



The National Transportation Safety Board

Office of Aviation Safety
Central Region
Memorandum for the Record
Engine Examination
Summary of Findings
CEN17LA286
Walters Oklahoma

The engine was examined at a secure location on July 11, 2017, under the supervision of an FAA Inspector. Logbooks were provided by the owner. The findings were as follows:

The engine was installed in the aircraft on 01/20/200. A top overhaul was performed on 04/01/2017. The most recent logbook entry was replacing the Vacuum Pump on 07/07/2017, the day before the accident.

The engine was visually examined and disassembled. During the disassembly, it was discovered that a gasket (P/N-21051) was installed on the vacuum pump. The gasket is normally used for the installation of a carburetor. The installed gasket did not completely cover the high-pressure oil orifice on the vacuum pump mounting fixture. The proper gasket is (PN-MS9134-01) for the vacuum pump.

All the cylinders were in place and had no external damage. They were removed and inspected. Pistons 1,2,3, and 4 were stuck in the cylinder barrels and could not be removed. The remaining cylinders had light scoring in the barrels and normal deposits in the domes. Cylinders 1,2,3, and 4 had impact damage to the skirts.

Pistons one, two, three, and four were stuck in the cylinder barrels and could not be removed. Pistons five and six had normal combustion deposits and the rings were in place.

Connecting rods one, three, and four were separated from the crankshaft and had thermal and impact damage. Connecting rod two was separated to allow the cylinder to be removed.

The crankcase halves were not externally damaged, except for holes over the number four cylinder attachment point. The crankcase halves were not separated. The crankshaft was not removed from the crankcase halves. Rod journals one, three and four were observed to be very dry and heat discolored.

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