



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2020-1123; Project Identifier MCAI-2020-01294-R]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2016-23-05, which applies to certain Airbus Helicopters Model SA-365N1, AS-365N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1 helicopters. AD 2016-23-05 requires repetitive checks of the oil level of the tail rotor gearbox and, if necessary, filling the oil to the maximum level; and replacement of a certain control rod double bearing (bearing) with a new bearing. Since issuing AD 2016-23-05, the FAA has determined additional inspections, replacements, and modifications are necessary to address the unsafe condition. This proposed AD would retain the requirements of AD 2016-23-05 and would add helicopters to the applicability. This proposed AD would also require modifying the helicopter by replacing the tail gearbox (TGB) control shaft guide bushes; repetitive inspections of the TGB magnetic plug and corrective actions if necessary; repetitive replacements of the bearing; and modifying the helicopter by replacing the TGB; as specified in a European Union Aviation Safety Agency (EASA) AD, which will be incorporated by reference. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. You may view this IBR 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-2020-1123.

### **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-2020-1123; 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 NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Kathleen Arrigotti, Aviation Safety Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3218; email [kathleen.arrigotti@faa.gov](mailto:kathleen.arrigotti@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to participate in this rulemaking by submitting written comments, data, or views about this proposal. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should submit only one copy of the comments. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA 20\_2020-1123; Project Identifier MCAI-2020-01294-R” at the beginning of your comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments received by the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The FAA may change this NPRM because of those comments.

**Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that

you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Kathleen Arrigotti, Aviation Safety Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3218; email [kathleen.arrigotti@faa.gov](mailto:kathleen.arrigotti@faa.gov). Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Discussion**

The FAA issued AD 2016-23-05, Amendment 39-18712 (81 FR 85126, November 25, 2016) (“AD 2016-23-05”), which applies to certain Airbus Helicopters Model SA-365N1, AS-365N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1 helicopters. AD 2016-23-05 requires repetitive checks of the oil level of the tail rotor gearbox and, if necessary, filling the oil to the maximum level; and replacement of a certain bearing with a new part-numbered bearing. The FAA issued AD 2016-23-05 to address damage to the bearing, which could result in end play, loss of tail rotor pitch control, and subsequent loss of control of the helicopter.

### **Actions Since AD 2016-23-05 Was Issued**

Since the FAA issued AD 2016-23-05, the FAA has determined additional repetitive inspections of the TGB magnetic plug for the presence of particles (and corrective actions if necessary), repetitive replacements of the bearing, and modifications (replacing TGB control shaft guide bushes and replacing the TGB) are necessary to address the unsafe condition.

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2017-0125, dated July 21, 2017 (“EASA AD 2017-0125”)

(also referred to as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Helicopters Model SA 365 N1, AS 365 N2, AS 365 N3, SA 366 G1, EC 155 B, and EC 155 B1 helicopters. EASA AD 2017-0125 supersedes EASA AD 2017-0007, dated January 13, 2017, which superseded EASA AD 2016-0097R1, dated May 25, 2016 (which corresponds to FAA AD 2016-23-05). EASA AD 2017-0125 adds helicopters to the applicability, adds repetitive inspections of the magnetic plug after bearing replacement, requires the use of the revised Airbus Helicopters Alert Service Bulletin (ASB) instructions, and requires replacement of the TGB with a modified unit, which terminates the repetitive inspections.

This proposed AD was prompted by a determination that additional inspections, replacements, and modifications are necessary to address the unsafe condition. The FAA is proposing this AD to address damage to the bearing, which could result in end play, loss of tail rotor pitch control, and subsequent loss of control of the helicopter. See the MCAI for additional background information.

#### **Comments on AD 2016-23-05**

The FAA gave the public the opportunity to comment on AD 2016-23-05. The following presents the comments received on AD 2016-23-05 and the FAA’s response to each comment.

#### **Request to Revise the Applicability to Exclude Certain TGBs**

A commenter requested that the FAA revise the applicability of AD 2016-23-05 to exclude TGBs that are post-Airbus Helicopters mod 07 65B63 having part number (P/N) 365A33-6005-09. The commenter stated that the referenced service information clarifies that only TGBs that are pre-Airbus Helicopters mod 07 65B63 are affected.

The FAA disagrees. In developing AD 2016-23-05, the FAA differed with EASA AD 2016-0097R1, dated May 25, 2016, and the referenced service information. The FAA determined that TGBs that are post-Airbus Helicopters mod 07 65B63 having P/N

365A33-6005-09 should not be excluded from the requirements of that AD. However, the FAA notes that the new MCAI addresses TGBs that are pre-Airbus Helicopters mod 07 65B63 and TGBs that are post-Airbus Helicopters mod 07 65B63 separately, as does this proposed AD.

### **Request to Revise the Applicability to Include All TGBs**

A commenter requested that the FAA revise the applicability of AD 2016-23-05 to include all TGBs. The commenter stated the applicability for AD 2016-23-05 should be the same as AD 2007-25-08, Amendment 39-15290 (72 FR 69604, December 10, 2007), which included all bearings, regardless of the part number of the TGB.

The FAA disagrees. In developing AD 2016-23-05, the FAA determined the requirement to check the oil level is only necessary for helicopters with a TGB bearing having P/N 704A33-651-093 or P/N 704A33-651-104. However, the FAA notes that the new MCAI requires the oil level check for all TGBs, as does this proposed AD.

### **Related Service Information under 1 CFR Part 51**

EASA AD 2017-0125 describes procedures for modifying the helicopter by replacing TGB control shaft guide bushes, repetitive inspections (checks) of the oil level of the tail rotor gearbox and, if necessary, filling the oil to the maximum level, repetitive inspections of the TGB magnetic plug for the presence of particles and corrective actions if necessary (corrective actions include removing the TGB, complying with certain work cards to address particles and other conditions such as abrasions, scales, flakes, and splinters, and replacing the bearing), repetitive replacements of the bearing; and modifying the helicopter by replacing the TGB.

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.

## **FAA's Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would retain the actions required by AD 2016-23-05 and would require accomplishing the actions specified in EASA AD 2017-0125 described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD and except as discussed under "Differences Between this Proposed AD and the MCAI."

### **Explanation of Required Compliance Information**

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities (CAAs) to use this process. As a result, EASA AD 2017-0125 will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2017-0125 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions and

compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in the EASA AD. Service information specified in EASA AD 2017-0125 that is required for compliance with EASA AD 2017-0125 will be available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-1123 after the FAA final rule is published.

**Explanation of Retained Requirements**

Although this proposed AD does not explicitly restate the requirements of AD 2016-23-05, this proposed AD would retain certain requirements of AD 2016-23-05. Those requirements are referenced in paragraphs (2) and (5) of EASA AD 2017-0125, which, in turn, is referenced in paragraph (g) of this proposed AD.

**Costs of Compliance**

The FAA estimates that this proposed AD affects 52 helicopters of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

**Estimated costs for required actions**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Retained actions from AD 2016-23-05	17 work-hours X \$85 per hour = \$1,445	\$1,125	\$2,570	\$133,640
New proposed actions	63 work-hours X \$85 per hour = \$5,355	\$1,395	\$6,750	\$351,000

**Estimated costs for optional actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
8 work-hours X \$85 per hour = \$680	\$0	\$680

The FAA has received no definitive data that would enable the agency to provide cost estimates for the on-condition actions specified in this proposed AD.

According to the manufacturer, some or all of the costs of this proposed 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 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 determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

- (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 Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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) 2016-23-05, Amendment 39-18712 (81 FR 85126, November 25, 2016), and adding the following new AD:

**Airbus Helicopters:** Docket No. FAA-2020-1123;

Project Identifier MCAI-2020-01294-R.

**(a) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected Airworthiness Directives (ADs)**

This AD replaces AD 2016-23-05, Amendment 39-18712 (81 FR 85126, November 25, 2016) (“AD 2016-23-05”).

**(c) Applicability**

This AD applies to Airbus Helicopters Model SA-365N1, AS-365N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1 helicopters, certificated in any category, all serial numbers.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 65, Tail Rotor.

**(e) Reason**

This AD was prompted by reports of occurrences of loss of yaw control due to failure of the tail gearbox (TGB) control rod double bearing (bearing). This AD was also prompted by the determination that additional inspections, replacements, and modifications are necessary to address the unsafe condition. The FAA is issuing this AD to address damage to the bearing, which could result in end play, loss of tail rotor pitch control, and subsequent loss of control of the helicopter.

**(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 2017-0125, dated July 21, 2017 (“EASA AD 2017-0125”).

**(h) Exceptions to EASA AD 2017-0125**

(1) Where EASA AD 2017-0125 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2017-0125 refers to June 4, 2011 (the effective date of EASA AD 2011-0105), this AD requires using the effective date of this AD.

(3) Where EASA AD 2017-0125 refers to May 25, 2016 (the effective date of EASA AD 2016-0197R1), this AD requires using the effective date of this AD.

(4) The “Remarks” section of EASA AD 2017-0125 does not apply to this AD.

(5) Where paragraph (2) of EASA AD 2017-0125 requires inspections (checks) to be done “in accordance with the instructions of Paragraph 3.B.1 of the applicable

inspection ASB,” for this AD, those instructions are for reference only and are not required for the actions in paragraph (2) of EASA AD 2017-0125. The inspections (checks) required by paragraph (2) of EASA AD 2017-0125 may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9 (a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

(6) Where paragraph (5) of EASA AD 2017-0125 specifies to “accomplish the applicable corrective action(s) in accordance with the instructions of Paragraph 3.B.1 of the applicable inspection ASB,” for this AD, a qualified mechanic must add oil to the TGB to the “max” level if the oil level is not at maximum. The instructions are for reference only and are not required for the actions in paragraph (5) of EASA AD 2017-0125.

(7) Where EASA AD 2017-0125 refers to flight hours (FH), this AD requires using hours time-in-service.

(8) Where EASA AD 2017-0125 requires action after the last flight of the day or “ALF,” this AD requires those actions before the first flight of the day.

(9) Where the service information referred to in EASA AD 2017-0125 specifies to perform a metallurgical analysis and contact the manufacturer if collected particles are not clearly characterized, this AD does not require contacting the manufacturer to determine the characterization of the particles collected.

(10) Although service information referenced in EASA AD 2017-0125 specifies to scrap parts, this AD does not include that requirement.

(11) Although service information referenced in EASA AD 2017-0125 specifies reporting information to Airbus Helicopters and filling in a “particle detection” follow-up sheet, this AD does not include those requirements.

(12) Although service information referenced in EASA AD 2017-0125 specifies returning certain parts to an approved workshop, this AD does not include that requirement.

(13) Where paragraph (6) of EASA AD 2017-0125 refers to “any discrepancy,” for this AD, discrepancies include the presence of particles and other conditions such as abrasions, scales, flakes, and splinters.

**(i) Alternative Methods of Compliance (AMOCs):**

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 International Validation Branch, send it to the attention of the person identified in paragraph (j)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. 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**

(1) For information about EASA AD 2017-0125, 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>. 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. 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-2020-1123.

(2) For more information about this AD, contact Kathleen Arrigotti, Aviation Safety Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3218; email [kathleen.arrigotti@faa.gov](mailto:kathleen.arrigotti@faa.gov).

Issued on December 8, 2020.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

[FR Doc. 2020-27416 Filed: 12/11/2020 8:45 am; Publication Date: 12/14/2020]