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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0575; Project Identifier MCAI-2020-00545-R; Amendment 39-21749-; AD 2021-20-11]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Canada Limited (Type Certificate Previously Held by Bell Helicopter Textron Canada Limited) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bell Textron Canada Limited (type certificate previously held by Bell Helicopter Textron Canada Limited) Model 429 helicopters. This AD was prompted by reports of incorrectly staked spherical bearings in the directional control bellcrank assembly. This AD requires a one-time inspection of the lower surface of the spherical bearing in the directional control bellcrank assembly to determine if it is properly staked and, depending on the findings, applicable corrective actions. For certain helicopters, this AD also requires repetitive inspections and, depending on the findings, applicable corrective actions. This AD also provides a terminating action for the repetitive inspections. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective November 22, 2021.

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of November 22, 2021.

ADDRESSES: For service information identified in this final rule, contact Bell Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J 1R4, Canada; telephone 1-450-437-2862 or 1-800-363-8023; fax 1-450-433-0272; email productsupport@bellflight.com; or at https://www.bellflight.com/support/contact-support. You may view 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 information on the availability of this material at the FAA, call (817) 222-5110. It is also available at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0575.

Examining the AD Docket

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0575; 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 final rule, the Transport Canada AD, 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: Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bell Textron Canada Limited (type certificate previously held by Bell Helicopter Textron Canada Limited) Model 429 helicopters. The NPRM published in the Federal Register on July 23, 2021 (86 FR 38946). In the NPRM, the FAA proposed to require a one-time inspection of the lower surface of the spherical bearing in the directional control bellcrank assembly to determine if it is properly staked and, depending on the findings, applicable corrective actions. In the NPRM, the FAA also proposed to require, for certain helicopters, repetitive inspections and, depending on the findings, applicable corrective actions. The NPRM was prompted by Transport Canada AD CF-2020-11, dated April 16, 2020 (Transport Canada AD CF-2020-11), issued by Transport Canada, which is the aviation authority for Canada, to correct an unsafe condition for Bell Textron Canada Limited (Bell) Model 429 helicopters, serial numbers 57001 through 57210, 57212 through 57344, 57346 through 57371, 57374 through 57377, and 57380. Transport Canada advises that there are reports of incorrectly staked spherical bearings in the directional control bellcrank assembly. This condition, if not addressed, could result in wear or elongation of the bore in the bellcrank, which could result in reduced helicopter directional control.

Accordingly, Transport Canada AD CF-2020-11 requires a one-time inspection to determine if a spherical bearing is properly staked in the directional control bellcrank assembly, and, depending on the findings, replacement of the spherical bearing with a new spherical bearing, repair of an affected bellcrank assembly and repetitive inspections of that repaired bellcrank assembly, or replacement of the affected bellcrank assembly with a serviceable part. Transport Canada AD CF-2020-11 also provides terminating actions for the requirements of that AD.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from one commenter, Air Methods. The following presents the comment received on the NPRM and the FAA's response.

Request To Include Additional Revision Level in Credit Paragraph

Air Methods requested that Bell Alert Service Bulletin 429-19-50, Revision B, dated December 19, 2019 (Bell Alert Service Bulletin 429-19-50, Revision B) be included in the “Credit for Previous

Actions" paragraph of the proposed AD. The commenter stated that Revision B of the service bulletin was released on December 19, 2019.

The FAA infers that the commenter mentioned the date of Revision B of the service bulletin to show that it was released prior to the effective date of the final rule. The FAA acknowledges the commenter's request and agrees to provide clarification. The requirements of paragraphs (g) and (h) of this AD refer to Bell Alert Service Bulletin 429-19-50, Revision B, as the appropriate source of information for doing the actions required by those paragraphs. Paragraph (f), "Compliance," of this AD states "comply with this AD within the compliance times specified, unless already done." The words "unless already done" in paragraph (f) of this AD, in conjunction with the requirements of paragraphs (g) and (h) of this AD, which specify that operators use Bell Alert Service Bulletin 429-19-50, Revision B, as the appropriate source of information, already account for the use of Bell Alert Service Bulletin 429-19-50, Revision B, prior to the effective date of this AD. Therefore, if operators have accomplished the actions required for compliance with this AD before the effective date of this AD, no further action is necessary and it is not necessary to include Bell Alert Service Bulletin 429-19-50, Revision B, in paragraph (j) of this AD (the "Credit for Previous Actions" paragraph). The FAA has not revised this AD in this regard.

Conclusion

These helicopters have been approved by the aviation authority of Canada and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with Canada, Transport Canada, its technical representative, has notified the FAA of the unsafe condition described in its AD. The FAA reviewed the relevant data, considered the comment received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Bell Alert Service Bulletin 429-19-50, Revision B. This service information specifies procedures for an initial inspection of the lower surface of the spherical bearing in the directional control bellcrank assembly to determine if it is properly staked, additional inspections, and corrective actions. The corrective actions include installation of a new spherical bearing, repair (including re-identification of the bellcrank assembly part number), and replacement of the bellcrank assembly. The additional inspections include an inspection of the upper surface of the spherical bearing in the directional control bellcrank assembly to determine if it is properly staked, an inspection of the bore in the bellcrank assembly for excessive wear (including mechanical or corrosion damage that exceed 0.001 inch (0.03 millimeter) maximum depth for 4 of the circumference, and any cracking); and, for any helicopter with a bellcrank assembly that is repaired, repetitive inspections of the lower surface of the spherical bearing to determine if it has moved.

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.

Other Related Service Information

The FAA also reviewed Bell Alert Service Bulletin 429-19-50, dated November 27, 2019; and Revision A, dated December 2, 2019. Bell Alert Service Bulletin 429-19-50, dated November 27, 2019, specifies procedures for an initial inspection of the spherical bearing in the directional control bellcrank assembly to determine if it is properly staked and replacement of the spherical bearing with a new spherical bearing if it is determined that the spherical bearing was not properly staked.

Bell Alert Service Bulletin 429-19-50, Revision A, dated December 2, 2019, specifies procedures for an initial inspection of the lower surface of the spherical bearing in the directional

control bellcrank assembly to determine if it is properly staked, additional inspections, and corrective actions. The corrective actions include installation of a new spherical bearing. The additional inspections include an inspection of the upper surface of the spherical bearing in the directional control bellcrank assembly to determine if it is properly staked, and an inspection of the bore in the bellcrank assembly for excessive wear.

Costs of Compliance

The FAA estimates that this AD affects 120 helicopters of U.S. Registry. Labor rates are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	1 work-hour × $85 per hour = $85 per inspection cycle	$0	$85 per inspection cycle	$10,200 per inspection cycle

The FAA estimates the following costs to do any necessary actions that would be required based on the results of the inspection. The agency has no way of determining the number of helicopters that might need these actions:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Replacement Spherical Bearing	7 work-hours × $85 per hour = $595	$56	$651
Repair/replacement Bellcrank	4 work-hours × $85 per hour = $340	$2,856	$3,196
Repetitive Inspections	1 work-hour × $85 per hour = $85 per inspection cycle	$0	85 per inspection cycle

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 helicopters identified in this rulemaking action.

Regulatory Findings

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.

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:

2021-20-11 Bell Textron Canada Limited (Type Certificate Previously Held by Bell Helicopter Textron Canada Limited): Amendment 39-21749; Docket No. FAA-2021-0575; Project Identifier MCAI-2020-00545-R.

(a) Effective Date

This airworthiness directive (AD) is effective November 22, 2021.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bell Textron Canada Limited (type certificate previously held by Bell Helicopter Textron Canada Limited) Model 429 helicopters, certificated in any category, serial numbers 57001 through 57210 inclusive, 57212 through 57344 inclusive, 57346 through 57371 inclusive, 57374 through 57377 inclusive, and 57380.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6700, Rotorcraft Flight Control.

(e) Unsafe Condition

This AD was prompted by reports of incorrectly staked spherical bearings in the directional control bellcrank assembly. The FAA is issuing this AD to address incorrectly staked spherical bearings in the directional control bellcrank assembly. This condition, if not addressed, could result in wear or elongation of the bore in the bellcrank, which could result in reduced helicopter directional control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Inspection and Corrective Actions

Within 25 hours time-in-service (TIS) or 90 days, whichever occurs first after the effective date of this AD: Inspect the lower surface of the spherical bearing on the directional control bellcrank assembly to determine if it is properly staked, in accordance with the Accomplishment Instructions, Part I, step 7., of Bell Alert Service Bulletin 429-19-50, Revision B, dated December 19, 2019 (BASB 429-19-50, Revision B). After the inspection, before further flight, do the applicable action required by paragraph (g)(1) or (2) of this AD.

(1) If the lower surface of the spherical bearing is improperly staked (any discrepancy is found e.g., the witness marks are not present and intact or the staked lip is not uniform along the chamfer): Inspect the bore in the bellcrank assembly for excessive wear (including mechanical or corrosion damage that exceed 0.001 inch (0.03 millimeter) maximum depth for 1/4 of the circumference, and any cracking); in accordance with the Accomplishment Instructions, Part I, steps 10. through 13., of BASB 429-19-50, Revision B, and depending on the findings, do the applicable actions required by paragraph (g)(1)(i) or (ii) of this AD before further flight.

(i) If the bore in the bellcrank assembly shows signs of excessive wear: Repair the bellcrank, including re-identifying the bellcrank assembly part number, in accordance with the Accomplishment Instructions, Part II, steps 1. through 13., of BASB 429-19-50, Revision B.

(ii) If the bore diameter is within 0.001 inch (0.03 millimeter) maximum depth for 1/4 of the circumference: Install a new spherical bearing, in accordance with the Accomplishment Instructions, Part II, steps 4. through 12., of BASB 429-19-50, Revision B.

(2) If the lower surface of the spherical bearing is properly staked: Inspect the upper surface of the spherical bearing on the directional control bellcrank assembly to determine if it is properly staked, in accordance with the Accomplishment Instructions, Part I, steps 8. and 9., of BASB 429-19-50, Revision B, and depending on the findings, do the applicable actions required by paragraph (g)(2)(i) or (ii) of this AD before further flight.

(i) If the spherical bearing is properly staked: No further action is required by this AD.

(ii) If the spherical bearing is not properly staked (any discrepancy is found e.g., the witness marks are not present and intact or the staked lip is not uniform along the chamfer): Inspect the bore in the bellcrank assembly for excessive wear (including mechanical or corrosion damage that exceed 0.001 inch (0.03 millimeter) maximum depth for 1/4 of the circumference, and any cracking), in accordance with the Accomplishment Instructions, Part I, steps 10. through 13., of BASB 429-19-50, Revision B, and depending on the findings, do the applicable actions required by paragraph (g)(2)(ii)(A) or (B) of this AD before further flight.

(A) If the bore in the bellcrank assembly shows signs of excessive wear: Repair the bellcrank, including re-identifying the bellcrank assembly part number, in accordance with the Accomplishment Instruction, Part II, steps 1. through 13., of BASB 429-19-50, Revision B.

(B) If the bore diameter is within 0.001 inch (0.03 millimeter) maximum depth for 1/4 of the circumference: Install a new spherical bearing, in accordance with the Accomplishment Instructions, Part II, steps 4. through 12., of BASB 429-19-50, Revision B.

(h) Required Post Repair Inspections

For any helicopter on which the bellcrank has been repaired as required by paragraphs (g)(1)(i) or (g)(2)(ii)(A) of this AD: Within 100 hours TIS after the repair, and thereafter at intervals not to exceed 100 hours TIS, inspect the lower surface of the spherical bearing to determine if it has moved, in accordance with the Accomplishment Instructions, Part III, step 7., of BASB 429-19-50, Revision B. If the spherical bearing has moved (is loose): Before further flight, inspect the bore in the bellcrank assembly to determine if the diameter exceeds 0.6283 inch (15.9588 millimeters), in accordance with the Accomplishment Instructions, Part III, steps 8. through 11., of BASB 429-19-50, Revision B.

(1) If the diameter of the bore in the bellcrank assembly exceeds 0.6283 inch (15.9588 millimeters): Before further flight replace the bellcrank assembly.

(2) If the diameter of the bore in the bellcrank assembly does not exceed 0.6283 inch (15.9588 millimeters): Before further flight install a new spherical bearing in accordance with the Accomplishment Instructions, Part II, steps 4. through 12., of BASB 429-19-50, Revision B.

(i) Terminating Action

Replacement of a bellcrank assembly with a new part (never installed on a helicopter or has accumulated zero hours TIS) is terminating action for the requirements of this AD for that helicopter only.

(j) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using the service information identified in paragraph (j)(1) or (2) of this AD.

(1) Bell Alert Service Bulletin 429-19-50, dated November 27, 2019.

(2) Bell Alert Service Bulletin 429-19-50, Revision A, dated December 2, 2019.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Related Information

(1) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

(2) Bell Alert Service Bulletin 429-19-50, dated November 27, 2019; and Bell Alert Service Bulletin 429-19-50, Revision A, dated December 2, 2019; which are not incorporated by reference, contain additional information about the subject of this AD. This service information is available at the contact information specified in paragraphs (m)(3) and (4) of this AD.

(3) The subject of this AD is addressed in Transport Canada AD CF-2020-11, dated April 16, 2020. You may view the Transport Canada AD at https://www.regulations.gov in Docket No. FAA-2021-0575.

(m) 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 Alert Service Bulletin 429-19-50, Revision B, dated December 19, 2019.

(ii) [Reserved]

(3) For Bell Helicopter service information identified in this AD, contact Bell Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J 1R4, Canada; telephone 1-450-437-2862 or 1-800-363-8023; fax 1-450-433-0272; email productsupport@bellflight.com; or at https://www.bellflight.com/support/contact-support.

(4) 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.

(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, email: fr.inspection@nara.gov, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on September 16, 2021.

Ross Landes,

Deputy Director for Regulatory Operations, Compliance & Airworthiness Division, Aircraft Certification Service.

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