

Fairchild 22



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Budd Davisson

Anyone who has been around aviation for any length of time can remember how common it was to see a pile of unidentifiable rusty bones heaped up behind a rural hangar. Airplanes were dinged and they were pushed in back. They got old and they were pushed in back. They used something other than a Lycoming or Continental, and

they eventually wound up pushed in back. And naturally, if it was an all-fabric airplane, when it got a little tattered and needed new clothes, all of the forgoing factors worked against it.

The Fairchild 22 had all of those. And then some. It was old, its long snoot often housed “one o’ them there Menyasro thangs,” it was open cockpit, and was just a little too far off-center for some folks.

This was all aggravated by the fact that no one was exactly sure what a Fairchild 22 was because so few were built, and they’d never had a second life as crop dusters, etc. Small wonder so many of them degraded to their basic molecular make-up over the years.

The forgoing also explains why Fairchild 22s, like the one brought back to life by Tim Talen for John Thomason, start out as phantoms



With restorer Tim Talen at the stick in the aft cockpit, owner John Thomason cruises along in his "new" Fairchild 22 C-7-B.

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Champ that was based on an aircraft carrier. Sort of, anyway.

"I went into the Navy in 1953 where I was an aviation bosun's mate based on the USS Hancock. We had a flying club on board and had a Champ in the hangar bay with the wings removed. We'd carry it from base to base, assemble it, hoist it on shore, and we'd all fly it.

"I did some interesting things in the Navy. For instance, I was involved in investigating different types of catapult systems, including the English steam cat, which is what we eventually used."

Although he was born and raised in Maryland, he eventually emigrated to Sonoma where he began to get heavily into vintage airplanes.

"I had owned a bunch of different airplanes and a string of short wing Pipers, including a Colt and a Tri-Pacer. But I wanted a real antique and started looking around. I found a YKS-7 that was a flying airplane and had never been restored. However, one of my friends, Eric Presten, said I shouldn't buy it. Of course, I didn't listen and traded a 182 for it.

"It was actually a pretty good flying airplane until an axle broke on landing. I skidded across the runway and was doing okay until the landing gear stub caught in the grass on the edge of the runway and folded the gear. That didn't do the airplane much good. The axle had been butt welded! I guess Eric was right: I shouldn't have bought it.

"It crunched both lower wings and I was in the process of rebuilding it when I got divorced and the airplane had to go."

Everyone eventually recovers from a divorce, and so did John.

"I always dreamed of having that first Waco on floats, so not too long ago I found a YKS-6 on floats and bought it. It's going through restoration right now."

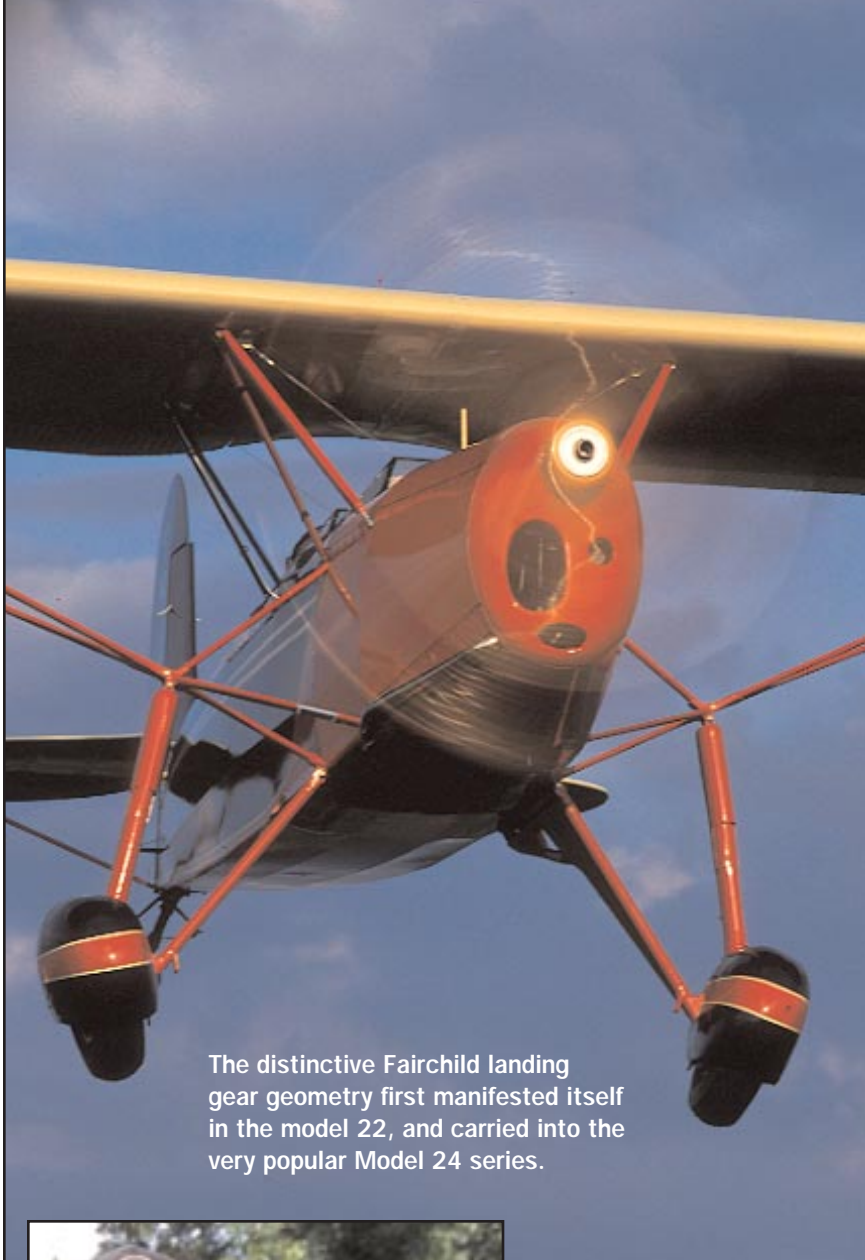
The Fairchild 22 that John purchased was a project that had gone through several hands before it became his.

formed of oxide and rot. These kinds of airplanes have sat around for so many years that they are not restored; they are recreated. They are so bad that it's good news when a part is so rusted or rotted that it's good only for a pattern because at least they have something to start with.

These kinds of projects also involve lots of forensic sleuthing to find information considered basic in other, less demanding, endeavors.

For instance, what is the instrument panel supposed to look like or how were the brakes hooked up? These are not projects for the weak of heart, although both John and Tim will agree, a weak mind sometimes helps. That way you don't realize how deep the water is until you have no choice but to keep on paddling.

John, who now calls Sonoma, California, home started flying in a



The distinctive Fairchild landing gear geometry first manifested itself in the model 22, and carried into the very popular Model 24 series.



The Fairchild 22 originally had, among a couple of choices, the Menasco C-4 engine; but the engine that came with the project was the later model D-4, complete with enclosed rocker boxes. Al Ball overhauled the relatively rare engine.

came with what was supposed to be a good engine.

“The Twenty-two originally had a C-4 Menasco, and the engine with it was a D-4, the primary difference between the two being the enclosed rockers. Even though it was supposedly a good engine, I was always a little leery of it so I had Al Ball rebuild it.

“After I bought the airplane, my friend continued to help me with it, but then his help went away, and I was in no position to do the entire airplane myself.

“I had known Tim for some time. Actually, I met Tim because of my son Scott. When Scott was barely a teenager, he started hanging out with the antique airplane crowd. In fact, Eric Presten was educating him. He’d hold up a picture of an airplane and make Scott identify it. Scott, who is now in Marine flight training at Pensacola, turned into a Monocoupe nut.

“On one of his jaunts, he stopped by Tim’s shop, and when he came home he said, ‘that guy has as much stuff in his hangar as you do, Dad.’



Tim and Marian Talen of the Ragwood Refectory, the Talens’ restoration shop in Springfield, Oregon.

“It originally came out of Arizona and a friend brought it up to Schellville where I saw it for the first time. Basically, the entire airplane was a pattern and a huge amount of stuff was missing altogether. He built a new fuselage using the original to build a jig from, and someone somewhere had done the same thing for the wings.

“I had told him that I’d buy it, if they didn’t finish it, and that’s exactly what happened. They had done some of the basic work, but there was a long, long way to go.”

The original engine was a Menasco, and the project

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LARRY HAWKINS

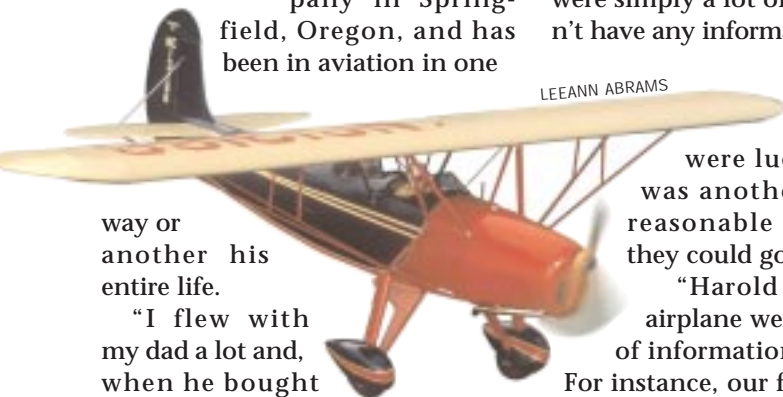


LARRY HAWKINS

“I talked to Tim on the phone and got to know him at the various air shows in the area. I went by his shop myself a few times and Tim had been down to see the Fairchild project.

So when I started talking to him about finishing it for me, he was already familiar with it.”

Tim bases his restoration company in Springfield, Oregon, and has been in aviation in one



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way or another his entire life.

“I flew with my dad a lot and, when he bought me a flying lesson with the local instructor for my 16th birthday, it lasted exactly 35 minutes. The instructor went around with me a few times, and then signed me off for solo. When he signed my logbook, he did it on the fifth line down to give us room to put some more official time above it.

“I joined the EAA when I was about 15, long before my dad did, and I talked him into working with me to build a Baby Ace using *Mechanix Illustrated* plans. It was powered with an A-65 and we did finish it. I still have it 37 years later.”

Tim’s education and life, in general, were interrupted when he went to Vietnam as an air controller. With the Army behind him, he returned to college to become a teacher.

“When I got out, I couldn’t find a teaching job so I started working at the airport. I was building a Cavalier homebuilt but then bought a \$925 Interstate Cadet that needed lots of

work, including new wings. That airplane is what detoured me into antiques and vintage airplanes.

“The thing I like about the older airplanes is that you’re building on its past to give it a future.”

Tim kept building Cadets and, as he became the go-to guy for Interstates, his avocation became his vocation and he opened a full-time restoration facility, aptly named Ragwood Refactory.

Tim says, “I took the Fairchild on in January ‘98 and spent a lot of time figuring out what he had and what we didn’t as well as what we knew and what we didn’t. There were simply a lot of things we didn’t have any information on.”

As rare as Fairchild 22s are, Tim and John were lucky that there was another one within reasonable distance and they could go look at it.

“Harold Smith and his airplane were great sources of information and patterns.

For instance, our fuselage had no cabanes on it, so we shot a bunch of pictures and made drawings that would let us duplicate his.

“The same thing was true of the control system. For all intents and purposes, we had none. If it hadn’t been for Harold’s airplane, we’d probably still be scratching our heads.

“On several other occasions, I was able to go out to my storage area and look at my ‘35 Fairchild 24-C8C project. With only three years of technology between those two, the 24 solution was often a carryover from the 22!”

The airplane came with a portion of the sheet metal but very little of it was useable, except the nose bowl.

Tim says, “We only used a few pieces of the original sheet metal because it was so beat up. We did use the nosebowl but that turned out to be a project of its own. In the first place, we think it was actually made for the DH Gypsy

engine installation on the 22, but the factory modified it for the Menasco. It had been beat on and “Bondoed” so many times that it was a real mess. It took a bunch of welding and patching to get it right, but I guess we shouldn’t complain. At least we had something original to the airplane to start with. Without it, we would have been doing a lot of scrounging or fabricating.

“We had a fuel tank that had been built by someone, but we had to rebuild it because it had the filler neck at the back rather than the front. We had an oil tank too, such as it was. It was barely a pattern, but we eventually decided to weld up a new aluminum tank to the original shape. The oil tank on the 22 is behind the firewall right over the passenger’s feet. Not the best place for a leaky old original tank.”

When an airplane is so completely recreated as this one, there’s always the temptation, which is usually grounded in practicality, to make things “a little better.” But that wasn’t their goal.

“We were trying to keep this thing as original as practical. We even decided to use the original Air Associates brakes and hook them up to be used from the front or back cockpit. That sounds simple, but we had a terrible time trying to figure out how the cables and pulleys ran, and no one seemed to have any ideas. The good news, however, was that I had a set of usable brake shoes in one of my piles of junk.”

Often, when an airplane has been through several hands, there is work that is not to the liking of the final restorer, in this case, Tim Talen.

“The wings had already been more or less finished, but there was a small problem: they didn’t match. In some areas, like the center-section bows, they weren’t even close. We wound up doing some major tweaking throughout the wings.”

One feature of the Fairchild 22 wings that bears mentioning is the factory’s attempt at streamlining

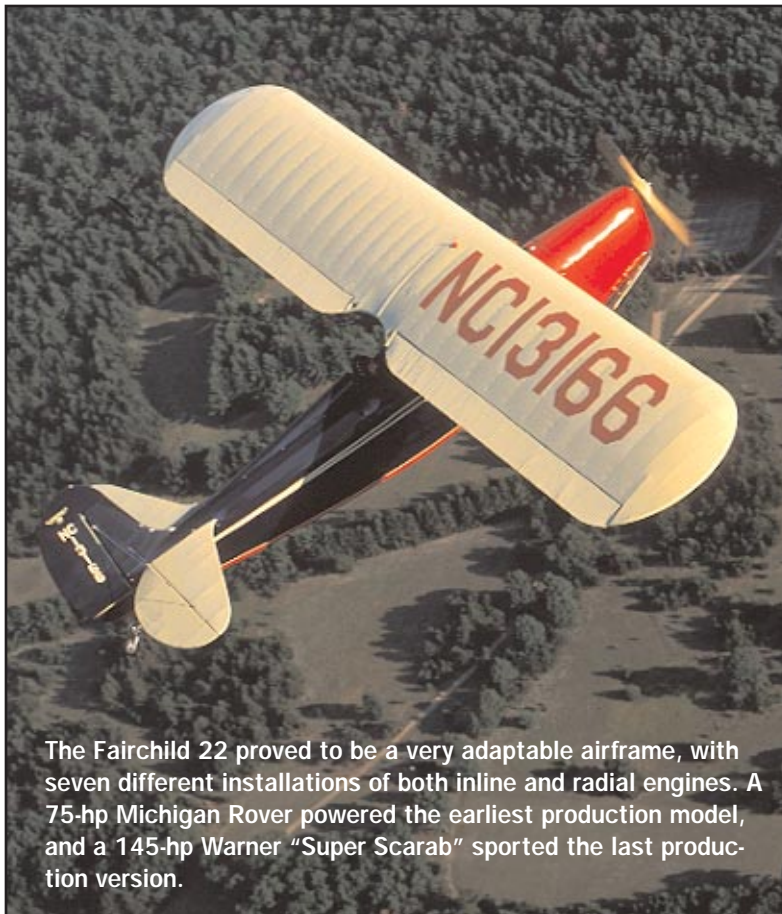
the strut-to-wing intersection. The rib at that position is much deeper than the rest, creating a streamlined bulge that lets the strut enter the lower wing surface at less of an angle, thereby lowering the drag at that point. Howard took a similar approach in their DGAs, except a fairing accomplished the same purpose.

“There were some real mysteries in the panel, mostly because we didn’t know what it looked like when it left the factory, and we didn’t know how original the other 22s were. Most of the instruments came with the airplane, but we weren’t sure of the arrangement, although we did know it had subpanels for all of them.”

The fabric and finish often represent more bumps in the road to originality for almost all restorations. Dope and cotton have drawbacks and some restorers and owners simply don’t want to put up with them.

“We decided against dope because, among other things, John plans on flying this airplane a lot and he wanted 25 years out of the fabric and finish. I’ve been a real Stits fan for years. In fact, I have some of the original Stits signs that use the Skybaby in the logo hanging in my shop. So for this airplane we used the Stits/Poly-Fiber system all the way through, including Polytone paint.

“We clear coated it with Aerothane after sanding all the tape edges down, but we flattened the clear a little. We didn’t want a high-gloss finish. We wanted the antique look but with modern durability. I’ve been using



The Fairchild 22 proved to be a very adaptable airframe, with seven different installations of both inline and radial engines. A 75-hp Michigan Rover powered the earliest production model, and a 145-hp Warner “Super Scarab” sported the last production version.

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this process on airplanes for nearly 17 years and so far they all look good. “

The tailskid concept is another difficulty in maintaining originality while still having a functional airplane.

“The airplane had a skid, when it came out of the factory. The type-certificate, however, says a tail wheel can be used. So we installed an 8-inch, smooth Maule that had the right look to it.”

The type-certificate became the guiding outline for the DAR to issue a new airworthiness certificate for the airplane.

“We showed that the airplane had everything the type-certificate says it should have, so he was willing to sign it off.”

When it came time to fly the airplane, John said he’d feel more comfortable if Tim made the first hops. He says, “Tim flew it out of his 1,600-by-30-foot strip and the airplane performed flawlessly. The only glitch was he was carrying a down trim, and he had to lean it a

lot to keep it running smoothly.

“We flew 20 hours, one-way, to Oshkosh and didn’t have a second of trouble. We flew it the first time in July 2002, but only put about 20 hours on it before the trip east. Now, with forty hours, the oil consumption is down to a quart every four or five hours.

“On the way to Oshkosh we started out flight planning 100 mph, but that was too optimistic and we almost never got it. Ninety is a more realistic speed, for cross-country flying. Although, if you run the Menasco at 1,900 rpm, it will indicate about 105

mph and burn about 7-1/2 gph.”

When they arrived in Wautoma, south of Oshkosh, and prepared to launch for the big event, they called ahead and discovered they had a problem. They had no radio (NORDO) and had been told earlier that all they had to do was call in from Wautoma and make arrangements. When they called, however, they were told not to come in because the tower was too busy to handle NORDO traffic.

The EAA camera ship (Photo Two) was there and the pilot told them to buddy up with someone else and go in as a two-ship flight. Luck was with them because Bill Pancake was also getting ready to leave in his Champ and overheard the conversation. So the Champ and the Fairchild made a true odd-couple arrival at Oshkosh 2003.

When asked what’s next for the Fairchild, John Thomason grins and says, “What’s next? I’m going to fly it and enjoy it.”

Sounds like a good plan to us. 