NTSB MEMORANDUM FOR RECORD

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Eastern Region, Office of Aviation Safety (ERA)
National Transportation Safety Board

Date: July 17, 2019
Person Contacted: Jordan Paskevich (Rotech Flight Safety Inc.)
NTSB Accident Number: ERA19LA159

Narrative:

The following memorandum contains a summary of excerpts from an engine examination report produced by the Chief Accident Investigator with Rotech Flight Safety Inc., Rotax Aircraft Engines. The examination of the engine on N61PG was conducted in Springfield, Tennessee on July 17, 2019 and was supervised by Federal Aviation Administration (FAA) Inspector Michael Salas.

ENGINE

Rotax Engine Model Number: Rotax 912 ULS
Rotax engine serial number: 4425062. The serial number indicated the engine was manufactured on April 12, 1998.

Condition of Engine

Overall good condition. 3 blade propeller. Two blades broken off at hub. A Pierburg manufacturer engine driven fuel pump was installed, which was consistent with the original fuel pump the engine would have been manufactured with.

Detailed Engine Inspection

Spark Plugs & Spark Plug Caps

No anomalies observed

Ignition System

No anomalies observed

Fuel System, Carburetor Inspection, and Fuel Lines

Removed float bowls and they were full of water and what appeared to be an oily substance This was attributed to the engine being left out in the elements and rain for more than two months. When the carburetors were inspected 3 days after the accident by an FAA inspector, fuel was observed without contaminants or water.

The fuel line that is on the pressure side of fuel pump was removed. The fuel pump was operated by rotating the engine and no fuel or any other substance came out of the fuel pump. All fuel lines were dry of fuel. Other than the lack of fuel found in the fuel pump, no other anomalies were seen with the fuel system.

Lubrication system

No anomalies observed

Cylinder and Cylinder head

No anomalies observed

Cooling system

No anomalies observed

Air Filter system

No anomalies observed

Exhaust system

No anomalies observed

Gearbox

No anomalies observed

Crankcase and crankshaft

No anomalies observed

Engine Test Run

The engine was started, and test ran from a separate fuel source. The throttle was manipulated several times during the test run at multiple power settings and the engine operated without anomalies. The Pierburg fuel pump was utilized during the engine test run. A video was made by the FAA inspector overseeing the engine test run and a copy is located in the NTSB Public Docket.

Summary

No mechanical anomalies were found with the engine during the engine examination and test run. No fuel was contained in the engine driven fuel pump when examined, however, the fuel pump was able to supply fuel to the engine during the engine test run.