

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN23LA246

N463HP - ENGINE EXAMINATION REPORT

August 2, 2023

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A. ACCIDENT

Location: College Station, Texas
Date: June 18, 2023
Time: 0843 Local Time
Airplane: N463HP, Piper Aircraft PA-46-350P

B. N463HP - ENGINE EXAMINATION REPORT

Investigator	Mike Hodges, aviation accident investigator National Transportation Safety Board Aurora, Colorado
Party Coordinator	Ramon Reyes, aviation safety inspector (airworthiness) Federal Aviation Administration San Antonio, Texas
Party Coordinator	David Harsanyi, air safety investigator Lycoming Engines Williamsport, Pennsylvania

C. DETAILS OF THE EXAMINATION

The investigative team was at Air Salvage of Dallas (ASOD) in Lancaster, Texas, on August 2, 2023, to examine the wreckage. The investigative team was assisted by various staff members from ASOD.

1.0 Airframe Examination (Piper Aircraft, PA-46-350P, serial number 4636335)

The airframe was not examined.

2.0 Engine Examination (Lycoming Engines, TIO-540-AE2A, serial number L-11209-61A)

The engine was examined.

The engine oil dipstick was not present for the examination.

Airframe to engine control continuity was observed.

There were no disconnected or loose fluid lines observed. No oil system lines were found loose or damaged and no leaks were found.

The top of the case was found fractured. Internal engine damage was observed to the area inboard of the number #6 cylinder.

Thumb compression was obtained on all cylinders, except for the #6 cylinder.

All six spark plugs were removed and found to show normal to worn wear signatures per the Champion Aerospace Check-A-Plug Chart.

The oil suction screen plug was found not safety wired (there is a hole in the plug for a safety wire); it is required to be safety-wired per the Lycoming Engines maintenance manual. There were no signatures that the plug or required safety wire was damaged by other objects. The oil suction screen plug was found to be loose, and it was not finger tight. The crush washer behind the oil screen plug was found intact with no damage. The oil suction screen was found to be compacted with metallic debris.

The area above the fracture in the case and below the oil suction screen plug was found to be coated in oil.

There was no oil observed on the horizontal stabilizers. Underneath the fuselage oil signatures were found going rearward. Oil was found on the airframe area right below the windscreen. The top and the bottom of the engine cowling had oil signatures present.

The oil filter was removed, and it was cut open. The filter material was found to be saturated with metallic particles.

About 2 quarts of oil was recovered from the engine. The oil had metallic particles in it.

The crush gasket for the turbocharger on the right-hand side had questionable torque values due to exhaust leak signatures, consistent with soot on the turbocharger housing.

The engine oil dipstick (retained by an FAA inspector with the Houston FSDO), the oil suction screen plug and the crush washer will be taken by Lycoming Engines to the factory in Williamsport, Pennsylvania, for further examination work.

The airplane is equipped with a EDM JPI 900, it was removed but not submitted to the NTSB Vehicle Recorders Laboratory at this time.

3.0 Propeller Examination (Hartzell Propeller, HC-I3Y1R-1N, serial number

unknown)

The propeller was not examined.

4.0 Maintenance Records Review

The most recent inspection work showed that the oil change was performed on 06/16/2023. During this work, the oil suction screen plug would be accessed for an oil change.

The historical Federal Aviation Administration airworthiness and registration records were retrieved and were reviewed.

Submitted by:

Michael J. Hodges
Aviation Accident Investigator