DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0866; Product Identifier 2018-SW-083-AD; Amendment 39-21145; AD 2020-12-10]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Inc. (Type Certificate Previously Held by Bell Helicopter Textron Inc.) Helicopters.

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2011-12-08 for Bell Helicopter Textron Inc. (Bell), Model 205A, 205A-1, 205B, 212, 412, 412CF, and 412EP helicopters. AD 2011-12-08 required a one-time inspection of the tail rotor (T/R) blade for corrosion and pitting. This new AD retains the requirements of AD 2011-12-08 while excluding certain T/R blades from the applicability. This AD was prompted by new manufacturing and inspection procedures implemented by Bell that correct the unsafe condition on more recently manufactured T/R blades. 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 certain publications listed in this AD as of July 5, 2011 (76 FR 35334, June 17, 2011).
**ADDRESSES:** For service information identified in this final rule, contact Bell Textron Inc., P.O. Box 482, Fort Worth, TX 76101; telephone 817-280-3391; fax 817-280-6466; 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-2018-0866.

**Examining the AD Docket**

You may examine the AD docket on the Internet at https://www.regulations.gov in Docket No. FAA-2018-0866; 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, any service information that is incorporated by reference, any comments received, and other information. The street address for Docket Operations is Docket Operations, U.S. Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Kuethe Harmon, Safety Management Program Manager, DSCO Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5198; email kuethe.harmon@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to remove AD 2011-12-08, Amendment 39-16715 (76 FR 35334, June 17, 2011) ("AD 2011-12-08") and add a new AD. AD 2011-12-08 applied to Bell Model 205A, 205A-1, 205B, 212, 412, 412CF, and 412EP helicopters with a T/R blade, part number 212-010-750 (all dash numbers), all serial numbers (S/Ns) except those with a prefix of
“A” and the number 17061 or larger, and required a one-time inspection of the T/R blade for corrosion and pitting. The NPRM published in the Federal Register on April 11, 2019 (84 FR 14626). The NPRM proposed to retain the requirements of AD 2011-12-08 but remove blades with an S/N prefix of “BH” from the applicability. The proposed actions were intended to correct the unsafe conditions on these products.

Since the FAA issued the NPRM, Bell Helicopter Textron Inc., has changed its name to Bell Textron Inc. This final rule reflects that change and updates the contact information to obtain service documentation.

Comments

After the NPRM was published, the FAA received comments from five commenters, four from individuals and one from the European Union Aviation Safety Agency (EASA). The following presents the comments received on the NPRM and the FAA’s response to each comment.

Support for the NPRM

Two individual commenters supported the NPRM.

Comments Requesting More Information

EASA and an individual commenter requested that the FAA provide more information about the unsafe condition and the related service information.

Request: One individual requested details regarding the manufacturing anomalies due to the chemical milling process, how the process affected the manufacturing of other parts, and what manufacturing changes have been made to ensure future problems do not continue.
FAA Response: The FAA agrees to provide additional information. AD 2011-12-08 was issued in 2011 to address manufacturing anomalies in the chemical milling process. Chem-milled steps are applied to all tail rotor metal blade spars. Pits in the spars were found along the step of straight chem-mill cuts. Gas bubbles were trapped on the step of the cut, and this created pits down the length of the step in the radius. To address this, Bell advised its supplier to better agitate the tanks, change the wetting agent, or use vertical racking instead of horizontal. In addition to corrective actions taken by the chem-mill supplier, Bell added inspections for chem-mill defects upon receipt of the spars. No problems have recurred since the AD 2011-12-08 was issued. This superseding AD does not change any of the corrective actions from AD 2011-12-08. This superseding AD only excludes a newly manufactured part that is not subject to the unsafe condition identified in AD 2011-12-08.

Request: EASA requested the FAA make the Bell service bulletins referenced in the NPRM available for review in the AD docket. EASA also asked whether Bell will revise its service bulletins to exclude blades with the prefix “BH.”

FAA Response: Because the Bell service bulletins requested by EASA were incorporated by reference in AD 2011-12-08, they are available on the Internet at https://www.regulations.gov in AD Docket No. FAA-2011-0561. In addition, they will be available in the AD docket for this new AD, Docket No. FAA-2018-0866. The FAA is unaware of whether Bell will revise its service bulletins.
Request for the FAA to Inspect the T/R Blades

One commenter disagreed with the FAA’s proposal to supersede the AD by removing T/R blades with an S/N with a prefix of “BH” from the applicability. The commenter stated that these blades should still be inspected by the FAA.

**FAA Response:** The FAA has determined that the unsafe condition addressed by this AD does not apply to T/R blades with an S/N with a prefix of “BH”. Therefore, those blades have been removed from the applicability. In addition, neither AD 2011-12-08 nor this superseding AD require operators to have the T/R blades inspected by the FAA. Instead, the T/R blades must be inspected using standard requirements under 14 CFR parts 43 and 145.

**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 these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

**Related Service Information Under 1 CFR part 51**

The FAA has reviewed the following Bell Alert Service Bulletins, all Revision A, and all dated December 8, 2009, which specify a one-time inspection of the T/R blades for corrosion or pitting, and repairing or replacing the T/R blade if corrosion, pitting, or other damage is discovered:

- Alert Service Bulletin (ASB) No. 205-09-102, for Model 205A and 205A-1 helicopters;
• ASB No. 205B-09-54, for Model 205B helicopters;

• ASB No. 212-09-134, for Model 212 helicopters;

• ASB No. 412-09-136, for Model 412 and 412EP helicopters; and

• ASB No. 412CF-09-38, for Model 412CF helicopters.

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 384 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 a T/R blade takes about 10 work-hours and no parts for an estimated cost of $850 per helicopter and $326,400 for the U.S. fleet.

Repairing a T/R blade takes about 10 work-hours and parts cost $750 for an estimated replacement cost of $1,600 per blade.

Replacing a T/R blade takes about 10 work-hours and parts cost $28,120 for an estimated replacement cost of $28,970 per blade.

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 removing Airworthiness Directive (AD) 2011-12-08, Amendment 39-16715 (76 FR 35334, June 17, 2011), and adding the following new AD:

2020-12-10 Bell Textron Inc. (Type Certificate Previously Held by Bell Helicopter Textron Inc.): Amendment 39-21145; Docket No. FAA-2018-0866; Product Identifier 2018-SW-083-AD.

(a) Applicability

This AD applies to Bell Textron Inc. (Type Certificate previously held by Bell Helicopter Textron Inc.) Model 205A, 205A-1, 205B, 212, 412, 412CF, and 412EP helicopters, certificated in any category, with a tail rotor (T/R) blade part number 212-010-750 (all dash numbers) installed, all serial numbers (S/Ns) except:

(1) S/Ns with a prefix of “BH”; or

(2) S/Ns with a prefix of “A” and a number 17061 or larger.

(b) Unsafe Condition

This AD defines the unsafe condition as a pit or corrosion in the forward spar of a T/R blade. This condition could result in a crack in the T/R blade, loss of the T/R blade, and subsequent loss of control of the helicopter.
(c) **Affected ADs**

This AD replaces AD 2011-12-08, Amendment 39-16715 (76 FR 35334, June 17, 2011) (“AD 2011-12-08”).

(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) Within 25 hours time-in-service or 30 days, whichever occurs first:

(i) Remove the T/R hub and blade assembly from the helicopter and remove the T/R blade from the hub. Remove the paint from the spar area on both sides of the T/R blade by following the Accomplishment Instructions, paragraphs 3. through 5., of the following Bell Helicopter Textron, Inc. Alert Service Bulletins, all Revision A, and all dated December 8, 2009: Alert Service Bulletin (ASB) No. 205-09-102 for the Model 205A and 205A-1 helicopters; ASB No. 205B-09-54 for the Model 205B helicopters; ASB No. 212-09-134 for the Model 212 helicopters; ASB No. 412CF-09-38 for the Model 412CF helicopters; and ASB No. 412-09-136 for the Model 412 and 412EP helicopters.

(ii) Using a 3-power or higher magnifying glass, visually inspect both sides of the T/R blade for any corrosion or pitting in the spar inspection areas as depicted in Figure 1 of the ASB for your model helicopter.
(2) Before further flight:

(i) If you find any corrosion or pitting that is 0.003 inch deep or less, either replace the T/R blade with an airworthy T/R blade or repair the T/R blade.

(ii) If you find any corrosion or pitting that is greater than 0.003 inch deep, replace the T/R blade with an airworthy T/R blade.

(iii) If any parent material is removed during the sanding operation required by paragraph (f)(1)(i) of this AD, either replace the T/R blade with an airworthy T/R blade, or repair the T/R blade if the parent material removed is within the maximum repair damage limits.

(iv) If there is no corrosion or pitting and no damage greater than 0.003 inch deep, refinish the inspection areas and reinstall each T/R blade onto the T/R hub, install the T/R assembly on the helicopter and track and balance the T/R in accordance with the Accomplishment Instructions, paragraphs 8. through 10., of the ASB for your model helicopter.

(g) Credit for Previous Actions

Actions accomplished before the effective date of this AD in accordance with AD 2011-12-08 are acceptable for compliance with the corresponding actions specified in paragraph (f) of this AD.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, DSCO, FAA, may approve AMOCs for this AD. Send your proposal to: Kuethe Harmon, Safety Management Program Manager, DSCO Branch, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone 817-222-5198; email 9-ASW-190-COS@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.

(i) **Subject**

Joint Aircraft Service Component (JASC) Code: 6410, Tail Rotor Blades.

(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 July 5, 2011 (76 FR 35334, June 17, 2011).


   (ii) Bell Helicopter Textron, Inc. ASB No. 205B-09-54, Revision A, dated December 8, 2009.

   (iii) Bell Helicopter Textron, Inc. ASB No. 212-09-134, Revision A, dated December 8, 2009.

   (iv) Bell Helicopter Textron, Inc. ASB No. 412CF-09-38, Revision A, dated December 8, 2009.

(4) For Bell Helicopter service information identified in this AD, contact Bell Textron, Inc., P.O. Box 482, Fort Worth, TX 76101; telephone 817-280-3391; fax 817-280-6466; or at https://www.bellcustomer.com.

(5) 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.

(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 June 5, 2020.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

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