

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ERA24LA375

ENGINE EXAMINATION

December 5, 2024

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A. ACCIDENT

Location: Hickory Valley, TN
Date: September 10, 2024
Time: 0843 CDT
1343 UTC
Airplane: N802JF; AT-802

B. ENGINE EXAMINATION

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C. SUMMARY

On September 10, 2024, about 0843 central daylight time, an Air Tractor AT-802, N802JF, was substantially damaged when it was involved in an accident near Hickory Valley, Tennessee. The airline transport pilot was not injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 137 aerial application flight.

D. DETAILS OF THE EXAMINATION

1.0 Engine Examination

Upon arrival the airplane was sitting on the ground outside a hangar with both wings, the horizontal stabilizer/elevator, and both main landing gear removed. The side and top cowling was removed to facilitate the examination. Both wing fuel tank finger strainers were removed and were unobstructed with minimal debris noted. The firewall fuel strainer was removed and examined with no obstructions noted. There was fuel in the line to and from the fuel strainer that was consistent with Jet-A aviation fuel. The fuel strainer was filled with liquid consistent with Jet-A aviation fuel. The engine driven fuel pump inlet filter was removed and examined with no obstructions noted. The fuel control unit fuel filter was removed and examined with no obstructions noted. The filter bowl was full of liquid consistent with Jet-A aviation fuel.

All connections to the fuel control unit were tight and could not be moved by hand. The P3 line remained connected and was tight. The P3 air filter was removed and examined with no obstructions noted.

The PY line from the propeller governor to the fuel control unit was connected and tight on both ends. The propeller governor NF linkage remained connected and was undamaged.

The engine's chip detector was removed and examined with no chips observed on the detector. The engine oil filter was removed and examined with no debris or obstructions noted.

The compressor and turbine blades were observed using a lighted borescope. All blades were observed intact with no chips or missing blades. Multiple fuel nozzles were removed and examined with no debris or obstructions noted.

The engine driven fuel pump and fuel control unit were removed and retained for further examination.



Photo 1: The airplane as first viewed.



Photo 2: View of the right wing fuel tank finger strainer.



Photo 3: View of the left wing fuel tank finger strainer.



Photo 4: View of the fuel strainer after being removed from the mounting bracket.



Photo 5: View of the unobstructed fuel strainer screen.

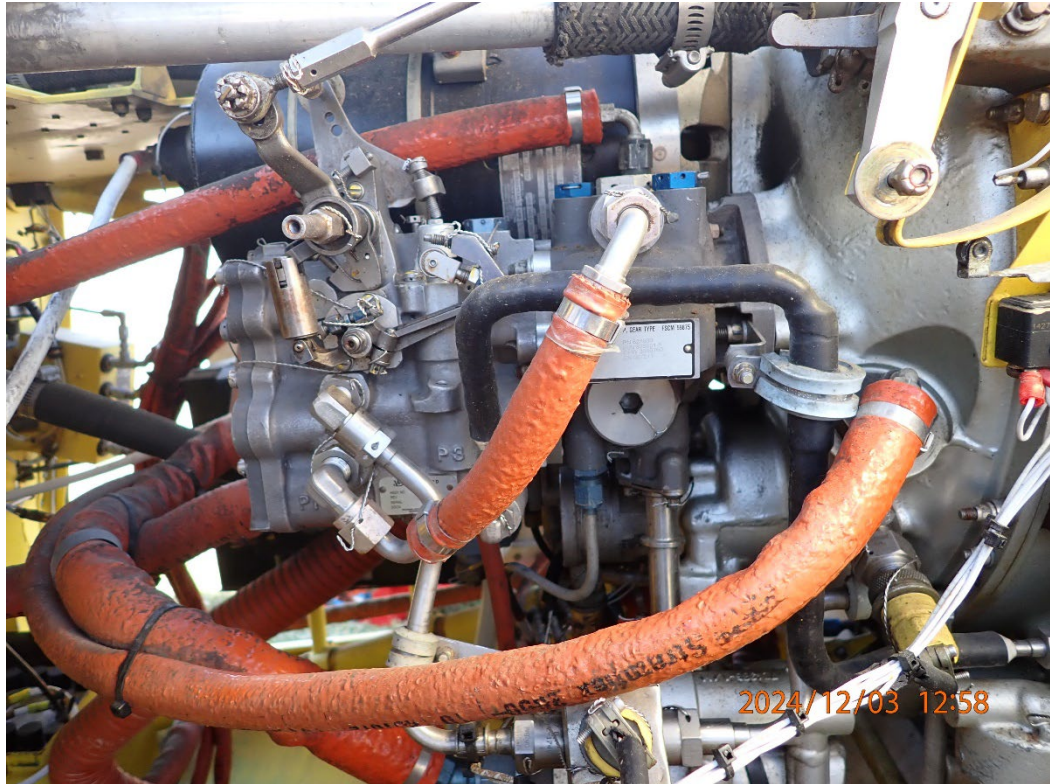


Photo 6: View of the fuel control unit (FCU) and engine driven fuel pump.



Photo 7: View of the engine driven fuel pump inlet screen.



Photo 8: View of the fuel control unit fuel filter.



Photo 9: View of the P3 air filter.



Photo 10: View of the propeller governor.



Photo 11: View of the chip detector.



Photo 12: View of the oil filter.



Photo 13: View of the compressor blades.



Photo 14: View of the turbine blades.

Submitted by:

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