

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ERA22FA391

WRECKAGE EXAMINATION

August 30, 2022

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A. ACCIDENT

Location: Jacksboro, TN

Date: August 29, 2022

Time: 1250

Aircraft: Aeronca 7AC

Registration: N1478E

B. WRECKAGE EXAMINATION

Investigation Team:

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C. SUMMARY

- D.** On August 29, 2022, about 1250 eastern daylight time, a Aeronca 7AC, N1478E, was destroyed when it was involved in an accident near Jacksboro, Tennessee. The private pilot was fatally injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

E. DETAILS OF THE EXAMINATION

1.0 Accident Site

The airplane came to rest nose down in a field adjacent the airport runway. It was orientated on a magnetic heading of 23°. All primary flight control surfaces remained attached to the airplane. The nose of the airplane was crushed aft to the cockpit. All structural components of the airframe, engine, and propeller were accounted for at the accident site. A main wreckage came to rest nose down and suspended upright.



Figure 1 - Wreckage Diagram

2.0 Airframe Examination

The wreckage was examined and documented at the accident site on August 30, 2022. A follow-up examination on the engine was performed on 10/6/2022 at AMF, Springfield, TN.

2.1 Fuselage

The engine and avionics instruments were destroyed by impact. Examination of the fuselage revealed the wings remained attached to the fuselage and was impact damaged. The empennage was bent over the fuselage and remained partially attached. The horizontal and vertical primary control surfaces remained attached to the empennage.

All flight control surfaces were observed. Flight control cable continuity was established from all control surfaces to the cockpit.

2.2 Empennage

The vertical stabilizer and rudder remained attached to the airframe. The left horizontal stabilizer and elevator remained attached to the airframe and did not show impact damage. The right horizontal stabilizer and elevator remained attached to the airframe and did not show impact damage.

2.3 Wings

Both wings remained attached to the fuselage and displayed accordion crush damage along the leading edges. Both wings displayed buckling throughout the span of the wings.

2.4 Landing Gear

The fixed main landing remained attached to the fuselage and was folded inward. The tailwheel remained attached and was undamaged.

2.5 Cockpit

The cockpit was crushed aft, and the flight instrument were impact damaged.

The fuel tank selector handle was found in the on position; and an undetermined amount of fuel was observed in the fuel tank. Fuel was observed leaking from the breached fuel system.

Due to postaccident impact damage, the engine control positions at the time of ground impact could not be determined.

2.6 Survivability

The accident was not survivable. The cockpit seats were fitted with 3-point restraints; all seats and restraints were impact damaged.

2.7 Fuel/Fuel System

The airframe fuel system breached due to impact. The fuel cap was observed locked and secured. An undetermined amount of blue-colored fuel was recovered from the Header/main tank.

3.0 Engine Examination

Examination of the engine revealed it was could not rotate due to the impact and compression could not be obtained. The spark plugs were removed for examination. The electrodes were normal in wear and dark in color when compared to a Champion Check-a-Plug chart with no fouling. The left mag produced spark on all plugs. The right mag would not produce any spark the impulse coupling was impact damaged. The oil screen was removed it was clean of any debris. The carburetor bowl was clean, and the float moved freely. The right side of the case between the cylinders was impact fractured with a crack measuring about 6 inches.

Fuel was found inside the lines from the fuel pump to the carburetor. The fuel strainer was opened; and the screen were clean and unobstructed. The lever-action pumps functioned normally when operated by hand. All cockpit controls were connected and was traced to the respective flight control surfaces.

4.0 Propeller Examination

The Sensenich two-bladed, fixed pitch wooded propeller remained attached to the engine during impact. Both blades cracked and splintered damaged with twisting, bending deformations.

Submitted by:

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