

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

Airworthiness Directive

93-16-15 Teledyne Continental Motors: Amendment 39-8743. Docket 93-ANE-55.

Applicability: Teledyne Continental Motors (TCM) Model IO-520B, IO-520BA, IO-520BB, IO-520C, IO-520CB, IO-520M, IO-520MB; IO-550A, IO-550B, IO-550C, IO-550G; TSIO-520B, TSIO-520BB, TSIO-520D, TSIO-520DB, TSIO-520E, TSIO-520EB, TSIO-520J, TSIO-520JB, TSIO-520K, TSIO-520KB, TSIO-520L, TSIO-520LB, TSIO-520N, TSIO-520NB, TSIO-520UB, TSIO-520VB, TSIO-520WB; TSIO-550B; and TSIOL-550A and TSIOL-550B reciprocating engines, with serial numbers lower than those listed in TCM Mandatory Service Bulletin (MSB) No. M93-9, Revision 1, dated March 10, 1993; which are equipped with the following fuel pumps: Part Numbers (P/N) 646210-1, -2, -8, -10, -11; P/N 646212-2, -5, -16, -17; P/N 646758-5, -7, -8, -9; P/N 646765-6 and -7; P/N 646766-1 and -2; 646767-1; 649368-19; or engines equipped with any fuel pump, regardless of part number that have had the fuel pump replaced in the field prior to the effective date of this AD with fuel pump drive shaft, P/N 646176, installed. These engines are installed on but not limited to the following aircraft: Beech Bonanza 35-C33A, E33A/C, F33A/C, S35, V35/A/B, A36/TC, B36TC; Beech Baron 95-C55/A, D55/A, E55/A, 58/A/P/PA/TC/TCA; Cessna 310R, T310P/Q/R, 320 D/E/F, 335 series, 340 series, 401 series, 402 series, 414 series; Cirrus VK-30; Lancaire IV; Mooney M20K with Rocket Engineering Corporation "Rocket Mooney" STC; Navion Model H; and Questair.

Compliance: Required as indicated, unless accomplished previously.

To prevent possible fuel pump drive shaft disengagement and loss of engine power, accomplish the following:

(a) Within the next 30 hours time in service after the effective date of this AD, visually inspect the fuel pump to determine which combination of fuel pump drive shaft and fuel pump drive coupling is installed, and replace, if necessary, fuel pump drive couplings that have less than the minimum required coupling engagement with longer fuel pump drive couplings, in accordance with Figure 1 of TCM MSB No. M93-9, Revision 1, dated March 10, 1993, as follows:

(1) If fuel pump drive shaft, P/N 646176, is installed with fuel pump drive coupling, P/N 631263, replace the fuel pump drive coupling with a serviceable fuel pump drive coupling, P/N 653359.

(2) If fuel pump drive shaft, P/N 643689, is installed with either fuel pump drive coupling, P/N 631263 or 653359, no further action is required.

(3) If fuel pump drive shaft, P/N 646176, is installed with fuel pump drive coupling, P/N 653359, no further action is required.

(b) 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, Atlanta Aircraft Certification Office. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta Aircraft Certification Office.

NOTE: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Atlanta Aircraft Certification Office.

(c) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the airplane to a location where the requirements of this AD can be accomplished.

(d) The inspections, and replacement, if necessary, shall be done in accordance with the following service bulletin:

Document No.	Pages	Revision	Date
TCM MSB No. M93-9	1-5	1	March 10, 1993

Total pages: 5.

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 Teledyne Continental Motors, P.O. Box 90, Mobile, AL 36601; telephone (205) 438-3411. Copies may be inspected at the FAA, New England Region, Office of the Assistant Chief 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.

(e) This amendment becomes effective December 14, 1993, to all persons except those persons to whom it was made immediately effective by priority letter AD 93-16-15, issued September 27, 1993, which contained the requirements of this amendment.