

NTSB Airframe and Engine Examination Notes

On September 22, 2018, the National Transportation Safety Board investigation-in-charge, two aviation safety inspectors from the FAA St. Louis Flight Standards District Office, and air safety investigators from Continental Motors and Textron Aviation traveled to the accident site. The investigative team hiked to the accident site and an examination was conducted on the airframe and engine.

1. Airframe.

All structural components were found at the accident site.

Flight control continuity was established.

The airplane impacted trees and hilly terrain.

Both wings sustained substantial impact damage from contact with trees.

No signs of fire were noted.

The battery held 3.25 volts when checked with a multimeter.

The alternator and voltage regulator were removed for further examination and testing.

The ELT was found attached to the airframe and antenna and was set to "auto."

No issues were noted with the two cockpit seats and lap-belt restraint systems.

All fuses in the cockpit were found to be intact and installed.

The manual radio was found set to 122.9.

About 2.25 gallons total of fuel were found in both fuel tanks. No issues found with the color and smell of the fuel.

A fuel sample was checked with water-finding paste, and no issues were noted.

No evidence of breaching was observed with the wings that held the fuel tanks.

Minor debris was found in the gascolator bowl and filter.

Miscellaneous personal and airplane serving items were found in the rear of the airplane.

No preimpact mechanical malfunctions or failures were noted.

2. Engine.

The engine case was intact.

The engine accessories and controls were all present.

No signs of fire were noted.

Drivetrain continuity was established.

All cylinders were borescoped and no issues were observed.

No metallic flakes were found anywhere.

Crankshaft rotation was unable to be performed.

Thumb compression was unable to be performed.

The magnetos produced spark at all 8 terminals.

The impulse coupling performed normally with no issues noted.

The carburetor was found with very little fuel inside the bowl. All features of the carburetor worked normally.

No preimpact mechanical malfunctions or failures noted.

3. Propeller.

No evidence of power rotation during impact was observed.

The spinner was not found.

No preimpact mechanical malfunctions or failures noted.

4. Maintenance Records.

An examination of the maintenance records revealed no evidence of uncorrected mechanical discrepancies with the airplane.

5. Other.

Two working handheld flashlights and VHF radio was found in the cockpit.