



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

November 4, 2021

ENGINE EXAMINATION NOTES

WPR21LA127

A. ACCIDENT

Location: Marana, AZ
Date: February 27, 2021
Aircraft: N6135T, Cessna 150E
NTSB IIC: Albert Nixon

B. EXAMINATION PARTICIPANTS:

Albert Nixon
Senior Aviation Accident Investigator
National Transportation Safety Board
Federal Way, WA

C. SUMMARY

Examination of the engine was conducted on November 4, 2021, at the facilities of Air Transport in Phoenix, Arizona. The carburetor examination was accomplished at a vendor near the Chandler Municipal Airport (CHD), Chandler, Arizona. In addition, the engine run was accomplished again on Oct 31, 2022. The engine not running continuously on the first examination could not be duplicated. The examination of the engine, carburetor, and subsequent second engine run revealed no evidence of pre-impact mechanical malfunctions or failures were noted that would have precluded normal operation.

D. DETAILS OF THE INVESTIGATION

1.0 AIRFRAME EXAMINATION

Examination of the instrument control panel revealed that the throttle was about one inch out, the mixture was full rich, and the carburetor heat was in. Additionally, the fuel selector was in the OFF position.

2.0 ENGINE EXAMINATION

The engine was partially attached to the front of the fuselage. The bottom portion of the engine was observed to sustain impact damage. All engine accessories appeared to be attached and intact.



Figure 1: Engine as viewed from the left side.

The two-bladed propeller was attached to the crankshaft. One blade was relatively intact. The second blade was bent slightly aft about mid-span. The spinner and propeller hub were still attached to the crankshaft flange.

The oil filter was removed and cut open. The oil filter segments revealed no debris. The carburetor screen was examined and was clear of contamination.

All the spark plugs were removed and observed to exhibit normal wear and operating signatures. Engine rotation was accomplished through the propeller that was attached to the crankshaft and all cylinders had compression and proper valve movement. The carburetor was removed and examined. Internal examination revealed only a small amount of contamination on the inlet screen and the carburetor bowl had some corrosion contamination; no other anomalies were noted. Further examination and disassembly of the carburetor revealed no anomalies.

The ignition switch contacts were checked for continuity and no anomalies were noted.

The oil quantity stick indicated about 5 1/2 quarts on a scale with a maximum of 6 quarts. Fuel continuity from the wings to the engine was established.

The engine was determined to be safely run. An external fuel source was attached to the right-wing root fuel line. Additionally, the airplane's battery was charged. Numerous starts were accomplished, and the engine would start uneventfully but only run several seconds but would not run continuously.

Therefore, the carburetor was removed and examined at a vendor at a later date. No anomalies were noted in the examination.

Subsequently, the carburetor was secured back on the engine and another engine run was accomplished. A fuel source was attached to the airplane's fuel system at the right-wing root. Additionally the airplane's battery was charged. The engine started uneventfully and was run several minutes at various power settings. The magnetos were checked and an appropriate drop in engine rpm was noted. The engine ran smooth and was responsive to rapid throttle movements. No anomalies were noted during the engine run.

The engine not running continuously on the first examination could not be duplicated. The examination of the engine, carburetor, and subsequent second engine run revealed no evidence of pre-impact mechanical malfunctions or failures that would have precluded normal operation.

Submitted by: Albert Nixon