

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN24LA052

EXAMINATION SUMMARY

January 10, 2024

ACCIDENT:

Location: Manitowoc, WI
Date: 11/30/2023
Time: 1513 CDT
Aircraft: Cessna 182; N8880T

EXAMINATION SUMMARY

IIC	Aaron Sauer NTSB Denver, CO
Participants	Brandon Molina Federal Aviation Administration Milwaukee, WI Peter Hupfer Federal Aviation Administration Milwaukee, WI

SUMMARY:

On November 30, 2023, at 1513 central standard time, a Cessna 182C, N8880T, was substantially damaged when it was involved in an accident near Manitowoc, Wisconsin. The pilot and passenger sustained minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

AIRFRAME and ENGINE EXAMINATION:

The airframe and engine were recovered by Myers Aviation, Oshkosh, Wisconsin. The aircraft logbooks were not available at the time of the examination. Visual examination of the airframe and Continental O-470 engine (serial number 131515-5-R) revealed the upper and lower cowlings displayed impact damage.



Airframe and engine

The cowlings were removed, and no evidence of an uncontained engine failure was noted. The carburetor airbox was separated from the carburetor; the attach rivets appeared sheared and impact damage to the engine cowling was noted near the airbox and carburetor.



Airbox and carburetor

The airplane HOBBS meter indicated 0173.2 hours. Continuity from the cockpit engine controls (throttle/mixture) was confirmed to the carburetor, and the controls moved freely when manually manipulated. Carburetor heat control continuity was confirmed to the carburetor airbox, and the control moved freely when manually manipulated.



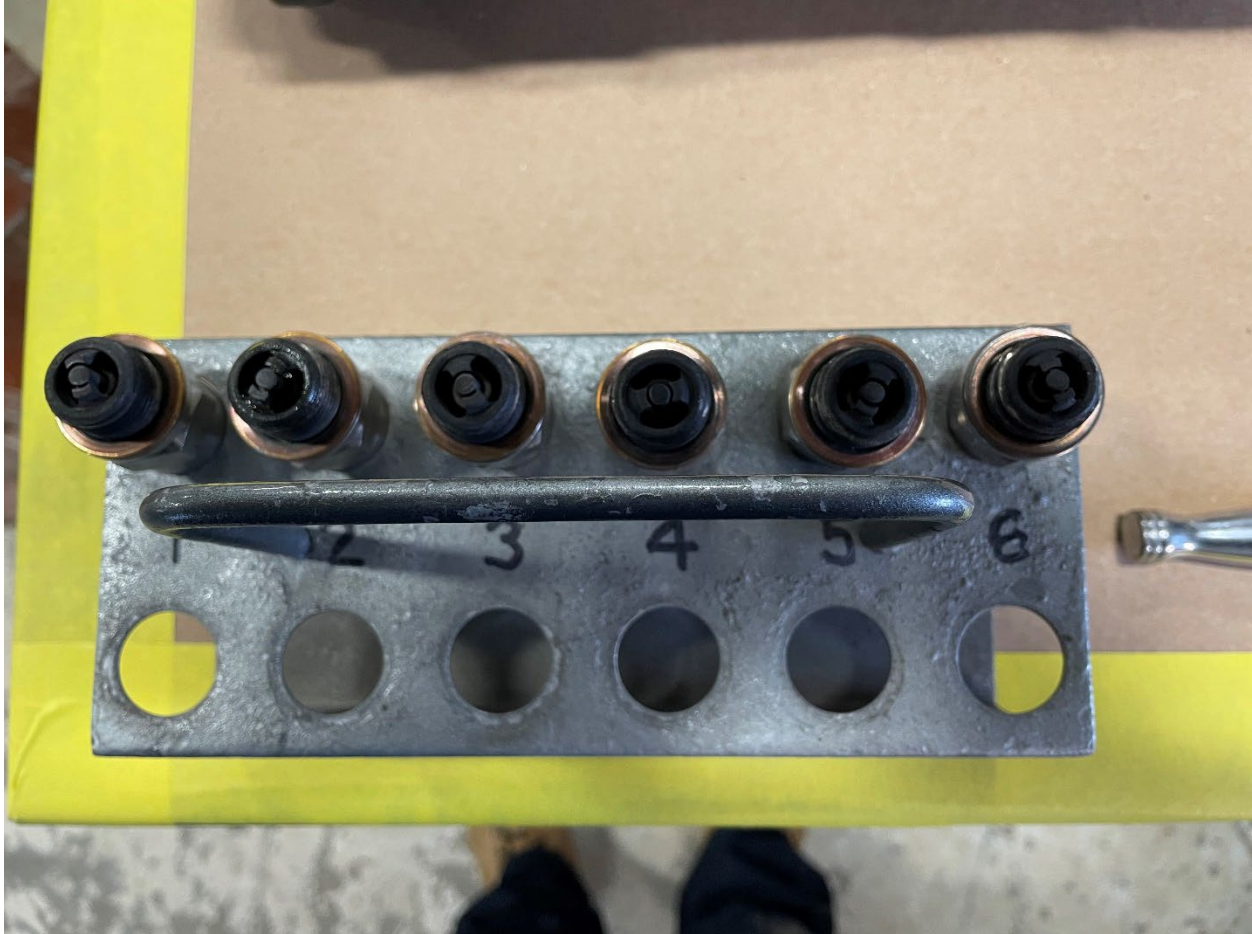
Cockpit engine controls

The instrument panel contained an Insight G2 graphic engine monitor, and an SD data card was installed. The SD card was removed, and the accident flight data was extracted from the SD card.



Insight G2 graphic engine monitor (SD card removed)

The top sparks plugs were removed, and thumb compression and suction were noted on all 6 cylinders when the propeller was manually rotated. The spark plug electrodes were in a normal condition per the Champion Aerospace service manual. Mechanical continuity throughout the engine and accessories was confirmed when the propeller was manually rotated.



Top spark plugs

The left and right magnetos and ignition harnesses were tested by removing the p-leads and rotating the propeller. No spark was noted on the top or bottom ignition harness lead coil springs.

Engine magneto timing for the left magneto was 18 degrees before top dead center, and the right magneto was 20 degrees before top dead center. The engine timing indicator was mounted on the damage spinner via tape and timing results were estimated.



Engine timing indicator mounting

The left and right magnetos and ignition harnesses were removed for further examination.



Left magneto



Right magneto

PROPELLER:

The McCauley two-blade constant speed propeller remained attached to the engine crankshaft. One blade appeared to be undamaged and secure in the hub. One blade was bent aft about mid-span and loose in the propeller hub.



Propeller assembly

Submitted by:

Aaron Sauer
Sr. Air Safety Investigator