



SAIB: CE-19-01

Date: February 12, 2019

SUBJ: Engine Oil and Airplane Hour Meter; Pressure Switch Failure

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin is to alert owners, operators, and maintenance technicians of **Textron Aviation Inc. (Textron) Model 172R, 172S, 182S, 182T, T182T, 206H, T206H** airplanes, of failure of the "Sensor-Oil Pressure (Hobbs Switch)", part number (P/N) 83278 as it is referred to in the illustrated parts catalogue. These engine oil pressure switches could have been provided new with the airplane or as a spares replacement part.

The FAA issued airworthiness directives (AD) in the past concerning these engine oil pressure switches for the above model airplanes. This engine oil pressure switch is currently the subject of AD 2013-11-11 which defines a life limit of 3000 hr. time in service (TIS). The existing AD remains in effect where applicable. However, the FAA is investigating recent events and may take additional AD action. The information and recommendations provided herein are intended to raise awareness of an issue that has a continued operational safety history, while our investigation continues.

Background

The above-referenced engine oil pressure switch is used to drive the following:

- the red "OIL PRESS" warning annunciator on pre- Garmin G1000 airplanes, or
- the red "OIL PRESSURE" annunciation on the primary flight display of G1000 airplanes, and
- the airplane hour meter on all models above.

NOTE: the oil pressure gauge/indicator is driven by a separate dedicated pressure transducer.

The FAA is aware of seven events involving premature failure of this oil pressure switch, in which engine oil was found leaking from the pressure switch housing and/or found to have been pumped overboard, which can lead to obscuration of the windshield, limited forward visibility, loss of all engine oil and consequent engine failure.

Recommendations

The FAA recommends the following:

- a. Be aware of this failure, which may be difficult to detect until after the fact, and pass this information along to any other applicable owner/operator or technician.
- b. Investigate any oil residue found on the forward fuselage upper cowling deck and/or windshield for root cause and take corrective action prior to further flight.
- c. Inspect the oil pressure switch installation on the top rear or upper rear of the engine case, looking for:
 - Oil seepage or staining around the oil pressure switch mount location

- Wet, moist or slippery oil pressure switch housing or wire leads
 - Tool marks on the housing or any other indications of over-torque at installation
- d. Take corrective action and replace any oil pressure switch found with any of the above conditions before further flight per the applicable model Textron maintenance manual.
- e. Replace oil pressure switch P/N 83278 at 1000 hours TIS on any engine, per the applicable model Textron maintenance manual until further investigation has been conducted.

For Further Information, Contact

Jeff Janusz, Sr. Aerospace Engineer, 1801 Airport Road, Wichita, KS 67209; phone: (316) 946-4148; fax: (316) 946-4107; e-mail: jeff.janusz@faa.gov.

For Related Service Information Contact

Textron Aviation, Inc. Textron Aviation Customer Service, One Cessna Blvd. Wichita, Kansas 67215; telephone (316) 517-5800; email: customercare@txtav.com internet www.txtav.com