

Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [60 FR 31075 NO. 113 6/13/95]

Docket No. 93-ANE-44; Amendment 39-9271; AD 94-01-03 R2

Airworthiness Directives; Teledyne Continental Motors (formerly Bendix) S-20, S-200, S-600, and S-1200 Series Magnetos

PDF Copy (If Available):

▼ Preamble Information

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment revises an existing airworthiness directive (AD), applicable to Teledyne Continental Motors (TCM) (formerly Bendix) S-20, S-200, S-600, and S-1200 series magnetos, that currently requires replacing Bendix ignition coils and rotating magnets, regardless of total time in service (TIS), with improved TCM ignition coils, rotating magnets and marking magnetos to indicate compliance, except for the S-1200 series magnetos on which the AD requires replacing only the ignition coils as that series magneto already incorporates rotating magnets with the improved TCM design. This amendment removes several notes after the applicability paragraph and inserts these as paragraphs into the applicability itself and into the compliance section to clarify that these actions are mandatory. In addition, this amendment allows installation of replacement serviceable Parts Manufacturer Approval (PMA) parts in addition to TCM parts. Also, this amendment clarifies that Bendix magnetos replaced with Slick magnetos satisfy the requirements of the AD, and that operators must perform the requirements of the AD on magnetos with Bendix magneto data plates that have been replaced with an overhaul facility's data plate. This amendment is prompted by comments that request clarification of the compliance notes and by the request to install replacement serviceable PMA parts. The actions specified by this AD are intended to prevent magneto failure and subsequent engine failure.

DATES: Effective June 28, 1995.

The incorporation by reference of certain publications listed in the regulations was approved by the Director of the Federal Register as of September 6, 1994. Comments for inclusion in the Rules Docket must be received on or before August 14, 1995.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 93-ANE-44, 12 New England Executive Park, Burlington, MA 01803-5299.

The service information referenced in this AD may be obtained from Teledyne Continental Motors, P.O. Box 90, Mobile, AL 36601; telephone (205) 438-3411. This information may be examined 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.

FOR FURTHER INFORMATION CONTACT: Jerry Robinette, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate, Campus Building, 1701 Columbia Ave., Suite S-160, College Park, GA 30337-2748; telephone (404) 305-7371; fax (404) 305-7348.

SUPPLEMENTARY INFORMATION:

On December 29, 1993, the Federal Aviation Administration (FAA) issued airworthiness directive (AD) 94-01-03, Amendment 39-8785 (59 FR 4555, February 1, 1994), to require replacing certain Bendix ignition coils and rotating magnets, regardless of time in service (TIS), with improved serviceable Teledyne Continental Motors (TCM) ignition coils and rotating magnets at either the next 100-hour inspection, the next annual inspection, the next progressive inspection, or the next 100 hours TIS after the effective date of the AD, whichever occurs first. For S-1200 series magnetos, the AD requires replacing only the ignition coils as the rotating magnets on that series magneto already incorporates the improved TCM design. Additionally, the AD requires re-marking magnetos to indicate compliance. That action was prompted by reports of accidents caused by failures of magnetos incorporating older Bendix components that had not been replaced in accordance with superseded AD 73-07-04, Amendment 39-1731 (38 FR 27600, October 5, 1973). That condition, if not corrected, could result in magneto failure and subsequent engine failure.

On August 11, 1994, the FAA issued AD 94-17-11, Amendment 39-9006 (59 FR 43029, August 22, 1994), that revises AD 94-01-03, and notes that an error in the serial number listing in TCM Service Bulletin (SB) No. 637, dated December 1992, resulted in too many affected magnetos requiring AD compliance. The AD applies only to certain magnetos manufactured by Bendix in Sidney, New York, and not to any Bendix magnetos built in either Jacksonville, Florida, or Atlanta, Georgia. In addition, the S-600 series magnetos require replacement of only the rotating magnets and not the ignition coils. Finally, the FAA received reports that there is some confusion as to how the S-20, S-200, S-600, and S-1200 series magnetos are referenced in the TCM SB and the AD and clarified the applicability paragraph by adding additional identification information.

On November 3, 1994, the FAA issued a correction to Docket No. 93-ANE-44, Amendment 39-9006 (59 FR 55955, November 10, 1994), which changes the AD number to AD 94-01-03 R1, as it was a revision to the previous AD and should not have been assigned a new AD number.

Since the issuance of that AD, the FAA received comments requesting clarification of the compliance notes and the option of installing replacement serviceable Parts Manufacturer Approval (PMA) parts.

The FAA has reviewed and approved the technical contents of TCM Mandatory Service Bulletin (MSB) No. MSB644, dated April 4, 1994, that describes procedures for replacing certain Bendix ignition coils and rotating magnets with improved serviceable TCM ignition coils and rotating magnets and marking magnetos to indicate compliance with this MSB.

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, this AD revises AD 94-01-03 R1 to insert the text of several notes appearing after the applicability paragraph as compliance paragraphs to clarify that these actions are mandatory. In addition, this amendment allows installation of replacement serviceable PMA parts in addition to TCM parts. Also, this amendment clarifies that Bendix magnetos replaced with Slick magnetos satisfy the requirements of this AD, and that operators must perform the requirements of this AD on magnetos with Bendix magneto data plates that have been replaced with an overhaul facility's data plate. The actions are required to be accomplished in accordance with the MSB described previously.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption "ADDRESSES." All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 93-ANE-44." The postcard will be date stamped and returned to the commenter.

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. App. 1354(a), 1421 and 1423; 49 U.S.C. 106(g); and 14 CFR 11.89.

§39.13 - [AMENDED]

2. Section 39.13 is amended by removing Amendment 39-9006 (59 FR 43029, August 22, 1994), corrected (59 FR 55955, November 10, 1994), and by adding a new airworthiness directive, Amendment 39-9271, to read as follows:

▼ Regulatory Information

94-01-03 R2 TELEDYNE CONTINENTAL MOTORS: Amendment 39-9271. Docket 93-ANE-44. Revises AD 94-01-03 R1, Amendment 39-9006, which revises AD 94-01-03, Amendment 39-8785. Supersedes AD 73-07-04, Amendment 39-1731 (Bendix AD).

Applicability: Teledyne Continental Motors (TCM), formerly Bendix magnetos:

S-20, S-200, and S-600 series magnetos with red or black Bendix (not TCM) data plates having serial numbers (S/N's): lower than 2000000 without any letter prefix; or S/N's lower than A16058 having the letter "A" prefix.

S-20, S-200, and S-600 series magnetos with blue Bendix (not TCM) data plates marked "REMANUFACTURED" having S/N's lower than 901001.

S-1200 series magnetos with red Bendix (not TCM) data plates having S/N's: lower than 2000000 without any letter prefix; or S/N's lower than A132844 having the letter "A" prefix.

S-1200 series magnetos with blue Bendix (not TCM) data plates marked "REMANUFACTURED" having S/N's lower than 901001.

These magnetos are installed on but not limited to reciprocating engine powered aircraft manufactured by Beech, Cessna, Maule, Mooney, and Piper. NOTE 1: The FAA has received reports of some confusion as to what is meant by S-20, S-200, S-600, and S-1200 series magnetos as referenced in TCM Mandatory Service Bulletin (MSB) No. MSB644, dated April 4, 1994, and this AD. A typical example is S6RN-25, where the S designates single type ignition unit, the 6 designates the number of engine cylinders, the

R designates right hand rotation, the N is the manufacturer designator (this did not change when TCM purchased the Bendix magneto product line), and the number after the dash indicates the series (a -25 is a S-20 series magneto, while a -1225 is a S-1200 series magneto). NOTE 2: This AD applies to each magneto 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 magnetos that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must use the authority provided in paragraph (k) to request approval from the FAA. This approval may address either no action, if the current configuration eliminates the unsafe condition, or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, alteration, or repair remove any magneto from the applicability of this AD.

Compliance: Required as indicated, unless accomplished previously.

To prevent magneto failure and subsequent engine failure, accomplish the following:

- (a) No action is required for those magnetos in compliance with AD 94-01-03 or 94-01-03 R1.
- (b) An optional method of compliance with this AD is to replace the Bendix magnetos with Slick magnetos where FAA approval has been granted for that application.
- (c) If a Bendix magneto data plate has been replaced with an overhaul facility's data plate, this AD is still applicable to that magneto since the magneto is a Bendix magneto.
- (d) Yellow Bendix or TCM service spare data plates may have been installed during a field overhaul; use model and S/N to determine applicability.
- (e) Magnetos built by Bendix in Jacksonville, Florida, and Magnetos built by TCM in Atlanta, Georgia, as indicated on the data plate, are not affected by this AD.
- (f) The paint on some early data plates may have been obliterated and the data plate will appear silver in color; use model and serial number to determine applicability.
- (g) For Bendix S-20 and S-200 series magnetos, replace Bendix ignition coils and rotating magnets identified in the Detailed Instructions of TCM MSB No. MSB644, dated April 4, 1994, with serviceable TCM or Parts Manufacturer Approval (PMA) ignition coils and rotating magnets at the next 100 hour inspection, the next annual inspection, the next progressive inspection, or the next 100 hours time in service (TIS) after the effective date of this AD, whichever occurs first.
- (h) For the Bendix S-600 series magnetos, replace Bendix rotating magnets identified in the Detailed Instructions of TCM MSB No. MSB644, dated April 4, 1994, with serviceable TCM or PMA rotating magnets at the next 100 hour inspection, the next annual inspection, the next progressive inspection, or the next 100 hours TIS after the effective date of this AD, whichever occurs first.

NOTE: The ignition coils on the S-600 series magnetos already incorporate the improved design.

- (i) For the Bendix S-1200 series magneto, replace Bendix ignition coils identified in the

Detailed Instructions of TCM MSB No. MSB644, dated April 4, 1994, with serviceable TCM or PMA ignition coils at the next 100 hour inspection, the next annual inspection, the next progressive inspection, or the next 100 hours TIS after the effective date of this AD, whichever occurs first.

NOTE: The rotating magnets on the S-1200 series magnetos already incorporate the improved design.

(j) After compliance with paragraphs (d), (e), or (f) of this AD, as applicable, and prior to further flight, mark the magneto in accordance with the Identification Instructions of TCM SB No. MSB644, dated April 4, 1994.

(k) An alternative method of compliance or adjustment of the initial 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 AD, if any, may be obtained from the Atlanta Aircraft Certification Office.

(l) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

(m) The actions required by this AD shall be done in accordance with the following service document:

Document No.	Pages	Date
TCM SB No. MSB644	1-3	April 4, 1994
Total pages: 3.		

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 as of September 6, 1994. 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.

(n) This amendment becomes effective on June 28, 1995.

▼ Footer Information

▼ Comments

