

Narrative of July 22 2025

The airshow briefing for the Homebuilt Review flight was held in the Hillard building at 10:30 AM, and was attended by all pilots, the Airboss, and teams responsible for staging and launching the aircraft participating in the flight. Weather was forecast to be vfr with southeast wind 8- 10 Knots while still having North operations, resulting in tailwind conditions. This was a departure from my previous 14 years experience where while sometimes having crosswinds, operations had been conducted into the prevailing wind. I felt that while not ideal, my aircraft and I would be able to handle the conditions.

I pulled my aircraft from the tiedowns and outside the crowd line at 1:00 PM after a thorough preflight and removal of unnecessary items from the aircraft. I started the engine and taxied to the staging area north of P5, shutting down in the #3 position. The next hour was spent coordinating with the pilots of aircraft both before me in sequence, and behind. We agreed that 130 knots would be a reasonable and safe speed given the performance of our respective aircraft. I also discussed the pattern and constraints of the route with some pilots who were new to the review. The aircraft were pulled onto taxiway P in order to prepare for the flight at about 2:15. I boarded, secured my towbar and ladder, belted in, closed and locked my canopy, and started my engine at 2:20, completed an engine runnup, zeroed my altimeter per our briefing, and entered the radio frequencies needed in my radios and tuning to "Airboss" for launch. I was waved into an on deck position at 2:30, and onto the active runway 36 at 2:32. I was launched at 2:33 by the on- runway controller. As expected, my take off run was about 200 to 300 ft longer than my 800 ft normal. {a result of the tailwind}. As I climbed to the 200 ft briefed altitude I retracted the gear, and began a right turn as I approached the control tower, and upon turning crosswind climbed to 500 ft agl and leveled off on downwind outside {east} of Oregon Ave. I had also reduced power in order to maintain 130 knots as agreed. I turned right slightly south of the threshold of Rwy 36, and right again onto my show pass over the grass between 36, and Taxiway A, maintaining 130 Kias, and 500 ft Agl. At Boeing Plaza I began my right turn to crosswind, and continued to downwind reducing speed to 120 Kias, lowered and locked the gear, and trimmed to 90 Kias for approach. I turned base at the end of 36, and drifted to the left edge of the runway due to the quartering tailwind component. I had no trouble centering on the runway and continued the approach to a target about 2500' beyond the threshold in order to land long as briefed. I was using 85 Knots into the flair, feeling the need for a bit of extra speed to accommodate the tailwind. This added speed resulted in a bounce after touchdown, and my normal correction of holding full aft stick resulted in a hard touchdown and a yaw to the right, a reaction that was not expected. I got straightened out with a light application of power, and considered going around, but saw the aircraft ahead was slowing rapidly, and with the added concern of aircraft being launched and crossing my path, I was not certain I could maintain safe separation, so I applied brake. At application I heard squealing from the right tire which was inconsistent with the force I was applying, and resulted in a hard left turn causing a skid into the grass, and failure of the nose gear due to over stress in side load. I felt a bump when I applied brake, and after having the opportunity to assess the damage, I am certain that it was the right main gear torsion bar failing, and the right main forcefully entering the gear well, with the right wingtip contacting the runway. The nose gear failure resulted in all three prop blades striking the ground, and the stop was gentle enough that the ELT did not activate, and I had no perceived seat belt or shoulder harness contact and no marks or bruising. I have not yet removed the torsion bar, so I can't say whether this was due to over stress, or a progressive failure. The nose gear shows no evidence of progressive failure.

In the future #1; I feel every effort should be made to operate into the existing wind.

#2; A designated route and procedure for aborted landings should be established and briefed.

#3; Consideration should be given to a climb on downwind to create altitude clearance which would allow a safe transition for a recovery on Rwy 9-27.

Alan White

Time in Make Model 593

All aircraft, 90 days 12

All Aircraft, Year 50.1

All Aircraft TT 1739.7