

National Transportation Safety Board

Office of Aviation Safety

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WPR23FA047

AIRFRAME AND ENGINE EXAMINATION

Factual Report

December 5, 2022

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A. ACCIDENT

Location: Torrance, CA
Date: 11/30/2022
Time: 1100 PST
1900 UTC
Airplane: N60MY, Lightning

B. AIRFRAME AND ENGINE EXAMINATION PARTICIPANTS

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 NTSB, AS-WPR
 Phoenix, Arizona

C. SUMMARY

Examination of the airplane wreckage was conducted at the facilities of Air Transport in Phoenix, Arizona. The postaccident examination of the airframe and engine revealed no evidence of preimpact failures or malfunctions that would have precluded normal operation of the airplane.

D. DETAILS OF THE EXAMINATION

1.0 Airframe Examination

The airframe sustained impact damage to the fuselage and wings. The engine was separated from the fuselage for recovery. The empennage was relatively intact. The vertical stabilizer, rudder, horizontal stabilizers, and elevators were attached.

Flight control continuity to the cockpit controls was established. All hardware was present. All fracture surfaces were consistent with overload.

Aileron continuity was established to the left side through a separation of the bell crank to the push/pull rod. The fracture surface was consistent with overload.

Elevator continuity was established. From the elevator attachment surfaces to the central bell crank. All hardware was present.

Both control sticks were connected to the control tube. The left aileron continuity was established to the bell crank and from the wing root to the aileron. The right aileron bell crank, and hardware were present and sustained thermal damage.

Rudder continuity was established through breaks in the cables. Rudder continuity from the rudder was established to the turn buckles and then to the rudder pedal assemblies.

Elevator continuity was established from the control stick assembly to the elevators.

The elevator trim was about 5° nose up trim.

The main fuel tanks had been breached in several areas from impact. The fuel caps were attached.

The left flap had separated, and the right flap was retracted. Examination of the flap driver and both flap connecting rods revealed that the flaps were retracted.

Each main landing gear was attached to the fuselage and were relatively intact



Figure 1: Airplane wreckage as viewed from the rear.

1.1 Engine Examination

The engine was separated from the fuselage and the left side sustained impact damage. The engine mounts were bent from impact damage. No catastrophic external damage was noted. The rocker covers were removed, and the valves were appropriately lubricated. Rotational continuity was unable to be established due to impact damage. The front spark plugs were removed on the left side and the rear spark plugs were removed on the right side. Examination of the spark plug electrodes revealed that they were undamaged and exhibited coloration consistent with normal wear in accordance with Champion AV-Chart.

Borescope examination of the cylinder's combustion chamber revealed normal operating conditions.

The engine accessories were attached but were damaged by impact.

The spinner was attached and exhibited impact damage. The two-bladed propeller hub was attached to the propeller flange, but the blades had separated at the hub. Both blades were relatively intact. One blade displayed chordwise scratches.

Submitted by:

Albert Nixon
Senior Aviation Accident Investigator