[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0589; Product Identifier 2017-SW-020-AD; Amendment 39-21215; AD 2020-17-10]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron Canada Limited Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2016-02-06 for Bell Helicopter Textron Canada Limited (Bell) Model 429 helicopters. AD 2016-02-06 required inspecting certain tail rotor (T/R) pitch link bearing bores for corrosion and pitting. AD 2016-02-06 also required a repetitive inspection of the sealant and repeating the inspections for corrosion and pitting if any sealant is missing. This new AD retains the requirements of AD 2016-02-06, expands the applicability, and adds a repetitive inspection. This AD was prompted by an FAA determination that additional part-numbered T/R pitch link assemblies (links) are affected by the same unsafe condition and that an additional repetitive inspection is necessary to address the unsafe condition. The actions of this AD are intended to address an unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of February 2, 2016 (81 FR 5367, February 2, 2016).

ADDRESSES: 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 https://www.bellcustomer.com. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2019-0589.

Examining the AD Docket

You may examine the AD docket on the Internet at https://www.regulations.gov in Docket No. FAA-2019-0589; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the Transport Canada AD, any service information that is incorporated by reference, any comments received, and other information. The street address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Scott Franke, Aviation Safety Engineer, International Validation Branch, Aviation and Rotorcraft Unit, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email scott.franke@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to remove AD 2016-02-06, Amendment 39-18387 (81 FR 5367, February 2, 2016) ("AD 2016-02-06") and add a new AD. AD 2016-02-06 applied to Bell Model 429 helicopters with a T/R link part number (P/N) 429-012-112-101, -101FM, -103, or -103FM installed. The NPRM published in the *Federal Register* on August 20, 2019 (84 FR 43085). Since the FAA issued AD 2016-02-06, improved T/R links P/N 429-012-112-111 and -113 were developed, but recurring inspections of the sealant of these T/R links are still necessary because they are subject to the same unsafe condition due to design similarity. Some T/R links P/N 429-012-112-101 and -103 have also been field modified and re-identified as T/R links P/N 429-012-112-111FM and -113FM, and continue to need recurring inspections of the sealant as they are also subject to the same unsafe condition due to design similarity.

The NPRM proposed to continue the requirements of AD 2016-02-06 and add P/Ns 429-012-112-111, -111FM, -113, and -113FM to the applicability. The NPRM also proposed to add use of 10X or higher power magnification to the visual inspection of each cleaned T/R link for pitting and a repetitive 12-month inspection with the corrosion preventative sealant removed.

Transport Canada, which is the aviation authority for Canada, issued AD No. CF-2016-01R2, dated April 12, 2017 (AD CF-2016-01R2) to clarify the applicable P/Ns, address spare parts, and address parts installed on-condition prior to December 7, 2015. AD CF-2016-01R2 also includes a terminating action for the repetitive inspections.

Comments

After the NPRM was published, the FAA received comments from one commenter.

Request

Bell Textron, Inc., commented that this AD omits Bell Helicopter Alert Service Bulletin (ASB) 429-15-16 Rev. B, dated June 15, 2016 (ASB 429-15-16 Rev. B), which was issued after Bell Helicopter ASB 429-15-26, dated December 7, 2015 (ASB 429-15-26). The FAA acknowledges that ASB 429-15-16 Rev. B and ASB 429-15-26 specify procedures for the same part-numbered T/R links. However, the two service information documents address different unsafe conditions, specifically ASB 429-15-16 Rev. B addresses wear and ASB 429-15-26 addresses corrosion. Accordingly, the two different unsafe conditions are addressed in two separate ADs. The unsafe condition of wear (ASB 429-15-16 Rev. B) is addressed in AD 2019-11-05, Amendment 39-19651 (84 FR 26546, June 7, 2019) ("AD 2019-11-05"). The unsafe condition of corrosion (ASB 429-15-26) is addressed in this AD. The FAA did not change this AD based on this comment.

Bell Textron, Inc., commented that this AD differs from ASB 429-15-16 Rev. B and ASB 429-15-26 by requiring removal of the sealant around the bearing every 12 months and an inspection of the chamfer with a 10X magnifying lens. Bell Textron, Inc., stated that since ASB 429-15-16 Rev. B "requires" a repetitive 50 flight hours inspection of the sealant for pin holes and voids, it does not feel the repetitive 12 month inspection with the sealant removed is necessary. The FAA disagrees. Procedures specified in related service information documents are not required unless mandated by an AD. And while AD 2019-11-05 mandates the repetitive inspection of the sealant condition for pin

holes and voids specified in ASB 429-15-16 Rev. B, the FAA determined an inspection with the sealant removed at a longer-term repetitive interval is necessary. Since sealant could become damaged, not maintain seal, or become worn, this more in-depth inspection addresses corrosion and pitting that could build up underneath the sealant. The FAA did not change this AD based on this comment.

Bell Textron, Inc., commented that not requiring part re-identification makes it more complicated to manage configurations. The FAA does not prohibit re-identifying the T/R links as specified in ASB 429-15-26; however, the FAA determined it unnecessary to require to address the unsafe condition since the repetitive inspections are required for all part-numbered links listed in the applicability. The FAA did not change this AD based on this comment.

FAA's Determination

The FAA has reviewed the relevant information and determined that an unsafe condition exists and is likely to exist or develop on other helicopters of the same type design and that air safety and the public interest require adopting the AD requirements as proposed except for editorial changes. The website URL for Bell and the email address for requesting an alternative method of compliance have changed and have been updated in this final rule. Additionally, the paragraph cross-referencing formatting in the Required Actions paragraph has changed to meet current publication requirements, e.g., "(f)(3)(i) and (f)(3)(ii)" has changed to "(f)(3)(i) and (ii)" instead. These editorial changes are consistent with the intent of the proposals in the NPRM and will not increase the economic burden on any operator nor increase the scope of the AD.

Interim Action

The FAA considers this AD to be an interim action. The design approval holder is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, the FAA might consider additional rulemaking.

Differences Between this AD and the Transport Canada AD

This AD applies to helicopters with certain link P/Ns installed, whereas the Transport Canada AD applies to helicopters with certain serial numbers instead. 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 performing the inspections 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. The Transport Canada AD also provides a terminating action to the repetitive sealant inspection, while this AD does not. This AD also requires a repetitive inspection with the corrosion preventative sealant removed and reapplied, whereas the Transport Canada AD does not.

Related Service Information Under 1 CFR part 51

The FAA reviewed ASB 429-15-26, which advises of 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/Ns 429-012-112-101/-103. ASB 429-15-26 specifies inspecting each T/R link bearing bore between the roll staked lip of the bearing outer race and the link bearing bore with 10X magnification for corrosion and if there is corrosion, replacing the link. If there is no corrosion, ASB 429-15-26 specifies cleaning the area and performing a second

inspection with 10X magnification for corrosion. If there is corrosion, ASB 429-15-26 specifies replacing the link. If there is no corrosion, ASB 429-15-26 specifies removing the torque stripe, cleaning the area, and applying corrosion preventative sealant. ASB 429-15-26 also specifies re-identifying the P/Ns as 429-012-112-101FM/-103FM. Further, ASB 429-15-26 specifies a repetitive 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.

Costs of Compliance

The FAA estimates that this AD affects 93 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at $85 per work-hour.

Inspecting the set of T/R links (eight bearings) for corrosion takes about one work-hour for an estimated cost of $85 per helicopter and $7,905 for the U.S. fleet per inspection cycle. Cleaning and inspecting the set of T/R links for pitting takes about one work-hour for an estimated cost of $85 per helicopter. Replacing a T/R link requires no additional work-hours after the 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 takes 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 takes about one work-hour for an estimated cost of $85 per helicopter and $7,905 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. The FAA does not control warranty coverage by Bell Helicopter. Accordingly, the FAA has included all costs in this cost estimate.

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.

The FAA is 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

The FAA has 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. Will not affect intrastate aviation in Alaska, 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.

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:

a. Removing Airworthiness Directive (AD) 2016-02-06, Amendment 39-18387 (81 FR 5367, February 2, 2016); and

b. Adding the following new AD:

2020-17-10 Bell Helicopter Textron Canada Limited: Amendment 39-21215; Docket No. FAA-2019-0589; Product Identifier 2017-SW-020-AD.

(a) Applicability

This AD applies to Bell Helicopter Textron Canada Limited Model 429 helicopters with a tail rotor (T/R) pitch link assembly (link) part number (P/N) 429-012-112-101, -101FM, -103, -103FM, -111, -111FM, -113, or -113FM 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) Affected ADs

This AD replaces AD 2016-02-06, Amendment 39-18387 (81 FR 5367, February 2, 2016).

(d) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(e) 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.

(f) Required Actions

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

(i) Remove each T/R link. 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 using 10X or higher power magnification, inspect each cleaned T/R link 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 link P/Ns 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 paragraphs (f)(3)(i) and (ii) of this AD before further flight.

(3) For all T/R link P/Ns listed in paragraph (a) of this AD, within 12 months since date of manufacture, except if paragraphs (f)(1)(i) through (iii) of this AD have already been done for T/R link P/N 429-012-112-101 or -103 within the last 12 months and except if paragraph (f)(3)(i) and (ii) of this AD have already been done for T/R link P/N 429-012-112-101FM, -103FM, -111, -111FM, -113, or -113FM within the last 12 months; and thereafter for all T/R link P/Ns listed in paragraph (a) of this AD at intervals not to exceed 12 months:

(i) Remove each T/R link; and

(ii) Remove all corrosion preventative sealant, and perform the actions in paragraphs (f)(1)(i) through (iii) of this AD.

(4) After the effective date of this AD:

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

(ii) Do not install T/R link P/N 429-012-112-101FM, 103FM, -111, 111FM, -113, or -113FM on any helicopter before complying with the actions in paragraph (f)(2) of this AD.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Scott Franke, Aviation Safety Engineer, International Validation Branch, Aviation and Rotorcraft Unit, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email scott.franke@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests 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.

(h) Additional Information

The subject of this AD is addressed in Transport Canada AD No. CF-2016-01R2, dated April 12, 2017. You may view the Transport Canada AD on the Internet at https://www.regulations.gov in Docket No. FAA-2019-0589.

(i) Subject

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

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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.

(3) The following service information was approved for IBR on February 2, 2016 (81 FR 5367, February 2, 2016).

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

(ii) [Reserved]

(4) For service information identified in this AD, 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 https://www.bellcustomer.com.

(5) You may view this service information at the 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.

(6) 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, email fedreg.legal@nara.gov, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on August 10, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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