**FAA**
**Aircraft Certification Service**

# SPECIAL AIRWORTHINESS INFORMATION BULLETIN

**SAIB:** NE-06-31R3
**SUBJ:** Engine Lubricating Oils **Date:** July 22, 2009

*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 an additional brand of additized lubricating oil is added to the list of oils approved as AMOCs to the requirements of airworthiness directive (AD) 80-04-03 R2, paragraph b.1. All other information remains the same. At this time, this airworthiness concern isn't an unsafe condition that would warrant airworthiness directive 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 ten 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 Type 100 AW | April 4, 2006 |
| Total AERO DM 15W50 | May 22, 2009 |

**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**

Mark Rumizen, Aerospace Engineer, Standards Staff, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: mark.rumizen@faa.gov; phone: (781) 238-7113; fax: (781) 238-7199.