

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN24LA344

EXAMINATION SUMMARY

October 8, 2024

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A. ACCIDENT

Location: Rifle, Colorado
Date: September 8, 2024
Time: 1533 mountain daylight time
Airplane: N36008; Bellanca 7GCAA Citabria

B. EXAMINATION SUMMARY

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C. SUMMARY

On September 8, 2024, at 1533 mountain daylight time, a Bellanca 7GCAA airplane, N36008, was substantially damaged when it was involved in an accident near Rifle, Colorado. The pilot sustained serious injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 positioning flight.

According to the owner, he had recently taken ownership of the airplane and hired a pilot to relocate it from California to Colorado.

According to the pilot, he departed from Placerville Airport (PVF), Placerville, California, with the airplane's fuel gauges both showing about $\frac{3}{4}$ full. He then landed at Yerington Municipal Airport (O43), Yerington, Nevada, and added 13.76 gallons of 100LL fuel so that both fuel tanks were full. He departed O43 and flew for about 3 hours to Richfield Municipal Airport (RIF), Richfield, Utah, for another fuel stop where he added 27.71 gallons of 100LL and the fuel tanks "were completely full." The final leg of the flight was to Rifle Garfield County Airport (RIL), Rifle, Colorado, and he planned that the time en route would be 2.5 hours. During the flight, after crossing the Utah-Colorado border, he experienced continuous updrafts and downdrafts, constant light turbulence, and occasional moderate turbulence. About 5 nautical miles (nm) from the accident site, the engine sputtered so he checked the carburetor heat, mixture setting, and confirmed the fuel selector valve was on. Due to the

turbulent air, the fuel gauges were bouncing so much that he could not read the fuel level. After checking the weather at RIL, the engine experienced a total loss of power while flying above Interstate 70. He maneuvered the airplane north of I-70 and intended to make a forced landing on a north-south dirt road. While turning base to final for the dirt road he noticed power lines and pitched up to avoid a collision. The airplane then stalled about 200 ft above ground level (agl), impacted terrain in a nose low attitude, and nosed over. The pilot egressed under his own power and was assisted by bystanders and first responders. He instructed the bystanders to turn off the airplane's electrical switches.

The pilot was utilizing the application Foreflight, which recorded a flight track log for each of the three flight legs. The track log showed at 1527, about 12 nm from RIL and about 3,300 ft agl, the airplane made a left 360° turn and descended to about 2,300 ft agl. The airplane then continued east toward RIL and descended. At 1532, while crossing over I-70 at 200 ft agl, the airplane made a gradual left turn, then cleared the powerlines at 100 ft agl. The airplane came to rest in a field about 100 yards east of the dirt road.

The pilot documented the engine's tachometer time at the beginning of the first flight from PVF, which was 1,251.69 hours. The tachometer time at before the second flight was 1,252.54 hours. The pilot did not have a photo of the tachometer time before the accident flight. The tachometer time at the accident site was 1,257.98 hours.

A local pilot was notified of the accident and arrived at the site about 2 hours later. He stated that there was a ground scar about 20 ft from the wreckage and that the airplane was inverted. He did not smell any fuel on the ground near the airplane and did not observe any leaking fuel. He also checked the fuel caps which remained secure.

Beegles Aircraft recovered the airplane from the accident site on September 16, 2024. During the recovery they removed the wings from the fuselage and disconnected the 4 fuel lines in the wings. The fuel caps were still tight. They drained about 2 gallons of fuel from the fuel lines during the recovery.

D. DETAILS OF THE EXAMINATION

1.0 Airframe Examination

The fuselage and empennage were intact and sustained impact damage and distortion near the wing struts at the forward fuselage. There was no sign of blue fuel staining on the bottom of the white colored fuselage. The wings had been removed during the recovery and were resting on stands. The wings were mostly unremarkable except for several small holes in the fabric. There was no sign of blue fuel staining on the wings. The wing tanks were intact, and the fuel lines had been

disconnected during the recovery process. Air was blown through the wing fuel lines to the fuel tanks and to the fuel vent – all of which were free of obstructions. The wing tank vent interconnect line was found bent and disconnected and contained a small amount of dirt and organic matter. The dirt in this line was similar to the dirt found in on the airplane and inside the exhaust system from the accident site; therefore, it's likely that the dirt was introduced into the line during the recovery process and was not present before the accident.



The firewall fuel strainer sustained impact damage and the bowl was loose from the housing. The bowl contained a very small amount of dirt. The quick drain plug was bent slightly from impact damage and would not hold a tight seal. There was no sign of fuel staining on the engine cowling or firewall.

The fuel shutoff handle was found ON and the control rod was slightly bent but remained functional and could be rotated to the ON and OFF positions.



The aircraft battery remained connected to the airframe terminals and power was supplied to the electrical system.

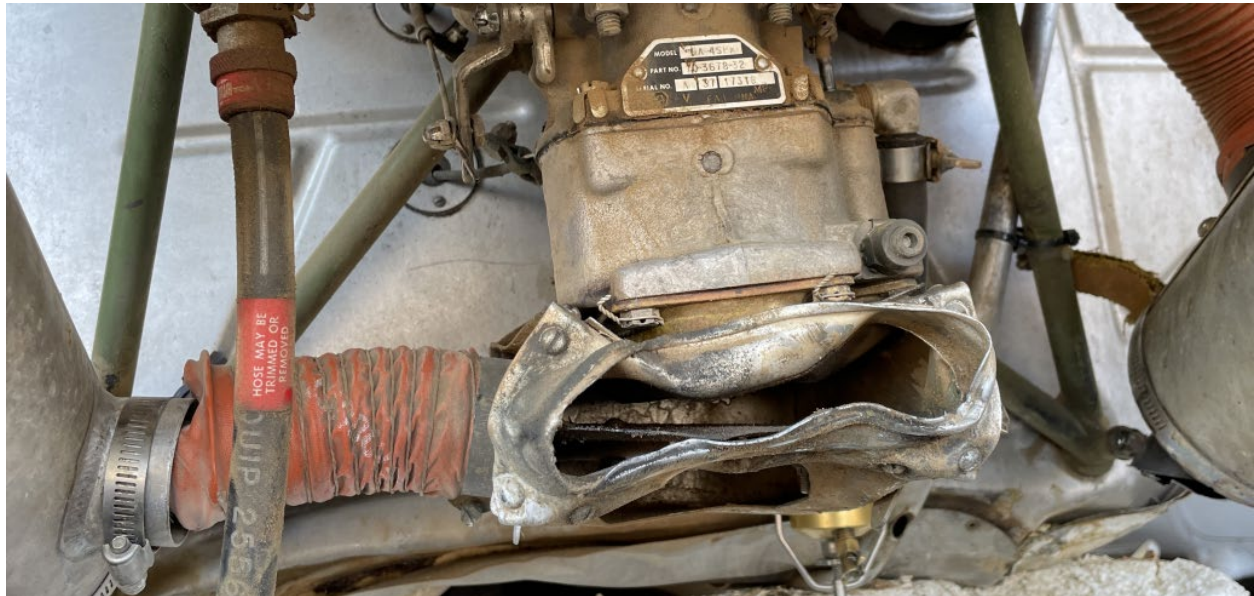
The pilot did not report flight control abnormalities during the forced landing; therefore, the flight control system was not examined in depth.

2.0 Engine Examination

The engine remained attached to the fuselage via the engine mount. The mount remained intact and unremarkable. No oil was noted leaking from the engine and all oil lines appeared tight during the examination. The oil dip stick indicated 6 quarts of oil in the engine. The oil appeared relatively new.

Both magnetos remained installed and undamaged. The ignition leads were attached from the magnetos to the spark plugs and were not damaged. All top sparkplugs were removed and were checked to a Champion Check-A-Plug chart and coloration and wear patterns were found to be consistent with normal engine operation.

The carburetor remained installed to the bottom of the engine with its corresponding fuel lines installed. Both the throttle linkage and mixture linkage were found secure to the carburetor. The throttle moved through its full range of motion via control knob. The mixture control moved to the full rich position but exhibited some binding when pulled to the idle cutoff position due to bending and damage at the firewall. The carburetor heat control linkage remained secure at the carburetor and was continuous to the cockpit control; however, impact related damage to the airbox precluded the control from being moved through its full range of motion.



The exhaust system remained installed and sustained minor impact damage at the exhaust pipes from the muffler. The right side muffler was removed, and the internal components were undamaged. The left side muffler was removed and contained a few ounces of dirt and organic matter, but the internal components were undamaged.



3.0 Propeller Examination

The 2 bladed, aluminum Sensenich propellor remained attached to the engine crankshaft. One blade was straight and unremarkable. The other blade was bent aft about mid span and sustained impact damage to the face and near the tip. The spinner exhibited impact damage aft and upward.

4.0 Engine Functional Test Run

The engine was prepared for a functional test run with the following modifications:

- The top spark plugs were removed, examined, and reinstalled.
- The damaged exhaust pipes were cut off before the test run to ensure proper exhaust flow.
- The firewall fuel strainer bowl was reinstalled with the original screen and gasket.
- The quick drain plug was removed and a new plug was installed to ensure a tight seal.

- A fuel line attached to an external fuel can was plumbed into the junction at the fuel shutoff valve. When the fuel can was lifted higher than the wing fuel lines, gravity fed fuel exited the two forward wing fuel lines.
- The two forward wing fuel lines were crimped closed.
- The throttle and carburetor heat control plastic cover was removed to allow free movement of the throttle control.

Test run procedure:

External fuel supply on, battery connected, master switch on, and left and right ignition switches on. Starter switch engaged briefly, which allowed the starter to rotate the propeller and ensure the system was operational. Next, the starter switch was engaged again, and the engine started within 2 seconds. Due to the bent propeller blade, the engine was only run just above idle power. The engine operated for about 40 seconds with no anomalies noted. The engine was shut down which concluded the functioned test run.

5.0 Maintenance Information

The most recent annual inspection was completed on October 4, 2023, at tachometer time of 1,250.25 hours. There were no unresolved discrepancies noted in the maintenance logbooks.

Submitted by:

Joshua Lindberg
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