

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN22LA377

AIRCRAFT EXAMINATION SUMMARY

August 11, 2022

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A. ACCIDENT

Location: Vernon Hills, IL
Date: August 5, 2022
Time: 2200 cdt
Airplane: N6460R

B. AIRCRAFT EXAMINATION SUMMARY

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C. SUMMARY

On August 5, 2022, about 2200 central daylight time, a Piper PA-28-140, N6460R, was substantially damaged when it was involved in an accident near Vernon Hills, Illinois. The pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part91 personal flight.

According to the pilot, he departed from the Campbell Airport (C81), Grayslake, Illinois, earlier in the day and flew to the Reese Airport (712), Muncie, Indiana. He was returning to C81 when the accident occurred. The flight took the airplane along the southeast shore of Lake Michigan and the pilot reported that shortly after crossing the lakeshore the airplane's engine began losing power. He reported that he performed emergency procedures which included applying carburetor heat, switching the selected fuel tank, activating the electric fuel pump, and attempting to restart the engine. He noted that he made about 3 such attempts without success in restarting the engine.

D. DETAILS OF THE EXAMINATION

1.0 Airframe Examination

The airframe was intake with no missing pieces. There was a nick in one propeller blade and the right wing was bent upward at the tip. The damage to the right wing constituted substantial damage.



Figure 1: Airplane during postaccident examination.

1.1 Fuel/Fuel System

The fuel system was two wing fuel tanks, one in each wing with a fuel selector in the cockpit. The fuel selector was off at the time of the examination. The right fuel gauge read between 5 and 6 gallons and the left gauge read empty. All remaining fuel was drained from both wing fuel tanks. The left wing contained about 1 quart of fuel and the right-wing fuel tank contained about 10 gallons of fuel, and 1-1/2 ounces of water. The fuel that was drained was placed back into the tanks for a subsequent engine run. No anomalies were detected regarding the fuel system.

2.0 Engine Examination

Examination of the engine revealed that the flexible tube from the heat shroud to the carburetor heat box was partially collapsed. The damage to the tube did not appear to be impact related. Several of the engine spark plug ignition leads were loose. The engine could be freely rotated, and compression was felt on all cylinders. It was decided to perform an engine run and the spark plugs were replaced as-found. The engine was started normally and ran smoothly. The engine rpm was increased to

2000 rpm, and a magneto check performed with normal rpm drop. When the carburetor heat check was performed, the engine rpm reduced by 700 rpm, but restored when the carburetor heat was turned off. The induction tube could not be seen from the cockpit during the engine run test. Subsequent disconnection of the induction hose and examination revealed no further anomalies with the carburetor heat system. No other anomalies were detected during the engine test run.



Figure 2: View of collapsed induction tube.

Submitted by:

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