

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR22LA204

AIRFRAME, AND ENGINE EXAMINATION

June 15, 2022

A. ACCIDENT

Location: Snohomish, Washington
Date: June 4, 2022
Time: 1430 Pacific daylight time
Airplane: N561PK, Piper PA-32-300

B. AIRFRAME, AND ENGINE EXAMINATION

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C. DETAILS OF THE EXAMINATION

1.0 Airframe Examination

Examination of the airframe revealed that all four fuel tanks were intact and undamaged. The left wing tip tank was void of any fuel, while the left main tank, right main tank, and right wing tip tank contained a significant amount of fuel. No visible damage to the airframe was observed with the exception of the nose wheel landing gear, which was compressed aft into the firewall. Additionally, the engine mount where the nose gear attaches was buckled. Throttle, mixture, and propeller control continuity was established from the cockpit controls to the engine. Damage to the bottom side of the engine mount precluded the throttle from moving past about mid travel.

Cockpit Documentation:
Hobbs Time: 2577.6
Tach: 5313.18

2.0 Engine Examination

Examination of the Lycoming IO-540-K1A5 engine, serial number L-26532-48E, revealed that the remained attached to the airframe via the engine mount. All engine accessories remained attached to the engine. The upper spark plugs were removed from the engine. All 6 cylinders were examined internally using a lighted borescope and were unremarkable. The propeller was rotated by hand and thumb compression was obtained on all 6 cylinders.

The left and right magnetos were intact. The left magneto produced spark on all ignition leads when the propeller was rotated with impulse coupling engagement.

The right magneto was removed. Using a hand drill, the right magneto drive shaft was rotated, and spark was produced on all 6 ignition posts.

The upper spark plugs exhibited normal operational signatures with grey deposits within the electrode area.

No fuel was present in the fuel lines from the fuel control to the flow divider. Additionally, no fuel was present from the firewall fuel line fitting to the fuel pump. The airframe fuel pump was turned on and a fuel tank that contained fuel was selected. Fuel was observed flowing throughout the fuel system to all 6 fuel injector nozzle lines. The fuel expelled from the lines was blue in color and free of contaminants.

The Bendix fuel flow divider was intact. The upper cap was removed, and the internal diaphragm was intact and undamaged. All 6 fuel injectors were free of debris.

The induction and exhaust systems were unremarkable.

Submitted by:

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