



# STINSON PLANE NEWS

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## THE RESURRECTION OF NC626C

By Robert Luther

One evening, sitting quietly in our den here in Huntsville, Alabama, and reading the latest issue of Trade-A-Plane, one of the first items was the Stinson column. I read an interesting advertisement to my wife for a 1947 108-3 in pieces near Portland, Oregon. She said, "Why don't you call the guy. You're now an A&P/IA with a large hanger and you always wanted another Stinson." That was the beginning of a long and good saga in the year 2000. I was still working and had little time for rebuilding but the airplane really caught my interest and two weeks or so later I had a pile of parts that was the entirety of a 1947 Stinson 108-3 on the front pad of my hanger. Thus was the beginning of NC626C. Some years before I had owned a 108-2 Stinson, N9828K, which I found had been exported to Russia.

I was told later that 626C sat seemingly abandoned on an airport near Portland for some years before being disassembled and stored in a barn for 18 years in pieces. Finally the owner decided to sell the pieces and the little airport, M38, at Hazel Green, Alabama (my airport) was the last stop, where it currently resides.

After organizing pieces and inventorying parts, I elected to work the wings first so I could get them ready for cover and then work the fuselage.

They were in decent shape considering they had no cover on them or on the ailerons and required only disassembly and cleaning. After detailed cleaning and small corrosion removal, I sprayed the entire structure, inside and out with zinc-chromate primer for future corrosion protection, re-assembled all components and re-wired the lights with good mil-spec wire. After this they were hung on the wall.

The fuselage had old Ceconite on it, with copious deposits of what looked like house paint over peeling tapes, damage to the horizontal stabilizer that appeared to have been pushed hard into a sharp surface and kinked badly, requiring re-skinning of half of the unit, an unrecoverable interior, deep black paint over the instrument panel mask, and most wood

parts good only for patterns, and many other things beyond mentioning. However, the main airframe was in good recoverable condition. I had insisted on detailed pictures of the tail post which is a weakness if the front of the airframe leaks and allows water to drain to the rear and rust out the tubing at the tail post. I have found this to be the case on others and will require a fish-mouth patch if repairable. This one was good.

I removed the engine and began a deep cleaning of all parts and preparation to start tear-down and major overhaul. Enter my lovely wife who asked, "How many years since you majored a Franklin engine?" I replied, "Probably 25 or 30." "Don't you think you should have someone do that job for you? Looks like you have enough to do as it is." The wise lady had spoken

and I had to agree so I started a search for reliable engine rebuilders. After canvassing a number of people I settled on Southern Aero in Thomasville, NC. Rather than ship the engine, I wanted to see their shop and judge their qualifications since I had never met them. When I arrived at their shop I was blown away with the parts inventory in one large attached building and in the well-equipped shop in another part of the



large building. They had several Franklin engines in various stages of rebuild and I knew I had made the right decision after visiting with them and their technical people. Being a professional engineer myself I am rather exacting about that sort of thing anyhow. They did an outstanding job on the engine and actually ran it in on a test stand for four hours and gave me copies of the test data.

There was evidence that the fuselage had provided a home for rats over the years due to the traces of small surface corrosion from urine. However, the charmer was splitting the bottom fabric and got some two gallons of rat crap in the floor. Needless to say, I scrambled out of the way when that started to come down. After a thorough cleaning and detailed inspec-





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tion of all parts of the fuselage, I found it to be in very good condition. The next step was the complete disassembly of the fuselage and all attached parts, including landing gear and all cables. There were weeks of detailed cleaning and inspection, including some testing of parts to assure their quality and then refinishing back to original or better quality.

Refurbishing included details such as complete disassembly from the landing gear hub up to the fuselage attach point and the shocks, landing gear attach points, pulleys, all controls and cables, and all components down to leaving a bare tubular fuselage airframe sitting on the floor. Each component was cleaned and zinc chromated as appropriate and set aside for the painting and final re-assembly when needed. All control cables and pulleys were checked and re-installed including control column, rudder pedals, and trim controls prior to rigging. I did not like the condition of the forward sheet metal in front of the



windshield and doors. I purchased new metal from a supplier and fabricated new outer skin sections around the front and lower area behind the engine.

All wood was replaced except for one part of the floor that surprisingly was in really good shape. The wood was duplicated and re-installed in appropriate locations as original. This included replacement of all the wood panels inside with some really beautiful

ones I found in Pennsylvania. Getting the wood sections just right around the top of the cabin was a challenge because of the attaching screws there for the fabric but patience solves problems, usually. After all components were ready, I assembled the entire airplane in the hanger and rigged the controls to assure that they had the right tension and travel. It was important to be certain there was no interference with any part of the airplane. After being satisfied they were all correct, I rewired the airplane and installed new avionics. Next I disassembled the airframe







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and proceeded to get ready to cover.

I elected to use the Stits process for recovering and covered the fuselage first. I found that the envelope was my first choice but each person has to make that decision. After very carefully taping all sharp or potentially sharp surfaces to protect the fabric, fabric application went without any major problems. Next it very carefully shrunk to the point of being ready for finish. Stits has a great manual on doing this that I would recommend anyone to read and follow to the letter. After three separate application sessions consisting of some 15 coats in all, I was pleased with a very bright shiny finish.

After the fuselage was covering the wings and getting all the corners in them taped for protection. The major project there was getting the NC626C numbers on correctly and I was fortunate to find good information as to the exact location. Taping corners and edges was crucial and I probably checked the tape a half dozen times before I had the courage to actually paint the numbers on the wings. Our good friends at the Birmingham FSDO checked regulations for me and assured me that if the airplane was 1947 or earlier I could put "NC" on as it originally was. I was surprised to find from them that the "C" stood for Civilian.

Next the airplane was assembled and the engine received from the guys at Southern Aero from Thomasville, NC. The engine appeared to be a work of art, compared to the forlorn hunk I had handed them. There was a complete overhaul and run in on their test stand. When I started it up on the Stinson,



it ran like a fine watch. These Franklin engines run like a watch anyway when they are right. This one is no exception. It is equipped with the original mags and carburetor, all overhauled and certified. Full originality was the goal, as was all the rest of the airplane.

The next and last major project was upholstery. Not being an upholsterer of any kind, I was fortunate to have a good friend who is a true expert/artist in aircraft upholstery. Jim Patterson agreed to do the upholstery and I told him to use his best judgment about colors and trim, and all the other facets of original upholstery. I handed him a key to the hanger and told him to call me when he was through. I am very certain that his full leather upholstery job will compete with the very best of them in any class or category.

One is always a bit nervous on a first flight after any major work I suppose. However, the first flight of 626C occurred some 45 years after its last flight. I got an instructor and former Stinson owner friend to go with me on the first flight since it had been at least 25 years since my last Stinson, or tail dragger flight, having been principally a 210 driver all these years. Rick Stroud and I looked at each other on the end of the runway and I applied power. She actually flew and flew well. There are some adjustments yet to be made, as expected, in the struts to trim the ship out but we have a real winner I think. It really feels good to be back on a Stinson again. There is just no other ship that feels quite as good to me as the Stinson.

