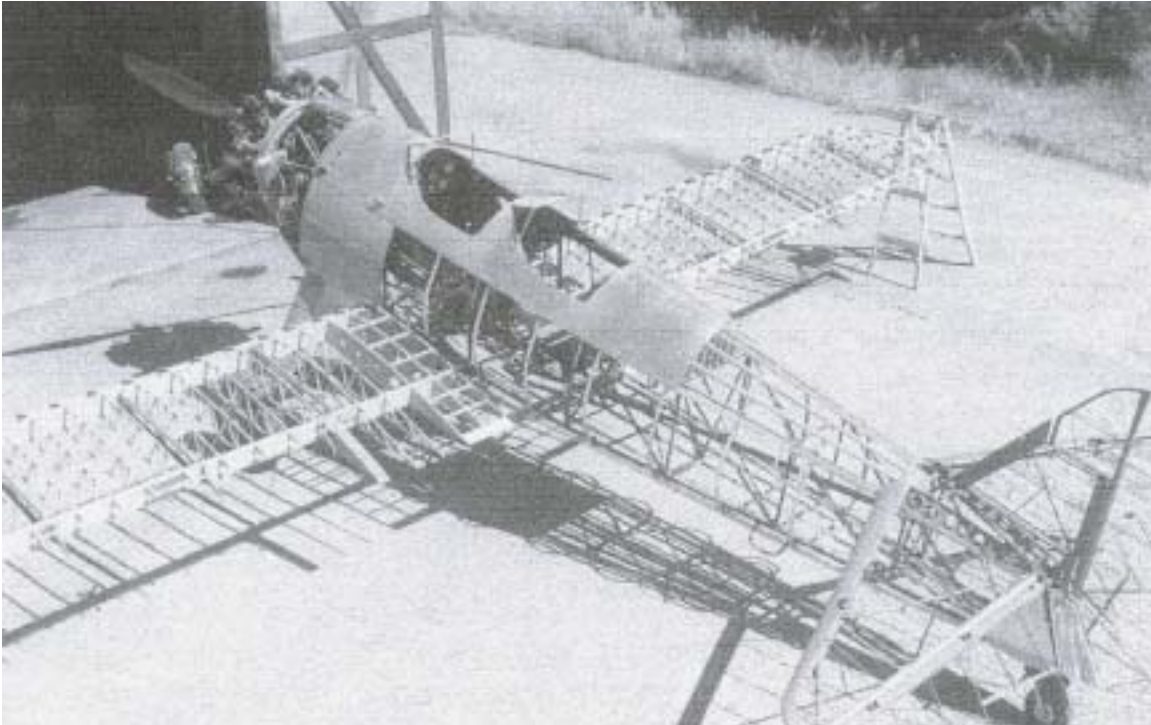


In all my years of building wood wings I have never seen any person build wood ribs faster and more precise than Dick Hansen. I even persuaded him to give a demonstration at the EAA Western fly-in at Merced during one of my forums. He was a huge success!  
Exclusive photo from Bob Lock.

*I made my lower wings to fit the ailerons so that everything lined up and with a nice even gap between the wing and aileron. It took me two years worth of spare time, but for me the wings were the most enjoyable part of the restoration.*

*I had been working on the airplane for four years now. The fuselage sat idle for the two years that I had worked on the wings, so it was good to get back to work on the parts that needed to be finished. The fuselage was almost complete with both cockpits finished. Full panels in both cockpits were done, all instruments with yellow dials, genuine leather seats, oak sticks and matching floorboards. As for the birdcage, I was able to use most of the original formers and tip rails. I put on all new stringers, which worked well because*

*I could line everything up properly. I put the lower wings on the fuselage before putting the wing walks on, to make sure they fit correctly.*



Assembling lower wings to fuselage to check fit. Note that wing walks have yet to be installed. This would allow any shimming operations but none were needed. Exclusive photo courtesy of Dick Hansen.

*Finally all the parts had been cleaned and painted, the wings were done and it was now time to start covering. The covering really went along easily for me, and here is where being an upholsterer was invaluable, as so many of the ways that I work material in my trade could be applied to the covering of the airplane. I used the Poly Fiber process entirely and used Aerothane polyurethane to paint the airplane. I have heard of a lot of people complaining about the monotony of rib stitching, but I enjoyed it. I used the hidden knot stitch, where the knot is pulled inside to make a neater job. Maybe the reason I didn't mind the job of stitching so much was because very part that was covered meant that I was just that much closer to painting and putting the airplane together.*

*I arrive at the Selma Airport at 7a.m, meet with Bob Lock as planned and we jump into his Stearman and head for Sequoia Field. Sequoia Field is just North of Visalia and was a primary flight-training base during WW2. It has a long wide runway with very little traffic. I'm in the back seat and the plan is to let me shoot some landings and if everything goes well, I will fly my Stearman when it is finally finished.*

*Bob Lock has been helping me over the past month, tying all the loose ends together, doing the weight and balance, equipment list, rigging the airplane, all the paperwork and checking everything thoroughly to prepare for the FAA inspection. Bob is another one I cannot thank enough. The airplane passed the FAA conformity inspection and received*

*its Airworthiness Certificate on August 31, 1993. The engine had been run for 6-hours and taxi test completed.*

David Lehman from the Flight Standards District Office in Fresno came down to do a conformity inspection, to determine that the aircraft conforms to its Type Certificate and to issue a Standard Airworthiness Certificate. The inspection went smoothly and in a short time Dick had the Airworthiness Certificate in hand. In a later conversation David told me that he had to “fend-off” others in the office that wanted to come down to issue the certificate! This was an indication of the respect the FAA had for Dick’s work. The issuance of the coveted Airworthiness Certificate is the last step before the aircraft can be legally flown and now we were ready for the test flight. All the hard work of restoring was behind and Dick was eager to fly!



A very happy Dick Hansen and your humble editor at the Selma Aerodrome in central California. All his work is about the pay-off. The aircraft was fully assembled and rigged and the engine had just started for the first time. That is engine oil we are wiping from our hands. The airplane is about ready for FAA conformity inspection and issuance of airworthiness certificate. Can you see the joy on our faces!

Exclusive photo courtesy Bob Lock

*There is satisfaction when you build something with your own hands, and when it is finished you are satisfied with the results. I have been at the Selma Airport every day this past week, working on the airplane, and at the end of the day I would pull up a chair, have a cup of coffee and just sit and stare at this beautiful old biplane. To fly it will just be icing on the cake. A lot of people have tried to put into words their love for flying. I think we all have our own thoughts on what it means. So finally, here I am sitting in this airplane, wearing my dad's goggles, his wings in my pocket and Bob in the front cockpit. My friends and family are watching and a fairly large crowd has gathered. This is the moment I have waited for through the 5-year restoration, and maybe you could say since I was 11-years old. The test flight was both fun and exciting, with everything working the way I had hoped it would, the airplane performing beautifully. We were up for 45-minutes, staying close to the field just in case. It was a wonderful day, and a day I'm sure I will relive many times in the years to come. At the time of this writing (September 1996) I have flown the Stearman over 100-hours. Flying it is everything I thought it would be and the airplane is really fun to fly.*



Happy times together with the Stearman at Reedley, California. Owner/restorer Dick Hansen (center) flanked by Aram “Korky” Kevorkian (right) and Bob Lock (left). Dick and his beautiful Stearman biplane won awards wherever they traveled. Exclusive photo courtesy of Bob Lock.

*The airplane was stationed at Hammer Field in Fresno when it crashed on October 1941. The field is now called Fresno Air Terminal and is only 3-miles from where I live. The reunion for the Doolittle “Raiders” was held there on April 16 of this year. I was fortunate to be asked to display my airplane and to be a part of the ceremony. As I*

*touched down it was a good feeling knowing, although 53-years had passed, that the airplane had finally come home.*

*The restoration was completed just 3-weeks short of 5-years. It took longer than I had anticipated, but not bad after talking to others who have restored Stearman aircraft. This is not the end of the story as it continues every day that I fly the Stearman, and just proves that sometimes the dreams of an 11-year old boy can come true.*

This remarkable story was edited and reprinted with the permission of my friend Dick Hansen. My experience as both a pilot and mechanic spans over 50-years and in that time frame I have met hundreds of people involved with aviation, particularly those engaged in restoring old airplanes. But none top my friendship with Dick Hansen. He and his wife Ellie are class people in every respect. Dick is a very humble person and possesses enormous talent to achieve whatever he sets out to accomplish. The resurrection of this particular Boeing PT-17 ranks at the top of the list. When Dick decided to part with the airplane I am sure it was with great pain and sorrow. He wanted the airplane to go to a good home, to be with someone who would lovingly maintain and fly the aircraft just as he did for many years. He turned down would-be purchasers until Rob Lock came along and purchased the airplane. Maybe he parted with it because I had a hand, albeit very small, in seeing that the airplane flew again. But now it has a new home in Florida at Fantasy of Flight where it can be admired by thousands. Each of those who will someday fly this airplane will know of Dick Hansen and his wife Ellie, who rescued, restored and returned this aircraft to the sky.

After Dick finished the Stearman project he took to fabricating wood wings that he went into the business. Dick built wings for a Meyers OTW, Waco UPF-7, Travel Air 4000, Travel Air 4D, Curtiss Wright Travel Air B14R and a few others, including 2-sets of wings for Waldo Wright's New Standards (Dick and I put these wings together), plus another set of D-25 wings that was a kit (all wood parts fabricated but not assembled). Dick is a true craftsman and a great friend. It's been my pleasure to consult with him on his projects. **Thank you Dick Hansen!**

## **RESTORATION OF BOEING STEARMAN NC67412 CONTINUES**

At this writing the restoration work on Waldo Wright's Boeing Stearman, NC67412 is



making good progress. Many readers of this newsletter have flown this aircraft at Fantasy of Flight over the past few years. And now this warbird is getting another new lease on life. The aircraft has been disassembled for a complete overhaul of all structure. The fuselage

and tail surfaces are in Cincinnati, Ohio at Bob Stoinoff's restoration shop. Bob is a master craftsman who specializes in restoring both aircraft and automobiles. The latest photos from Bob show the fuselage being reassembled after painstaking overhaul of every little part. It is apparent that when one pays attention to the details a beautiful ship will emerge. As the following photo clearly shows the fuselage is about ready for cover.



Meanwhile, the wings are being inspected and restored by Jack McCloy nearby in Lakeland. Jack has finished all wood wing components and the structures are being covered by the Waldo's at this time. We are planning on painting the aircraft to resemble a WW2 Coast Guard ship because the color scheme is unique.



Although the photo left is not our Stearman, the color scheme will be similar. The U.S Coast Guard purchased approximately 11 Boeing PT-17 aircraft. These ships were painted in Coast Guard colors, which was quite different from Army Air Corps and Navy ships. More on this later.

