



MEMORANDUM FOR RECORD

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Date: 03/24/2023
Subject: Wreckage Examination
NTSB Case Number: ERA23LA120

On March 22, 2023, the wreckage of N5587Q was examined at Atlanta Air Recovery in Griffin Georgia. The following information was gleaned during that examination.

Airplane

Examination of the airplane revealed that the cabin of the airplane had been gutted by the postcrash fire. Flight control continuity was established from the flight control surfaces to the cabin. The fuel selector valve was in the right wing fuel tank position, and when an air source was applied to the port on the fuel selector for the right tank, no blockages were discovered.

Propeller

The propeller had remained attached to the engine crankshaft flange. Both propeller blade tips were curled aft and exhibited leading edge gouging and chord-wise scratching. The propeller governor had also remained attached to the engine, and the propeller control cable had remained attached to the governor control arm. The governor drive spline would rotate freely by hand. The governor oil screen was absent of debris.

Fuel System

The carburetor remained attached to the engine and was fire damaged. The carburetor mounting flange was fractured. The throttle, mixture and carburetor heat cabled remained attached to the throttle, mixture, and carburetor heat control arms. The induction air box was crushed. The induction air filter was unobstructed. The brass floats were found separated from the float support arm at the solder joint and were laying in the float bowl. The bowl gasket was charred. No damage to the other internal components was observed. No liquid was observed in the float bowl. The engine driven fuel pump had remained attached to the engine and was fire damaged. The engine driven fuel pump was removed and partially disassembled. The internal rubber diaphragms were burned. No damage was noted to the internal check valves.

Magnetos

Both magnetos remained attached to the engine and were fire damaged. The left magneto could not be rotated by hand. The internal components were found to have melted. The right magneto could be rotated by hand but did not produce spark. The distributor gear and internal wiring were found to have been fire damaged.

Spark Plugs

The spark plugs electrodes exhibited dark gray coloration and worn normal coloration. The #3 bottom spark plug was found to be hanging out of the No.3-cylinder bottom spark plug hole and hanging from the No.3 bottom ignition lead. The threads were rusty except for the bottom 3 threads. The No.3-cylinder bottom spark plug hole Helicoil type thread insert was partially pulled from the spark plug hole with the bottom portion still present in the spark plug hole.

Engine Starter

The starter remained attached to the engine. No damage was noted, and it was not removed.

Alternator

The alternator remained attached to the engine. No damage was noted, and it was not removed. The alternator belt remained in place.

Vacuum Pump

The vacuum pump remained attached to the engine and was fire damaged. The vacuum pump drive was rotated by hand and produced air at the outlet port. The pump was partially disassembled. The carbon rotor and carbon vanes were intact.

Lubrication System

Oil was observed in the engine. The oil suction screen was absent of debris. The oil filter media was charred but no metallic debris was observed on the media.