DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-1171; Product Identifier 2017-SW-124-AD; Amendment 39-21548; AD 2021-10-15]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters Deutschland GmbH Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Airbus Helicopters Deutschland GmbH Model MBB-BK 117 C-2 and Model MBB-BK 117 D-2 helicopters. This AD was prompted by a determination that a life limit for the adapter forward (FWD) of the outboard load system, repetitive inspections of other components of that system, and for certain helicopters, a modification of the outboard load system, are necessary to address the unsafe condition. This AD requires a modification of the outboard load system for certain helicopters, repetitive inspections of the outboard load system and its components for any defect (including cracking, damage, corrosion, and incorrect installation) and applicable corrective actions, and implementation of a new life limit for the FWD adapter, as specified in a European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD, which is incorporated by reference. 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 a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For material incorporated by reference (IBR) in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this material on the EASA website at https://ad.easa.europa.eu. You may view this material 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 in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-1171.

**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-2020-1171; 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 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:** Kathleen Arrigotti, Program Manager, Large Aircraft Section, International Validation Branch, Compliance & Airworthiness Division, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3218; email kathleen.arrigotti@faa.gov.
SUPPLEMENTARY INFORMATION:

Background

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2017-0177, dated September 14, 2017 (EASA AD 2017-0177) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all Airbus Helicopters Deutschland GmbH Model MBB-BK 117 C-2 helicopters, except the Model C-2e variant, and all Model MBB-BK 117 D-2 helicopters.

EASA’s Model MBB-BK 117 C-2e variant helicopters are not a unique model on the U.S. type certificate but are considered a configuration of the Model MBB-BK117 C-2. The U.S. type certificate data sheet explains that the FAA determined that the type design changes involved did not rise to the level that required an FAA amended type certificate. However, the FAA does recognize that helicopters with these type design changes exist, therefore the designation Model MBB-BK117 C-2(e) is used, starting from Serial Number 9601. The Model MBB-BK117 C-2(e) is a visual flight rules only configuration of the Model MBB-BK117 C-2 utilizing a Garmin 500H flight display system.

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 Deutschland GmbH Model MBB-BK 117 C-2 and Model MBB-BK 117 D-2 helicopters, except the Model MBB-BK117 C-2(e) configuration. The NPRM published in the Federal Register on March 11, 2021 (86 FR 13830). The NPRM was prompted by a determination that a life limit for the adapter FWD of the outboard load system, repetitive inspections of other components of that system, and for certain helicopters, a modification of the outboard load system, are necessary to address the unsafe condition. The NPRM proposed to require a modification of the outboard load system for certain helicopters, repetitive
inspections of the outboard load system and its components for any defect (including cracking, damage, corrosion, and incorrect installation) and applicable corrective actions, and implementation of a new life limit for the FWD adapter, as specified in an EASA AD.

The FAA is issuing this AD to address detachment of an external load or person from the helicopter hoist, resulting in personal injury, or injury to persons on the ground. See the MCAI for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received no comments on the NPRM or on the determination of the cost to the public.

Costs of Compliance Update

The NPRM had specified no definitive data was available for the costs of the modification and certain parts. The FAA has received data on the costs of the modification and parts and has updated the costs of compliance accordingly.

Conclusion

The FAA reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes and a change to paragraph (i)(1) of this AD. The FAA has determined that these minor changes:

• Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and

• Do not add any additional burden upon the public than was already proposed in the NPRM.
EASA AD 2017-0177 describes procedures for modification of the outboard load system for certain Model MBB-BK 117 C-2 helicopters, repetitive inspections of the outboard load system and its components for any defect (including cracking, damage, corrosion, and incorrect installation) and corrective actions, and implementation of a new life limit for the FWD adapter (i.e., repetitive replacements). The corrective actions include replacement of any defective component with a serviceable part.

This material 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 175 helicopters of U.S. registry. The FAA estimates the following costs to comply with this AD:

### Estimated costs for required actions

<table>
<thead>
<tr>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 work-hours X $85 per hour = $340</td>
<td>$2,276</td>
<td>$2,616</td>
<td>$457,800</td>
</tr>
</tbody>
</table>

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of helicopters that might need these on-condition actions:

### Estimated costs of on-condition action

<table>
<thead>
<tr>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 work-hours X $85 per hour = $170</td>
<td>Up to $970</td>
<td>Up to $1,140</td>
</tr>
</tbody>
</table>

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators. The
FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the 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**

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:


(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 Airbus Helicopters Deutschland GmbH Model MBB-BK 117 C-2 and Model MBB-BK 117 D-2 helicopters, certificated in any category, all manufacturer serial numbers, except the Model MBB-BK117 C-2(e) configuration.

Note 1 to paragraph (c): Model MBB-BK117 C-2 helicopters utilizing a Garmin 500H flight display system are designated by EASA as Model MBB-BK117 C-2e variants of the Model BK 117 C-2 helicopters, and by the FAA as a Model MBB-BK117 C-2(e) configuration.

(d) Subject

(e) Reason

This AD was prompted by a determination that a life limit for the adapter forward of the outboard load system, repetitive inspections of other components of that system, and for certain helicopters, a modification of the outboard load system, are necessary to address the unsafe condition. The FAA is issuing this AD to address detachment of an external load or person from the helicopter hoist, which could result in personal injury, or injury to persons on the ground.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD 2017-0177, dated September 14, 2017 (EASA AD 2017-0177).

(h) Exceptions to EASA AD 2017-0177

(1) Where EASA AD 2017-0177 refers to its effective date, this AD requires using the effective date of this AD.

(2) The “Remarks” section of EASA AD 2017-0177 does not apply to this AD.

(3) Where the service information referenced in EASA AD 2017-0177 specifies contacting the applicable manufacturer of the dedicated equipment for a definition of a cycle and recalculation to hoist cycles, this AD does not require contacting the manufacturer for a definition of a cycle and recalculation to hoist cycles.

(4) Where paragraph (3) of EASA AD 2017-0177 specifies to do “applicable corrective actions,” for this AD, if there are any defective components, replace all defective components with serviceable components in accordance with FAA-approved
procedures. For the purposes of this AD, a defect may be indicated by cracking, damage, corrosion, or incorrect installation.

(5) Although the service information referenced in EASA AD 2017-0177 specifies to discard certain parts, this AD requires removing those parts from service instead.

(6) Where the service information referenced in EASA AD 2017-0177 refers to flight hours (FH), this AD requires using hours time-in-service.

(7) Paragraph (9) of EASA AD 2017-0177 does not apply to this AD.

(i) 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 (j) 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.

(j) Related Information

For more information about this AD, contact Kathleen Arrigotti, Program Manager, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3218; email: kathleen.arrigotti@faa.gov.
(k) **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 this AD specifies otherwise.


   (ii) [Reserved]

(3) For EASA AD 2017-0177, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at https://ad.easa.europa.eu.

(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. This material may be found in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-1171.

(5) You may view this material 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 May 3, 2021.

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