



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

July 21, 2017

AIRFRAME EXAMINATION SUMMARY

WPR18LA009

This document contains 0 embedded photos.

A. ACCIDENT

Location: Skull Valley, Utah
Date: October 15, 2017
Aircraft: Barber Turbine Cubs PA-18
NTSB Investigator-in-Charge: Joshua Cawthra

B. DETAILS OF THE INVESTIGATION

1.0 Airframe Examination

Examination of the recovered wreckage revealed that both wings were removed to facilitate transport of the wreckage. The airplane was equipped with a Dynon FlightDEK-D180, which has an option to provide carburetor air temperature. Power was applied to the airframe, and the FlightDEK-D-180 functioned normally.

The cabin heat vent, located at the base of the firewall, aligned in the middle of the airframe, was free of restrictions, and the cabin heat lever actuated normally. The left and right brake master cylinders remained secured to their respective mounts. When actuated by hand, the right brake pedal needed minimal input to actuate the brake, however, the left brake pedal needed a significant amount of movement to actuate the brake. Both the left and right main landing gear wheels moved unrestrictedly. The brake reservoir cap was removed and a minimal amount of hydraulic fluid was observed. The vented cap was free of debris and restrictions. A heat gun was utilized to heat both the left and right master cylinders. After about 25 minutes of the application of heat to the right master cylinder, it was noted that the brake engaged, resulting in restricted movement of the right main wheel by hand. The application of heat to the left master cylinder resulted in no change.

The engine remained secure to its mount. All engine accessories remained attached to their respective mounts. All fuel lines remained attached. Throttle, mixture, and carburetor heat control continuity was established from the cockpit controls to the engine. The wooden propeller assembly remained attached to the crankshaft however, one of the propeller blades was separated at the propeller hub.

One of the two magnetos were equipped with an impulse coupling. When the engine crankshaft was rotated, spark was produced on the impulse coupling equipped magneto leads. The opposing magneto was not removed or examined.

The bottom four spark plugs were removed and examined. All four spark plugs exhibited gray deposits within the electrode area and exhibited normal operational signatures. The ignition harness was intact and undamaged.

The carburetor was equipped with a carburetor temperature probe. It was noted that one of the two wires was separated from the crimped side of an electrical connector. The wire exhibited missing shielding at the end and no wire was observed within the electrical connector. The carburetor was removed and examined. The throttle and mixture levers moved from stop to stop

by hand freely. The accelerator pump functioned normally when the throttle lever was actuated. The carburetor was disassembled and the internal floats were intact and moved freely. The needle valve and seat were intact.

The induction system was intact and free of debris with the exception of dirt wedged within the air filter. The exhaust system was intact and undamaged. The scot tubing for cabin heat remained attached and undamaged.

No evidence of any preexisting mechanical malfunction that would have precluded normal operation of the engine was found.

Submitted by: Joshua Cawthra