

Investigator Name: Leah D. Read
Title: Sr. ASI
Division: ERA

Subject: ERA23LA218

Contact: Mike Childers, Lycoming ASI

The engine examination was performed by Mr. Childers under the supervision of FAA Inspector Howard Stevens. Mr. Childers reported that when he removed the oil sump, a large amount of metallic debris was sitting in the sump and there was a large hole in the bottom of the crankcase. Metal debris/flakes were also found in the oil filter and oil sump suction screen.

When the engine was disassembled, the No.3 connecting rod was found damaged where it connected to the crankshaft journal and its cap was heavily fractured. The No. 2 cylinder forward piston pin plug was missing, and the aft pin plug exhibited preimpact wear up into the oil control ring land.

The No. 3 and No.4 camshaft lobes exhibited wear and two of their corresponding lifters were pitted and dished. The main journal bearings exhibited wear/scoring/discoloration, and the connecting rod journals, and their respective bearings, also exhibited scoring and discoloration.

Pictures of the damaged engine/components, including the aft piston pin plug along with photos of the metal debris found in the oil sump suction screen, were provided to the NTSB for review.