



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0652; Product Identifier 2019-SW-066-AD; Amendment 39-21322; AD 2020-23-06]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Airbus Helicopters Model AS332C, AS332C1, AS332L, and AS332L1 helicopters. This AD requires inspecting the main rotor (M/R) hub assembly (hub) phonic wheel lock washer (lock washer) for correct installation and depending on the outcome, repairing or replacing the M/R hub. This AD was prompted by reported occurrences of M/R revolutions per minute (“NR”) sensor fluctuations. 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 a certain document 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 Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone 972-641-0000 or 800-232-0323; fax 972-641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>. 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.

It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0652.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0652; 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, the European Union Aviation Safety Agency (EASA) AD, any service information that is incorporated by reference, 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: Matt Fuller, AD Program Manager, Operational Safety Branch, Airworthiness Products Section, General Aviation & Rotorcraft Unit, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email matthew.fuller@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Airbus Helicopters Model AS332C, AS332C1, AS332L, and AS332L1 helicopters with an M/R hub part number (P/N) 332A31-0001-00, 332A31-0001-01, 332A31-0001-02, 332A31-0001-03, 332A31-0001-04, 332A31-0001-05, or 332A31-0001-06 installed. The NPRM published in the *Federal Register* on July 16, 2020 (85 FR 43160). The NPRM proposed to require removing at least one M/R “NR” sensor and borescope inspecting the phonic wheel lock washer for correct height of the lock washer. The NPRM also proposed to prohibit the installation of an affected M/R hub unless it has successfully passed the required inspection for correct lock washer installation. The proposed requirements were intended to prohibit the incorrect assembly of the M/R hub, which, if not corrected, could result in failure of the M/R hub components and subsequent loss of control of the helicopter.

The NPRM was prompted by EASA AD No. 2019-0172, dated July 18, 2019, issued by EASA, which is the Technical Agent for the Member States of the European Union. This EASA AD was issued to correct an unsafe condition for Airbus Helicopters Model AS 332 C, AS 332 C1, AS 332 L, and AS 332 L1 helicopters with an M/R hub P/N 332A31-0001-00, 332A31-0001-01, 332A31-0001-02, 332A31-0001-03, 332A31-0001-04, 332A31-0001-05, or 332A31-0001-06 installed. EASA advises of reported occurrences of “NR” sensor fluctuation and subsequent investigation identifying incorrect positioning of the M/R hub phonic wheel due to incorrect installation of the M/R mast nut press screws during maintenance of the M/R hubs. EASA advises that this condition, if not detected and corrected, could lead to failure of M/R hub components, possibly resulting in loss of helicopter control. Accordingly, the EASA AD requires a

one-time inspection of the lock washer position and depending on findings, replacing the M/R hub.

Comments

The FAA gave the public the opportunity to participate in developing this final rule, but the FAA did not receive any comments on the NPRM or on the determination of the cost to the public.

FAA's Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA of the unsafe condition described in its AD. The FAA is issuing this AD after evaluating all of the information provided by EASA and determining the unsafe condition exists and is likely to exist or develop on other helicopters of the same type designs and that air safety and the public interest require adopting these AD requirements as proposed.

Differences Between this AD and the EASA AD

The EASA AD requires using a flashlight and visually inspecting the position of the lock washer, and further specifies that using an endoscope can facilitate that inspection. This AD requires borescope inspecting for the correct height of the lock washer instead. After inspecting, the EASA AD requires reinstalling the removed "NR" sensor(s), while this AD requires installing airworthy "NR" sensor(s) instead. If the lock washer is in an incorrect position, the EASA AD requires replacing the M/R hub, whereas this AD requires repairing or replacing the M/R hub with an airworthy M/R hub instead.

Related Service Information Under 1 CFR part 51

Airbus Helicopters has issued Alert Service Bulletin No. AS332-62.00.76, Revision 0, dated May 27, 2019, which specifies inspecting the position of the M/R hub

lock washer for civilian Model AS332C, C1, L, and L1 and military Model AS332B, B1, F1, M, and M1 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 11 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.

Removing an “NR” sensor and borescope inspecting takes about 0.5 work-hour for an estimated cost of \$43 per helicopter and \$473 for the U.S. fleet.

Repairing the M/R hub takes about 10 work-hours and parts cost up to about \$3,000 for an estimated cost of up to \$3,850 and replacing the M/R hub takes about 8 work-hours and parts cost about \$50,000 for an estimated cost of \$50,680.

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.

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 adding the following new airworthiness directive:

2020-23-06 Airbus Helicopters: Amendment 39-21322; Docket No. FAA-2020-0652; Product Identifier 2019-SW-066-AD.

(a) Applicability

This airworthiness directive (AD) applies to Airbus Helicopters Model AS332C, AS332C1, AS332L, and AS332L1 helicopters, certificated in any category, with a main rotor (M/R) hub assembly (hub) part number (P/N) 332A31-0001-00, 332A31-0001-01,

332A31-0001-02, 332A31-0001-03, 332A31-0001-04, 332A31-0001-05, or 332A31-0001-06 installed.

(b) Unsafe Condition

This AD defines the unsafe condition as incorrect assembly of the M/R hub. This condition could result in failure of the M/R hub components and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(d) 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.

(e) Required Actions

(1) Within 55 hours time-in-service, remove at least one M/R revolutions per minute (“NR”) sensor and borescope inspect the phonic wheel lock washer (lock washer) for correct height of the lock washer (if the installation is correct, you can see the edge of the splines) through the hole of the removed “NR” sensor(s) as shown in Figure 1 to Airbus Helicopters Alert Service Bulletin No. AS332-62.00.76, Revision 0, dated May 27, 2019.

(i) If the height of the lock washer is correct, before further flight, install the “NR” sensor(s).

(ii) If the height of the lock washer is not correct, before further flight, install the “NR” sensor(s) and repair or replace the M/R hub in accordance with FAA-approved procedures.

(2) As of the effective date of this AD, do not install M/R hub P/N 332A31-0001-00, 332A31-0001-01, 332A31-0001-02, 332A31-0001-03, 332A31-0001-04, 332A31-0001-05, or 332A31-0001-06 on any helicopter unless the actions of paragraph (e)(1) of this AD have been accomplished.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, AD Program Manager, Operational Safety Branch, Airworthiness Products Section, General Aviation & Rotorcraft Unit, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email matthew.fuller@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.

(g) Additional Information

The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) No. 2019-0172, dated July 18, 2019. You may view the EASA AD on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0652.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6230, Main Rotor Mast/Swashplate.

(i) 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) Airbus Helicopters Alert Service Bulletin No. AS332-62.00.76, Revision 0, dated May 27, 2019.

(ii) [Reserved]

(3) For service information identified in this AD, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone 972-641-0000 or 800-232-0323; fax 972-641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>.

(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 fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on October 30, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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