[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2025-1727; Project Identifier MCAI-2024-00750-R; Amendment 39-23209; AD 2025-25-01]

RIN 2120-AA64

Airworthiness Directives; Bell 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 (Bell) Model 427 helicopters. This AD was prompted by a report of a cracked transmission oil check valve (check valve). This AD requires inspecting and measuring certain check valves and, depending on the results, repetitively inspecting and removing the check valve from service if it has leaks or is cracked. This AD also prohibits installing the affected check valves on any helicopter. The FAA is issuing this AD to address the 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 [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at regulations.gov under Docket No.FAA-2025-1727; 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

mandatory continuing airworthiness information (MCAI), any comments received, and other information. The 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.

Material Incorporated by Reference:

• For Transport Canada material identified in this AD, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, Canada; phone: (888) 663-3639; email: TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; website: tc.canada.ca/en/aviation. You may find the Transport Canada material on the Transport Canada website at tc.canada.ca/en/aviation.

• You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Parkway, 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 regulations.gov under Docket No. FAA-2025-1727.

FOR FURTHER INFORMATION CONTACT: Michael Yeshiambel, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (316) 946-4133; email: michael.m.yeshiambel@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 Bell Model 427 helicopters, serial numbers 56001 through 56084 inclusive, 58001, and 58002. The NPRM was published in the *Federal Register* on August 5, 2025 (90 FR 37432). The NPRM was prompted by Transport Canada AD CF-2024-42 dated December 13, 2024 (Transport Canada AD CF-2024-42) (also referred to as the MCAI), issued by Transport Canada, which is the

aviation authority for Canada. The MCAI states that there has been a report of a cracked check valve, part number (P/N) 209-062-520-001, manufactured in 2009 by Circor Aerospace (Circle Seal), and that the crack was caused by applying an incorrect torque value to the threaded fitting at the inlet end of the check valve during assembly.

Additionally, the MCAI states that this condition may be indicated by an enlarged outside diameter measurement at the inlet end of the check valve housing where the threaded fitting is installed or by the presence of a leak, and that this check valve is used in the transmission lubrication system of the helicopter.

In the NPRM, the FAA proposed to require inspecting and measuring certain check valves and, depending on the results, repetitively inspecting and removing the check valve from service if it has leaks or is cracked. In the NPRM, the FAA also proposed to prohibit installing the affected check valves on any helicopter. The FAA is issuing this AD to detect and address cracked or leaking check valves. The unsafe condition, if not addressed, could result in the degradation or loss of lubrication to the transmission, failure of the transmission, and consequent loss of control of the helicopter.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2025-1727.

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These products have been approved by the civil aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, that authority has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered any comments 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 products. 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.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed Transport Canada AD CF-2024-42, which specifies procedures for measuring the outside diameter of the affected part housing at the center and at the inlet end where the threaded fitting is installed. If the dimension measured at the inlet end is not greater than 0.003 inch (0.0762 mm) compared to the measurement at the center, Transport Canada AD CF-2024-42 specifies no further action, and if the dimension is greater than 0.003 inch (0.0762 mm) compared to the measurement at the center, Transport Canada AD CF-2024-42 specifies a repetitive visual inspection of the check valve for general condition and oil leaks and the inlet end for cracks. If a crack or leak is found, Transport Canada AD CF-2024-42 specifies replacing the valve with a new valve, which constitutes a terminating action for the repetitive inspections. Finally, Transport Canada AD CF-2024-42 prohibits installing the affected check valve on any helicopter.

This material 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.

Differences Between this AD and the MCAI

The MCAI uses the term new, whereas this AD uses the term new (zero hours time-in-service).

Costs of Compliance

The FAA estimates that this AD affects 14 helicopters of U.S. registry.

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
Perform measurements	0.50 work-hour x $85 per hour = $42.50	$85	$127.50	$1,785

The FAA estimates the following costs to do any additional inspections or replacements that would be required based on the results of the measurement. The agency has no data to determine the number of helicopters that might need these additional actions:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
Perform repetitive inspections	1 work-hour x $85 per hour = $85	$0	$85
Replace the check valve	1 work-hour x $85 per hour = $85	$796	$881

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

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:

2025-25-01 Bell Textron Canada Limited Helicopters: Amendment 39-23209; Docket No. FAA-2025-1727; Project Identifier MCAI-2024-00750-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bell Textron Canada Limited Model 427 helicopters, serial

numbers 56001 through 56084 inclusive, 58001, and 58002, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code: 6300, Main Rotor Drive System.

(e) Unsafe Condition

This AD was prompted by a report of a cracked transmission oil check valve (check valve). The FAA is issuing this AD to detect and address cracked or leaking check valves. The unsafe condition, if not addressed, could result in the degradation or loss of lubrication to the transmission, failure of the transmission, and consequent loss of control of the helicopter.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada AD CF-2024-42, dated December 13, 2024 (Transport Canada AD CF-2024-42).

(h) Exceptions to Transport Canada AD CF-2024-42

(1) Where Transport Canada AD CF-2024-42 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where Transport Canada AD CF-2024-42 refers to air time, this AD requires using hours time-in-service.

(3) Where Parts I and II of Transport Canada AD CF-2024-42 state “new,” this AD requires replacing each instance of that text with “new (zero hours time-in-service)”.

(i) 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 (j) of this AD and email to: 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.

(j) Additional Information

For more information about this AD, contact Michael Yeshiambel, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (316) 946-4133; email: michael.m.yeshiambel@faa.gov.

(k) Material Incorporated by Reference

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

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

(i) Transport Canada AD CF-2024-42, dated December 13, 2024.

(ii) [Reserved]

(3) For Transport Canada material identified in this AD, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, Canada; phone: (888) 663-3639; email: TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; website: tc.canada.ca/en/aviation. You may find the Transport Canada material on the Transport Canada website at tc.canada.ca/en/aviation.

(4) You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Parkway, 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 material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on December 3, 2025.

Steven W. Thompson,
Acting Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.
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