



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

September 8, 2021

EXAMINATION SUMMARY

ERA21LA349

A. ACCIDENT

Location: Grant-Valkaria, Florida
Date: August 30, 2021
Time: 0819 EDT
Airplane: Piper PA-28-161, N864LM

B. INVESTIGATION PARTICIPANT

Daniel Boggs
ASI
Eastern Region Aviation (ERA)
National Transportation Safety Board
Daytona Beach, Florida

C. SUMMARY

On August 30, 2021, about 0819 eastern daylight time, a Piper PA-28-161, N864ZLM, was substantially damaged during a forced landing at Grant-Valkaria, Florida. The private pilot and a pilot-rated passenger sustained minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that the preflight, departure, and climb phases of flight were normal and uneventful. She leveled off at 7,500 feet and began to lean the mixture. While leaning, the engine rpm dropped below 1,000. She went to full rich on the mixture and full throttle; however, the engine did not respond. The airplane began to lose altitude rapidly and she tried to restart the engine to no avail. She declared an emergency and air traffic control provided vectors to Valkaria Airport (X59). Unable to make the airport, she force-landed the airplane in a farm field. The airplane collided with a fence and a ditch before coming to a stop. The pilot and passenger exited the airplane and were met by first responders.

Inspectors with the Federal Aviation Administration responded to the accident site was examined the wreckage. Both wings and the fuselage received substantial damage. There was no fire. The right wing fuel tank contained about 17-18 gallons of fuel and the left tank was empty; however, the left tank was compromised by impact forces.

The wreckage was recovered to Florida Air Recovery, Jacksonville, Florida for further examination.

1.0 Engine

Examination of the Lycoming O-320-D3G engine was completed on September 8, 2021 at Florida Air Recovery. The airplane was stored outside on the ground with the cowling in place. A crane was used to raise the engine off the ground so the propeller could be rotated by hand. The engine rotated freely and no internal binding was noted.

The engine appeared to be freshly painted and recently overhauled. The fuel and oil lines, spark plugs, intake, and exhaust systems were in a like-new condition. The carburetor was fractured in half by impact forces. Other than the carburetor, the engine did not have any anomalies. The top spark plugs were removed and the propeller was rotated by hand; engine continuity was established through the engine drive train and the impulse couplings in the magnetos could be heard snapping. Compression was established on all cylinders.

2.0 Propeller

A Sensenich 74DM6-0-60 fixed pitch, metal propeller was installed.

The propeller blades were both bent aft mid-blade. No chordwise scratching or leading edge damage were evident.