

[Federal Register Volume 81, Number 21 (Tuesday, February 2, 2016)]

[Rules and Regulations]

[Pages 5367-5369]

From the Federal Register Online via the Government Publishing Office [www.gpo.gov]

[FR Doc No: 2016-01747]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2016-2068; Directorate Identifier 2016-SW-002-AD; Amendment 39-18387; AD 2016-02-06]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Bell Helicopter Textron Canada Limited**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule; request for comments.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for Bell Helicopter Textron Canada Limited (Bell) Model 429 helicopters. This AD requires inspecting each tail rotor (T/R) pitch link (link) bearing bore for corrosion and pitting and either replacing the T/R link or applying sealant. This AD also requires a recurring inspection of the sealant and repeating the inspections for corrosion and pitting if any sealant is missing. This AD is prompted by an incident in which a helicopter experienced an in-flight failure of a T/R link. These actions are intended to detect corrosion or pitting and to prevent failure of a T/R link and subsequent loss of control of the helicopter.

**DATES:** This AD becomes effective February 2, 2016.

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of February 2, 2016.

We must receive comments on this AD by April 4, 2016.

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590-0001.
- Hand Delivery: Deliver to the "Mail" address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

## Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-2068; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the Transport Canada AD, the incorporated by reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this final rule, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; or at <http://www.bellcustomer.com/files/>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**FOR FURTHER INFORMATION CONTACT:** Matt Fuller, Senior Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email [matthew.fuller@faa.gov](mailto:matthew.fuller@faa.gov).

## SUPPLEMENTARY INFORMATION:

### Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit them only one time. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

### Discussion

We are adopting a new AD for Bell Model 429 helicopters with a T/R link part number (P/N) 429-012-112-101, -101FM, -103, or -103FM installed. This AD requires inspecting each T/R link bearing bore for any aluminum oxide corrosion and then cleaning the affected area of the T/R link and inspecting for any pitting. If there is any corrosion or any pitting, this AD requires replacing the T/R link. If there is no corrosion or pitting, this AD requires applying corrosion preventative sealant. This AD also requires a recurring inspection of the sealant, and repeating the inspection for corrosion and pitting if any sealant is missing.

This AD was prompted by AD No. CF-2016-01, dated January 5, 2016, issued by Transport Canada, which is the aviation authority for Canada, to correct an unsafe condition for Bell Model 429 helicopters. Transport Canada advises of an incident in which a T/R link on a Model 429 helicopter failed, causing vibration and difficulty controlling the helicopter. According to Transport Canada, the failure was caused by a crack that had initiated at a corrosion pit between the roll staked lip of the bearing and the beveled edge of the link. Transport Canada further states deficiencies in the application of corrosion resistant finishes to the link during manufacturing caused the corrosion.

This condition, if not detected, could result in failure of a link and loss of control of the helicopter. For these reasons, Transport Canada AD No. CF-2016-01 requires inspection of the T/R link and replacement of any link with corrosion. The Transport Canada AD also requires application of corrosion preventative sealant and re-identification of the T/R link.

### **FAA's Determination**

This helicopter has been approved by the aviation authority of Canada and is approved for operation in the United States. Pursuant to our bilateral agreement with Canada, Transport Canada, its technical representative, has notified us of the unsafe condition described in the Canadian AD. We are issuing this AD because we evaluated all information provided by Transport Canada and determined the unsafe condition exists and is likely to exist or develop on other helicopters of the same type design.

### **Related Service Information Under 1 CFR Part 51**

Bell Helicopter issued Alert Service Bulletin 429-15-26, dated December 7, 2015 (ASB), which advises of receiving reports of corrosion on T/R links between the roll staked lip of bearing P/N 429-312-107-103 and the beveled edge of T/R link P/N 429-012-112-101/-103. The ASB specifies, within 10 flight hours or before March 7, 2016, an inspection with 10X magnification of all 8 T/R link bearing bores between the roll staked lip of the bearing outer race and the link bearing bore for corrosion. If there is corrosion, the ASB specifies replacing the link. If there is no corrosion, the ASB specifies cleaning the area and performing a second inspection with 10X magnification. If there is corrosion, the ASB specifies replacing the link. If there is no corrosion, the ASB specifies removing the torque stripe, cleaning the area, and applying corrosion preventative sealant. The ASB also specifies re-identifying the P/Ns as 429-012-112-101FM and 429-012-112-103FM. Further, the ASB specifies, at intervals of 50 flight hours after the initial actions, an inspection of the sealant and reapplication if the sealant is damaged.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **AD Requirements**

This AD requires, within 10 hours time-in-service (TIS), without first cleaning the T/R link bearing bores, using 10X or higher magnification to inspect each T/R link bearing bore for any aluminum oxide corrosion extruding from between the roll staked lip of the bearing outer race and the link bearing bore. If there is any aluminum oxide corrosion, this AD requires replacing the T/R link before further flight. If there is no corrosion, this AD requires cleaning the T/R link bearing bores and inspecting for any pitting. If there is any pitting, this AD requires replacing the T/R link before further flight. If there is no pitting, this AD requires applying corrosion preventative sealant. Within 50 hours TIS and thereafter at intervals not to exceed 50 hours TIS, this AD requires inspecting the corrosion preventative sealant of each T/R link by using 10X or higher magnification. If the corrosion preventative sealant is missing, this AD requires performing the inspections for any aluminum oxide corrosion and pitting.

### **Differences Between This AD and the Transport Canada AD**

This AD only applies to helicopters with certain link P/Ns installed. The Transport Canada AD does not specify link P/Ns. This AD requires inspecting the bearing bores for any pitting after cleaning the T/R link, while the Transport Canada AD requires inspecting for corrosion after cleaning the T/R link. This AD requires inspecting the sealant with 10X or higher magnification, while the Transport Canada AD does not specify any magnification. This AD does not require re-identifying

the P/N of the link, whereas the Transport Canada AD does. As part of the recurring inspection of the corrosion preventative sealant, if the sealant is missing, this AD requires repeating the inspections for aluminum oxide corrosion and pitting to ensure part integrity before reapplying sealant. The Transport Canada AD only specifies reapplying sealant if the sealant is damaged.

## **Costs of Compliance**

We estimate that this AD affects 73 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. We estimate the cost of labor at \$85 per work-hour.

Inspecting the set of T/R links (eight bearings) for corrosion will take about one work-hour for an estimated cost of \$85 per helicopter and \$6,205 for the U.S. fleet. Cleaning and inspecting the set of T/R links for pitting will take about one work-hour for an estimated cost of \$85 per helicopter. Replacing a T/R link will require no additional work-hours after inspection and required parts cost \$2,739 for an estimated replacement cost of \$2,739 per T/R link. Removing the torque stripe, cleaning, and applying sealant to the set of T/R links will take about one work-hour with a negligible parts cost for an estimated cost of \$85 per helicopter. Inspecting the sealant on a set of T/R links will take about one work-hour for an estimated cost of \$85 per helicopter and \$6,205 for the U.S. fleet per inspection cycle.

According to Bell Helicopter's service information some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage by Bell Helicopter. Accordingly, we have included all costs in our cost estimate.

## **FAA's Justification and Determination of the Effective Date**

Providing an opportunity for public comments prior to adopting these AD requirements would delay implementing the safety actions needed to correct this known unsafe condition. Therefore, we find that the risk to the flying public justifies waiving notice and comment prior to the adoption of this rule because the unsafe condition can adversely affect control of the helicopter, and certain required corrective actions must be accomplished within 10 hours TIS.

Since an unsafe condition exists that requires the immediate adoption of this AD, we determined that notice and opportunity for public comment before issuing this AD are impracticable and contrary to the public interest and that good cause exists for making this amendment effective in less than 30 days.

## **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, 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);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. 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 an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

### **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):



**2016-02-06 Bell Helicopter Textron Canada Limited:** Amendment 39-18387; Docket No. FAA-2016-2068; Directorate Identifier 2016-SW-002-AD.

**(a) Applicability**

This AD applies to Bell Helicopter Textron Canada Limited Model 429 helicopters with a tail rotor (T/R) pitch link (link) part number (P/N) 429-012-112-101, -101FM, -103, or -103FM installed, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as failure of a T/R link. This condition could result in loss of T/R flight control and subsequent loss of control of the helicopter.

**(c) Effective Date**

This AD becomes effective February 2, 2016.

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

(1) For T/R link P/N 429-012-112-101 and 429-012-112-103, within 10 hours time-in-service (TIS):

(i) Remove each T/R link assembly. Prior to cleaning the T/R link bearing bores, using 10X or higher power magnification, inspect each T/R link bearing bore for aluminum oxide corrosion extruding from between the roll staked lip of the bearing outer race and the link bearing bore. Aluminum oxide corrosion appears as a white crystalline material in contrast with the black finish and any accumulated soot. An example of this corrosion is shown in Figure 1 of Bell Helicopter Alert Service Bulletin 429-15-26, dated December 7, 2015 (ASB 429-15-26).

(ii) If there is any aluminum oxide corrosion, replace the T/R link before further flight.

(iii) If there is no aluminum oxide corrosion, clean each T/R link bearing bore with isopropyl alcohol and inspect for pitting.

(A) If there is any pitting, replace the T/R link before further flight.

(B) If there is no pitting, apply corrosion preventative sealant by following the Accomplishment Instructions, paragraph 5. of Part I, of ASB 429-15-26.

(2) For all T/R links listed in paragraph (a) of this AD, within 50 hours TIS and thereafter at intervals not to exceed 50 hours TIS, using 10X or higher power magnification, inspect each T/R link bearing bore for missing corrosion preventative sealant. If any corrosion preventative sealant is missing, perform the actions in paragraph (e)(1)(i) through (e)(1)(iii) of this AD before further flight.

(3) Do not install T/R link P/N 429-012-112-101 or -103 on any helicopter before complying with the actions in paragraph (e)(1) of this AD.

**(f) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

**(g) Additional Information**

The subject of this AD is addressed in Transport Canada AD CF-2016-01, dated January 5, 2016. You may view the Transport Canada AD on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2016-2068.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6400, Tail Rotor System.

**(i) Material Incorporated by Reference**

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Bell Helicopter Alert Service Bulletin 429-15-26, dated December 7, 2015.

(ii) Reserved.

(3) For Bell Helicopter service information identified in this final rule, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; or at <http://www.bellcustomer.com/files/>.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference 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/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on January 22, 2016.

Scott A. Horn,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.