

National Transportation Safety Board

Office of Aviation Safety



ERA22LA220

ENGINE EXAMINATION

July 13, 2022

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A. ACCIDENT

Location: Pittstown, New Jersey
Date: July 13, 2022
Time: 1157 EDT
Airplane: Cessna 150, N8761G

B. ENGINE EXAMINATION

NTSB Aaron McCarter
NTSB
Ashburn, VA

NTSB Christopher Freeze
NTSB
Ashburn, VA

C. DETAILS OF THE INVESTIGATION

On July 13, 2022, about 1157 eastern daylight time, a Cessna 150F, N8761G, was substantially damaged when it was involved in an accident near Alexandria, New Jersey. The pilot and passenger were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

D. ENGINE EXAMINATION

- Model: O-200
- The engine remained attached to the fuselage. Multiple engine mounts were bent, and the nosewheel landing gear was bent aft up into the bottom of the fuselage.
- Throttle controls were connected, and continuity confirmed. The cable was actuated and exhibited full range of motion on the carburetor.
- Mixture, controls were connected, and continuity confirmed. The cable was actuated and exhibited full range of motion on the carburetor.
- The fuel primer line connected, and continuity confirmed. No fuel was found in the gascolator.
- Lower engine cowling removed and propellor cut to test engine operations.
- Crankshaft continuity confirmed (several 720° rotations). Initial compression test indicated good compression and suction.

- Thumb compression/suction check. Cylinder Nos. 1, 3, and 2 were confirmed. No compression or suction was observed on cylinder No. 4.
- Cylinder No. 4 valve cover removed, and exhaust valve was found to be stuck in place. The valve could not be unset and remained in the fully open position even after striking the assembly with a rubber mallet. The valve nor spring, rocker and pushrods were not subjected to impact or heat damage.
- Spark plugs for cylinder No. 1, top and bottom - minor carbon buildup
- Spark plugs for cylinder No. 2, top and bottom - minor fouling
- Spark plugs for cylinder No. 3, top and bottom - normal
- Spark plug for cylinder No. 4, top - light carbon buildup
- Spark plug for cylinder No. 4, bottom - heavy deposits, bridging observed
- The No. four cylinder was removed from the engine case.
- Exhaust manifold exhibited signs of pitting and corrosion and broke away easily from the muffler.
- Damage present around the left aft attachment point.



Figure 1 View of cylinder No. 4 exhaust valve.



Figure 2 View of the interior of cylinder No. 4, the exhaust valve on the right and remained in the closed position.



Figure 3 View of the exhaust manifold and muffler.

Submitted by:

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Aviation Accident Investigator