



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0378; Product Identifier 2018-SW-060-AD; Amendment 39-21316; AD 2020-22-20]

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 Airbus Helicopters Model AS350B, AS350B1, AS350B2, AS350B3, AS350BA, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters. This AD requires visually inspecting each main rotor gearbox (MGB) suspension bar attachment bracket bolt for missing bolt heads. Depending on the outcome of the visual inspection, measuring the tightening torque, removing certain parts, sending photos and reporting information to Airbus Helicopters, and completing an FAA-approved repair is required. This AD was prompted by a report of a missing MGB suspension bar attachment bolt head. The actions of this AD are intended to address an 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 documents listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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-2020-0378.

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-2020-0378; 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: Kristi Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email kristin.bradley@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Airbus Helicopters Model AS350B, AS350B1, AS350B2, AS350B3, AS350BA, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters. The NPRM published in the *Federal Register* on April 13, 2020, (85 FR 20447). The NPRM

proposed to require visually inspecting each MGB suspension bar attachment bracket for missing bolt heads. If one bolt head is missing, the proposed AD would require performing actions specified in the service information including measuring the tightening torque of the remaining bolts of that bracket, removing the attachment bracket bolts, washers, and nuts of that bracket, and sending photos and reporting certain information to Airbus Helicopters. The proposed AD would also require repairs in accordance with an FAA-approved method if two or more bolt heads are missing. The proposed requirements were intended to prevent failure of the MGB suspension bar attachment bolts due to fatigue.

The NPRM was prompted by EASA AD No. 2018-0152, dated July 18, 2018 (EASA AD 2018-0152), 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, Eurocopter France) Model AS 350 B, AS 350 D, AS 350 B1, AS 350 B2, AS 350 BA, AS 350 BB, AS 350 B3, EC 130 B4, EC 130 T2, AS 355 E, AS355 F, AS355 F1, AS 355 F2, AS 355 N, and AS355 NP helicopters. EASA advises of a reported occurrence of a missing MGB suspension bar attachment bolt head.

EASA advises that investigations are ongoing to determine the root cause of this event. According to Airbus Helicopters, the missing MGB suspension bar attachment bolt head was discovered during scheduled maintenance of a Model EC 130 T2 helicopter. EASA states this condition could lead to fatigue failure of other affected bolts of the same MGB bracket, possibly resulting in loss of the MGB suspension bar and consequently loss of helicopter control. As an interim measure to address this potential unsafe condition, the EASA AD also includes Model AS 350 B, AS 350 D, AS 350 B1, AS 350 B2, AS 350 BA, AS 350 BB, AS 350 B3, EC 130 B4, AS 355 E, AS355 F, AS355 F1, AS355 F2, AS355 N, and AS355 NP helicopters in its applicability.

Accordingly, EASA AD 2018-0152 requires a one-time visual inspection to check that all MGB suspension bar attachment bracket bolt heads are present and depending on

the outcome, measuring the tightening torque values of the bolts, removing and sending bolts, washers, and nuts to Airbus Helicopters, installing new bolts, washers, and nuts, sending photos and reporting certain information to Airbus Helicopters, and contacting Airbus Helicopters for approved repair instructions. EASA states EASA AD 2018-0152 is considered an interim action and further AD action may follow.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received comments from one commenter. The following presents the comments received on the NPRM and the FAA's response to the comments.

Request

The commenter requested that this AD apply to Model AS350B3 and higher model helicopters, specifically Model AS350B3, AS350B3E, EC130B4, EC130T2, H125, and H130 helicopters. The commenter stated that, based on experience with a fleet of AS350BA and AS350B2 helicopters, the commenter has never seen a bolt head break on Model AS350BA and AS350B2 helicopters.

The FAA disagrees with removing models from the Applicability. The FAA determined that the unsafe condition exists and is likely to exist or develop on all the model helicopters included in the Applicability and is therefore requiring corrective action to address this unsafe condition on these models.

Request

The commenter requested the manufacturer add the inspection proposed in the NPRM to the 660-hour "T" inspection and also add the inspection after a certain number of flight hours after installation. The commenter gave an example of after 165 flying hours.

The FAA disagrees; the commenter provided no technical justification for changing the compliance times.

Actions Since Issuance of the NPRM

After the NPRM was issued, the FAA discovered that Airbus Helicopters Model AS350C was inadvertently included in the proposed Applicability. This helicopter model has a different engine model and therefore is not subject to the unsafe condition. The FAA has updated the Applicability section accordingly.

FAA's Determination

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 is issuing this AD after evaluating all information provided by EASA, reviewing the relevant information, considering the comments received, and determining the 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 except for the change described previously. The FAA has determined that this change is consistent with the intent that was proposed for addressing the unsafe condition and does not add any additional burden upon the public than was already proposed in the NPRM except for minor editorial changes. These minor editorial changes are consistent with the intent of the proposals in the NPRM and will not increase the economic burden on any operator nor increase the scope of this AD.

Interim Action

The FAA considers this AD to be an interim action. If final action is later identified, the FAA might consider further rulemaking.

Differences Between this AD and the EASA AD

The EASA AD applies to Model AS350BB helicopters, whereas this AD does not because that model is not FAA type-certificated. The EASA AD directs the operators to contact Airbus Helicopters for repairs if more than one screw head is missing, whereas this AD does not.

Related Service Information Under 1 CFR part 51

The FAA reviewed Airbus Helicopter Alert Service Bulletin (ASB) No. AS350-05.00.92 for Model AS350B, B1, B2, B3, BA, and D helicopters, non-FAA type-certificated Model AS350BB helicopters, and military Model AS350L1 helicopters; Airbus Helicopters ASB No. AS355-05.00.79 for Model AS355E, F, F1, F2, N, and NP helicopters; and Airbus Helicopters ASB No. EC130-05A028 for Model EC130B4 and T2 helicopters, all Revision 0 and dated July 16, 2018. This service information specifies a one-time visual inspection using a light source and a mirror, and using an endoscope for any attachment bolts that are difficult to access, for the presence of the 16 attachment bracket bolt heads of the 4 MGB suspension bars. The service information also specifies different actions depending on the results of the visual inspection.

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 Standard Practices Manual (MTC) 20-02-05-404, Assembly by screws and nuts Joining, dated May 23, 2017. This service information specifies instructions for installing screws and nuts, tightening procedures when installing multiple bolts, tightening torque check and readjustment procedures, tooling information, measuring locking torque procedures, standard tightening torque procedures and values, torque tightening of screws in sandwich panels information, use of consumable materials and their correction coefficient values pertaining to screws, nuts, and washers, marking torque stripes, and re-installation criteria and inspection of attachment components.

Costs of Compliance

The FAA estimates that this AD affects 1,277 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour.

Inspecting for any missing MGB suspension bar attachment bracket bolt heads takes about 2 work-hours for an estimated cost of \$170 per helicopter and \$217,090 for the U.S. fleet.

Measuring the tightening torque of three MGB suspension bar attachment bracket bolts and replacing the set of four MGB suspension bar attachment bracket bolts, washers, and nuts takes about 1 work-hour and parts cost about \$50 for an estimated cost of \$135 per helicopter.

Sending photos and reporting required information takes about 1 hour for an estimated cost of \$85 per helicopter.

The FAA does not have the data to estimate the costs to do any FAA-approved repairs if two or more MGB suspension bar attachment bracket bolt heads are missing.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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 helicopters 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.

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 adding the following new airworthiness directive (AD):

2020-22-20 Airbus Helicopters: Amendment 39-21316; Docket No. FAA-2020-0378; Product Identifier 2018-SW-060-AD.

(a) Applicability

This AD applies to Airbus Helicopters Model AS350B, AS350B1, AS350B2, AS350B3, AS350BA, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters, all serial numbers, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a missing main rotor gearbox (MGB) suspension bar attachment bracket bolt head. This condition could result in fatigue failure of the other MGB suspension bar attachment bracket bolts of the same MGB bracket, which could result in loss of the MGB suspension bar and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(d) 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.

(e) Required Actions

For helicopters with less than 1035 hours time-in-service (TIS), before reaching 1200 hours TIS, and for helicopters with 1035 or more hours TIS, within 165 hours TIS or 12 months, whichever occurs first, visually inspect each MGB suspension bar attachment bracket bolt for missing bolt heads by following the Accomplishment Instructions, paragraph 3.B.2.a. of Airbus Helicopters Alert Service Bulletin (ASB) No. AS350-05.00.92, Airbus Helicopters ASB No. AS355-05.00.79, or Airbus Helicopters ASB No. EC130-05A028, all Revision 0 and dated July 16, 2018 (ASB AS350-05.00.92, ASB AS355-05.00.79, or ASB EC130-05A028), as applicable to your model helicopter. If any bolt heads are missing, do the following:

(1) If one bolt head is missing, do the actions under the section “If only one screw head (a) is missing” in the Accomplishment Instructions, paragraph 3.B.2.b of ASB AS350-05.00.92, ASB AS355-05.00.79, or ASB EC130-05A028, as applicable to your model helicopter, except you are not required to return removed parts to Airbus Helicopters. You must do the repair before further flight, and you must submit the photographs and reply form to Airbus Helicopters within 30 days of completing the inspection.

(2) If two or more bolt heads are missing, before further flight, repair using a method approved by the Manager, Rotorcraft Standards Branch. For a repair method to be approved by the Manager, Rotorcraft Standards Branch, as required by this paragraph, the Manager’s approval letter must specifically refer to this AD.

Note 1 to paragraph (e): Airbus Helicopters refers to the bolts as screws.

(f) Special Flight Permits

Special Flight permits are prohibited.

(g) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act

unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Kristi Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email kristin.bradley@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 Standard Practices Manual (MTC) 20-02-05-404, Assembly by screws and nuts Joining, dated May 23, 2017, which is not incorporated by reference, contains 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 the

referenced 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) (EASA) AD No. 2018-0152, dated July 18, 2018. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2020-0378.

(j) Subject

Joint Aircraft Service Component (JASC) Code: 6320, Main Rotor Gearbox.

(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. AS350-05.00.92, Revision 0, dated July 16, 2018.

(ii) Airbus Helicopters ASB No. AS355-05.00.79, Revision 0, dated July 16, 2018.

(iii) Airbus Helicopters ASB No. EC130-05A028, Revision 0, dated July 16, 2018.

(3) 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>.

(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.

(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 October 23, 2020.

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

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