



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

October 18, 2017

Engine Exam Notes

WPR17FA139

This document contains 07 embedded photos

A. ACCIDENT

Location: Chelan, Washington
Date: 07/01/2017
Aircraft: North Wing Sport X2
NTSB IIC: Smith, Maja

B. EXAMINATION PARTICIPANTS:

Dennis Hogenson
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National Transportation Safety Board
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C. SUMMARY

On July 1, 2017 about 0730 Pacific daylight time, a North Wing Sport, N492XB, was destroyed when it impacted mountainous terrain near Chelan, Washington. The pilot who was the registered owner of the airplane, and a pilot-rated passenger sustained fatal injuries. The flight was operated under the provisions of 14 Code of Federal Regulations (CFR) Part 91 as a personal flight. Visual meteorological conditions prevailed at the time of the accident, and no flight plan had been filed. The local flight originated from Lake Chelan Airport, Chelan, Washington, about 0630.

Later that day, an Alert Notice (ALNOT) was issued for the airplane after family members of the pilot became concerned when he did not arrive at his intended destination. On July 2, 2017, the airplane wreckage found by the sheriff's department on a hillside about 5 miles from departure airport.

The engine was removed from the airframe during recovery efforts and moved to a hangar facility at the Chelan Airport.

D. EXAMINATION

The engine examination was completed on October 18, 2017 at the hangar facility in Chelan.

The aircraft was equipped with Rotax 912, four cylinder horizontally opposed 4 stroke engine, rated at 65 horsepower.

The examination revealed the following findings: The cylinders, crankcase and overhead components were intact and no evidence of an uncontained engine failure was noted. Disassembly and examination of the engine revealed no evidence of abnormal wear or failure of internal components. Negligible impact damage was noted to the crankcase, reduction gear case, cylinders and accessory area of the engine. Rocker arm, valve train and accessory gear continuity was established by rotating the engine's crankshaft by hand. All four cylinders developed pressure when the crankshaft was manually rotated. Internal examination of the piston cylinders, utilizing a lighted bore scope, revealed no evidence of a mechanical damage, abnormal wear or excessive fluids. The piston faces and cylinder bores were clear and undamaged. The spark plugs were removed and normal operating wear patterns were noted.

Impact damage was noted to both carburetors and ignition system. Visual examination revealed no evidence of a preimpact malfunction or failure of the components.

Postaccident examination of the engine assembly revealed no evidence of a preimpact mechanical malfunction or failure.

E. EXAM PHOTOS

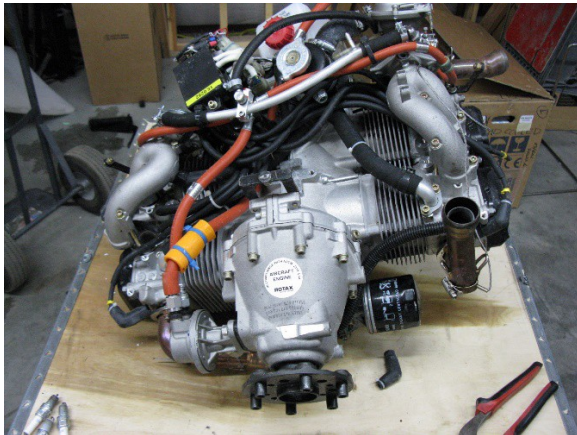


Photo 1: Rotax 912 – Pre Exam

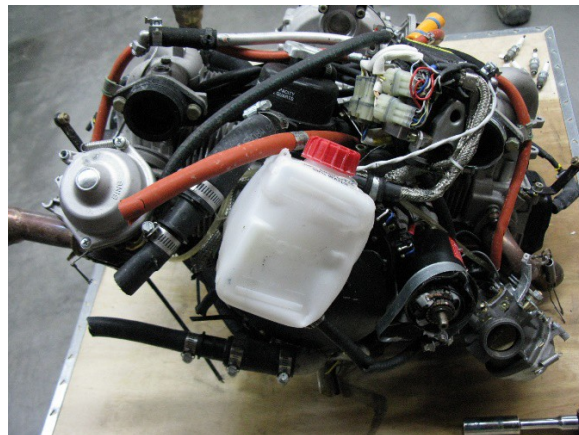


Photo 2: Rotax 912 – Pre Exam

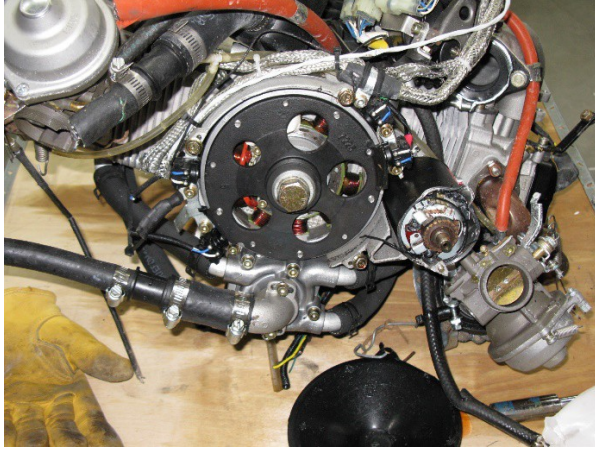


Photo 3: Flywheel



Photo 4: Rocker Arm and Valve Assembly – Cyl. 2 & 4

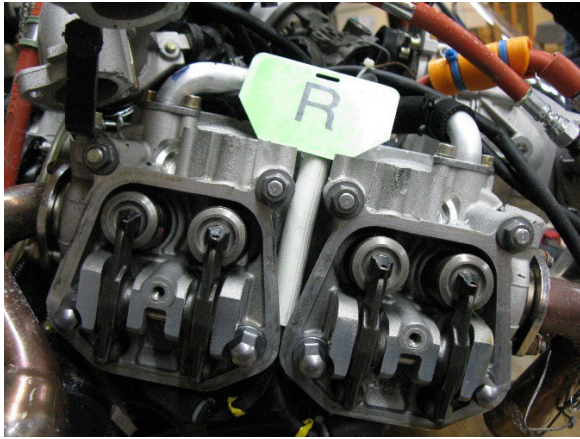


Photo 5: Rocker Arm and Valve Assembly - Cyl. 1 & 3

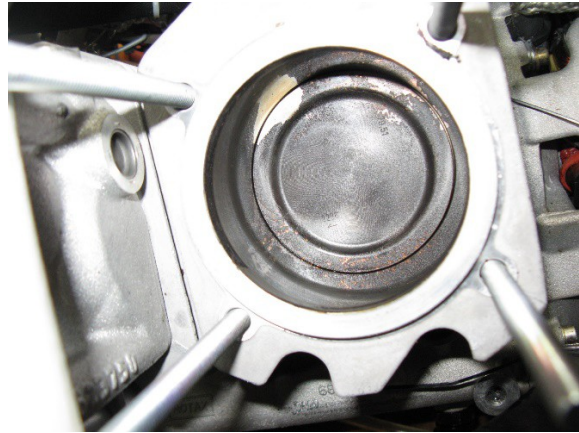


Photo 6: No. 4 Cylinder Barrel and Piston Face



Photo 7: Propeller Assembly

Submitted by: Dennis Hogenson, October 18, 2017