Airworthiness Directive

Federal Register Information

Header Information
DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [63 FR 69996 NO. 243 12/18/98]

[Docket No. 98-ANE-34-AD; Amendment 39-10939, AD 98-25-13]

RIN 2120-AA64

McCauley Propeller Systems Models 2A36C23/84B-0 and 2A36C82/84B-2 Propellers

PDF Copy (If Available):

Preamble Information
AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to McCauley Propeller Systems (formerly McCauley Accessory Division, The Cessna Aircraft Company) Models 2A36C23/84B-0 and 2A36C82/84B-2 propellers. This action supersedes priority letter AD 89-26-08 that currently requires penetrant inspections for cracks in the propeller blade threaded retention area, and modifying the propeller hub to a red dye filled configuration. This action adds an explanatory note to better define the AD applicability and makes minor adjustments to compliance section language to reflect current AD practice. This amendment is prompted by reports of confusion from operators as to if the AD is applicable to their particular model propeller. The actions specified by this AD are intended to prevent possible cracks in the propeller blade threaded retention area from progressing to blade separation, which can result in loss of aircraft control.


ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 98-ANE-34-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ad-engineprop@faa.dot.gov". Comments sent via the Internet must contain the
The service information referenced in this AD may be obtained from McCauley Propeller Systems, 3535 McCauley Dr., PO Drawer 5053, Vandalia, OH 45377; telephone (937) 890-5246, fax (937) 890-6001. This information may be examined 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.

FOR FURTHER INFORMATION CONTACT: Tim Smyth, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone (847) 294-7132; fax (847) 294-7834.

SUPPLEMENTARY INFORMATION: On December 20, 1989, the Federal Aviation Administration (FAA) issued priority letter airworthiness directive (AD) 89-26-08, applicable to McCauley Propeller Systems (formerly McCauley Accessory Division, The Cessna Aircraft Company) Models 2A36C23/84B-0 and 2A36C82/84B-2 propellers, which requires penetrant inspections for cracks in the propeller blade threaded retention area, and modifying the propeller hub to a red dye filled configuration. That action was prompted by reports of cracks in the propeller blade threaded retention area. That condition, if not corrected, could result in possible cracks in the propeller blade threaded retention area from progressing to blade separation, which can result in loss of aircraft control.

Since the issuance of that priority letter AD, the FAA has received reports of confusion from operators as to if the AD is applicable to their particular model propeller.

The FAA has reviewed and approved the technical contents of McCauley Service Letter (SL) 1989-5, dated November 14, 1989, that describes procedures for propeller disassembly and modification of the propeller hub assembly to red dye filled configuration, and McCauley Service Manual No. 720415, Revision No. 1, dated May 1972, Chapter I, Page 4-6, Paragraph 4-6, that describes procedures for penetrant inspections for cracks in the propeller blade threaded retention area.

Since an unsafe condition has been identified that is likely to exist or develop on other propellers of this same type design, this AD supersedes priority letter AD 89-26-08 to add an explanatory note to better define the AD applicability and makes minor adjustments to compliance section language to reflect current AD practice. The actions are required to be accomplished in accordance with the service information 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 98-ANE-34-AD." 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. 106(g), 40113, 44701. §39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:
**Regulatory Information**


Note 1: This AD applies to each propeller 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 propellers 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 (f) 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: Required as indicated, unless accomplished previously.

To prevent possible cracks in the propeller blade threaded retention area from progressing to blade separation, which can result in loss of aircraft control, accomplish the following penetrant inspection and modification of the below listed hub models, in accordance with the compliance schedule as indicated, in which hours refer to time-in-service:

<table>
<thead>
<tr>
<th>PROPELLER HUB MODEL 2A36C23-()-(), REGARDLESS OF BLADE MODEL TYPE INSTALLED ON FLIGHT TRAINING AIRPLANES AND/OR ACROBATIC CATEGORY AIRPLANES</th>
<th>COMPLIANCE SCHEDULE OF PROPELLER INSPECTION AND MODIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 400 hours or 59 calendar months since last overhaul/penetrant inspection or installed new; or prior time-in-service unknown.</td>
<td>Within the next 100 hours or one (1) calendar month after the effective date of this AD, whichever occurs first.</td>
</tr>
<tr>
<td>Less than or equal to both 400 hours and 59 calendar months since last overhaul/penetrant inspection or installed new.</td>
<td>Prior to the accumulation of 500 hours or 60 calendar months since last overhaul/penetrant inspection or installed new, whichever occurs first.</td>
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</tbody>
</table>

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<tr>
<th>PROPELLER HUB MODEL 2A36C82-()-(), REGARDLESS OF BLADE MODEL, INSTALLED ON OTHER THAN FLIGHT TRAINING AIRPLANES AND/OR ACROBATIC</th>
<th>COMPLIANCE SCHEDULE OF PROPELLER INSPECTION AND MODIFICATION</th>
</tr>
</thead>
</table>


<table>
<thead>
<tr>
<th>CATEGORY AIRPLANES</th>
<th>PROPELLER HUB MODEL 2A36C82-( )-( ), REGARDLESS OF BLADE MODEL INSTALLED ON ALL CATEGORY AIRPLANES</th>
<th>COMPLIANCE SCHEDULE OF PROPELLER INSPECTION AND MODIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 900 hours or 59 calendar months since last overhaul/penetrant inspection or installed new; time-in-service unknown.</td>
<td>Prior to the accumulation of 1100 hours or 60 calendar months since last overhaul/penetrant inspection or installed new, whichever occurs first.</td>
<td>Within the next 200 hours, or at the next annual inspection, or within 12 calendar months after the effective date of this AD, whichever occurs first.</td>
</tr>
<tr>
<td>Less than or equal to both 900 hours and 59 calendar months since last overhaul/penetrant inspection or installed new.</td>
<td>Prior to the accumulation of 1500 hours or 60 calendar months since last overhaul/penetrant inspection or installed new, whichever occurs first.</td>
<td>Within the next 200 hours, or at the next annual inspection, or within 12 calendar months after the effective date of this AD, whichever occurs first.</td>
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</table>

Note 2: The parentheses used in the above list indicate the presence or absence of an additional letter(s) which vary the basic hub model designation. These letter(s) define minor changes that do not affect interchangeability or eligibility, and therefore, this AD still applies regardless of whether these letters are present or absent on the hub model designation.

Note 3: For propellers which have incorporated an oil-filled configuration with red dye and have been designated as hub Model 2A36C23-( )-G or Model 2A36C82-( )-G at initial production; or prior manufactured propellers which have been modified to an oil-filled configuration with red dye and reidentified as hub Model 2A36C23-( )-( )G or Model 2A36C82-( )-( )G, this airworthiness directive (AD) requires compliance with paragraph (d) only.

Note 4: Flight training airplanes for purposes of complying with this AD are defined as airplanes which are used currently for flight training instruction.

Note 5: The "calendar month" compliance times stated in this AD allow the performance of the required action to be extended to the last day of the month in which compliance is required. Example, a required inspection and modification of 60 months from last overhaul/penetrant inspection that was performed on December 15, 1985, would allow the penetrant inspection and modification to be performed no later than December 31, 1990.

(a) Perform disassembly in accordance with McCauley Service Letter (SL) 1989-5,
dated November 14, 1989, and penetrant inspect for cracks in the propeller blade threaded retention area in accordance with McCauley Service Manual No. 720415, Revision No. 1, dated May 1972, Chapter I, Page 4-6, Paragraph 4-6.

(b) If any indication of a crack is found, prior to further flight, remove propeller assembly and replace with a serviceable unit, complying with paragraph (c) below, or an equivalent initial production oil filled hub Model with red dye.

(c) Modify propeller hub assembly Model 2A36C23-( )-( ) to Model 2A36C23-( )-( )G, and Model 2A36C82-( )-( )-( ) to Model 2A36C82-( )-( )-( )G, as appropriate to contain oil with a red dye and reidentify in accordance with McCauley SL 1989-5, dated November 14, 1989.

Note 6: The modification of the propeller hub assembly to contain oil with a red dye provides an "on-condition" (in-service) means of early crack detection to prevent a blade separation and also improves lubrication and corrosion protection.

(d) If red dye is observed in service on hub Models in compliance with paragraph (c), or on an equivalent initial production oil filled hub Model with red dye, before further flight, or if in flight land as soon as practicable, as applicable, determine source of leakage in accordance with McCauley SL 1989-5, dated November 14, 1989. In the event the inspection reveals a crack, remove propeller assembly and replace with a serviceable oil filled hub Model with red dye.

(e) Report in writing any cracks found to the Manager, Chicago Aircraft Certification Office, within ten (10) days of the inspection. Reporting approved by the Office of Management and Budget under OMB No. 2120-0056.

(f) 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, Chicago Aircraft Certification Office. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Chicago Aircraft Certification Office.

Note 7: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Chicago Aircraft Certification Office.

(g) 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.

(h) The actions required by this AD shall be accomplished in accordance with the following McCauley service documents:

<table>
<thead>
<tr>
<th>Document No.</th>
<th>Page</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Cover</td>
<td>1</td>
<td>July 16, 1990</td>
</tr>
<tr>
<td>Section A</td>
<td>1-4</td>
<td>July 16, 1990</td>
</tr>
<tr>
<td>Section B</td>
<td>1</td>
<td>July 16, 1990</td>
</tr>
</tbody>
</table>
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 McCauley Propeller Systems, 3535 McCauley Dr., PO Drawer 5053, Vandalia, OH 45377; telephone (937) 890-5246, fax (937) 890-6001. 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.

(i) This amendment supersedes priority letter AD 89-26-08, issued December 20, 1989.

(j) This amendment becomes effective on January 4, 1999.

Footer Information

Comments