

Pilot statement:

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On Sunday, October 8, I, David Hempy, flew my Starduster Too, N27MW on a solo proficiency flight from 27K in Georgetown, KY. I took off around 4:00 pm EDT, and landed around 4:45 pm.

N27MW is an experimental EAB two-seat taildragger biplane with an IO-360 and 194 hours TT. It was airworthy, with a condition inspection completed 9/5/2023 at 185 TT.

I am a private pilot in my 50's with 325 hours, all within the last three years. I've owned this plane for 12 months, flying around 100 hours PIC in it, including flying it from Oregon to Kentucky after the purchase. My total tailwheel time is around 115 hours. Additionally, I have around 600 hours of time in various ultralights prior to earning my private certificate.

27K's 5500' runway is 3-21. Winds were steadily out of 300 around 10 knots all afternoon -- a direct 90 degree crosswind. Conditions were solid VFR, with unlimited visibility and a broken ceiling of generous height.

On my one-hour flight, I took advantage of the steady wind to practice some maneuvers I hadn't touched in a while: turns across a road, turns around a point, and chandelles.

Returning to the airport, AWOS reported wind 30009G14KT. The windsock confirmed a direct 90 degree crosswind from the left for runway 3. I intentionally made a low pass without touching down, skimming 4000' of runway at two feet AGL, holding the nose aligned to the runway, with the left wing low.

On my second approach, on downwind I noted the sock at one point indicated perhaps 290, which would be a ten-degree tailwind on final. I considered reversing the pattern to land on 21, but when the sock returned to 90 degrees during that downwind, I figured it would be a coin toss which way it would favor at touchdown, and continued my pattern for runway 3. Another pilot that observed my landing opined that I landed with a tailwind, estimating 280 at 8-10 knots at the time of the incident.

I set up for a wheel landing, given the crosswind. I typically land three-point, when not specifically practicing wheel landings. Wheel landings are not my strong suit.

I touched down some distance beyond the threshold (maybe 1000'?) as I dialed in the wheel landing with low power. Touchdown and initial roll-out were normal. Throttle was at idle, either at touchdown or immediately thereafter. As my speed slowed, the plane tended toward the left side of the runway. I countered with aggressive right rudder and kept the track straight through most of the rollout.

I'd like to say I used no brakes at this time, as I normally keep my heels on the floor until most of my speed is dissipated. However, I'm not sure if this was the case in this landing, as the

plane so stubbornly pulled toward the left edge of the runway. The right wheel left a long black mark on the runway toward the end -- I don't know if that was from braking or sliding sideways.

Near the end, and still on the asphalt, the plane broke left more abruptly and the right wingtip touched the runway. The right tire mark on the runway showed the plane skipping one time slightly to the right, presumably when the wingtip touched. I can't recall much detail from the next second or two. I remember telling myself to stay off the brakes, but I don't know if I was able to resist the reflex.

I do not know what I did with the elevator at that point. It may be that I was still trying to hold the tail up from the wheel landing, or perhaps the tailwheel was already down with the stick back.

The plane departed into the grass about 2500' beyond the threshold, just south of taxiway C, and travelled perhaps 50' in the grass on its wheels. I typically land in 1000-1500 feet three-point with no wind.

As the nose dipped toward the ground, I remember the prop strike clearly. It was surprisingly gentle. There is no doubt in my mind that the engine was at full idle by then.

As the prop hub reached the ground, everything slowed down. Not in a time perspective way, but literally, the plane came up on its nose very slowly. It would not surprise me if the tail just barely managed to come over the top.

The plane flipped forward on the prop hub, coming to rest inverted on the upper wing and vertical stabilizer. There was no indication that there was any movement across the ground after that. The entire affair was strangely gentle. I don't recall any sensation of an actual impact -- just that everything finally stopped moving.

I turned all switches off, pulled mixture to cut-off, and looked around to confirm I was upside down. I did not think to turn off the fuel valve until a few minutes later, and returned to do so then.

I released my four-point harness and slithered out with no trouble. The cockpit was completely intact, supported about 20" above the ground. I walked a distance from the plane and waved toward the hangars and FBO to indicate my safety.

Airport personnel and pilot friends arrived in seconds. County emergency services arrived within minutes. I declined medical services from the ambulance. I have no injuries. I expected to be sore the next day, but was not. I drove myself home that evening.

While the plane was inverted, there was a small fuel drip, either from the check-valved vent or fuel cap. I'd estimate less than a cup of fuel was lost, most of which the fire department caught in a catch pan.

After FSDO approved removing the plane from the site (perhaps an hour after the incident?), we set the plane back on its wheels and towed it to my hangar, which was secured with an FAA lock, pending FAA/NTSB release.

The plane is largely intact. The carbon fiber Whirlwind prop is destroyed, with 9" of both tips broken through the wooden core and forward fiber wrap, retained by the mostly-intact rear fiber wrap. The top of the vertical stabilizer and rudder are substantially damaged. The center section of the upper wing likely has damage. The right interplane strut has a slight bow, and the wing wires on that side have lost some tension. The fuselage appears undamaged, other than the vertical stabilizer. The cowl scrubbed some paint below the prop. The cowl has not yet been opened.

I would like to express my appreciation to the airport staff, pilot friends, fire and ambulance services, and FSDO for their quick response and expert handling of my incident. I'm grateful that my health is intact, and equally grateful that had I been hurt, the professionals I would have needed were skilled and ready to assist with their amazingly fast response time.

David Hempy