



Aviation Investigation Final Report

Location:	Rutherfordton, North Carolina	Accident Number:	CEN23LA230
Date & Time:	June 3, 2023, 13:00 Local	Registration:	N5068X
Aircraft:	Champion 7KCAB	Aircraft Damage:	Substantial
Defining Event:	Sys/Comp malf/fail (non-power)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the tailwheel-equipped airplane reported he was performing a 3-point landing with a right 90° crosswind. During the landing, the tailwheel began to "shimmy." The pilot applied forward control stick pressure to reduce weight on the tailwheel and attempt to alleviate the shimmy but did not have enough airspeed to lift the tail and correct the shimmy. The pilot reported that as airspeed decayed, he applied full "aft stick" and full left rudder, but the airplane continued to drift to the right. In an attempt to prevent a runway excursion, the pilot applied the wheel brakes and the airplane nosed over. The airplane sustained substantial damage to the rudder and damage to the propeller, spinner and cowling.

The pilot reported that postaccident examination of the tailwheel locking mechanism revealed that it was worn and would not lock to the right. Loose tail wheel attachment hardware was also noted. The condition of the tailwheel should have been checked during the last annual inspection; however, it is possible that the locking mechanism could have worn further during the 7 months between the most recent inspection and the accident flight.

At the time of the accident the airplane was landing on runway 01 with wind 060° at 8 knots.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The disengagement of the tailwheel locking mechanism during the landing roll which resulted in a loss of directional control during landing with a crosswind.

Findings

Aircraft	Steering unit - Failure
Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Environmental issues	Crosswind - Contributed to outcome

Factual Information

History of Flight

Landing-landing roll	Sys/Comp malf/fail (non-power) (Defining event)
Landing-landing roll	Loss of control on ground
Landing-landing roll	Nose over/nose down

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	52, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	Glider	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Gyroplane; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	February 13, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 25, 2023
Flight Time:	16600 hours (Total, all aircraft), 30 hours (Total, this make and model), 4000 hours (Pilot In Command, all aircraft), 82 hours (Last 90 days, all aircraft), 52 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Champion	Registration:	N5068X
Model/Series:	7KCAB	Aircraft Category:	Airplane
Year of Manufacture:	1968	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	151
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	November 1, 2022 Annual	Certified Max Gross Wt.:	1750 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3514.64 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91 installed, not activated	Engine Model/Series:	IO-320-E2A
Registered Owner:	Prize Steer II, LLC	Rated Power:	150 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KFQD, 1078 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	13:05 Local	Direction from Accident Site:	6°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	100°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.89 inches Hg	Temperature/Dew Point:	30°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Rutherfordton, NC	Type of Flight Plan Filed:	None
Destination:	Rutherfordton, NC	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	RUTHERFORD COUNTY/MARCHMAN FLD FQD	Runway Surface Type:	Asphalt
Airport Elevation:	1077 ft msl	Runway Surface Condition:	Dry
Runway Used:	1	IFR Approach:	None
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	35.427086,-81.935118(est)

Administrative Information

Investigator In Charge (IIC):	Brown, Zane
Additional Participating Persons:	Reynolds, Robert ; (FAA) CHARLOTTE FSDO; Charlotte, NC
Original Publish Date:	July 7, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=192323

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).