

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ERA24FA384

NTSB WRECKAGE EXAM REPORT

October 3, 2023

A. ACCIDENT

Location: Gilford, New Hampshire
Date: September 30, 2023
Time: 1942 EDT
2342 UTC
Airplane: N6312G, Cessna 150

B. NTSB WRECKAGE EXAM REPORT

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All major components of the airplane were recovered from the lake and remained attached to the airplane via control cables. Flight control continuity was established for all major flight control surfaces to the cockpit. The flap actuator was in the fully retracted position. The elevator trim tab was not recovered, but the trim tab actuator remained attached to the right horizontal stabilizer. The rod end of the actuator had been pulled out and no measurement could be obtained.

Both wings sustained extensive leading edge compression damage. Both fuel caps were secured to each wing and the seals were in good condition. The cockpit area sustained extensive impact damage. The throttle/mixture/carburetor heat controls were all full forward. The pilot seat had separated from its rails and was found outside the airplane. The co-pilot seat remained partially attached to the rails. The pilot's lap belt assembly was found completely separated from the airplane structure. The belt was not buckled. The co-pilot's lap belt remained secure to the airplane structure and was buckled. The empennage, and all tail control surfaces were also exhibited impact damage.

The fuel shutoff valve was found in the wreckage and sustained impact damage. The valve was found between the on/off position. The firewall fuel strainer was intact. The bowl was removed, and a trace of liquid was observed. The screen was absent of debris. The carburetor had separated from the engine. The finger screen was absent of debris and the bowl was empty. The plastic floats were intact. A small amount of fuel squirted from the carburetor when the accelerator pump was manipulated. The fuel had a strong odor of auto-gasoline.

The vacuum pump also separated from the engine and sustained impact damage. The pump was disassembled, and the drum was heavily fractured.

All but one of the vanes was intact. 360-degree rotational scoring was observed on the interior wall of the pump.

The engine and its two-bladed propeller sustained impact damage. Both blades were bent aft mid-span and exhibited some twisting.

Engine compression and valve train continuity was established via manual rotation of the propeller. The top plugs were removed, and the electrodes were covered in mud, but appeared to be in good condition. Both magnetos remained attached to the engine and several tears were noted to the ignition harness. The mags were removed and both couplings snapped when rotated. Spark could not be obtained due to water damage.

A black nylon bag was found in the aft section of the wreckage. The bag was open. The aircraft maintenance logbook was found inside, but the engine and propeller maintenance logs were not. A review of the aircraft logbook revealed that the airplane's last annual inspection was conducted on March 12, 2023, at a tachometer time of 2,599.6 hours.