



CIVIL AVIATION AUTHORITY  
CZECH REPUBLIC  
Airworthiness Division

Airport Ruzyně, 160 08 Prague 6  
Tel: 420 233320922, fax: 420 220562270

## AIRWORTHINESS DIRECTIVE

**Number: CAA-AD-0062003**

Date of issue: January 07 2003

**Textron Lycoming Division, AVCO  
Corporation**

AEIO-320, AIO-320, IO-320, LIO-320,  
AEIO-360, ++

---

### ENGINE – FUEL INJECTION – INSPECTION/REPLACEMENT

---

**Applicability:** This airworthiness directive (AD) is applicable to Textron Lycoming fuel injected reciprocating engines AEIO-320, AIO-320, IO-320, LIO-320, AEIO-360, AIO-360, HIO-360, IO-360, IVO-360, LIO-360, TIO-360, IGO-480, AEIO-540, IGO-540, IO-540, IVO-540, LTIO-540, TIO-540, TIVO-540, IO-720 incorporating externally mounted fuel injection lines as listed in part Applicability of FAA AD 2002-26-01.

**Effective date:** February 20, 2003

**Compliance:** Required as indicated in FAA AD 2002-26-01

---

*Remarks: The compliance of this AD must be recorded in Engine Logbook, where applicable the requirements of this AD must be integrated into Aircraft Technical Documentation. Address inquiries concerning this AD to: Civil Aviation Authority, Airworthiness Division, Ruzyně Airport, 160 08 Prague 6, Czech Republic, tel: 420 233320922, fax: 420 220562270.*

**Ing. Pavel MATOUŠEK**  
director

**2002-26-01 Textron Lycoming Division, AVCO Corporation:** Amendment 39-12986. Docket No. 92-ANE-56-AD. Supersedes AD 93-02-05, Amendment 39-8487 and AD 93-05-22, Amendment 39-8525.

*Applicability:* This airworthiness directive (AD) is applicable to Textron Lycoming fuel injected reciprocating engines incorporating externally mounted fuel injection lines as listed in the following Table 1:

<b>Engine</b>	<b>Model</b>
AEIO-320	-D1B, -D2B, -E1B, -E2B
AIO-320	-A1B, -B1B, -C1B
IO-320	-B1A, -B1C, -C1A, -D1A, -D1B, -E1A, -E1B, -E2A, -E2B
LIO-320	-B1A, -C1A
AEIO-360	-A1A, -A1B, -A1B6, -A1D, -A1E, -A1E6, -B1F, -B2F, -B1G6, -B4A, -H1A, -H1B
AIO-360	-A1A, -A1B, -B1B
HIO-360	-A1A, -A1B, -B1A, -C1A, -C1B, -D1A, -E1AD, E1BD, -F1AD
IO-360	-A1A, -A1B, -A1B6, -A1B6D, -A1C, -A1D, -A1D6, -A2A, -A2B, -A3B6, -A3B6D, -B1B, -B1D, -B1E, -B1F, -B1G6, -B2F, -B2F6, -B4A, -C1A, -C1B, -C1C, -C1C6, -C1D6, -C1E6, -C1F, -C1G6, -C2G6, -J1A6D, -L2A, -M1A,
IVO-360	-A1A
LIO-360	-C1E6
TIO-360	-A1B, -C1A6D
IGO-480	-A1B6
AEIO-540	-D4A5, -D4B5, -D4D5, -L1B5, -L1B5D, -L1D5
IGO-540	-B1A, -B1C
IO-540	-A1A5, -AA1A5, -AA1B5, -AB1A5, -AC1A5, -B1A5, -B1C5, -C1B5, -C4B5, -C4D5D, -D4A5, -E1A5, -E1B5, -G1A5, -G1B5, -G1C5, -G1D5, -G1E5, -G1F5, -J4A5, -V4A5D, -K1A5, -K1A5D, -K1B5, -K1C5, -K1D5, -K1E5, -K1E5D, -K1F5, -K1J5, -K1F5D, -K1G5, -K1G5D, -K1H5, -K1J5D, -K1K5, -K1E5, -K1E5D, -K1F5, -K1J5, -L1C5, -M1A5, -M1B5D, -N1A5, -P1A5, -R1A5, -S1A5, -T4A5D, -T4B5, -T4B5D, -T4C5D, -V4A5, -V4A5D, -W1A5D, -W3A5D
IVO-540	-A1A
LTIO-540	-F2BD, -J2B, -J2BD, -N2BD, -R2AD, -U2A, -V2AD, -W2A
TIO-540	-A1A, -A1B, -A2A, -A2B, -A2C, -AE2A, -AH1A, -AA1AD, -AF1A, -AF1B, -AG1A, -AB1AD, -AB1BD, -AH1A, -AJ1A, -AK1A, -C1A, -E1A, -G1A, -F2BD, -J2B, -J2BD, -N2BD, -R2AD, -S1AD, -U2A, -V2AD, -W2A
TIVO-540	-A2A
IO-720	-A1A, -A1B, -D1B, -D1BD, -D1C, -D1CD, -B1B, -B1BD, -C1B

Engine models in Table 1 are installed on, but not limited to Piper PA-24 Comanche, PA-30 and PA-39 Twin Comanche, PA-28 Arrow, and PA-23 Aztec; Beech 23 Musketeer; Mooney 20, and Cessna 177 Cardinal airplanes.

**Note 1:** This AD is applicable to engines with an "I" in the prefix of the model designation that have externally mounted fuel injection lines. This AD is not applicable to engines having internally mounted fuel injection lines, which are not accessible.

**Note 2:** This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

*Compliance:* Compliance with this AD is required as indicated, unless already done.

To prevent failure of the fuel injector fuel lines allowing fuel to spray into the engine compartment, resulting in an engine fire, do the following:

### **Engines That Have Been Previously Inspected**

(a) For engines that have been inspected in accordance with Textron Lycoming Mandatory Service Bulletin (MSB) No. 342, dated March 24, 1972; Textron Lycoming MSB No. 342A, dated May 26, 1992; Textron Lycoming MSB No. 342B, dated October 22, 1993; Supplement No. 1 to MSB No. 342B, dated April 27, 1999; Textron Lycoming MSB No. 342C, dated April 28, 2000; and Textron Lycoming MSB No. 342D, dated July 10, 2001, inspect in accordance with paragraph (c) of this AD.

### **Engines That Have Not Been Inspected**

(b) For engines that have not had initial inspections previously done in accordance with Textron Lycoming MSB No. 342, dated March 24, 1972; Textron Lycoming MSB No. 342A, dated May 26, 1992; Textron Lycoming MSB No. 342B, dated October 22, 1993; Supplement No. 1 to MSB No. 342B, dated April 27, 1999; Textron Lycoming MSB No. 342C, dated April 28, 2000; or Textron Lycoming MSB No. 342D, dated July 10, 2001, inspect in accordance with Textron Lycoming MSB No. 342D, dated July 10, 2001 as follows:

(1) For engines that have not yet had any fuel line maintenance done, or have not had any fuel line maintenance done since new or since the last overhaul, inspect within 50 hours time-in-service after the effective date of this AD, and replace as necessary, the fuel injector fuel lines and clamps between the fuel manifold and the fuel injector nozzles that do not meet all conditions specified in Textron Lycoming MSB No. 342D, dated July 10, 2001.

(2) For all other engines, inspect within 10 hours time-in-service after the effective date of this AD, and replace as necessary, the fuel injector fuel lines and clamps between the fuel manifold and the fuel injector nozzles that do not meet all conditions specified in Textron Lycoming MSB No. 342D, dated July 10, 2001.

### **Repetitive Inspections**

(c) Thereafter, at each annual inspection, at each 100-hour inspection, at each engine overhaul, and after any maintenance has been done on the engine where any clamp (or clamps) on a fuel injector line (or lines) has been disconnected, moved, or loosened, inspect the fuel injector fuel lines and clamps and replace as necessary any fuel injector fuel line and clamp that does not meet all conditions specified in Textron Lycoming MSB No. 342D, dated July 10, 2001.

### **Alternative Methods of Compliance**

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, New York Aircraft Certification Office (ACO). Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, New York ACO.

**Note 3:** Information concerning the existence of approved alternative methods of compliance with this

airworthiness directive, if any, may be obtained from the New York ACO.

### **Special Flight Permits**

(e) Special flight permits may be issued in accordance with Sec. Sec. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

### **Documents That Have Been Incorporated By Reference**

(f) The clamp inspection and installations must be done in accordance with Textron Lycoming MSB No. 342D, dated July 10, 2001. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Textron Lycoming, 652 Oliver Street, Williamsport, PA 17701, telephone (570) 323-6181. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

### **Effective Date**

(g) This amendment becomes effective on January 31, 2003.