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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-1123; Product Identifier 2017-SW-013-AD; Amendment 39-21176; AD 2020-15-13]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters Deutschland GmbH Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2017-02-07 for Airbus Helicopters Deutschland GmbH (Airbus Helicopters) Model MBB-BK 117 C-2 and Model MBB-BK 117 D-2 helicopters. AD 2017-02-07 required a repetitive inspection and a one-time torque of each hydraulic module plate assembly attachment point (attachment point). This new AD retains the initial inspection and torque requirements of AD 2017-02-07 and requires replacing the attachment point hardware. This AD was prompted by a terminating action has been developed to address the unsafe condition. The actions of this AD are intended to address an unsafe condition on these products.

DATES: This AD is effective August 31, 2020.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of August 31, 2020.

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 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-2017-1123.

Examining the AD Docket

You may examine the AD docket on the internet at https://www.regulations.gov in Docket No. FAA-2017-1123; 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 Aviation Safety Agency (now 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, Continued Operational Safety Branch, Airworthiness Products Section, General Aviation and 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 supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 to supersede AD 2017-02-07, Amendment 39-18786 (82 FR 10267, February 10, 2017) ("AD 2017-02-07"). AD 2017-02-07 applied to Airbus Helicopters Model MBB-BK 117 C-2 helicopters, serial numbers up to and including 9750, and Model MBB-BK 117 D-2 helicopters, serial numbers up to and including 20110, with a hydraulic module plate assembly part number B291M0003103 with a single locking attachment point installed. The SNPRM published in the Federal Register on February 27, 2020 (85 FR 11315). The FAA preceded the SNPRM with a notice of proposed rulemaking (NPRM) that published in the Federal Register on December 5, 2017 (82 FR 57390). The NPRM proposed to retain the initial inspection and torque requirements of AD 2017-02-07 and require replacing each single locking attachment point mechanism with a double locking attachment point mechanism. The SNPRM proposed to add a requirement to reposition the aft grounding straps and inspect the clamping effect of the aft attachment points when the double locking attachment hardware is installed, and for helicopters that have previously installed the double locking attachment hardware, the SNPRM proposed to add an alternative clamp effect inspection requirement. The SNPRM also corrected the torque application requirement proposed in the NPRM to just each forward (not aft) attachment point.

The NPRM was prompted by EASA AD No. 2017-0047, dated March 13, 2017, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition on Airbus Helicopters Deutschland GmbH (formerly Eurocopter Deutschland GmbH) Model MBB-BK117 C-2, MBB-BK117 C-2e, MBB-BK117 D-2 and MBB-BK117 D-2m helicopters. EASA advises that the hydraulic plate assembly on certain MBB-BK117 models has four attachment points on the fuselage secured by a single locking mechanism. According to EASA, a design reassessment revealed stiffness of the hydraulic plate may be insufficient to withstand the in-service loads in the event one of the four single locking attachment points fails. The EASA AD requires a repetitive inspection and one-time torque tightening of the attachment points until replacement of the single locking attachment hardware with double locking attachment hardware.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The FAA has considered the comment received. One commenter commented in support of the SNPRM.

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.

Differences Between this AD and the EASA AD

The EASA AD specifies performing the visual inspection of each attachment point at intervals not exceeding 400 flight hours. This AD does not require a repetitive inspection. This AD requires the replacement of each single locking attachment point mechanism with a double locking attachment point mechanism within 300 hours TIS instead, which makes subsequent inspections unnecessary. Since EASA has not revised or superseded its AD to incorporate Revision 3 of the service information, the EASA AD does not require inspecting the clamping effect of the aft joints, torque tightening the bolts, and corrective action if necessary for helicopters with a hydraulic module plate assembly with double locking attachment hardware installed in accordance with Airbus Helicopters Alert Service Bulletin (ASB) No. ASB MBB-BK117 C-2-29A-003 or ASB No. ASB MBB-BK117 D-2-29A-001, both Revision 2 and dated February 1, 2017.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Airbus Helicopters ASB No. ASB MBB-BK117 C-2-29A-003 for Model MBB-BK 117 C-2 helicopters and ASB No. ASB MBB-BK117 D-2-29A-001 for Model MBB-BK 117 D-2 helicopters, both Revision 3 and dated December 19, 2017. Until the attachment points are modified with double locking attachment mechanisms, this service information specifies a repetitive visual inspection for condition and correct installation of the attachment points and replacing the affected parts if there is a crack. This service information also specifies a tightening torque check of the forward attachment points after the initial inspection and replacing the affected parts if torque cannot be applied. This service information specifies procedures to replace the single locking attachment hardware with double locking attachment hardware.

For certain helicopters with a hydraulic module plate assembly with the double locking attachment hardware installed, this revision of the service information contains procedures to inspect the clamping effect of the aft attachment points and torque tightening the screw joints (bolts). If a bolt can be turned while applying this torque, the service information specifies instructions to replace the split pin, washer, and self-locking castellated nut, check the bolt for wear and replace it if necessary, change the position of the aft grounding strap, check the electrical bonding, and apply PU-Lacquer to the grounding connection.

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.

Other Related Service Information

The FAA also reviewed Airbus Helicopters ASB No. ASB MBB-BK117 C-2-29A-003 for Model MBB-BK 117 C-2 helicopters and ASB No. ASB MBB-BK117 D-2-29A-001 for Model MBB-BK 117 D-2 helicopters, both Revision 1 and dated October 14, 2016, and both Revision 2 and dated February 1, 2017. Revisions 1 and 2 of this service information contain the same visual inspection and torque tightening check procedures as Revision 3. Revision 2 of this service information adds the procedures to replace the single locking attachment hardware with double locking attachment hardware and contains the same forward locking attachment hardware replacement procedures as Revision 3.

Costs of Compliance

The FAA estimates that this AD affects 167 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this AD. The FAA estimates the cost of labor at $85 per work-hour.

Visually inspecting the four attachment points takes about 0.75 work-hour for an estimated cost of $64 per helicopter and $10,688 for the U.S. fleet. Inspecting the torque of the attachment points

takes about 0.25 work-hour for an estimated cost of $21 per helicopter and $3,507 for the U.S. fleet. Replacing any of the attachment point parts takes a minimal amount of time and parts cost about $48 per attachment point. Installing four double locking attachment point mechanisms takes a minimal amount of time and parts cost about $400 per helicopter and $66,800 for the U.S. fleet.

For certain double locking attachment hardware aft joints, inspecting the clamping effect and applying torque takes about 1 work-hour for an estimated cost of $85 per helicopter. If required, inspecting and replacing parts, repositioning the aft grounding strap, inspecting the electrical bonding, and applying lacquer to the grounding connection takes about 0.5 work-hour and parts cost about $15 for an estimated cost of $58 per helicopter.

According to Airbus Helicopters' service information, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage by Airbus Helicopters. Accordingly, the FAA has included all costs in this cost estimate.

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) 2017-02-07, Amendment 39-18786 (82 FR 10267, February 10, 2017), and adding the following new AD:

2020-15-13 Airbus Helicopters Deutschland GmbH: Amendment 39-21176; Docket No. FAA-2017-1123; Product Identifier 2017-SW-013-AD.

(a) Applicability

This AD applies to Airbus Helicopters Deutschland GmbH Model MBB-BK 117 C-2 helicopters, serial numbers up to and including 9750, and Airbus Helicopters Deutschland GmbH Model MBB-BK 117 D-2 helicopters, serial numbers up to and including 20110, certificated in any category, with a hydraulic module plate assembly part number B291M0003103 with a single locking attachment point installed or with a double locking attachment point installed before the effective date of this AD in accordance with Airbus Helicopters Alert Service Bulletin (ASB) No. ASB MBB-BK117 C-2-29A-003 (ASB MBB-BK117 C-2-29A-003 Rev 2) or ASB No. ASB MBB-BK117 D-2-29A-001 (ASB MBB-BK117 D-2-29A-001 Rev 2), both Revision 2 and dated February 1, 2017, as applicable to your model helicopter.

(b) Unsafe Condition

This AD defines the unsafe condition as failure of a hydraulic module plate assembly attachment point (attachment point). This condition could result in loss of the hydraulic module plate and subsequent loss of control of the helicopter.

(c) Affected ADs

This AD replaces AD 2017-02-07, Amendment 39-18786 (82 FR 10267, February 10, 2017).

(d) Effective Date

This AD becomes effective August 31, 2020.

(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

Comply with either paragraphs (f)(1) and (2) of this AD, or paragraph (f)(3) of this AD, as applicable to your helicopter.

(1) For helicopters with a hydraulic module plate assembly with a single locking attachment hardware installed, within 100 hours time-in-service (TIS):

(i) Visually inspect the split pins, castellated nuts, plugs, nuts, and hexagon bolts of each attachment point for a crack and for proper installation by following the Accomplishment Instructions, paragraphs 3.B.1.3.a. through 3.B.1.3.d., of Airbus Helicopters ASB No. ASB MBB-BK117 C-2-29A-003 (ASB MBB-BK117 C-2-29A-003 Rev 3) or Airbus Helicopters ASB No. ASB

MBB-BK117 D-2-29A-001 (ASB MBB-BK117 D-2-29A-001 Rev 3), both Revision 3 and dated December 19, 2017, as applicable to your model helicopter. Replace any part that has a crack before further flight. If the split pins, castellated nuts, or hexagon bolts are not as depicted in Figures 1 and 2 of ASB MBB-BK117 C-2-29A-003 Rev 3 or ASB MBB-BK117 D-2-29A-001 Rev 3, before further flight, properly install them.

(ii) Apply a torque of 9 to 10 Nm to the left-hand (LH) and right-hand (RH) nuts of each forward attachment point. If a torque of 9 to 10 Nm cannot be applied, replace the affected nut before further flight.

(2) For helicopters with a hydraulic module plate assembly with a single locking attachment hardware installed, within 300 hours TIS:

(i) Replace each forward single locking attachment hardware with double locking attachment hardware by following the Accomplishment Instructions, paragraphs 3.B.3.3. through 3.B.3.6. on page 11 of ASB MBB-BK117 C-2-29A-003 Rev 3 or ASB MBB-BK117 D-2-29A-001 Rev 3, as applicable to your model helicopter, except you are not required to discard old parts.

(ii) Replace each aft single locking attachment hardware with double locking attachment hardware and reposition the LH and RH aft grounding straps by following the Accomplishment Instructions, paragraphs 3.B.3.1. through 3.B.3.7. on page 13 of ASB MBB-BK117 C-2-29A-003 Rev 3 or ASB MBB-BK117 D-2-29A-001 Rev 3, as applicable to your model helicopter, except you are not required to discard old parts.

(3) If you have replaced the attachment hardware with double locking attachment hardware before the effective date of this AD in accordance with ASB MBB-BK117 C-2-29A-003 Rev 2 or ASB MBB-BK117 D-2-29A-001 Rev 2, as applicable to your model helicopter: Within 300 hours TIS, inspect the clamping effect of the LH and RH aft screw joints (bolts) of the hydraulic module plate by following the Accomplishment Instructions, paragraph 3.B.5., of ASB MBB-BK117 C-2-29A-003 Rev 3 or ASB MBB-BK117 D-2-29A-001 Rev 3, as applicable to your model helicopter, except you are not required to discard old parts.

Note 1 to paragraph (f)(3) of this AD: Airbus Helicopters refers to bolts as “screw joints.”

(g) Credit for Previous Actions

Actions accomplished before the effective date of this AD in accordance with the procedures specified in the following are considered acceptable for compliance with the corresponding actions in paragraph (f)(1) of this AD:

(1) AD 2017-02-07, Amendment 39-18786 (82 FR 10267, February 10, 2017).

(2) Airbus Helicopters ASB No. ASB MBB-BK117 C-2-29A-003, Revision 1, dated October 14, 2016.

(3) Airbus Helicopters ASB No. ASB MBB-BK117 C-2-29A-003, Revision 2, dated February 1, 2017.

(4) Airbus Helicopters ASB No. ASB MBB-BK117 D-2-29A-001, Revision 1, dated October 14, 2016.

(5) Airbus Helicopters ASB No. ASB MBB-BK117 D-2-29A-001, Revision 2, dated February 1, 2017.

(h) 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, Continued Operational Safety Branch, Airworthiness Products Section, General Aviation and Rotorcraft Unit, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-ASW-FTW-AMOC-Requests@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) Additional Information

(1) Airbus Helicopters ASB No. ASB MBB-BK117 C-2-29A-003 and ASB No. ASB MBB-BK117 D-2-29A-001, both Revision 1 and dated October 14, 2016, and both Revision 2 and dated February 1, 2017, which are not incorporated by reference, contain additional information about the subject of this AD. 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. You may view a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) AD No. 2017-0047, dated March 13, 2017. You may view the EASA AD on the internet at https://www.regulations.gov in Docket No. FAA-2017-1123.

(j) Subject

Joint Aircraft Service Component (JASC) Code: 2900, Hydraulic Power System.

(k) 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. ASB MBB-BK117 C-2-29A-003, Revision 3, dated December 19, 2017.

(ii) Airbus Helicopters ASB No. ASB MBB-BK117 D-2-29A-001, Revision 3, dated December 19, 2017.

(3) For Airbus Helicopters 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 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 July 15, 2020.

Lance T. Gant,

Director, Compliance & Airworthiness Division, Aircraft Certification Service.

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