



[4910-13-P]

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2020-0847; Product Identifier 2018-SW-087-AD]

RIN 2120-AA64

#### Airworthiness Directives; Airbus Helicopters

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

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

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for all Airbus Helicopters Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, and AS350D helicopters; Model AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters; and Model EC130 B4 and EC130 T2 helicopters. This proposed AD was prompted by a report of a missing retaining ring of the inner race of the main rotor mast (MRM) upper bearing. This proposed AD would require a one-time inspection to verify the presence and correct installation of the MRM upper bearing retaining rings, a repetitive inspection of the sealant bead on the MRM for damage, and corrective actions if necessary. 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 service information identified in this NPRM, 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 service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

### **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-2020-0847; 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, the Mandatory Continuing Airworthiness Information (MCAI), 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:** Scott Franke, Aviation Safety Engineer, International Validation Branch, General Aviation & Rotorcraft Unit, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email [scott.franke@faa.gov](mailto:scott.franke@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0847; Product Identifier 2018-SW-087-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this NPRM because of those 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, to <https://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this NPRM.

**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 Scott Franke, Aviation Safety Engineer, International Validation Branch, General Aviation & Rotorcraft Unit, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817 222-5110; email [scott.franke@faa.gov](mailto:scott.franke@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 European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018-0206, dated September 20, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Airbus Helicopters Model AS350B, AS350BA, AS350BB, AS350B1, AS350B2, AS350B3, and AS350D helicopters; Model AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters; and Model EC130 B4 and EC130 T2 helicopters. Model AS355BB helicopters are not certificated by the FAA and are not included on the U.S. type certificate data sheet; this proposed AD therefore does not include those helicopters in the applicability. EASA advises that during a scheduled inspection on an Airbus Helicopters Model AS350B3 helicopter, one of the two retaining rings of the inner race of the MRM upper bearing was found missing. These two retaining rings ensure that the inner race is correctly positioned with respect to the rollers, and, if

one or both of these retaining rings are missing, it can lead to an unlimited shift of the inner race and compromise the function of the MRM upper bearing. This condition, if not detected and corrected, can lead to damage to the MRM and surrounding elements, possibly resulting in loss of control of the helicopter.

Airbus Helicopters developed an inspection to check that the upper and lower retaining rings of the inner race of the MRM upper bearing are present and correctly installed. EASA determined that the same condition may exist or develop on Airbus Helicopters Model AS350 helicopters, Model AS355 helicopters, and Model EC130 helicopters because they share a similar design and supply chain. Until the check of the upper and lower bearing retaining rings is accomplished, EASA specifies that repetitive inspections of the MRM upper bearing sealant bead (sealant bead) should be accomplished to ensure the MRM remains serviceable. EASA considers the actions specified in the MCAI an interim measure pending further investigation results, and notes that further AD action may follow.

You may examine the MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0847.

#### **Related Service Information Under 1 CFR part 51**

Airbus Helicopters has issued the following service information.

- Airbus Helicopters Alert Service Bulletin AS350-62.00.42, Revision 0, dated September 17, 2018.
- Airbus Helicopters Alert Service Bulletin AS355-62.00.37, Revision 0, dated September 17, 2018.

- Airbus Helicopters Alert Service Bulletin EC130-62A017, Revision 0, dated September 17, 2018.

This service information describes procedures for a one-time inspection to verify presence and correct installation of the MRM upper bearing retaining rings, a repetitive inspection of the sealant bead on the MRM for damage, and corrective actions. Damage of the sealant bead includes flaws, cracks, folds, separation, or absence of the sealant bead. Corrective actions include repair and replacement. These documents are distinct since they apply to different helicopter models.

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.

#### **FAA's Determination**

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

#### **Proposed Requirements of this NPRM**

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between this Proposed AD and the MCAI."

## Differences Between this Proposed AD and the MCAI

Although the MCAI specifies accomplishing the inspection of the installation of the MRM upper bearing inner race retaining rings within 660 hours time in service (TIS) or 24 months, whichever occurs first, the FAA has determined that interval would not address the identified unsafe condition soon enough to ensure an adequate level of safety for the affected fleet. In developing an appropriate compliance time for this AD, the FAA considered the degree of urgency associated with the subject unsafe condition and the manufacturer's recommendation. In light of all of these factors, the FAA finds that a compliance time of within 660 hours TIS or 6 months, whichever occurs first, represents an appropriate interval of time for affected helicopters to continue to operate without compromising safety.

Although paragraph (5) of the MCAI specifies that operators may contact the manufacturer for instructions if there are signs of degradation on the MRM inner race, paragraph (i)(3) of this proposed AD would require operators to repair or replace the MRM if there is any degradation as indicated by damage to the retaining rings (including but not limited to cracks, scratches, and gouges), deterioration, or wear.

### Costs of Compliance

The FAA estimates that this proposed AD affects 1,212 helicopters of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

#### Estimated costs for required actions

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Up to 30 work-hours X \$85 per hour = Up to \$2,550	\$0	Up to \$2,550	Up to \$3,090,600

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 aircraft that might need these on-condition actions:

**Estimated costs of on-condition actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Up to 80 work-hours X \$85 per hour = Up to \$6,800	Up to \$33,124	Up to \$39,924

**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 adding the following new airworthiness directive

(AD):

**Airbus Helicopters:** Docket No. FAA-2020-0847; Product Identifier 2018-SW-087-AD.

#### **(a) Comments Due Date**

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

#### **(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Airbus Helicopters, certificated in any category, as identified in paragraphs (c)(1) through (3) of this AD.

(1) Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, and AS350D helicopters.

(2) Model AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters.

(3) Model EC130 B4 and EC130 T2 helicopters.

**(d) Subject**

Joint Aircraft Service Component (JASC) Code 6230, Main Rotor Mast Inner Race Rings.

**(e) Reason**

This AD was prompted by a report of a missing retaining ring of the inner race of the main rotor mast (MRM) upper bearing. The FAA is issuing this AD to address this condition, which, if not detected and corrected, can lead to damage to the MRM and surrounding elements, possibly resulting in loss of control of the helicopter.

**(f) Compliance**

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

**(g) Definitions**

(1) For the purposes of this AD, an affected part is any MRM having part number (P/N) 350A37-1290-XX (where XX can be any numerical combination) and a serial number as listed in Airbus Helicopters Alert Service Bulletin AS350-62.00.42, Revision

0, dated September 17, 2018; Airbus Helicopters Alert Service Bulletin AS355-62.00.37, Revision 0, dated September 17, 2018; or Airbus Helicopters Alert Service Bulletin EC130-62A017, Revision 0, dated September 17, 2018, as applicable to your model helicopter, unless the upper bearing inner race retaining rings are verified to be installed correctly as specified in the inspection required in paragraph (i)(1) of this AD.

(2) For the purposes of this AD, a Group 1 helicopter is one on which an affected part is installed.

(3) For the purposes of this AD, a Group 2 helicopter is one on which an affected part is not installed.

**(h) MRM Upper Sealant Bead Inspection**

(1) For Group 1 helicopters, within the compliance time specified in Figure 1 to paragraph (h) of this AD, and, thereafter, at intervals not to exceed 165 hours time-in-service (TIS): Inspect the MRM upper bearing sealant bead for damage in accordance with section 3.B.2.a of the Accomplishment Instructions of Airbus Helicopters Alert Service Bulletin AS350-62.00.42, Revision 0, dated September 17, 2018; Airbus Helicopters Alert Service Bulletin AS355-62.00.37, Revision 0, dated September 17, 2018; or Airbus Helicopters Alert Service Bulletin EC130-62A017, Revision 0, dated September 17, 2018, as applicable to your model helicopter, except you are not required to discard the plastic clamps (Item vv). For the purposes of this inspection, damage may be indicated by flaws, cracks, folds, separation, or absence of the sealant bead.

**Figure 1 to paragraph (h) – Initial Inspection of MRM Upper Bearing Sealant Bead**

Accumulated Hours TIS	Compliance Time
Less than 115 hours TIS	Before exceeding 165 hours TIS

Accumulated Hours TIS	Compliance Time
115 or more hours TIS	Within 50 hours TIS after the effective date of this AD

Note 1 to paragraph (h)(1): Unless specified otherwise, the hours TIS specified in figure 1 to paragraph (h) of this AD are those accumulated on the effective date of this AD by the helicopter since first flight.

(2) If, during any inspection of the MRM upper bearing sealant bead as required by paragraph (h)(1) of this AD, there is damage, before further flight, inspect the installation of the MRM upper bearing inner race retaining rings for discrepancies in accordance paragraph (i)(1) of this AD.

**(i) MRM Inner Race Retaining Rings Inspection**

(1) For Group 1 Helicopters: Within 660 hours TIS or 6 months, whichever occurs first after the effective date of this AD: Inspect the installation of the MRM upper bearing inner race retaining rings for discrepancies in accordance with the Accomplishment Instructions of section 3.B.2.b of Airbus Helicopters Alert Service Bulletin AS350-62.00.42, Revision 0, dated September 17, 2018; Airbus Helicopters Alert Service Bulletin AS355-62.00.37, Revision 0, dated September 17, 2018; or Airbus Helicopters Alert Service Bulletin EC130-62A017, Revision 0, dated September 17, 2018, as applicable to your model helicopter, except you are not required to discard the plastic clamps (Item vv). For the purposes of this inspection, discrepancies may be indicated by incorrect positioning or missing rings.

(2) If, during the inspection by paragraphs (i)(1) of this AD there are any discrepancies, before further flight, remove the affected part, inspect the MRM inner race for degradation, and replace the retaining rings in accordance with the Accomplishment

Instructions of section 3.B.2.c of Airbus Helicopters Alert Service Bulletin AS350-62.00.42, Revision 0, dated September 17, 2018; Airbus Helicopters Alert Service Bulletin AS355-62.00.37, Revision 0, dated September 17, 2018; or Airbus Helicopters Alert Service Bulletin EC130-62A017, Revision 0, dated September 17, 2018, as applicable to you model helicopter, except you are not required to return parts to Airbus Helicopters. For the purposes of this inspection, degradation is indicated by damage to the retaining rings (including but not limited to cracks, scratches, and gouges), deterioration, or wear.

(3) If, during the inspection of the MRM inner race, as required by paragraph (i)(2) of this AD, there is any degradation, before next flight, repair or replace the MRM.

**(j) Terminating Action**

Verification on a helicopter of correct installation of the MRM upper bearing inner race retaining rings, as required by paragraph (i)(1) of this AD, or corrective action on a helicopter, as specified in paragraphs (h)(2), (i)(2), or (i)(3) of this AD, as applicable, constitute terminating action for the repetitive inspections required by paragraph (h)(1) of this AD for that helicopter.

**(k) Parts Installation Prohibition**

As of the effective date of this AD, no person may install, on any helicopter, an affected part as identified in paragraph (g)(1) of this AD.

**(l) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Scott Franke, Aviation Safety Engineer, International

Validation Branch, General Aviation & Rotorcraft Unit, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email [scott.franke@faa.gov](mailto:scott.franke@faa.gov).

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, 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.

**(m) Related Information**

(1) The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD 2018-0206, dated September 20, 2018. This EASA AD may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0847.

(2) 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 this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

Issued on September 15, 2020.

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