DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-28478; Directorate Identifier 2007-CE-057-AD; Amendment 39-15153; AD 2007-16-14]

RIN 2120-AA64

Airworthiness Directives; Taylorcraft A, B, and F Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Taylorcraft A, B, and F series airplanes. This AD requires you to initially inspect the left and right wing front and aft lift struts for corrosion and cracks, replace any cracked strut or strut with corrosion that exceeds certain limits with either sealed or non-sealed struts, and repetitively inspect any non-sealed struts. This AD results from inspections where several different struts were found with moderate to severe corrosion and required strut replacement. We are issuing this AD to detect and correct corrosion or cracks in the right and left wing front and aft lift struts. This condition, if not corrected, could result in failure of the lift strut and lead to in-flight separation of the wing with consequent loss of control.

DATES: This AD becomes effective on August 20, 2007.

On August 20, 2007, the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

We must receive any comments on this AD by October 12, 2007.

ADDRESSES: Use one of the following addresses to comment on this AD.

• DOT Docket Web site: Go to http://dms.dot.gov and follow the instructions for sending your comments electronically.
• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
• Fax: (202) 493-2251.
• Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
Supplementary Information:

Discussion

The FAA has received reports of several corroded wing lift struts from different Taylorcraft series airplanes. Independent laboratory analysis of the struts revealed varying degrees of excessive internal and external corrosion, including through-the-thickness corrosion. The struts exhibited corrosion severe enough to require strut replacement. Additional Taylorcraft owners reported finding severe corrosion on wing struts during routine maintenance, which required strut replacement. These same findings confirm strut corrosion Taylorcraft reported to the FAA. The internal cavity of the original design (vented) lift struts is exposed to the external environment and can hide internal surface corrosion resulting from environmental exposure. External surface corrosion can be masked by the external paint coating.

This condition, if not corrected, could result in failure of a wing lift strut due to corrosion and lead to separation of the wing from the airplane with consequent loss of control.

Relevant Service Information

We reviewed Taylorcraft Aviation, LLC Service Bulletin (SB) No. 2007-001, Revision A, dated August 1, 2007. The service information describes procedures for wing lift strut assembly corrosion inspection and/or replacement.

FAA's Determination and Requirements of This AD

We are issuing this AD because we evaluated all the information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design. This AD requires you to initially inspect the left and right wing front and aft lift struts for corrosion and cracks, replace any cracked strut or strut with corrosion that exceeds certain limits with either sealed or non-sealed struts, and repetitively inspect any non-sealed struts.

The FAA is determining whether future rulemaking action is necessary. This could include inspection and/or modification or replacement in adjacent structure.

In preparing this rule, we contacted type clubs and aircraft operators to get technical information and information on operational and economic impacts. We have included a discussion of information that may have influenced this action in the rulemaking docket.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule.
because corrosion and/or cracks in the wing lift struts could result in separation of the wing from the airplane with consequent loss of control. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and an opportunity for public comment. We invite you to send any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under the ADDRESSES section. Include the docket number "FAA-2007-28478; Directorate Identifier 2007-CE-057-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to http://dms.dot.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive concerning this AD.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect 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.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866;

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket that contains the AD, the regulatory evaluation, any comments received, and other information on the Internet at http://dms.dot.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
The Docket Office (telephone (800) 647-5527) is located at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Effective Date

(a) This AD becomes effective on August 20, 2007.

Affected ADs

(b) None.

Applicability

(1) Are certificated in any category; and
(2) Do not incorporate in all struts new sealed front lift struts (P/N MA-A815 or FAA-approved equivalent P/N) and new sealed aft lift struts (P/N MA-A854 or FAA-approved equivalent P/N).

Note: This AD applies to all Taylorcraft models listed above, including those not listed in Taylorcraft Aviation, LLC Service Bulletin No. 2007-001, Revision A, dated August 1, 2007. If there are any other differences between this AD and the above service bulletin, this AD takes precedence.

Unsafe Condition

(d) This AD results from inspections where several different struts were found with moderate to severe corrosion and required strut replacement. We are issuing this AD to detect and correct corrosion or cracks in the right and left wing front and aft lift struts, which could result in failure of the lift strut and lead to in-flight separation of the wing with consequent loss of control.

Compliance

(e) To address this problem, you must do the following, unless already done:
<table>
<thead>
<tr>
<th>Actions</th>
<th>Compliance</th>
<th>Procedures</th>
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<tbody>
<tr>
<td><strong>(1) Visual Inspection:</strong> Visually inspect for corrosion or cracking</td>
<td>Within the next 5 hours time-in-service after August 20, 2007 (the effective</td>
<td>Follow Part 1 of the Instructions in Taylorcraft Aviation, LLC Service Bulletin</td>
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<td>in the lower 12 inches of the left and right wing front lift struts</td>
<td>date of this AD), unless the strut has:</td>
<td>No. 2007-001, Revision A, dated August 1, 2007.</td>
</tr>
<tr>
<td>(part number (P/N) A-A815 or FAA-approved equivalent P/N) and aft lift</td>
<td>(i) been replaced with parts specified in either paragraph (e)(4)(i); or</td>
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<tr>
<td>struts (P/N A-A854 or FAA-approved equivalent P/N) and then inspect</td>
<td>(ii) been replaced with parts specified by paragraph (e)(4)(ii) of this AD</td>
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<td>per paragraph (e)(2) of this AD.</td>
<td>and been installed on an airplane for less than 24 months.</td>
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<td><strong>(2) Initial Eddy Current or Ultrasound Inspection:</strong> Inspect using</td>
<td>Initially inspect any original design (vented) strut or FAA-approved</td>
<td>Follow Part 2 of the Instructions in Taylorcraft Aviation, LLC Service Bulletin</td>
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<td>the eddy current or ultrasound inspection methods to detect corrosion</td>
<td>equivalent part number at whichever of the following that applies;</td>
<td>No. 2007-001, Revision A, dated August 1, 2007.</td>
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<td>or cracking in the lower 12 inches of the left and right wing front</td>
<td>(A) Before further flight when corrosion or cracking is found during the</td>
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<td>lift struts (P/N A-A815 or FAA-approved equivalent P/N) and aft lift</td>
<td>visual inspection required in paragraph (e)(1) of this AD; or</td>
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<td>struts (P/N A-A854 or FAA-approved equivalent P/N). The eddy current</td>
<td>(B) If no corrosion or cracking is found during the visual inspection in</td>
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<td>or ultrasound inspection must be done by one of the following:</td>
<td>paragraph (e)(1) of this AD, within the next 3 months after August 20,</td>
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<td>2007 (the effective date of this AD) or within 24 months of</td>
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<td>installation of the strut, whichever occurs later.</td>
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<td>(i) A Level II or III inspector certified in the applicable eddy</td>
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<td>current or ultrasound inspection method using the guidelines</td>
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<td>established by the American Society of Nondestructive Testing or</td>
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<td>NAS 410 (formerly MIL-STD-410);</td>
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<td>(ii) An inspector certified to specific FAA or other acceptable</td>
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<td>government or industry standards, such as Air Transport Association</td>
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<td>(ATA) Specifications 105-Guidelines for Training and Qualifying</td>
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<td>Personnel in Nondestructive Testing Methods; or</td>
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<td>(iii) A qualified FAA Repair Station or a qualified Testing/</td>
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<td>Inspection Laboratory.</td>
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### (3) Repetitive Eddy Current or Ultrasound Inspections:

Inspect using the eddy current or ultrasound inspection methods to detect corrosion or cracking in the lower 12 inches of the left and right wing front lift struts (P/N A-A815 or FAA-approved equivalent P/N) and aft lift struts (P/N A-A854 or FAA-approved equivalent P/N). The eddy current or ultrasound inspection must be done by one of the following:

(i) A Level II or III inspector certified in the applicable Eddy Current or Ultrasound Inspection method using the guidelines established by the American Society of Nondestructive Testing or NAS 410 (formerly MIL-STD-410),

(ii) An Inspector certified to specific FAA or other acceptable government or industry standards, such as Air Transport Association (ATA) Specifications 105-Guidelines for Training and Qualifying Personnel in Nondestructive Testing Methods, or

(iii) A qualified FAA Repair Station or a qualified Testing/Inspection Laboratory.

### (4) Replacement: Replace the original design (vented) front lift struts (P/N A-A815 or FAA-approved equivalent P/N) and original design (vented) aft lift struts (P/N A-A854 or FAA-approved equivalent P/N) with one of the following:

(i) new sealed front lift struts, (P/N MA-A815 or FAA-approved equivalent P/N) and new sealed aft lift struts, (P/N MA-A854 or FAA-approved equivalent P/N); or

(ii) new original design (vented) front lift struts (P/N A-815 or FAA-approved equivalent P/N) and new original design (vented) aft lift struts (P/N A-A854 or FAA-approved equivalent P/N).

Replace before further flight any time cracking or corrosion is found during any required eddy current or ultrasound inspection that exceeds the acceptance/rejection criteria limits in Taylorcraft Aviation, LLC Service Bulletin No. 2007-001, Revision A, dated August 1, 2007. After replacing with an original design (vented) strut, begin the repetitive inspections of paragraph (e)(3) within 24 months after installation.


#### Alternative Methods of Compliance (AMOCs)

(f) The Manager, Fort Worth Airplane Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place,
Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

Material Incorporated by Reference

(g) You must use Taylorcraft Aviation, LLC Service Bulletin No. 2007-001, Revision A, dated August 1, 2007, to do the actions required by this AD, unless the AD specifies otherwise.

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

2. For service information identified in this AD, contact Taylorcraft Aviation, LLC, 2124 North Central Avenue, Brownsville, Texas 78521; telephone: 956-986-0700.

3. You may review copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106; or 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/code_of_federal_regulations/ibr_locations.html.

Issued in Kansas City, Missouri, on August 3, 2007.

David R. Showers,
Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. E7-15581 Filed 8-10-07; 8:45 am]