



Aviation Investigation Final Report

Location:	Allentown, Pennsylvania	Accident Number:	ERA23LA055
Date & Time:	November 9, 2022, 11:25 Local	Registration:	N8543E
Aircraft:	Piper PA-28-140	Aircraft Damage:	None
Defining Event:	AC/prop/rotor contact w person	Injuries:	1 Serious, 1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

After engine start, the student pilot and the flight instructor realized that the airplane’s nosewheel chock was still in place. The flight instructor decided to deplane to remove the chock without shutting down the engine. After removing the chock, the flight instructor moved to signal the student pilot that the chock was removed. In the process, the flight instructor made physical contact with the spinning propellor, resulting in serious injury. The flight instructor reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

Probable Cause and Findings

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

The flight instructor’s decision to remove the nosewheel chock while the engine was still operating.

Findings

Personnel issues	Decision making/judgment - Instructor/check pilot
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Factual Information

History of Flight

Standing-engine(s) operating	AC/prop/rotor contact w person (Defining event)
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Pilot Information

Certificate:	Student	Age:	23
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3	Last FAA Medical Exam:	October 11, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	31 hours (Total, all aircraft), 31 hours (Total, this make and model), 0 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 2.1 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	21,Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 3	Last FAA Medical Exam:	May 21, 2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	549.8 hours (Total, all aircraft), 110.4 hours (Total, this make and model), 460.1 hours (Pilot In Command, all aircraft), 185.2 hours (Last 90 days, all aircraft), 58.2 hours (Last 30 days, all aircraft), 2.3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8543E
Model/Series:	PA-28-140	Aircraft Category:	Airplane
Year of Manufacture:	1976	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	28-7625140
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	September 5, 2022 Annual	Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:	81 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	13975 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91 installed, not activated	Engine Model/Series:	O-320-E2A
Registered Owner:	ACE PILOT TRAINING INC	Rated Power:	150 Horsepower
Operator:	ACE PILOT TRAINING INC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	ABE,385 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:51 Local	Direction from Accident Site:	287°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.65 inches Hg	Temperature/Dew Point:	8°C / -4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Allentown, PA	Type of Flight Plan Filed:	VFR
Destination:	Allentown, PA	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class C

Airport Information

Airport:	Lehigh Valley International Airport ABE	Runway Surface Type:	
Airport Elevation:	394 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious, 1 None	Aircraft Damage:	None
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 None	Latitude, Longitude:	40.64828,-75.440586(est)

Administrative Information

Investigator In Charge (IIC):	Freeze, Christopher
Additional Participating Persons:	Johnny Williams; FAA - Allentown FSDO; Allentown, PA
Original Publish Date:	March 2, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=106274

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).