



2012-19-01 Lycoming Engines: Amendment 39-17196; Docket No. FAA-2006-24785; Directorate Identifier 2006-NE-20-AD.

(a) Effective Date

This AD is effective October 24, 2012.

(b) Affected ADs

This AD supersedes AD 2006-20-09 (71 FR 57407, September 29, 2006).

(c) Applicability

This AD applies to Lycoming Engines (L)O-360, (L)IO-360, AEIO-360, IO-390, AEIO-390, O-540, IO-540, AEIO-540, (L)TIO-540, IO-580, AEIO-580, and IO-720 series reciprocating engines listed by engine model number and serial number in Table 1, Table 2, Table 3, or Table 4 of Lycoming Mandatory Service Bulletin (MSB) 569A, dated April 11, 2006, and those engines with crankshafts listed by crankshaft serial number in Table 5 of Lycoming MSB 569A, dated April 11, 2006. These applicable engines are manufactured new, rebuilt, overhauled, or had a crankshaft installed after January 1, 1997, according to Supplement No. 1 to Lycoming MSB No. 569A, dated May 27, 2009.

(d) Unsafe Condition

This AD results from Lycoming Engines discovering that the March 1, 1997 start date of affected engine models in Lycoming MSB No. 569A, is incorrect. This AD also results from the need to include the IO-390, AEIO-390, and AEIO-580 series engine models having affected crankshafts. We are issuing this AD to prevent failure of the crankshaft, which will result in total engine power loss, in-flight engine failure, and possible loss of the aircraft.

(e) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

(f) Engines For Which Action Is Required

If you did not previously comply with AD 2006-20-09 or with MSB No. 569A, do the following:
(1) If Table 1, Table 2, Table 3, or Table 4 of Lycoming MSB No. 569A, dated April 11, 2006, lists your engine serial number (S/N), and Table 5 of MSB No. 569A, dated April 11, 2006, lists your crankshaft S/N, replace the affected crankshaft with a crankshaft that is not listed in Table 5 of MSB No. 569A at the earliest of the following:

- (i) The time of the next engine overhaul as specified in Lycoming Service Instruction No. 1009AU, dated November 18, 2009; or
- (ii) The next separation of the crankcase, or

(iii) No later than 12 years from the time the crankshaft first entered service or was last overhauled, whichever is later.

(2) If Table 1, Table 2, Table 3, or Table 4 of Lycoming MSB No. 569A, dated April 11, 2006, does not list your engine S/N, and Table 5 of MSB No. 569A does list your crankshaft S/N (an affected crankshaft was installed as a replacement), replace the affected crankshaft with a crankshaft that is not listed in Table 5 of MSB No. 569A at the earliest of the following:

(i) The time of the next engine overhaul as specified in Lycoming Service Instruction No. 1009AU, dated November 18, 2009; or

(ii) The next separation of the crankcase, or

(iii) No later than 12 years from the time the crankshaft first entered service or was last overhauled, whichever is later.

(g) Credit for Previous Actions

(1) If you previously complied with AD 2006-20-09 (71 FR 57407, September 29, 2006), no further action is required.

(2) If you previously accomplished Lycoming MSB No. 569A, no further action is required.

(3) If Lycoming Engines manufactured new, rebuilt, overhauled, or repaired your engine, or replaced the crankshaft in your engine before January 1, 1997, and you have not had the crankshaft replaced, no further action is required.

(4) If Table 1, Table 2, Table 3, or Table 4 of Lycoming MSB No. 569A, dated April 11, 2006, lists your engine S/N, and Table 5 of MSB No. 569A, dated April 11, 2006, does not list your crankshaft S/N, no further action is required.

(5) For engine model TIO-540-U2A, S/N L-4641-61A, no action is required.

(h) Prohibition Against Installing Certain Crankshafts

After the effective date of this AD, do not install any crankshaft that has a S/N listed in Table 5 of Lycoming MSB No. 569A, dated April 11, 2006, into any engine.

(i) Alternative Methods of Compliance (AMOC)

The Manager, New York Aircraft Certification Office, may approve AMOCs to this AD. Use the procedures in 14 CFR 39.19 to make your request. AMOCs approved for AD 2002-19-03 (67 FR 59139, September 20, 2002) and AD 2006-20-09 (71 FR 57407, September 29, 2006) are approved as AMOCs for this AD.

(j) Related Information

For more information about this AD, contact Norm Perenson, Aerospace Engineer, New York Aircraft Certification Office, FAA, Engine & Propeller Directorate, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7337; fax: 516-794-5531; email: norman.perenson@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on October 24, 2012.

(i) Lycoming Service Instruction No. 1009AU, dated November 18, 2009.

(ii) Lycoming Mandatory Service Bulletin, Supplement No. 1 to Service Bulletin No. 569A, dated May 27, 2009.

(4) The following service information was approved for IBR on November 3, 2006 (71 FR 57407, September 29, 2006).

(i) Lycoming Mandatory Service Bulletin No. 569A, dated April 11, 2006.

(ii) Reserved.

(5) For service information identified in this AD, contact Lycoming, 652 Oliver Street, Williamsport, PA 17701; phone: 570 323-6181; fax: 570-327-7101, or on the Internet at www.Lycoming.Textron.com.

(6) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(7) You may view this service information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on August 27, 2012.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Directorate,
Aircraft Certification Service.