FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: NE-06-31R5
Date: October 19, 2011

SUBJ: Engine Lubricating Oils

This is information only. Recommendations aren't mandatory.

Introduction

This **Revised** Special Airworthiness Information Bulletin alerts you, owners and operators of Lycoming Engines (Lycoming) O-320-H, O-360-E, LO-360-E, TO-360-E, LTO-360-E series engines that the name of one of the approved additized lubricating oils listed in Table 1 of this SAIB was changed. ConocoPhillips changed the name of Phillips 66 Type 100 AW to Phillips 66 Victory Aviation Oil 100 AW and we changed the name in Table 1 of this SAIB. The oils listed in Table 1 of this SAIB are approved as AMOCs to the requirements of airworthiness directive (AD) 80-04-03 R2, paragraph b.1. All other information remains the same. The airworthiness concern is not an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

We have determined that the anti-wear additive contained in the engine lubricating oils listed in Table 1 of this SAIB is the same as Textron Lycoming additive, LW-16702, and therefore meets the requirements of Lycoming Service Bulletins 446B, 446C, 446D, and 446E. We approve changing to any of these engine oils as an AMOC to the requirements of AD 80-04-03 R2, paragraph b.1, with the limitations described below.

Background

AD 80-04-03 R2 requires that Textron Lycoming additive, LW-16702, be added to certain O-360 engine models to provide anti-wear protection at engine start. The AD requires the additive to be replenished at each 50-hour oil service interval due to depletion of the additive with service time. The engine lubricating oils listed in Table 1 of this SAIB contain an additive that is identical to Textron Lycoming additive, LW-16702. We determined the use of engine lubricating oils listed in Table 1 of this SAIB provide the necessary anti-wear protection at engine start-up and therefore satisfies the intent of the AD. As with Textron Lycoming additive, LW-16702, these additized engine lubricating oils must be replaced at each 50-hour oil service interval to replenish the additive contained in the oil. This can be accomplished either by changing the oil and adding new additized oil, or by adding Textron Lycoming additive, LW-16702, if the oil is not changed.

Table 1 of this SAIB lists the 13 additized oils approved as an AMOC to AD 80-04-03 R2.

Table 1

Additized Oil	Date of AMOC Approval
Aeroshell Oil W 15W-50	November 9, 1987
Aeroshell Oil W 100 Plus	May 4, 1999
Exxon Aviation Oil Elite 20W-50	January 24, 2000
Castrol Aviator AD 65	May 27, 2003
Castrol Aviator AD 80	May 27, 2003
Castrol Aviator AD 100	May 27, 2003
Castrol Aviator AD 120	May 27, 2003
Aeroshell Oil W 80 Plus	February 6, 2006
Phillips 66 Victory® Aviation Oil 100 AW	April 4, 2006
Total AERO DM 15W50	May 22, 2009
Total AERO XPD 80	June 17, 2011
Total AERO XPD 100	June 17, 2011
Total AERO XPD 120	June 17, 2011

Recommendations

We approve changing to any of the engine oils listed in Table 1 of this SAIB as an AMOC to the requirements of AD 80-04-03 R2, paragraph b.1, with the limitations described below.

Use of this AMOC is not mandatory, however, if you use any of the oils listed in Table 1 of this SAIB, or any of the other approved, additized oils when complying with AD 80-04-03 R2, the following limitations apply:

- If you elect to use approved, additized oil at the 50-hour oil service interval, you must use the same brand and formula of additized oil for any make-up oil added between 50-hour oil service intervals.
- If the same brand and formula of approved, additized oil is unavailable for make-up, a maximum of 2 quarts of an alternative Lycoming-approved oil listed in Lycoming Service Instruction No. 1014M may be added between 50-hour oil service intervals.
- If you add more than 2 quarts of an alternative Lycoming-approved oil listed in Lycoming Service Instruction No. 1014M during the 50-hour oil service interval, you must also add Textron Lycoming additive, LW-16702.
- All additives will be depleted if you extend the 50-hour oil service interval. Therefore, if you extend the 50-hour oil service interval, we require that you add Textron Lycoming additive, LW-16702, to the existing oil to renew the anti-wear protection and to maintain compliance with AD 80-04-03 R2.
- Use only additized oil from containers marked with a statement identifying it as approved, through an AMOC, to the requirements of AD 80-04-03 R2, paragraph b.1.

For Further Information Contact

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