

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR24FA014

AIRFRAME AND ENGINE EXAMINATION SUMMARY

Factual Report

Oct 20, 2023

Table of Contents

A. ACCIDENT	3
B. EXAMINATION PARTICIPANTS	3
C. SUMMARY	3
D. DETAILS OF THE EXAMINATION.....	3
2.0 AIRFRAME EXAMINATION	3
3.0 ENGINES EXAMINATION.....	4

A. ACCIDENT

Location: Williams, AZ
Date: 10/17/2023
Time: 1219 MST
1919 UTC
Airplane: N6192J, PA-28-140

B. AIRFRAME AND ENGINE EXAMINATION SUMMARY PARTICIPANTS

NTSB-IIC	Albert Nixon NTSB, AS-WPR Phoenix, Arizona
NTSB	Mitchell Rasmussen NTSB, AS-ANC Anchorage, Alaska
Senior Air Safety Investigator	Mark Platt Lycoming Engines Williamsport, PA
Piper Aircraft Inc. Air Safety Investigator	Kathryn Whitaker Piper Aircraft Inc. Phoenix, Arizona

C. SUMMARY

Examination of the airplane wreckage was conducted on October 20, 2023, at the facilities of Air Transport, in Phoenix, Arizona. No evidence of preimpact mechanical failures or malfunctions that would have precluded normal operation were noted during the examination of the airplane wreckage.

D. DETAILS OF THE EXAMINATION

1.0 Airframe Examination

The left wing was separated, and the flap and aileron were attached to the wing. The left wing outboard section and wing tip were separated. The aileron was only attached but the inboard attachment point. The aileron sustained damage.

The right wing was attached to the fuselage. The wing sustained damage to the outboard half of the leading edge and the front portion of the wing. The right flap and aileron were attached.

The flap handle, flap torque tube, and right flap were found in the retracted position.

Flight control continuity was confirmed through recovery cuts from the cabin to the rudder and stabilator. Aileron control was confirmed from the wing root to the right aileron. The left aileron displayed broom-straw cable separations.

The fuel selector valve was impact damaged and was found near the right fuel tank position.

The fuselage was impact fragmented. The fuel cap seals were intact and in good condition.

The empennage remained attached to the fuselage attachment points. The top of the vertical stabilizer and rudder were attached and relatively intact. The top of the vertical stabilizer was damaged

The cabin door was separated. The door handle was in closed and in the locked position. The upper door latch was separated, consistent with impact damage.

The following instruments were observed. The engine rpm gauge indicated slightly over 2,300 rpm and the tachometer indicated 5284.72 hours. The ELT was ACK Technologies Inc., model E-04 ELT. The fuel tank gauge indicated about 3/4 full. The throttle and mixture levers were full forward. The carburetor heat was selected off. The primer was stowed and secured. The altimeter had 30.28 selected.

The stall warning light bulb was secured for shipment for examination.

3.0 Exterior Engine Site Examination

The engine was partially attached to the fuselage. The exhaust tubing was intact, and examination of the muffler revealed no anomalies. The propeller remained attached to the crankshaft propeller flange. The propeller flange sustained damage and deformation.

One blade was bent forward about mid-span, and the other blade was slightly twisted. Some chordwise marks were observed on both blades. The spinner was attached and was crushed.

The top sparkplugs were removed, and the rocker covers were removed from the cylinders. All sparkplug electrodes showed normal-worn out wear conditions when

compared to the Champion Check-A-Plug chart. The engine was rotated through by using a tool from the accessory case vacuum pump drive. Thumb compression was established at each cylinder and appropriate valve movement was noted. The cylinder overhead components were lubricated and undamaged.

The cylinders were borescoped, and the piston and valve heads were undamaged and showed normal operational signatures.

The carburetor was removed and examined. The carburetor bowl was clear of contaminants and about of fluid was present that the order and color of the fluid was consistent with aviation fuel. The floats were intact and appropriate movement was observed. The filter was clear off contaminants. Actuation of the throttle lever resulted in a discharge of fuel from the acceleration nozzle.

The fuel pump was removed examination. Examination revealed no anomalies. The fuel diaphragm was intact and pliable.

The magnetos were removed and examined. Manual rotation of the magnetos produced spark at all leads.

The oil was examined and clear of contaminants.

The vacuum pump was removed and examination revealed damage to the rotor consistent with impact damage.

The fuel and oil lines to the engine were secure and intact.

The engine control continuity was established to the carburetor.

The examination of the engine and the airframe revealed no evidence of pre-impact mechanical failures or malfunctions that would have precluded normal operation.

Submitted by:

Albert Nixon
Senior Aviation Accident Investigator