

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ERA24LA143

ENGINE EXAMINATION

July 9, 2024

A. ACCIDENT

Location: Blackshear, GA
Date: March 17, 2024
Time: 0825 EDT
 1225 UTC
Airplane: N729CW

B. ENGINE EXAMINATION

IIC	Leah D. Read NTSB Alton Bay, NH
Party Coordinator	Zach Andrade FAA/FSDO Atlanta, GA
Party Coordinator	J. Ferrell Continental Motors Minneapolis, MN

C. SUMMARY

The engine was examined at Continental Motors, Mobile, Alabama, on July 9-10, 2024. A hole in the case was observed between the No. 3 and No. 4 cylinder. A distorted section of a connecting rod cap, which had separated from the engine, was found loose and sitting on the bottom of the shipping crate.



Photo of the engine as it was being removed from the crate. (Photo courtesy Continental Aerospace Technologies.)

The oil filler cap was secure and there was only a drop of oil on the dip stick. When the oil sump was drained, it was full of water and a small amount of oil. The sump was removed and a large amount of metallic debris including a connecting rod and lifters were in the sump. The pick-up tube was clear of debris.

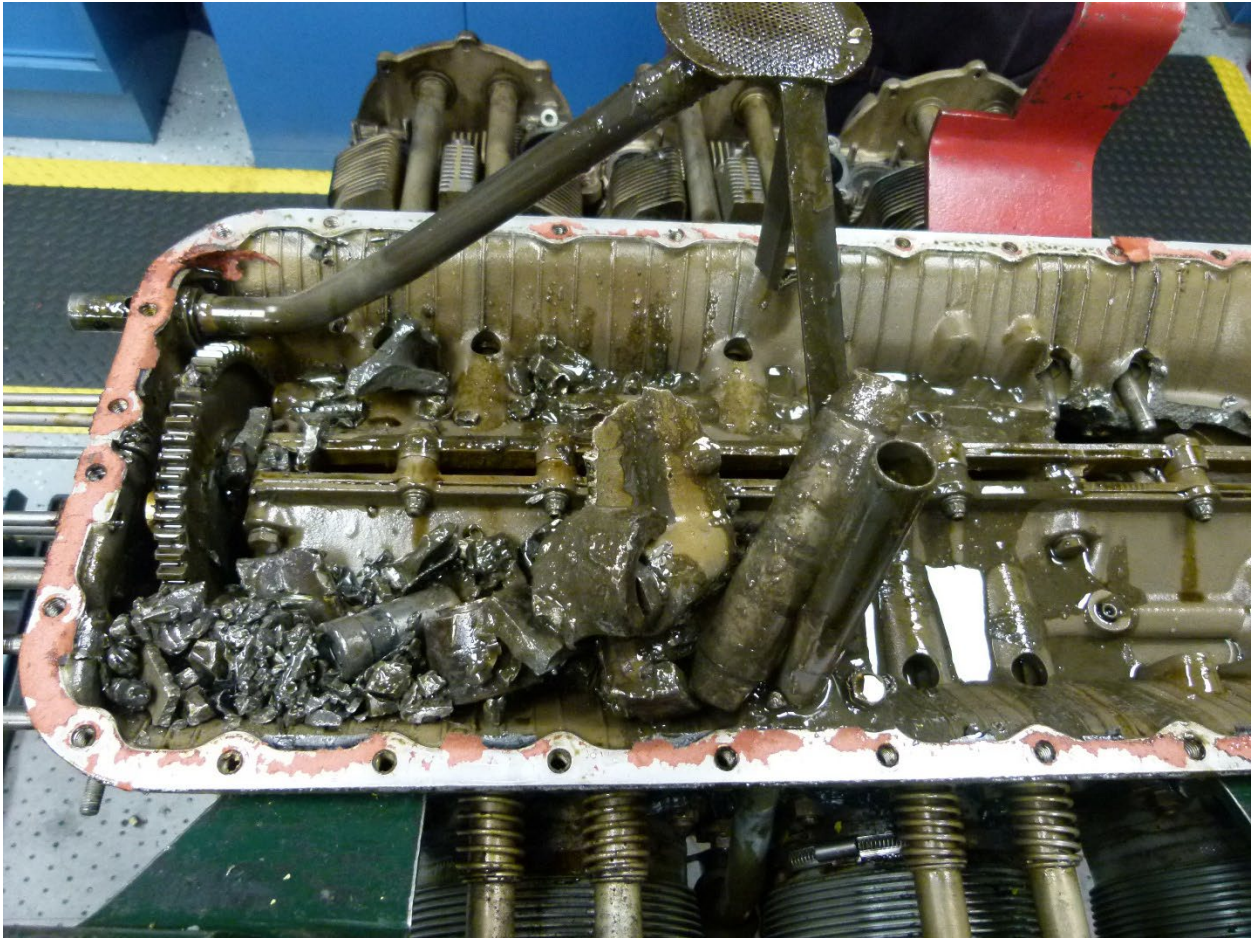


Photo of debris found in the oil sump (Photo courtesy of Continental Aerospace Technologies.)

The oil scavenger pump and the oil pump were removed and disassembled. No mechanical deficiencies were observed and both pump rotated normally. The pilot filter was opened, and small flecks of metallic debris were noted throughout.

All of the engine accessories remained secured to the engine. The turbocharger assembly was not shipped with the engine. The turbocharger was sent to Continental Aerospace Technologies on July 10, 2024, and will be examined under the observation of the NTSB on August 14, 2024.

The engine would not rotate due to internal damage of the engine; thus, compression and engine timing could not be established. The camshaft was broken, and the No. 4 push rods were bent.

The engine was disassembled and signs of overheating due to oil starvation were observed on the Nos. 2 thru 5 connecting rods. The No. 4 and No. 5 connecting rods exhibited the most damage and both released from the crankshaft.

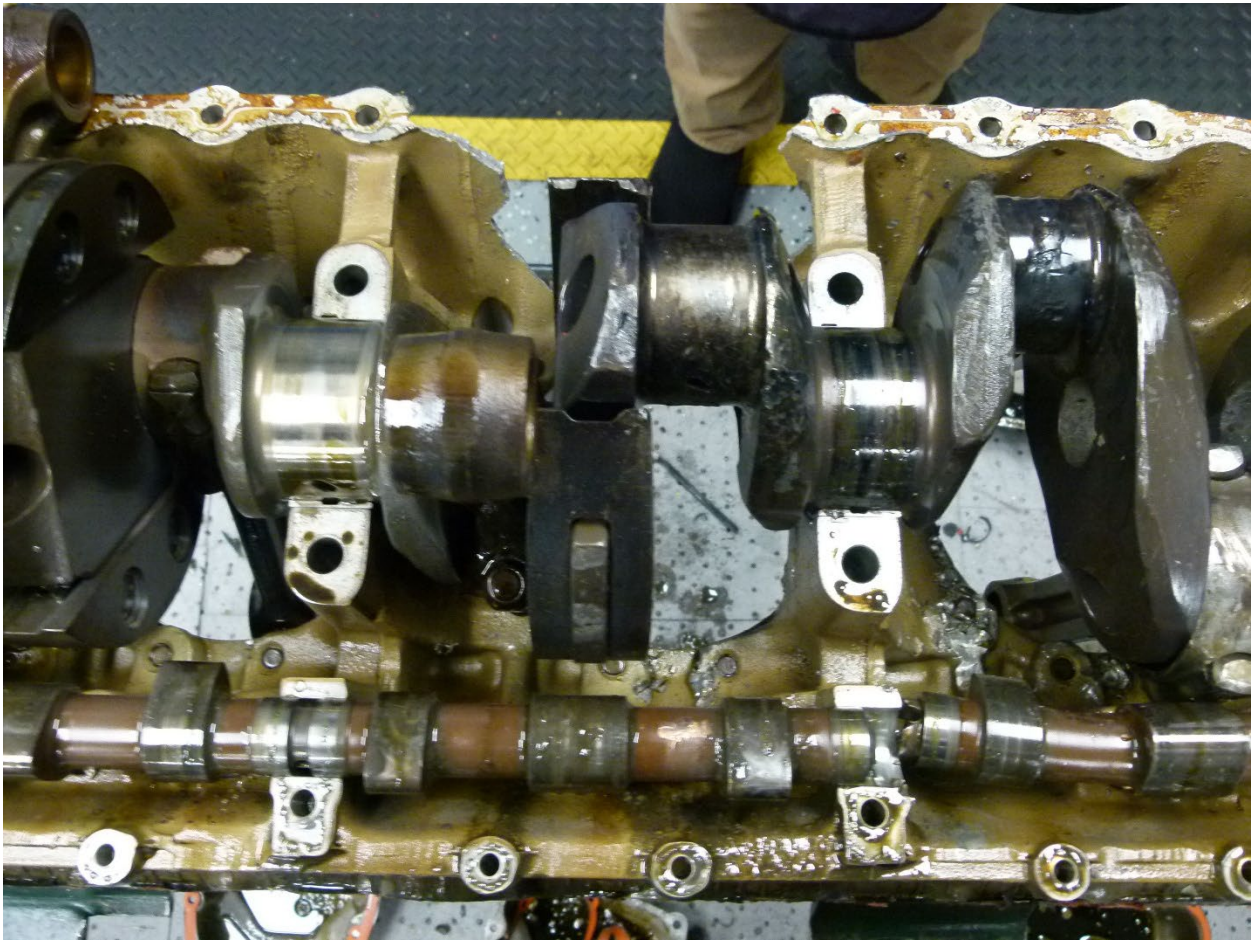


Photo of internal heat damage and broken camshaft. (Photo courtesy of Continental Aerospace Technologies.)

All of the oil ports were clear except for the No. 5 connecting rod journal, which was welded over from heat during the failure sequence.

Submitted by:

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Sr. ASI