THE HOMEBUILT FROM HELL

BY

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This story starts many years ago when a friend of mine heard that I'd like to go to the Knoxville World's Fair. He and another gentleman owned a little retractable Cherokee, and he said he'd ask his partner if it would be okay if he loaned me their plane for the trip. The partner, who I never met, agreed, and my wife and I joined forces with another couple and had a very enjoyable boogie in the Cherokee.

Time passed. I got a call from a gentleman who identified himself as the partner who had allowed us to borrow the plane, those many years ago. He told me he had recently purchased an airplane that was located in Pensacola, and he asked if I'd be willing to help him ferry the bird home. Seems that this new airplane was a complex machine, for which the new owner did not have an endorsement. He also lacked insurance to fly it himself, since the company was requiring a certain number of hours of dual instruction in the machine before they would cover him.

I thought I owed him a favor, so I agreed, and he also said he'd pay my usual fee for the training required by the insurance folks.

We flew to Pensacola in a Cessna 150 we rented from a friend of mine. Turned out that we weren't going to Pensacola international, or even to NAS Pensacola. The new plane was

located on a grass strip out behind the owner's house. As I recall, it appeared to offer about eighteen hundred feet of sod, but it was surrounded on all sides by big tall pine trees. Another detail my new friend had not mentioned was that the plane in question was a homebuilt, a cabinet maker's nightmare, with all wood construction, powered by an engine rescued from a retired ground power unit. It had been rebuilt following an accident, and had not been flown very much in recent years.

It was a side-by-side two-seater. Gull-wing doors swung up to allow ingress and egress, but the right-hand strut that had once held the door up out of the way of the copilot was no longer functional. The bird had retractable landing gear, but the seller had used plastic handcuff ties to lock the struts in the extended position, since nobody had had a close look at the locking mechanism recently, and the surface of field from which I was to fly was strewn with ruts, potholes, and a variety of other irregularities.

We had some trouble getting the engine started, but it was soon giving us a throaty roar. It seemed like a lot of horsepower for such a diminutive aircraft, but homebuilders are well known for overdoing. The runup was not successful. There were evidently a few fouled plugs, and I spent some time trying to burn the crud off them with high power and lean mixture settings.

Presently I determined that, even though it was giving me a few sputters now and then, it should be capable of getting me into the air, considering the extra ponies tucked under the bonnet.

When I first applied power, I got good acceleration. A guy who once checked me out to fly jumpers remarked that skydivers often wanted to fly off unimproved drop zones, and that when I was trying to get a heavily loaded Cessna up to V_x speed, it was a good idea to aim at the *bottoms* of the trees until I had acquired that speed. I used this technique until I judged that the machine had gathered enough kinetic energy to fly, then I rotated to a climbworthy pitch attitude, noting that the controls were a tad sensitive in this design, another example of the builder's tendency to overdo.

About the time I reached mid-field, a little beyond where I could reasonably abort the mission without ending up entangled in pine trees and aircraft wreckage, the engine got very balky. It would backfire and lose power, then surge back up to nearly takeoff power, then backfire again and repeat the cycle.

I immediately started looking for a parking place, since the machine was giving every sign that it was about to either blow up or quit cold at any second. I had staggered above the trees, and just beyond them I spotted what used to be a runway or taxiway or parking apron for Navy aircraft, something like that. Unfortunately, somebody had built a condo complex right in the middle of it. The remaining concrete pad was being used as a parking lot for the tenants, but I thought I might be able to squeeze in between the parked cars and maybe shed the wings and possibly walk away from the wreck.

The engine continued with its backfire-quit-surge routine, and I noticed that, bit by bit, I seemed to be putting some money in the bank. Like, I was about a hundred feet higher than I had been a little while back. I looked around at the tree tops and

ventured a slight bank to the left. Soon I found myself on sort of a downwind leg to the field I had just departed from. All of that excess horsepower was doing a pretty fair job of keeping me airborne.

To make a long story short, I made it to something like a base leg, establishing a low key position from which I judged I could glide to the strip. I pulled the throttle back and the engine quit, but I didn't care. I didn't need it anymore.

For some pilots, that would have been the end of the adventure. But I was younger and more invincible than I am today, and agreed that, if the owner fixed the spark plugs, I'd give it another go.

He purchased twelve brand-new plugs, and they made the engine start and run much better. On the next attempt, I made it up into the wild blue and remained aloft long enough to take note of the aberrant control responses of this weird flying machine. It responded to my inputs like a very tail-heavy airplane, or maybe a helicopter. I found myself resting my forearm on my thigh to damp out the pilot-induced oscillations caused by the light, overly sensitive elevator control.

The first leg of the trip home was a short one, right down the road to the nearest real airport, where we took on a load of gas and removed the plastic strips that had been holding the landing gear in place. The new owner got into the Cessna and headed for home, saying he'd meet me back at the airport in New Orleans.

I blasted off, heading west at 4500 feet. The gear came up just fine and gave me a steady "gear up and locked" indication.

The engine was still a bit rough, but was doing a creditable job of pulling the load. Ahead lay Mobile Bay, a body of water that would require about five minutes to cross.

As we got closer and closer to the water, the engine started getting nervous. It started its surging routine again, and I started looking for another parking place. We flight instructors sometimes pull a gag on our students during cross-country training flights, where we retard the throttle to just a hair less power than is required to maintain altitude, and then challenge them to get to the nearest airport and land before they run out of sky.

The Aviation Instructor Gods must have been getting even with me for all the times I'd done that to hapless students, I thought, as I searched the sectional chart for a nearby runway. Foley, Alabama looked like my best bet. There was a highway right underneath me, and it looked like the airport was situated along a similar roadway, just to the east of my position. Hoping I was following the correct road, I turned eastward and recalled the old saying: "All roads lead to Foley."

The surging got worse and worse, and once again, I found myself on final flying a glider for the final 500 feet of my approach. I had enough momentum left over to coast off the active runway and come to a stop just past the first turn-off to the taxiway.

I got the owner on the UNICOM frequency and told him where I was. He had almost made it to Gulfport. A good sport, he turned around and came back to fetch me.

So that was two forced landings in one day in what later came to be known as the homebuilt from Hell. The machine spent the next month or so in Foley. A mechanic drained the gas tanks and flushed them with fresh gasoline. The thing had been sitting up so long that some of the fuel had jellified, causing particles of the stuff to migrate into the fuel filter and clogging up the works.

The next chapter of this strange and eventful episode started with a trip over to Foley to test fly the bird. It seemed to run much better, and I even gave a ride to one of the people who worked the counter at the F.B.O. Then we topped off the tanks and prepared for the final leg home.

The engine wouldn't start. The mechanic came out and got under the engine cowling, where the sump drain is located in most airplanes. After he did whatever he did, the engine started, and I made ready to take to the sky. The owner was joking about how well a wooden airplane would float, in case I should have to ditch in Mobile Bay. I didn't think that was nearly as funny as he did.

I departed Foley, once again heading west. Again, things went well during the initial parts of the flight, followed by a bit of surging. This time I didn't wait. I headed for the nearby Stennis International Airport in Bay St. Louis and made a successful landing on their huge runway with the engine still running.

The owner thought I should go ahead and fly it to Lakefront Airport. I pointed out that much of that leg would be over people's houses in New Orleans East. Choices for forced

landings would be severely limited, and I suggested that he take the wings off the bird and bring it home on a flat bed truck.

So that's what he ended up doing. He installed the parts in a rented hangar and went to work on what had turned into a project. First priority was to do something about that jellified gas in the tanks. He finally decided to remove the tanks, which were mounted in the leading edges of the wings, up alongside the fuselage. He took careful measurements of these tanks and then paid a fair sum to someone to have another set manufactured, using a different material. I think the tanks were originally fiberglass and he replaced them with Aluminum units.

Months later, the bird was pronounced ready to go. We spent a fair amount of time getting accustomed to the plane, especially to the downright twitchy controls. The gentleman's plan had been to fix the machine up, install good avionics in the panel, and use it for business travel. His fantasy was that he would have the equivalent of a two-seat Bonanza for a fraction of the price.

We flew up all but the last hour and a half of the required dual instructional time. We figured we could knock out the remaining time during one last flight, and we took off for Stennis International Airport in Bay St. Louis, Mississippi, about twenty minutes east of home base.

We decided to burn up the last few minutes shooting touch-and-go landings at Stennis, before returning to Lakefront and calling it a job well done. It didn't quite work out that way.

On the last landing approach, we ran the pre-landing checklist and on base leg, he reached under the panel to confirm

that the landing gear's over-center positive down-lock was engaged. He turned final and, for once, lined up exactly with the centerline of the runway.

We touched down and rolled a few feet. Just as he was about to add power to take back off, the gear collapsed, leaving us skidding down the runway on the belly. At times like that, you notice strange things. In my case, it was the microballoons he had used as filler to fair the new gas tanks in with the shape of the wing leading edges. The runway was acting like sandpaper, throwing up a cloud of the little white particles.

As we skidded to a stop, I noticed a tiny flame between my feet, just beyond the rudder pedals. I reached over and pulled the mixture control to "idle/cutoff," and my student switched the fuel selector to the "off" position. I reached over and unlatched the gadget that held my side of the gullwing hatch in place. It looked like a lock somebody had taken from a casement window, combined with the latch to a steamer trunk.

I threw the hatch upward, forgetting that the strut that was supposed to hold it open didn't work. As it collapsed back on my head, I struggled to get up, and discovered that I still had my seatbelt fastened. I hurried to extricate myself, trying to keep the hatch open with my elbow. I finally got up out of the seat and rolled out onto the wing root, discovering as I did so that I was still wearing my headphones, which were still plugged into their sockets beneath the panel. As I looked back, I noticed that where I had just been sitting there was a wall of flames eating into the wood and dope structure.

I got free of the headphones, rolled off the wing, and took off running. I was thinking of all of those movies where the car

blows up just after it crashes. My student later reported that he had done exactly the same things I had done, except that his door had remained open during the process. We were both thankful, in retrospect, that two pilots had been in the plane, instead of one pilot and one non-pilot passenger, or, even worse a child.

As it turned out, there was no explosion. The airplane burned brightly, sending up a plume of thick, black smoke as the Homebuilt from Hell returned whence it came. During my time with this machine, I had three forced landings, one *urgent* precautionary landing, and one classic crash-and-burn. The happy ending of this story is that nothing was left of this aircraft except for a pile of ashes, an engine, some hardware, such as the engine mount, exhaust plumbing, and some parts of the landing gear support structure. The main landing gear struts were made of Magnesium, and went up in a spectacular flash when the gents from the local fire department tried to extinguish the flames with water.

My enthusiasm for flying experimental aircraft was considerably diminished by this experience. To add some anti-icing to the anti-cake, it developed, in the subsequent investigation, that the transfer of registration from the previous owner to my client had never been accomplished. The file had been lost in the mail, the FAA bureaucrats had lost or misprocessed it, or the client's secretary had neglected to send it in. A mechanic who had worked on the machine swore out an affidavit that he had seen a pink slip in the airplane, a document that serves as a temporary registration document until the permanent one comes in the mail. The pink slip time limit was ninety days; so it is likely that the one in the airplane, the one

that burned up in the post-crash fire, had expired. But the FAA attorney found that the burden of proof was on the government to demonstrate that it was out of date; so, after a little over a year of haggling with the government and lawyer fees I had to pay in excess of twelve hundred dollars, I got a nice letter from the FAA attorney's office saying that no further action was going to be taken, and that the case was closed.

All things considered, I wish I'd simply rented a plane from some local F.B.O. for my trip to Knoxville.