[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0987; Project Identifier MCAI-2021-01416-R; Amendment 39-22298; AD 2023-01-04]

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 all Airbus Helicopters Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350D, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters. This AD was prompted by an occurrence reported where during an inspection of a tail rotor head (TRH) pitch change spider, excessive play and excessive wear were detected, due to an unwanted rotating motion. This AD requires for helicopters with certain part-numbered TRH spider pitch change units installed, inspecting for correct installation of the spider pitch change nut (nut); marking a 2 to 5 mm wide black paint index mark and repetitively inspecting the alignment of the marking; and additional inspections and corrective actions if necessary. This AD also allows an affected part to be installed on a helicopter if certain requirements of this AD are met. 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 certain publications 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-2022-0987; 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 European Union Aviation Safety Agency (EASA) AD, 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 Airbus Helicopters service information identified in this final rule, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at airbus.com/helicopters/services/technical-support.html.

• 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 under Docket No. FAA-2022-0987.

Other Related Service Information: Other related Airbus Helicopters service information identified in this final rule is available at the Airbus Helicopters and FAA contact information under *Material Incorporated by Reference* above.

FOR FURTHER INFORMATION CONTACT: Stephanie Sunderbruch, Aerospace Engineer, Safety Risk Management Section, Systems Policy Branch, Policy & Innovation Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-4659; email Stephanie.L.Sunderbruch@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 all Airbus Helicopters Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350D, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters. The NPRM published in the *Federal Register* on August 2, 2022 (87 FR 47141). The NPRM was prompted by EASA AD 2021-0282, dated December 17, 2021 (EASA AD 2021-0282), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe

condition for Airbus Helicopters, formerly Eurocopter and Aerospatiale, Model AS 350 B, AS 350 BA, AS 350 BB, AS 350 B1, AS 350 B2, AS 350 B3, AS 350 D, AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, AS 355 N, and AS 355 NP helicopters, all serial numbers. EASA advises that an occurrence was reported where, during an inspection of a TRH pitch change spider, excessive play in the assembly and excessive wear on its parts were detected, which was due to an unwanted rotating motion. EASA advises that this condition, if not addressed, could result in loss of the TRH pitch change control and loss of control of the helicopter.

Accordingly, EASA AD 2021-0282 requires a one-time check (inspection) of the nut for correct installation, accomplishing a black paint index marking, 2 to 5 mm wide, on the rotating spider and on the bearing spacer of the TRH spider pitch change unit, repetitive checks (inspections) of the marking alignment, and depending on the findings, accomplishment of additional inspections and corrective actions. The additional inspections include inspecting the TRH spider pitch change unit for corrosion; inspecting for rotation and wear on the faces of the bushes; visually inspecting the rotating plate and the rotating plate threads for damage; and inspecting the TRH spider pitch change unit if the mark is misaligned. The corrective actions include removing parts with corrosion from service; replacing bushes that rotate or have wear; and replacing damaged rotating plates. EASA AD 2021-0282 also specifies certain procedures for installation of the affected TRH spider pitch change unit.

In the NPRM, the FAA proposed to require, for helicopters with certain part-numbered TRH spider pitch change units installed, inspecting for correct installation of the nut and depending on the results, inspecting the TRH spider pitch change unit for corrosion, inspecting for rotation and wear on the faces of the bushes, inspecting the rotating plate and the rotating plate threads for damage, and removing specified parts from service and replacing them with airworthy parts. In the NPRM, the FAA also proposed to require for helicopters with certain part-numbered TRH spider pitch change units installed, marking a 2 to 5 mm wide black paint index mark to identify the position of certain parts and after the initial marking, and thereafter at intervals not to exceed 10 hours time in service (TIS), visually inspecting the alignment of the marking; and

additional inspections and corrective actions if necessary. Additionally, the NPRM proposed to allow an affected part to be installed on a helicopter if certain requirements of the NPRM are met.

You may examine EASA AD 2021-0282 in the AD docket at regulations.gov under Docket No. FAA-2022-0987.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from three commenters. The following presents the comments received on the NPRM and the FAA's response to each comment.

Comments Regarding the Repetitive Marking Alignment Inspections

All three individuals requested that the FAA revise the proposed AD to allow an owner/operator (pilot) to perform the 10 hour TIS repetitive inspection of the black index mark after the initial inspection and marking. Two of the individuals stated allowing a pilot with the correct training and accreditation to perform the repetitive 10 hour TIS visual inspection of the black index mark would be in line with the service information required by this AD.

The FAA disagrees. The inspection requires training, and the exception to the FAA's standard maintenance regulations for AD actions does not allow a pilot to accomplish actions, including inspections, that require training. Accordingly, those inspections must be accomplished by a mechanic that meets the requirements of 14 CFR part 65 subpart D.

Conclusion

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 reviewed the relevant data, considered the 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.

Related Service Information under 1 CFR Part 51

The FAA reviewed Airbus Helicopters Alert Service Bulletin (ASB) No. AS350-05.01.03, for Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, and AS350D helicopters and Airbus Helicopters ASB No. AS355-05.00.86, for Model AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters, both Revision 0 and dated December 16, 2021, which include Figure 1 that identifies the position of the TRH pitch change unit and of the bearing spacer to be marked with a 2 to 5 mm wide black paint index mark. The service information also specifies procedures for inspecting the condition and installation of the nut; and inspecting the application and alignment of the black index mark on the TRH pitch change unit and the bearing spacer.

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 ADDRESSES.

Other Related Service Information

The FAA also reviewed Airbus Helicopters Mechanical Repair Manual AS350 65-20-00-713, dated March 29, 2017, and Airbus Aircraft Maintenance Manual AS350 65-21-00, 4-9b, dated May 16, 2019, which specify disassembly and reassembly information for the TRH pitch change unit.

Differences Between this AD and the EASA AD

EASA AD 2021-0282 applies to Model AS350BB helicopters, whereas this AD does not because that model is not FAA-type certificated. EASA AD 2021-0282 requires accomplishing a certain inspection using a magnifying lens, whereas this AD requires using a 5X or higher power magnifying glass to inspect instead.

Costs of Compliance

The FAA estimates that this AD affects 976 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.

Inspecting the nut for correct installation takes about 0.25 work-hour for an estimated cost of $21 per helicopter and up to $20,307 for the U.S. fleet.

Inspecting the alignment of the marking takes about 0.10 work-hour for an estimated cost of $8.50 per helicopter per inspection and up to $8,219.50 for the U.S. fleet per inspection.

Marking the position of the TRH pitch change unit with black paint takes about 0.25 work-hour for an estimated cost of $21 per helicopter and $20,307 for the U.S. fleet.

If required, inspecting the TRH spider pitch change unit for corrosion, inspecting the faces of the bushes for rotation and wear, and inspecting the rotating plate and rotating plate threads for damage takes about 13 work-hours for an estimated cost of $1,105 per helicopter.

If required, replacing the bushes takes about 1 work-hour and parts cost about $5,918, for an estimated cost of $6,003 per replacement.

If required, replacing the rotating plate takes about 1 work-hour and parts cost about $27,375 for an estimated cost of $27,460 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:

2023-01-04 Airbus Helicopters: Amendment 39-22298; Docket No. FAA-2022-0987; Project Identifier MCAI-2021-01416-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 all Airbus Helicopters Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350D, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters, certificated in any category.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by an occurrence reported where, during an inspection of a tail rotor head (TRH) pitch change spider, excessive play and excessive wear were detected, due to an unwanted rotating motion. The FAA is issuing this AD to detect improper installation of the pitch change spider nut (nut) and improper alignment of a black index marking. The unsafe condition, if not addressed, could result in loss of the TRH pitch change control and loss of control of the helicopter.

(f) Compliance

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

(g) Required Actions

(1) For helicopters with TRH spider pitch change unit, part number (P/N) 350A33-2030-00, 350A33-2167-00, or 350A33-2167-01 installed, within 50 hours time-in-service (TIS) after the effective date of this AD:

(i) Inspect the nut for correct installation. If the nut is missing or loose, before further flight, remove the bearing from the TRH spider pitch change unit and do the following:

(A) Inspect the TRH spider pitch change unit for corrosion. If there is any corrosion, before further flight, remove the affected part from service and replace with an airworthy part.

(B) Inspect for rotation and wear on the faces of the bushes. For the purposes of this AD, indications of rotation and wear include tearing, peening, metal pick-up, and hammering. If there is any rotation or any wear on the faces of the bushes, before further flight, remove the bushes from service and replace with airworthy bushes.

(C) Using a 5X or higher power magnifying glass visually inspect the rotating plate and the rotating plate threads for damage. For the purposes of this AD, indications of damage include wear, deformation, stripping, galling, and corrosion. If there is any damage on the rotating plate or the rotating plate threads, before further flight, remove the rotating plate from service and replace with an airworthy rotating plate.

Note 1 to paragraph (g)(1)(i): Airbus Helicopters Mechanical Repair Manual (MRM) AS350 65-20-00-713, dated March 29, 2017, also known as Work Card 65-20-00-713 MRM, and Airbus Aircraft Maintenance Manual (AMM) AS350 65-21-00, 4-9b, dated May 16, 2019, also known as Task 65-21-00, 4-9 AMM, specify disassembly and reassembly information for the TRH pitch change unit.

(ii) Identify the position of the TRH pitch change unit (item a) and of bearing spacer (item b) by marking a 2 to 5 mm wide black paint index mark (item C) with black paint as depicted in Figure 1 of Airbus Helicopters Alert Service Bulletin (ASB) No. AS350-05.01.03, Revision 0, dated December 16, 2021 (ASB AS350-05.01.03), or Airbus Helicopters ASB No. AS355-05.00.86, Revision 0, dated December 16, 2021 (ASB AS355-05.00.86), as applicable to your model helicopter.

(iii) Within 10 hours TIS after the initial marking required by paragraph (g)(1)(ii) of this AD, and thereafter at intervals not to exceed 10 hours TIS, visually inspect the alignment of the marking. An example of a properly aligned marking is depicted in Figure 1 of ASB AS350-05.01.03 and ASB AS355-05.00.86, as applicable to your model helicopter. If the black paint index mark (item C) is misaligned, before further flight, inspect the TRH spider pitch change unit by accomplishing the actions required by paragraphs (g)(1)(i) and (ii) of this AD.

(2) As of the effective date of this AD, do not install TRH spider pitch change unit P/N 350A33-2030-00, 350A33-2167-00, or 350A33-2167-01 on any helicopter, unless you do the actions required by paragraphs (g)(1)(i) and (ii) of this AD before further flight after installation, and thereafter do the actions required by paragraph (g)(1)(iii) of this AD at the times specified in paragraph (g)(1)(iii) of this AD.

(h) 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 (i)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-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.

(i) Additional Information

(1) For more information about this AD, contact Stephanie Sunderbruch, Aerospace Engineer, Safety Risk Management Section, Systems Policy Branch, Policy & Innovation Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-4659; email Stephanie.L.Sunderbruch@faa.gov.

(2) Airbus Helicopters Mechanical Repair Manual AS350 65-20-00-713, dated March 29, 2017, and Airbus Aircraft Maintenance Manual AS350 65-21-00, 4-9b, dated May 16, 2019, which are not incorporated by reference, contain additional information about the subject of this AD. This service information is available at the contact information specified in paragraphs (j)(3) and (4) of this AD.

(3) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2021-0282, dated December 17, 2021. You may view the EASA AD on the internet at regulations.gov in Docket No. FAA-2022-0987.

(j) 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 (ASB) No. AS350-05.01.03, Revision 0, dated December 16, 2021.

(ii) Airbus Helicopters ASB No. AS355-05.00.86, Revision 0, dated December 16, 2021.

(3) For Airbus Helicopters service information identified in this AD, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972)

641-0000 or (800) 232-0323; fax (972) 641-3775; or

at airbus.com/helicopters/services/technical-support.html.

(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 January 5, 2023.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2023-01965 Filed: 1/31/2023 8:45 am; Publication Date: 2/1/2023]