

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR24LA148

ENGINE EXAMINATION SUMMARY

Factual Report

Sep 17, 2024

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A. ACCIDENT

Location: Powell, WY
Date: 5/10/2024
Time: 1030 MST
1730 UTC
Airplane: N605GK, experimental amateur-built Kitfox airplane

B. ENGINE EXAMINATION SUMMARY PARTICIPANTS

NTSB-IIC	Albert Nixon NTSB, AS-WPR Phoenix, Arizona
Senior Air Safety Investigator	Jordan Paskevich Rotech Flight Safety Inc Rotax Aircraft Engines (Americas) Vernon, BC, Canada

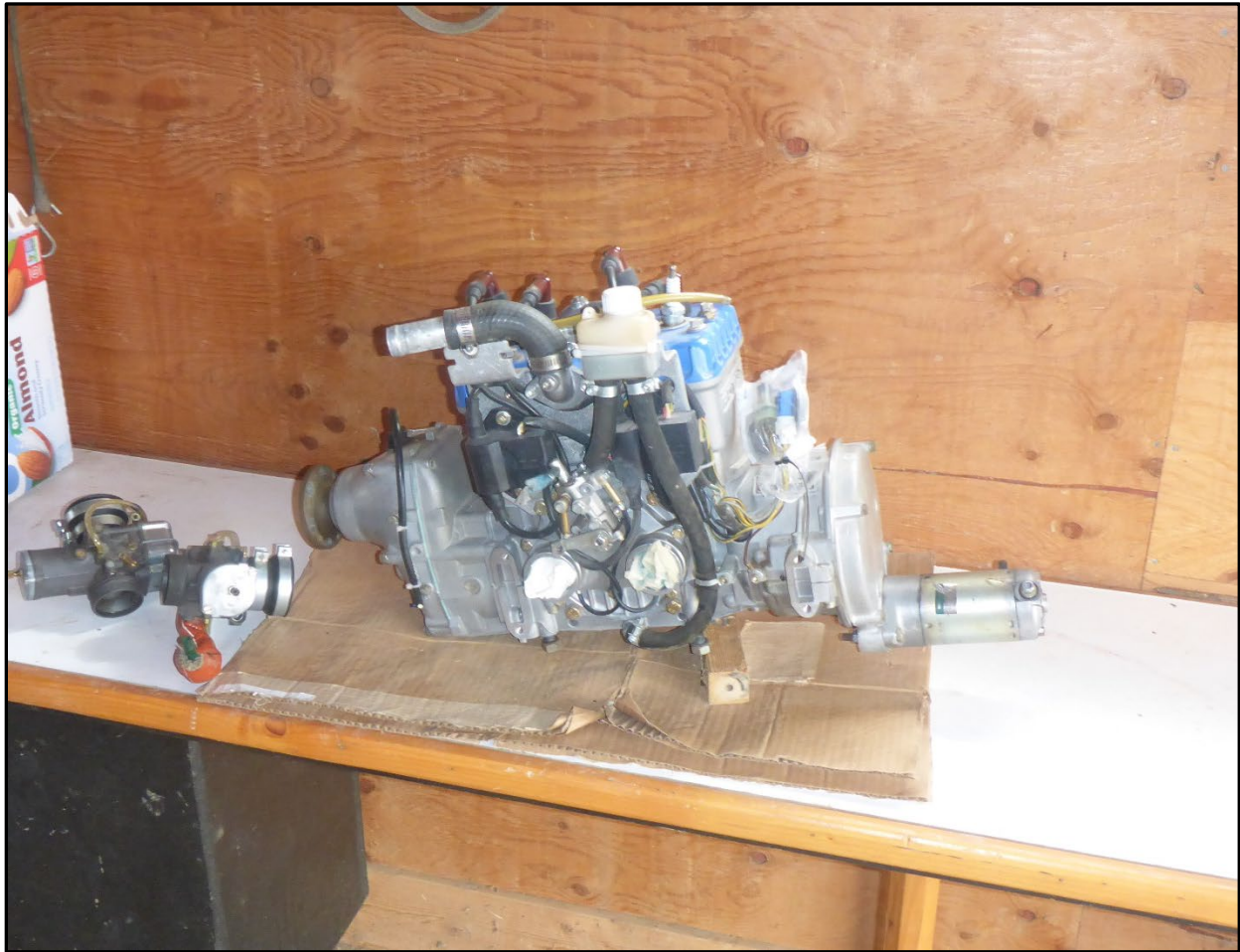
C. SUMMARY

Examination of the airplane wreckage was conducted on Sep 17, 2024, at a facility of the airplane owner in Powell, Wyoming. The pilot/owner had inadvertently sold the airplane for salvage and only retained the engine for examination.

Examination of the engine revealed that the MAG carburetor's needle clip was not in the proper position. No additional evidence of preimpact mechanical failures or malfunctions that would have precluded normal operation were noted during the examination of the airplane wreckage

D. DETAILS OF THE EXAMINATION

1.0 Engine Exterior Examination



Photograph 1: Engine as received for the examination.

The Rotax 582 Mod 99 engine was previously removed from the fuselage by the airplane owner and positioned on a table. Both carburetors had been removed. Hence, the airplane's exhaust, fuel pump, fuel system, coolant system, oil system, and engine control continuity was unable to be examined. The propeller was not attached to the propeller flange and was not available to examine.

The sparkplugs were removed and examined. All sparkplug electrodes exhibited being oil fouled and normal wear conditions when compared to the Champion Check-A-Plug chart. The engine was rotated manually through by using a tool from the accessory case vacuum pump drive and engine continuity was established. Thumb compression was established at each cylinder and appropriate valve movement was noted. The cylinder overhead components were lubricated and undamaged. The pistons and piston rings showed appropriate movement. There was no carbon build up on the pistons. A small amount of accumulation of injection oil was found in the bottom of the crankcase.

The two piston type carburetors were examined. The pilot/owner mentioned that the PTO (front) carburetor was loose from its mount after the accident. Examination of the clamp and tubing revealed no anomalies. No discoloration or contamination was located on the inner portion consistent that it occurred with impact damage. The PTO carburetor had some debris noted in the carburetor bowl and main jet. The floats were intact. Additionally, the needle clip was in the stock position. (about 3 threads from the top position). The carburetor's piston slide was observed to have slight scoring. Additionally, an oil residue was observed inside the boot socket.



Photograph 2: The MAG carburetor needle clip in the number 1 (most lean position).

The rear (MAG) carburetor was examined. The carburetor bowl was clear of contaminants and the floats intact. The needle clip was observed set in the number 1 position (most lean) and the O-ring was missing. The carburetor's piston slide was observed to have slight scoring.

Submitted by:

Albert Nixon
Senior Aviation Accident Investigator