

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR21LA358

ENGINE EXAMINATION REPORT

November 17, 2021

A. ACCIDENT

Location: Baker, Nevada
Date: September 11, 2021
Time: 1300 PDT
Airplane: Beech 35-B33, N8983M

B. ENGINE EXAMINATION REPORT

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C. SUMMARY

On September 11, 2021, about 1300 Pacific daylight time, a Beech BE35-B33, N8983M, was substantially damaged when it was involved in an accident near Baker, Nevada. The pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that prior to the flight, his mechanic replaced the exhaust push rod for the No. 1 cylinder. The engine was ground run at various power settings with no issues noted. The mechanic subsequently deemed the airplane safe to fly back to the pilot's home airport.

The pilot departed from the dirt runway, and during the initial climb, he retracted the landing gear and the engine lost total power. The pilot stated that he was able to extend the landing gear and made a forced landing to the open desert. During the landing roll, the nose landing gear and right main landing gear collapsed.

The airplane sustained structural damage to the fuselage and right wing.

D. DETAILS OF THE EXAMINATION

The airframe remained intact. The wings were removed to facilitate recovery of the airplane. The engine remained connected to the airframe via the engine mounts. The propeller hub and blades remained attached to engine. All three propeller blades showed evidence of S-bending with the blades all curled aft. Throttle, mixture, and propeller were moved from their cockpit controls with full travel noted.



Photo 1 - View of Airframe and Propeller System

Visual examination revealed two holes in the forward part of the engine case at cylinders No 5 and 6. The top portion of the connecting rod were found lying on the lower cowling. No 5. Cylinder is an ECi.

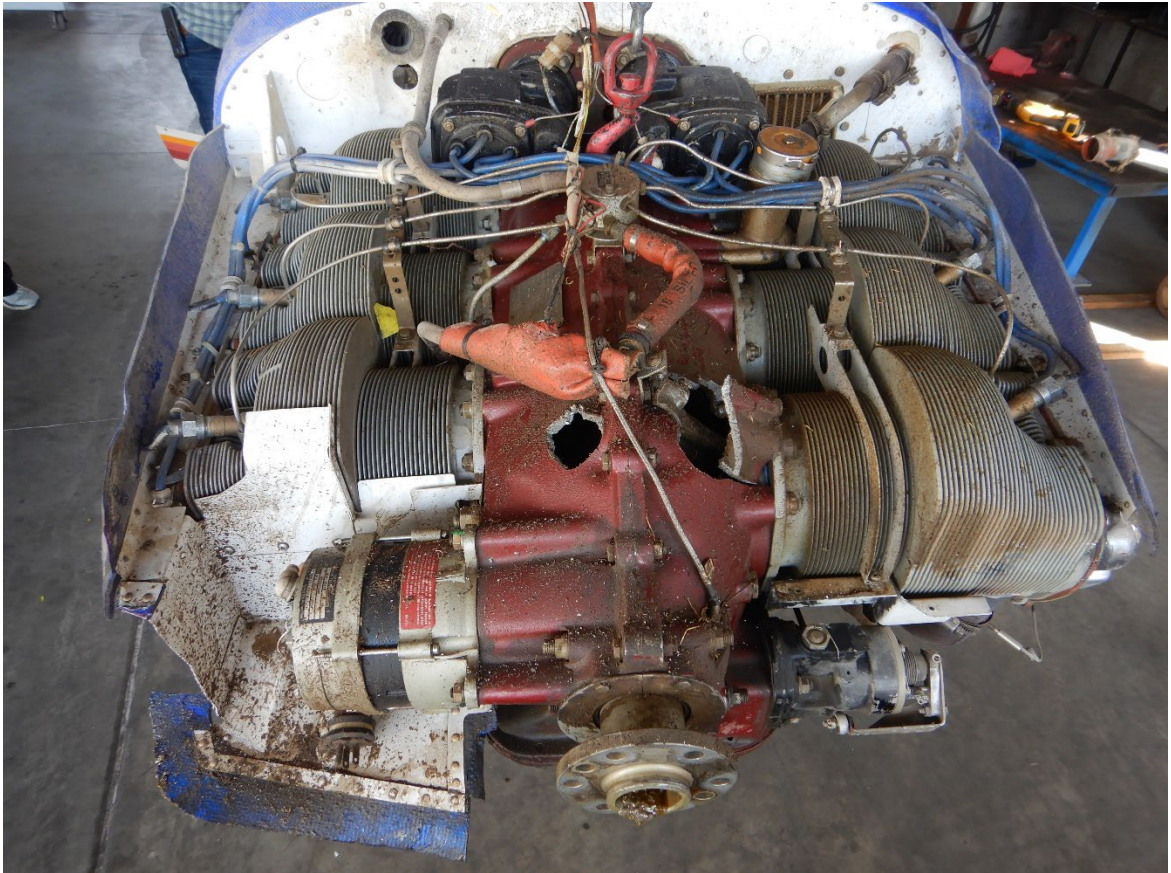


Photo 2 - View of Engine with holes in the case

The oil dipstick was removed with no oil on the dipstick. The undercarriage of the airframe from the nose to the tail was covered in oil, as was the top portion of the cowling.

The top and bottom spark plugs were removed. According to the champion Check-a-plug chart AV-27, the electrodes exhibited normal wear appearance.

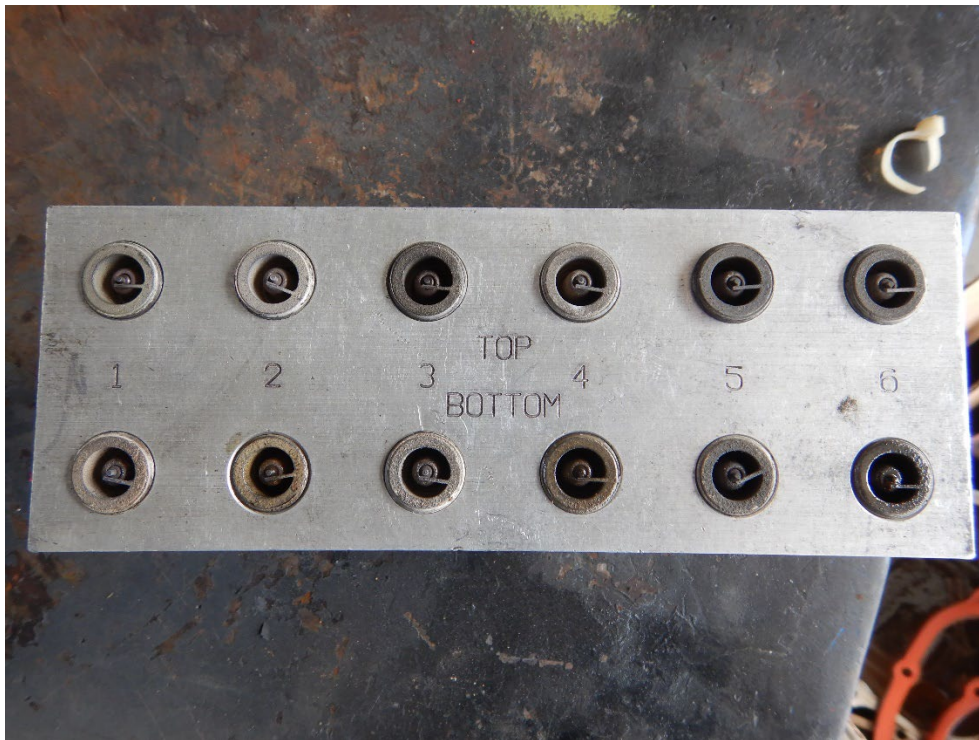


Photo 3 - View of the Spark Plugs

Prop governor was removed with - WOODWARD filter was clear of debris.

Oil drained into a 5-gallon container was about 1/3 full.

The crankshaft had lead separation from the oil present, likely result of fuel in the system.



Photo 4 - Forward View of Engine

The oil sump was removed and connecting rod material and lifters along with various other metal pieces were identified in the sump.



Photo 5 - View of Oil Sump



Photo 6 - View of Connecting Rod Pieces and Hardware



Photo 7 - View of No 5 Cylinder



Photo 8 - View of No 6 Cylinder

The No's 5 and 6 cylinders with connecting rods and pistons, as well as pieces of connecting rods from the oil sump and the crankshaft were shipped to the materials laboratory for further examination.

Submitted by:

Tealeye Cornejo
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