[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0286; Project Identifier AD-2021-01081-R; Amendment 39-22223; AD 2022-22-08]

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 Bell Textron Canada Limited (type certificate previously held by Bell Helicopter Textron Canada Limited) Model 206L, 206L-1, 206L-3, and 206L-4 helicopters with a certain part-numbered main rotor (M/R) blade installed under Supplemental Type Certificate (STC) SR02684LA. This AD was prompted by delamination of M/R blades. This AD requires a repetitive inspection for delamination, and depending on the results, removing the M/R blade from service and reporting certain information. 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: For service information identified in this final rule, contact Dean Rosenlof, Van Horn Aviation, LLC, 1510 West Drake Drive, Tempe, AZ, 85283, United States; phone: (480) 483-4202; email: dean@vanhornaviation.com. 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. It is also available at regulations.gov by searching for and locating Docket No. FAA-2022-0286.

Examining the AD Docket

You may examine the AD docket at regulations.gov by searching for and locating Docket No. FAA-2022-0286; 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, 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.

FOR FURTHER INFORMATION CONTACT: Payman Soltani, Aerospace Engineer, Airframe Section, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone (562) 627-5313; email payman.soltani@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 Textron Canada Limited Model 206L, 206L-1, 206L-3, and 206L-4 helicopters with a certain part-numbered M/R blade installed under STC SR02684LA. The NPRM published in the *Federal Register* on March 24, 2022 (87 FR 16652). The NPRM was prompted by testing by Van Horn Aviation, LLC (Van Horn), which revealed the potential for delamination in M/R blade part number (P/N) 20633000-101. Delaminations were then confirmed by inspection of in-service M/R blades. Testing by Van Horn confirmed that the 90° plies fail in spanwise tension (normal to the fiber direction) at the inboard end of the weight receptacle near M/R blade station 186.0. Delamination then propagates outboard from M/R blade station 186.0 at the interface between the 0° and 90° plies. According to Van Horn, fatigue testing has shown that the delamination initiates almost immediately and progresses slowly in a stable, predictable manner. The delamination has been found to develop first on the lower surface and grow outboard from the inboard end of the weight receptacle

and forward of the balance weight pocket. After approximately 4 to 6 inches growth of the delamination on the lower surface, a similar delamination becomes detectable on the M/R blade upper surface. Should the delaminations continue to grow to the point of static overload, the receptacle could depart the M/R blade. In the NPRM, the FAA proposed to require, at specified intervals, removing the affected M/R blade, drawing rectangular inspection areas "Zone 1" and "Zone 2" with a permanent marker, tap inspecting the inspection areas for delamination, marking and measuring the length of any delamination, and depending on the results, removing the M/R blade from service. The NPRM also proposed to require reporting certain information to Van Horn. The FAA is issuing this AD to address the unsafe condition on these products.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from one commenter, Van Horn. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request for Changes to the Measurements of Inspection Areas

Van Horn stated that the M/R blade stations indicated for inspections are incorrect in the proposed AD and requested the FAA revise the required actions to change the M/R blade stations for "Zone 1" and "Zone 2." However, the measurements Van Horn included in the comment in the AD docket to correct the M/R blade stations for "Zone 1" and "Zone 2" were also incorrect. Van Horn then contacted the FAA to correct these measurements; a record of this ex parte contact is included in the AD docket. For information on locating the docket, see "Examining the AD Docket." According to Van Horn's revised comments, "Zone 1" described in the NPRM as M/R blade stations 186.0 and 191.0, beginning 1.1 inches from the leading edge of the M/R blade to 4.9 inches from the leading edge of the M/R blade should be revised to M/R blade stations 185.75 and 192.75, or measured from the tip end of the M/R blade between 36.25 inches and 29.25 inches beginning 1.2 inches from the leading edge of the M/R blade to 5.0 inches from the leading edge of the M/R blade. "Zone 2" described in the NPRM as M/R blade stations 186.0 and 191.0 should be revised to M/R blade stations 185.9 and 192.9, or measured from the tip end of the M/R blade between 36.1 inches and 29.1 inches.

The FAA agrees and has revised this AD accordingly.

Request for a Change to the Service Bulletin Cited in Note 1

Van Horn proposed that Note 1 to paragraph (g)(2)(i) cite Van Horn Service Bulletin Notice No. 33000-4R4, dated March 31, 2022 (SB33000-4R4) rather than Van Horn Service Bulletin Notice No. 33000-4R3, dated November 8, 2021 (SB 33000-4R3).

The FAA partially agrees. The FAA appreciates that the latest revision of that service bulletin is SB33000-4R4; however, the portions of that service bulletin that are specified in the proposed AD are identical in SB33000-4R3 and SB33000-4R4. Accordingly, the FAA has made updates throughout the Required Actions paragraph to allow both SB33000-4R3 and SB33000-4R4 in this final rule.

Request for a Reference to Additional Service Information in Note 1

Van Horn proposed edits in Note 1 to paragraph (g)(2)(i) to refer to the Van Horn Instructions for Continued Airworthiness, ICA Manual No. VMM-MR-206L-501, Revision N/C, dated May 24, 2018, for a blade configuration drawing.

The FAA disagrees because it does not provide information that could be helpful for operators to comply with this AD.

Request for Additional Tap Hammer Tool

Van Horn also requested the FAA revise the list of tap hammers in paragraph (g)(2)(iii) of the proposed AD to add Van Horn Aviation Tap Hammer P/N VHACS0003 to the list of tap hammers.

The FAA agrees and has revised this AD as requested.

Conclusion

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, and any other changes described previously, 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 SB 33000-4R3 and SB 33000-4R4. This service information specifies procedures to identify "Zone 1" and "Zone 2" inspection areas, accomplish repetitive visual and tap inspections of the zones to detect and monitor the growth of any delamination, and depending on the results, remove the M/R blade from service and contact Van Horn. SB 33000-4R3 applies to M/R blade P/N 20633000-101 serial numbers A012 through A104. SB 33000-4R4 expanded the applicability to include M/R blade P/N 20633000-101 with serial numbers A007, A008, and A009; these serial-numbered parts were included in the NPRM's applicability.

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.

Differences Between This AD and the Service Information

This AD requires using certain part-numbered composite tap hammers, whereas SB 33000-4R3 and SB 33000-4R4 do not. SB 33000-4R3 and SB 33000-4R4 specify procedures to visually inspect the M/R blade, whereas this AD does not. If there is any delamination in the upper surface inspection zone ("Zone 1"), this AD requires removing the M/R blade from service, whereas SB 33000-4R3 and SB 33000-4R4 do not specify procedures for this condition.

Interim Action

The FAA considers this AD to be an interim action. The inspection reports that are required by this AD will enable the FAA to obtain better insight into the unsafe condition. If final action is later identified, the FAA might consider further rulemaking.

Costs of Compliance

The FAA estimates that this AD will affect 23 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.

Removing, tap inspecting, and re-installing an M/R blade will take about 4.5 work-hours for an estimated cost of $383 per M/R blade, per inspection cycle and up to $8,809 for the U.S. fleet per M/R blade, per inspection cycle. Replacing an M/R blade

will take about 4 work-hours and parts will cost about $71,500 per M/R blade for a total of $71,840 per M/R blade. Reporting information to Van Horn will take about 1 work-hour for an estimated cost of $85 per report.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to take approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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:

2022-22-08 Bell Textron Canada Limited (Type Certificate Previously Held by Bell Helicopter Textron Canada Limited): Amendment 39-22223; Docket No. FAA-2022-0286; Project Identifier AD-2021-01081-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 (type certificate previously held

by Bell Helicopter Textron Canada Limited) Model 206L, 206L-1, 206L-3, and 206L-4 helicopters, certificated in any category, with main rotor (M/R) blade part number (P/N) 20633000-101 with serial number A007, A008, A009, or A012 through A104 inclusive, installed under Supplemental Type Certificate SR02684LA.

(d) Subject

Joint Aircraft System Component (JASC) Code: 6210, Main Rotor Blades.

(e) Unsafe Condition

This AD was prompted by reports of delamination of M/R blades. The FAA is issuing this AD to address delamination of an M/R blade initiating in the 90° plies at the lower inboard end of the weight pocket receptacle. The unsafe condition, if not addressed, could result in reduced structural integrity of the M/R blade, excessive vibration, and subsequent loss of control of the helicopter.

(f) Compliance

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

(g) Required Actions

(1) Accomplish the actions required by paragraph (g)(2) of this AD at the following compliance time, whichever occurs later:

(i) Before the M/R blade accumulates 400 total hours time-in-service (TIS) or 2,400 engine starts since initial installation on any helicopter, whichever occurs first; or

(ii) Within 100 hours TIS after the effective date of this AD.

(2) Remove each M/R blade from the helicopter, place it on a flat, stable surface, and accomplish the following:

(i) Use a permanent marker to draw rectangular inspection “Zone 1” on the upper surface of the M/R blade at M/R blade stations 185.75 and 192.75, or measured from the tip end of the M/R blade between 36.25 inches and 29.25 inches, beginning 1.2 inches from the leading edge of the M/R blade to 5.0 inches from the leading edge of the M/R blade. Draw lines from the inboard end to the outboard end to connect each end at 1.2 inches and 5.0 inches. Draw parallel lines from the inboard end of the inspection zone to the outboard end of the inspection zone, with the lines spaced 0.50 inch apart.

Note 1 to paragraph (g)(2)(i): This note applies to paragraphs (g)(2)(i) and (ii) of

this AD. Figure 4 of Van Horn Aviation, LLC, Service Bulletin Notice No. 33000-4R3, dated November 8, 2021 (SB 33000-4R3), and Van Horn Aviation, LLC, Service Bulletin Notice No. 33000-4R4, dated March 31, 2022 (SB 33000-4R4) depict "Zone 1" and "Zone 2."

(ii) Use a permanent marker to draw rectangular inspection "Zone 2" on the lower surface of the M/R blade at M/R blade stations 185.9 and 192.9, or measured from the tip end of the M/R blade between 36.1inches and 29.1 inches, beginning from the forward edge of the weight receptacle pocket and extending 1 inch in the direction towards the leading edge of the M/R blade. Draw lines from the inboard end to the outboard end to connect each end at the weight receptacle pocket and 1 inch forward of the weight receptacle pocket. Draw parallel lines from the inboard end of the inspection zone to the outboard end of the inspection zone, with the lines spaced 0.50 inch apart.

(iii) Using composite tap hammer Abaris Training Tap Hammer P/N ABATH, HeatCon Tap Hammer P/N HCS1104-01, Brown Tool Composite Tap Hammer P/N BAT-CTH8, MATCO Tools Composite Tap Hammer P/N T4BAT-CTH8, or Van Horn Aviation Tap Hammer P/N VHACS0003, tap inspect the areas within "Zone 1" and "Zone 2" for any delamination by following Tap Inspect Balance Receptacle, paragraph A.(4) of SB 33000-4R3 or SB 33000-4R4. Where SB 33000-4R3 and SB 33000-4R4 specify to mark the location where the delamination starts, use a permanent marker.

(iv) If there are any marks where the delamination starts, connect the marks indicating the delamination location and measure the length at the farthest point from the inboard end of the inspection area.

(v) If there is any delamination in the lower surface inspection zone ("Zone 2") that is 6.0 or more inches in length or if there is any delamination in the upper surface inspection zone ("Zone 1"), before further flight, remove the M/R blade from service.

(3) Thereafter repeat the actions required by paragraph (g)(2) of this AD at intervals not to exceed 400 hours TIS or 2,400 engine starts, whichever occurs first.

(4) If there is any delamination, within 30 days after accomplishing the actions required by paragraphs (g)(1) or (3) of this AD, report each delamination size and location, and the total hours TIS and total engine starts since initial installation of the

M/R blade, to Mr. Dean Rosenlof, Van Horn Aviation, LLC, 1510 West Drake Drive, Tempe, AZ 85283, or by email to info@vanhornaviation.com.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO 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 certification office, send it to the attention of the person identified in paragraph (i) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-REQUESTS@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.

(i) Related Information

For more information about this AD, contact Payman Soltani, Aerospace Engineer, Airframe Section, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone (562) 627-5313; email payman.soltani@faa.gov.

(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.

(i) Van Horn Aviation, LLC, Service Bulletin Notice No. 33000-4R3, dated November 8, 2021.

(ii) Van Horn Aviation, LLC, Service Bulletin Notice No. 33000-4R4, dated March 31, 2022.

(3) For Van Horn Aviation, LLC, service information identified in this AD, contact Dean Rosenlof, Van Horn Aviation, LLC, 1510 West Drake Drive, Tempe, AZ, 85283, United States; phone: (480) 483-4202; email: dean@vanhornaviation.com.

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

Issued on October 21, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
[FR Doc. 2022-25030 Filed: 11/17/2022 8:45 am; Publication Date: 11/18/2022]