

National Transportation Safety Board

Office of Aviation Safety

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CEN21LA414

AIRFRAME AND ENGINE EXAMINATION

October 20, 2021

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A. ACCIDENT

Location: LaSalle, Colorado
Date: September 10, 2021
Time: 11:00 AM MDT
1700 UTC
Airplane: Cessna 172S, N2099J

B. AIRFRAME AND ENGINE EXAMINATION

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C. SUMMARY OF ACCIDENT

On September 10, 2021, about 1100 central daylight time (CDT), a Cessna 172S airplane, N2099J, was substantially damaged when it was involved in an accident near Lasalle, Colorado. The flight instructor pilot and student pilot sustained minor injuries. The instructional flight was conducted under the provisions of Title 14 Code of Federal Regulations Part 91.

The flight was intended as pre-solo cross-country progress check, and it originated from the Rocky Mountain Metropolitan Airport (BJC), Broomfield, Colorado. After 40 minutes of flight, the CFI instructed the SP to perform a touch-and-go landing at the Greeley-Weld County Airport (GXY), Greeley Colorado, and then navigate back to BJC. After the touch-and-go at GXY, the flight instructor initiated a simulated high oil pressure and high temperature scenario as the airplane was cruising at 7,500 ft MSL. The student pilot responded by initiating a return to GXY. During the return flight to GXY, the flight instructor reduced the engine power to 2,000 RPM's and informed the student pilot that he had a simulated engine fire. The student pilot responded by reducing the power to idle and commenced a descent. Once the flight instructor announced that the simulated engine fire was out, the student pilot established a glide and chose a location for a simulated off-field emergency landing.

About 1,000 AGL, when it was determined that the student pilot would safely reach his intended landing location, the flight instructor instructed him to apply power, commence a go-around and fly back to BJC. When the student pilot applied power, the engine did not respond. The flight instructor took control of the airplane and attempted restart procedures with no success. He then declared an emergency and performed a 180° power off turn to a different landing location than the student pilot had selected earlier. Upon landing, the airplane contacted a raised

embankment and nosed over coming to rest inverted adjacent to a corn field and dirt road. The airplane sustained substantial damage to both wings and the fuselage.

D. DETAILS OF THE EXAMINATION

The airplane was relocated to Beegles Aircraft Services, Greeley, Colorado. An examination of the airframe and engine were conducted there on October 20, 2022.

E. AIRFRAME AND ENGINE EXAMINATION

1.0 Accident Site

The accident site was located at the edge of a cornfield and dirt road near the intersection of Weld County Road 50.5 and Weld County Road 41, about 5 miles southwest of the Greeley-Weld County Airport. The airplane rested inverted at the edge of the cornfield.

2.0 Airframe Examination

The airframe was examined at Beegles Aircraft Services, Greeley, Colorado, on October 20, 2022.

2.1 Fuselage

The forward fuselage was twisted clockwise and bent to the right at the firewall. Control continuity was confirmed from the cockpit to the flight control surfaces.

2.2 Empennage

The vertical stabilizer and rudder were crushed downward.

2.3 Wings

The left wing was crushed aft and downward outboard of the landing/taxi lights. The right wing was bent downward at mid-span.

2.4 Landing Gear

The left main landing gear and nose gear were broken aft. The right main landing gear was bent upward.

2.5 Cockpit

The cockpit was intact.

3.0 Engine Examination

The engine showed continuity throughout. Both magnetos produced spark. The fuel lines, fuel distribution manifold, airbox, and fuel pumps were intact. Fuel was observed in the manifold and lines. The spark plugs showed normal wear. Throttle and mixture cables to the cockpit were connected.

4.0 Propeller Examination

The propeller remained attached to the engine at the flange. The spinner was crushed and broken aft. Both propeller blades were straight and showed little rotational damage.

5.0 Aircraft Information

The airplane underwent an annual inspection on June 1, 2021.

6.0 Meteorological Information

The weather conditions at the Greeley-Weld County Airport at 1656 UTC were wind variable at 4 knots, 10 statute miles visibility, clear skies, temperature 82°F, dew point 43°F, and altimeter 20.15 inches Hg.

Submitted by:

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Investigator in Charge