



Examination Summary

NTSB ACCIDENT NUMBER: ANC21LA068

AIRCRAFT REGISTRATION/AIRCRAFT TYPE: N8656K, Stinson 108

ACCIDENT LOCATION: Sterling, AK

Date of Exam: 12/15/2021

Post-Accident Engine Examination Summary

The engine of N8656K was examined on the airframe on 12/15/2021 in a hanger in Sterling, Alaska. Present for the exam was the NTSB investigator-in-charge, another NTSB investigator and 3 inspectors from the FAA. The following findings are from the exam:

- Fuel was sumped from the fuel strainer and tested negative for ethanol
- Fuel strainer contained debris consistent with an organic material both in the screen and on the bottom of the bowl.



Photo 1: Fuel Strainer Bowl



Photo 2: Fuel Strainer Screen

- Magneto timing was checked and found to be between 28 and 32° prior to top dead center
- Impulse coupler was verified functional
- Both magnetos remained secured and tight
- All 6 bottom spark plug leads were finger tight
- #3 and #5 top spark plug leads were finger tight
- #6 top spark plug was finger tight and exhibited signatures consistent with high heat exposure on the outside of the plug



Photo 3: Spark Plug

- The top spark plugs were removed and the cylinders were checked for compression using the thumb compression method.
- #2 and #3 cylinders exhibited weak thumb compression

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- Internal engine continuity was established and verified by removal of the top engine plate, which allowed an unobstructed view into the engine
- The cam shaft was examined and found to display impact marks, consistent with pieces of a cotter pin that were later found in the oil sump.
- Oil sump contained metallic debris and also a 1cm x 1cm gear that was later determined to be from the original mechanical tachometer that fell into the oil sump when the tachometer was being switched to a digital tachometer



Photo 4: Tachometer Gear and Cotter Pin



Photo 5: Tachometer Gear