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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9396; Directorate Identifier 2016-SW-034-AD; Amendment 39-18712; AD 2016-23-05]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters (Previously Eurocopter France) Helicopters

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: We are superseding Airworthiness Directive (AD) 2007-25-08 for Eurocopter France (now Airbus Helicopters) Model SA-365N1, AS-365N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1 helicopters. AD 2007-25-08 required checking the tail rotor gearbox (TGB) oil, inspecting the magnetic plug, and either replacing the TGB or performing additional inspections. This AD was prompted by reports of new occurrences of loss of yaw control due to failure of the control rod bearing. This AD requires checking the TGB oil level and replacing the bearing with a new part-numbered bearing. These actions are intended to detect and prevent damage to the bearing resulting in end play, loss of tail rotor pitch control, and subsequent loss of control of the helicopter.

DATES: This AD becomes effective December 12, 2016.

We must receive comments on this AD by January 24, 2017.

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to http://www.regulations.gov. Follow the online instructions for sending your comments electronically.
- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590-0001.
- Hand Delivery: Deliver to the "Mail" address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-9396; or in person at the Docket Operations Office 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 (EASA) AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this final rule, contact Airbus Helicopters, Inc., 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at http://www.airbushelicopters.com/techpub. 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, Texas 76177.

FOR FURTHER INFORMATION CONTACT: David Hatfield, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5116; email david.hatfield@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit them only one time. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

Discussion

On November 27, 2007, we issued AD 2007-25-08, Amendment 39-15290 (72 FR 69604, December 10, 2007) for Eurocopter France (now Airbus Helicopters) Model SA-365 N1, AS-365 N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1 helicopters. AD 2007-25-08 required repetitively checking the TGB oil level to ensure it is at the maximum level. AD 2007-25-08 also required repetitively inspecting the magnetic plug for chips, and depending on the quantity of chips found, either replacing the TGB or further inspecting for axial play in the spider. If axial play is found in the spider, AD 2007-25-08 required replacing the bearing. AD 2007-25-08 was prompted by AD No. 2006-0258R1-E, dated August 29, 2006, issued by EASA, which is the Technical Agent for the Member States of the European Union, as well as the finding that metal chips were not detected on the magnetic plug due to insufficient oil flow because the oil in the TGB was being maintained at the minimum level. The actions of AD 2007-25-08 were intended to detect metal chips on the magnetic plug and to prevent damage to the bearing resulting in end play, loss of tail rotor pitch control, and subsequent loss of control of the helicopter.

Actions Since AD 2007-25-08 Was Issued

After we issued AD 2007-25-08, we received reports of new occurrences of loss of yaw control due to failure of the control rod bearing and EASA superseded AD No. 2006-0258R1-E with several ADs, including AD No. 2012-0170R2, dated June 20, 2014, to correct an unsafe condition for these model helicopters. Therefore, we issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by removing AD 2007-25-08 and adding a new AD. The NPRM published in the Federal Register on September 2, 2015 (80 FR 53024). The NPRM proposed to retain the pilot checks of the TGB oil level and the magnetic plug inspections of AD 2007-25-08. The NPRM also proposed to revise the inspections for play in the double bearing to improve the detection of play, require replacing the TGB control shaft guide bushes, clarify the criteria concerning particle detection, and change the inspection for play in the double bearing after the guide bushes have been replaced.

On May 23, 2016, EASA issued Emergency AD No. 2016-0097-E, which superseded AD No. 2012 0170R2. EASA Emergency AD No. 2016-0097-E was subsequently revised by EASA AD No. 2016-0097R1, dated May 25, 2016, to correct a paragraph reference. EASA AD No. 2016-0097R1 advises that after AD No. 2012-0170R2 was issued, a technical investigation of an AS 365 N3 accident revealed a damaged TGB bearing. EASA further states that the affected control rod had been repetitively inspected as required by EASA AD 2012-0170R2, and that the investigation is still ongoing to determine the root cause of the damage and why the damage was not discovered during previous inspections. EASA AD No. 2016-0097R1 requires repetitive inspections of the TGB oil level and magnetic chip detector. EASA AD No. 2016-0097R1 also requires replacing bearing part number (P/N) 704A33-651-093 or P/N 704A33-651-104, with an improved bearing, P/N 704A33-651-245 or 704A33-651-246, which is terminating action for the repetitive inspections of the magnetic chip detector but not of the oil level. The EASA AD also describes an alternative repetitive inspection for play that would defer replacing the bearing for an additional 110 hours TIS. Lastly, the EASA AD requires that helicopters with an improved bearing P/N 704A33-651-245 or 704A33-651-246 (identified as post-modification 07 65B57 configuration) replace the bearing at intervals not to exceed 500 hours TIS.

In light of EASA AD No. 2016-0097R1 and the corrective actions required by this final rule, we are issuing a separate action to withdraw the NPRM (80 FR 53024, September 2, 2015).

FAA's Determination

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are issuing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

Related Service Information

We reviewed Airbus Helicopters Alert Service Bulletin (ASB) No. AS365-01.00.67, Revision 0, dated May 4, 2016, for FAA type-certificated Model SA-365N1, AS-365N2, and AS 365 N3 helicopters and for non-FAA type-certificated Model AS365F, Fi, and K helicopters; ASB No. EC155-04A014, Revision 0, dated May 4, 2016, for FAA type-certificated Model EC 155B and EC155B1 helicopters; and ASB No. SA366-01.29, Revision 0, dated May 4, 2016, for FAA type-certificated Model SA-366G1 and non-FAA type-certificated Model SA-366GA helicopters. Each ASB describes procedures for ensuring the TGB oil level is at maximum capacity; reducing the inspection interval for the TGB magnetic plug pending initial replacement of the bearing; removing the control rod assembly to inspect the bearing; and periodically replacing the bearing.

AD Requirements

This AD applies to the affected model helicopters with bearing P/N 704A33-651-093 or P/N 704A33-651-104 and requires:

- Checking the TGB oil level at specified intervals. An owner/operator (pilot) may perform this visual check and must enter compliance into the helicopter maintenance records in accordance with 14 CFR 43.9(a)(1) through (4) and 91.417(a)(2)(v). A pilot may perform this check because it involves only a visual check for the oil level in the TGB and can be performed equally well by a pilot or a mechanic. This check is an exception to our standard maintenance regulations.
- Replacing the bearing part number (P/N) 704A33-651-093 or P/N 704A33-651-104 with a bearing, P/N 704A33-651-245 or 704A33-651-246.

This AD also prohibits installing bearing P/N 704A33-651-093 or P/N 704A33-651-104 on any helicopter.

Differences Between This AD and the EASA AD

The EASA AD requires replacing bearing P/N 704A33-651-093 and P/N 704A33-651-104 that have 335 or more hours TIS within 15 hours TIS; this AD requires replacing these bearings within 15 hours TIS regardless of the amount of time the bearing has accumulated. The EASA AD requires a repetitive TGB magnetic chip detector inspection, while this AD does not. The EASA AD allows an alternative repetitive inspection for play to defer replacing the bearing for an additional 110 hours TIS, while this AD does not. Lastly, the EASA AD requires replacing the improved bearing at intervals of 500 hours TIS; an AD for this action is not necessary because it is specified in the manufacturer's Instructions for Continued Airworthiness, and therefore mandated by other regulatory requirements.

Costs of Compliance

We estimate that this AD affects 43 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. At an average labor rate of $85, checking the TGB oil level will require about 0.5 work-hour, for a cost per helicopter of $43 and a total cost of $1,849 for the fleet, per inspection cycle. Replacing the bearing will require 16 work-hours and parts costing $1,125, for a total cost of $2,485 per helicopter and $106,855 for the fleet.

FAA's Justification and Determination of the Effective Date

Providing an opportunity for public comments prior to adopting these AD requirements would delay implementing the safety actions needed to correct this known unsafe condition. Therefore, we find that the risk to the flying public justifies waiving notice and comment prior to the adoption of this rule because the initial inspections required by this AD must be accomplished before further flight, and the bearings must be replaced within 15 hours TIS, a very short interval for these model helicopters.

Since an unsafe condition exists that requires the immediate adoption of this AD, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in less than 30 days.

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.

We are 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

We 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, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

4. 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.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

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) 2007-25-08, Amendment 39-15290 (72 FR 69604, December 10, 2007), and adding the following new airworthiness directive (AD):

2016-23-05 Airbus Helicopters (Previously Eurocopter France): Amendment 39-18712; Docket No. FAA-2016-9396; Directorate Identifier 2016-SW-034-AD.

(a) Applicability

This AD applies to Model SA-365N1, AS-365N2, AS 365 N3, SA-366G1, EC 155B, and EC155B1 helicopters with a tail rotor gearbox (TGB) pitch control rod assembly double bearing (bearing) part number (P/N) 704A33-651-093 or P/N 704A33-651-104 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as damage to the bearing, which could result in end play, loss of tail rotor pitch control, and subsequent loss of control of the helicopter.

(c) Affected ADs

This AD supersedes AD 2007-25-08, Amendment 39-15290 (72 FR 69604, December 10, 2007).

(d) Effective Date

This AD becomes effective December 12, 2016.

(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

(1) Before further flight and thereafter at the following intervals, check the TGB oil level:

(i) For Model SA-365N1, AS-365N2, and AS 365 N3 helicopters, at intervals not to exceed 10 hours time-in-service (TIS).

(ii) For Model SA366G1 helicopters, before the first flight of each day.

(iii) For Model EC 155B and EC155B1 helicopters, at intervals not to exceed 15 hours TIS.

(iv) The actions required by paragraph (f)(1) of this AD 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.

(2) If the oil level is not at maximum, before further flight, a qualified mechanic must fill it to the maximum level.

(3) Within 15 hours TIS, replace the bearing P/N 704A33-651-093 or P/N 704A33-651-104 with a bearing P/N 704A33-651-245 or P/N 704A33-651-246.

(4) Do not install bearing P/N 704A33-651-093 or P/N 704A33-651-104 on any helicopter.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: David Hatfield, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5116; 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, we suggest 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.

(h) Additional Information

(1) Airbus Helicopters Alert Service Bulletin No. AS365-01.00.67, No. EC155-04A014, and No. SA366-01.29, each Revision 0 and dated May 4, 2016, which are not incorporated by reference, contain additional information about the subject of this final rule. 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 http://www.airbushelicopters.com/techpub. You may review 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 (EASA) AD No. 2016-0097R1, dated May 25, 2016. You may view the EASA AD on the Internet at http://www.regulations.gov by searching for and locating it in Docket No. FAA-2016-9396.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 6520 Tail Rotor Gearbox.

Issued in Fort Worth, Texas, on November 2, 2016.
Lance T. Gant,
Manager, Rotorcraft Directorate,
Aircraft Certification Service.