

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN22LA152

ENGINE EXAMINATION

April 12, 2023

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A. ACCIDENT

Location: Ash Flat, Arkansas
Date: March 5, 2022
Time: 1615 CST
2115 UTC
Airplane: Bellanca 17-30A, N8869V

B. ENGINE EXAMINATION

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C. SUMMARY

On March 25, 2022, a Bellanca 17-30A airplane, N8869V, was substantially damaged when it was involved in an accident near Ash Flat, Arkansas. The pilot was seriously injured. The airplane was operated under the provisions of Title 14 Code of Federal Regulations Part 91 as a personal flight.

The pilot was attempting land on runway 22 at the Sharp County Regional Airport (CVK), Ash Flat, Arkansas, with a gusty wind from the west. The pilot commanded a go-around and the engine lost power. The airplane descended and impacted the runway left-wing low and skidded off the runway.

D. DETAILS OF THE EXAMINATION

1.0 Engine

The engine remained attached to the airframe largely through fuel lines and engine controls. The mixture and throttle arms remained properly secured. Engine control continuity was established from the cockpit controls to the throttle body. Both mixture and throttle arms moved without interference.



Figure 1 Left Side of Engine



Figure 2 Right Side of Engine

The engine was then separated from the airframe. The top bank of spark plugs, rocker box covers, and engine driven fuel pump were removed.

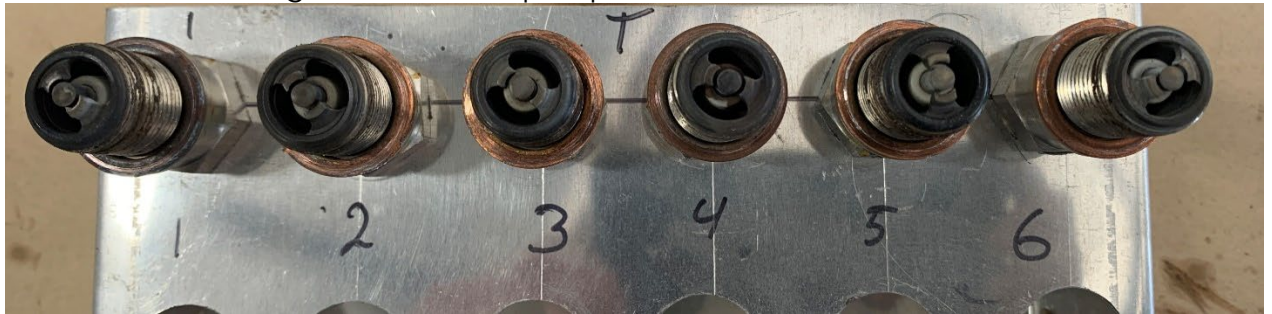


Figure 3 Top Bank of Spark Plugs

The propeller had been removed prior to the examination so a hand tool was used to turn the engine through. Thumb compression, valve train continuity, and drive continuity to the accessory section were confirmed. The right magneto produced spark at each terminal. The left magneto would not produce spark so it was removed for further examination.

Using a power tool, the magneto would not produce spark. The ignition harness was then removed and small amount of water drained out. Further opening the magneto timing port resulted in several ounces of water draining from the magneto. The magneto produced spark at the distributor when using a small wire to conduct the charge. The ignition harness was reinstalled and the magneto produced spark at each terminal. The airplane wreckage had been stored outside and partially tarped, however when opening the baggage compartment, a fuel tester was full of water suggesting that the source of water was likely from being stored outside.



Figure 4 Fuel Tester with Water

The fuel divider was opened. The diaphragm was intact and the fuel screen was clear.

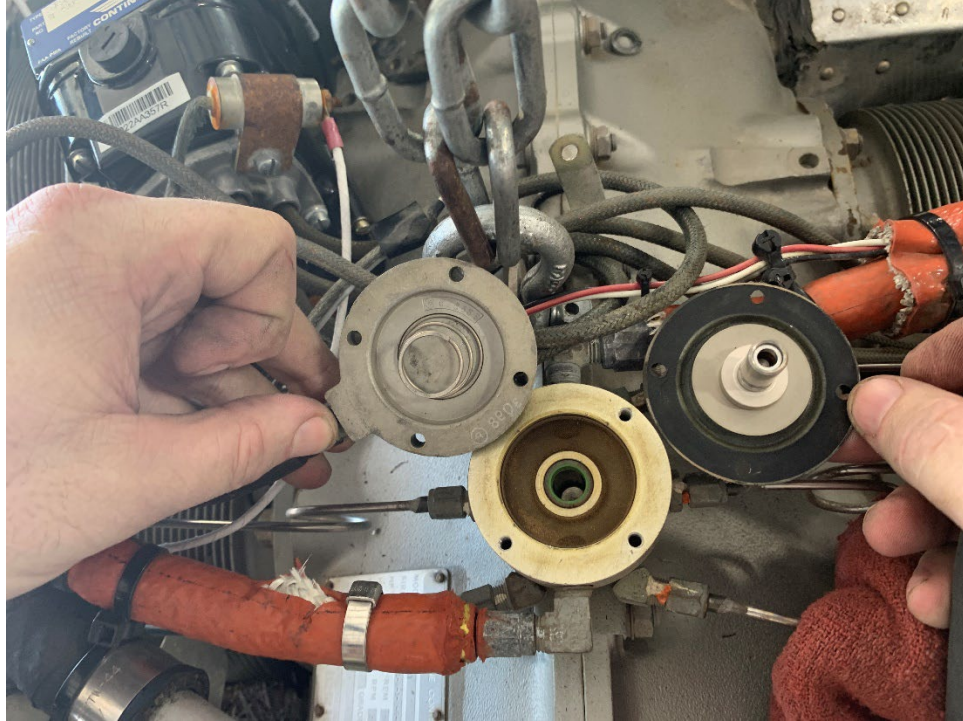


Figure 5 Fuel Divider

The throttle body fuel screen was removed and found to be clear of debris.



Figure 6 Throttle Body Fuel Screen

The airplane was modified via STC with a Brackett Air Filter which removed removed and opened. No obstructions were found in the filter.



Figure 7 Brackett Air Filter

The engine GAM injectors were removed and found clear.

The engine driven fuel pump had been removed and the engine and the spline remained intact. When actuated via a power driver, the pump was able to drive fuel.

The oil filter was removed and cut open. The filter did not contain any debris.

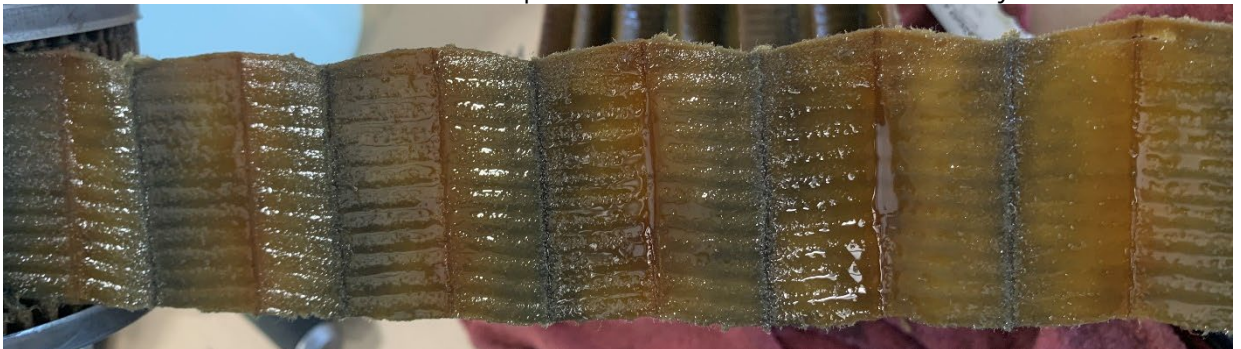


Figure 8 Oil Filter Element

The airplane was equipped with a JPI EDM 900 which was removed and sent to the NTSB Laboratory for download.

2.0 Propeller

The propeller was examined and the blades labelled A, B, and C for documentation purposes.

Blade A had several chunks of metal missing from the leading edge along with chordwise scratches.



Figure 9 Blade A

Blade A had several chunks of metal missing from the leading edge along with chordwise scratches.



Figure 10 Blade B

Blade B had several gouges and was partially torn. Chordwise scratches could also be seen.



Figure 11 Blade C

Blade C was relatively undamaged when compared to the other two blades. It had damaged to its leading edge with chordwise scratches.

Submitted by:

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