



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

October 24, 2018

AIRFRAME / ENGINE EXAMINATION SUMMARY

WPR18LA224

This document contains 5 embedded photos.

A. ACCIDENT

Location: Marsing, Idaho
Date: August 14, 2018
Aircraft: Cessna 140, N89093
NTSB Investigator-in-Charge: Joshua Cawthra

B. DETAILS OF THE INVESTIGATION

1.0 Airframe/Engine Examination

Examination of the wreckage revealed that the wings were removed to facilitate wreckage transport. All fuel lines from both wings to the fuel selector valve appeared to be intact and undamaged. All engine accessories remained attached to the engine. The top spark plugs were removed and exhibited normal operational signatures.



Figure 1: Left side of the engine.

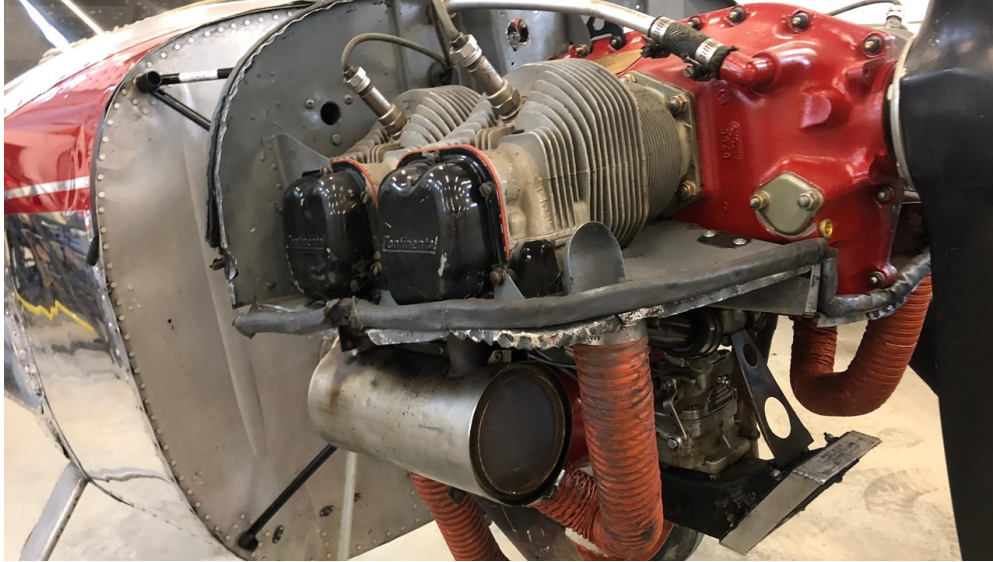


Figure 2: Right side of the engine.



Figure 3: Airbox and Carburetor

Due to damage to the airframe fuel strainer, an external fuel source was attached to the carburetor inlet fuel line. Despite multiple attempts, the engine would not start. When the propeller was rotated by hand, compression was felt on all four cylinders.



Figure 4: Preparation for an engine run.

The airbox and carburetor were removed, and the carburetor was disassembled partially. An orange residue consistent with rust was observed within the float bowl along with residual water. The float bowl and mixture metering sleeve were cleaned using carburetor cleaner and the carburetor was subsequently reassembled.

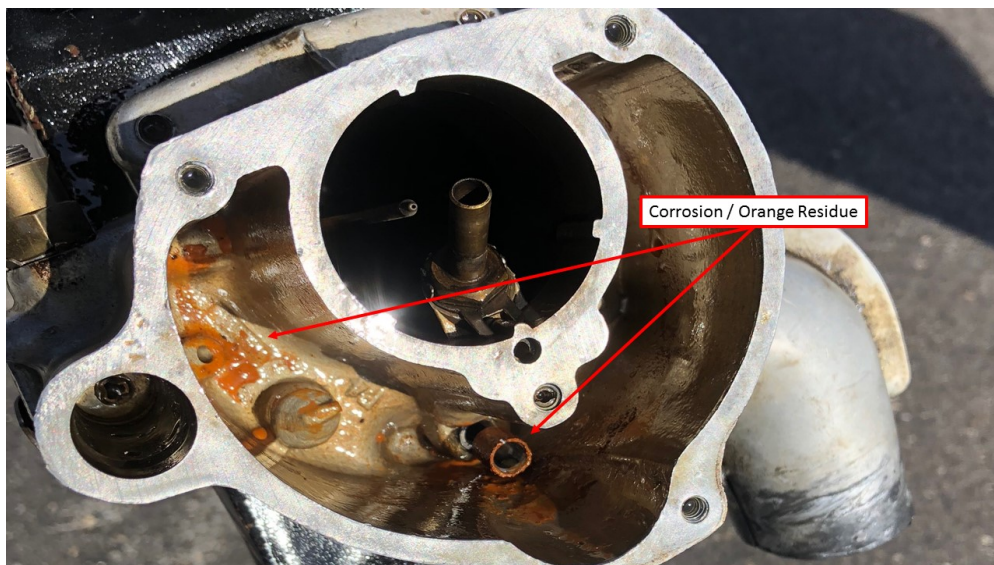


Figure 5: Inside the carburetor float bowl.

The engine was started following multiple attempts at a high power setting of 1,800 rpm. When engine RPM was reduced below 1,300 rpm, the engine subsequently lost power. Once restarted, at 1,700 rpm, a magneto check was performed and a decrease of 100 rpm for both magnetos was observed. The carburetor heat was applied and a decrease of 150 rpm was noted at 1,800 rpm and 2,000 rpm. The maximum rpm obtained during the engine run was 2,300 rpm. The carburetor was removed and retained for further examination.

Submitted by: Joshua Cawthra