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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0610; Project Identifier AD-2021-00126-R; Amendment 39-21868; AD 2021-26-09]

RIN 2120-AA64

Airworthiness Directives; Brantly Helicopters Industries U.S.A. Co., Ltd., and Brantly International, Inc., Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Brantly Helicopters Industries U.S.A. Co., Ltd., Model 305 helicopters and Brantly International, Inc., Model B-2, B-2A, and B-2B helicopters. This AD was prompted by a report of a crack in the tail rotor (T/R) hub. This AD requires repetitive inspections of the T/R hub and depending on the results, removing the T/R hub from service. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective January 19, 2022.

ADDRESSES: For service information identified in this final rule, contact Brantly International, Inc., Bill Ross, 621 S Royal Lane, Suite 100, Coppell, TX 75019, United States; phone: (972) 829-4699; email: bross@superiorairparts.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.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0610; 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 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: Marc Belhumeur, Senior Project Engineer, Certification Section, Fort Worth ACO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5177; email 9-ASW-FWACO@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 Brantly Helicopters Industries U.S.A. Co., Ltd., Model 305 helicopters and Brantly International, Inc., Model B-2, B-2A, and B-2B helicopters. The NPRM published in the Federal Register on July 30, 2021 (86 FR 40967). The NPRM was prompted by a report of a crack in T/R hub part number (P/N) 2951. In the NPRM, the FAA proposed to require repetitively cleaning, and using a 10X or higher power magnifying glass, inspecting the areas where each T/R blade attaching arm extends from the T/R hub for a crack, corrosion, and pitting, and depending on the results, removing the T/R hub from service. This NPRM also proposed to require repetitively cleaning and dye penetrant inspecting the radius at the shoulder of each T/R hub spindle for a crack and pitting, and depending on the results, removing the T/R hub from service.

This condition, if not addressed, could result in loss of T/R control and subsequent loss of control of the helicopter. 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 individual. The commenter supports the proposal but recommended the FAA acquire sufficient data regarding the unsafe condition and investigate to determine if this unsafe condition exists on the T/R hub of other helicopters. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request Regarding the FAA's Justification of the Unsafe Condition

The individual recommended that prior to implementing the proposed rule, the FAA ensure adequate data has been acquired and proceed if the frequency of incident is proven to be material.

Prior to issuing the NPRM, the FAA reviewed the report and associated data for a crack in the T/R hub. In accordance with FAA Order 8110.107A Monitor Safety/Analyze Data, the FAA has determined that an unsafe condition exists that supports AD action.

Request Pertaining to Other Model Helicopters

The individual stated that the FAA should investigate whether issues exist in the T/R hub of other model helicopters.

No data has been provided to substantiate the individual's comment; however, available data for this unsafe condition is limited to T/R hub P/N 161-1 and 2951, which are only approved for installation on Brantly Helicopters Industries U.S.A. Co., Ltd., Model 305 helicopters and Brantly International, Inc., Model B-2, B-2A, and B-2B helicopters.

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 a minor editorial change to paragraph (e) of this AD, this AD is adopted as proposed in the NPRM. This change will not increase the economic burden on any operator.

Related Service Information

The FAA reviewed Brantly Helicopter Service Letter No. 102, dated July 11, 1974 (SL 102). SL 102 specifies repetitively cleaning and inspecting the areas where each T/R blade attaching arm extends from the T/R hub for a crack. SL 102 also specifies repetitively cleaning and dye penetrant inspecting the radius at the shoulder of each T/R hub spindle for a crack. If there is a crack, SL 102 specifies replacing the part and reporting any cracks to Brantly Operators, Inc.

Differences Between This AD and the Service Information

SL 102 applies to all Brantly helicopters, whereas this AD applies to helicopters with T/R hub P/N 2591 or 161-1 installed. This AD requires using a 10X or higher power magnifying glass when inspecting the area where the T/R blade attaching arm extends from the T/R hub for a crack, corrosion, and pitting, whereas SL 102 does not specify using a magnifying glass and only specifies inspecting for a crack in that area. This AD requires dye penetrant inspecting the radius at the shoulder of each T/R spindle for a crack and pitting, whereas SL 102 only specifies dye penetrant inspecting for a crack in those areas. SL102 specifies reporting any cracks to Brantly Operators, Inc., whereas this AD does not require reporting any information.

Costs of Compliance

The FAA estimates that this AD affects 57 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this AD.

Cleaning and inspecting the T/R hub with a magnifying glass takes about 1 work-hour for an estimated cost of \$85 per helicopter and \$4,845 for the U.S. fleet, per inspection cycle. Cleaning and dye penetrant inspecting the T/R hub takes about 2 work-hours for an estimated cost of \$170 per helicopter and \$9,690 for the U.S. fleet, per inspection cycle. If required, replacing a T/R hub takes about 0.5 work-hour and parts cost about \$500 for an estimated cost of \$543 per replacement.

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:



2021-26-09 Brantly Helicopters Industries U.S.A. Co., Ltd., and Brantly International, Inc.:
Amendment 39-21868; Docket No. FAA-2021-0610; Project Identifier AD-2021-00126-R.

(a) Effective Date

This airworthiness directive (AD) is effective January 19, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Brantly Helicopters Industries U.S.A. Co., Ltd., Model 305 helicopters and Brantly International, Inc., Model B-2, B-2A, and B-2B helicopters, certificated in any category, with a tail rotor (T/R) hub part number 161-1 or 2951, installed.

(d) Subject

Joint Aircraft System Component (JASC) Code 6420, Tail Rotor Head.

(e) Unsafe Condition

This AD was prompted by a report of a crack in the T/R hub. The FAA is issuing this AD to address cracking of the T/R hub. The unsafe condition, if not addressed, could result in loss of T/R control 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

Within 100 hours time-in-service (TIS) or at the next annual inspection after the effective date of this AD, whichever occurs first, and thereafter at intervals not to exceed 100 hours TIS and at each annual inspection:

- (1) Clean, and using a 10X or higher power magnifying glass, inspect the areas where each T/R blade attaching arm extends from the T/R hub for a crack, corrosion, and pitting. If there is a crack, corrosion, or pitting, before further flight, remove the T/R hub from service.
- (2) Clean and dye penetrant inspect the radius at the shoulder of each T/R hub spindle for a crack and pitting. If there is a crack or pitting, before further flight, remove the T/R hub from service.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Fort Worth 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.

(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 Marc Belhumeur, Senior Project Engineer, Certification Section, Fort Worth ACO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5177; email 9-ASW-FWACO@faa.gov.

(j) Material Incorporated by Reference

None.

Issued on December 9, 2021.

Lance T. Gant,
Director, Compliance & Airworthiness Division, Aircraft Certification Service.
[FR Doc. 2021-27052 Filed 12-14-21; 8:45 am]