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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-4031; Product Identifier 2014-SW-072-AD; Amendment 39-19085; AD 2017-22-05]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters (Type Certificate Previously Held by Eurocopter France)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding Airworthiness Directive (AD) 2013-15-03 for Eurocopter France Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, and AS350D1 helicopters. AD 2013-15-03 required inspecting the hydraulic pump drive pulley bearing (bearing) for leaks, rust, overheating, and condition. This new AD adds a requirement to grease the bearing and inspect for bronze particles in the grease, and changes the inspection and inspection intervals of the bearing until it is replaced with an improved bearing. This AD was prompted by additional reports of hydraulic pump drive belt failure caused by bearing seizures. The actions of this AD are intended to prevent an unsafe condition on these products.

DATES: This AD is effective December 11, 2017.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of December 11, 2017.

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 <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, TX 76177. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-4031.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> in Docket No. FAA-2015-4031; or in person at the Docket Management Facility 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, any incorporated-by-reference information, the economic evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, 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: Stephen Barbini, Manager, Safety Management Section, Policy and Innovation Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email stephen.barbini@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to remove AD 2013-15-03, Amendment 39-17519 (78 FR 44422, July 24, 2013) and add a new AD. AD 2013-15-03 applied to Eurocopter France (now Airbus Helicopters) Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, and AS350D1 helicopters with a single hydraulic system and a hydraulic pump drive installed. AD 2013-15-03 required repetitively inspecting the bearing for leaks, rust, overheating, and condition. AD 2013-15-03 was prompted by six reports of hydraulic pump drive belt failure caused by bearing seizures. AD 2013-15-03 also was prompted by AD No. 2013-0044-E, dated February 27, 2013, issued by EASA, which is the Technical Agent for the Member States of the European Union. EASA advised that hydraulic pump drive belt failures caused by seizure of the bearing, for helicopters with a single hydraulic system, could lead to loss of hydraulic servo assistance and an increase in pilot workload to the point that the helicopter needs to land as soon as possible.

The NPRM published in the Federal Register on April 29, 2016 (81 FR 25622). The NPRM was prompted by EASA AD No. 2013-0284-E, dated December 2, 2013, which supersedes EASA AD No. 2013-0044-E. EASA AD No. 2013-0284-E advises that the hydraulic pump drive failure was caused by accidental indentation of the raceways from incorrect fitting of the bearing. Airbus Helicopters then introduced a new bearing, part number (P/N) 704A33651269, to replace bearing P/N 704A33651243. This replacement corrects the unsafe condition as it has a reduced pre-loading value, which significantly improves its reliability. EASA revised AD No. 2013-0284-E with AD No. 2013-0284R1, dated July 25, 2014, to exclude helicopters that had replaced the bearing with bearing P/N 704A33651269. EASA then superseded AD No. 2013-0284R1 with EASA AD No. 2014-0233, dated October 23, 2014, to retain the inspections and require replacement of bearing P/N 704A33651243 with bearing P/N 704A33651269. Installation of the new bearing constitutes terminating action for the repetitive inspections.

As a result, the NPRM proposed to retain the inspection requirements in AD 2013-15-03, add a requirement to grease the bearing and inspect for bronze particles in the grease, and change the inspection and inspection intervals of the bearing until it is replaced with the improved bearing.

Since the NPRM was issued, the FAA's Aircraft Certification Service has changed its organizational structure. The new structure replaces product directorates with functional divisions. We have revised some of the office titles and nomenclature throughout this Final rule to reflect the new organizational changes. Additional information about the new structure can be found in the Notice published on July 25, 2017 (82 FR 34564).

Comments

After our NPRM was published, we received a comment from Airbus Helicopters.

Request

Airbus Helicopters requested that we revise the Applicability section of the AD to eliminate confusion. Specifically, Airbus Helicopters requested we change the AD to apply to helicopters with “Single Hydraulics pre mod 079568 with Hydraulic pump drive assembly part number 350A35-0132-00 with bearing part number 704A33651243 installed.”

We do not agree. Airbus Helicopters' request does not make the Applicability section clearer because the unsafe condition lies with the bearing, which is also installed in hydraulic pump drive assembly part number 350A35-0132-00 V. Leaving the original Applicability language makes this point clear.

FAA's Determination

We have reviewed the relevant information and determined that an 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.

Differences Between This AD and the EASA AD

The EASA AD applies to Airbus Helicopters Model AS350BB helicopters, and this AD does not because the Model AS350BB has no FAA-issued type certificate. This AD applies to Model AS350D1 and AS350C helicopters, while the EASA AD does not.

Related Service Information Under 1 CFR Part 51

We reviewed Airbus Helicopters ASB No. AS350-63.00.24, Revision 0, dated October 21, 2014 (ASB), for Model AS350B, AS350BA, AS350BB, AS350B1, AS350B2, AS350B3, AS350D, and military Model AS350L1 helicopters with a single hydraulic system and a hydraulic pump drive assembly P/N 350A35-0132-00. The ASB calls for mandatory replacement of bearing P/N 704A33651243 with bearing P/N 704A33651269 and introduces a preventative maintenance operation for bearing P/N 704A33651243 until it is replaced.

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.

Costs of Compliance

We estimate that this AD affects 729 helicopters of U.S. Registry and that labor costs average \$85 per work hour. Based on these estimates, we expect the following costs:

- Greasing and visually inspecting the bearing requires 1.5 work hours and no parts are needed. We estimate a total cost of \$128 per helicopter and \$93,312 for the U.S. fleet per inspection cycle.
- Inspecting and manually rotating the bearing requires 2 work hours, and no parts are needed. We estimate a total cost of \$170 per helicopter and \$123,930 for the U.S. fleet per inspection cycle.
- Replacing the bearing requires 2 work hours and \$1,571 for parts, for a total cost of \$1,741 per helicopter and \$1,269,189 for the U.S. fleet.
- Replacing the hydraulic pump drive assembly requires 2 work hours and \$8,543 for parts, for a total cost of \$8,713 per helicopter and \$6,351,777 for the U.S. fleet.

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 have 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 above, 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 a regulatory distinction is required, 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.

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) 2013-15-03, Amendment 39-17519 (78 FR 44422, July 24, 2013), and adding the following new AD:



FAA
Aviation Safety

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

2017-22-05 Airbus Helicopters (Previously Eurocopter France): Amendment 39-19085; Docket No. FAA-2015-4031; Product Identifier 2014-SW-072-AD.

(a) Applicability

This AD applies to Airbus Helicopters Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, and AS350D1 helicopters with a hydraulic pump drive bearing (bearing) part number (P/N) 704A33651243 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as the seizure of the bearing. This condition could result in hydraulic pump drive belt failure, loss of hydraulic servo assistance, and subsequent loss of control of the helicopter.

(c) Affected ADs

This AD supersedes AD 2013-15-03, Amendment 39-17519 (78 FR 44422, July 24, 2013).

(d) Effective Date

This AD becomes effective December 11, 2017.

(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) For each bearing with less than 115 hours time-in-service (TIS), before accumulating 150 hours TIS, and for each bearing with 115 or more hours TIS, within 50 hours TIS, and for all helicopters thereafter at intervals not to exceed 150 hours TIS:

(i) Grease each bearing in accordance with the Accomplishment Instructions, paragraph 3.B.2.b., of Airbus Helicopters Alert Service Bulletin No. AS350-63.00.24, Revision 0, dated October 21, 2014 (ASB).

(ii) Perform a test ground run. Inspect all grease that comes out of the bearing during the ground run and all grease around the bearing for bronze particles.

(iii) If there are any bronze particles in the grease, before further flight, replace the bearing with bearing P/N 704A33651269. This constitutes terminating action for the inspections in this AD.

Note 1 to paragraph (f)(1)(iii) of this AD: Hydraulic pump drive assembly P/N 350A35-0132-01 is fitted with bearing P/N 704A33651269.

(2) Within 600 hours TIS and thereafter at intervals not to exceed 600 hours TIS:

(i) Visually inspect the bearing for bronze particles in the grease. If there are any bronze particles in the grease, before further flight, replace the bearing with bearing P/N 704A33651269. This constitutes terminating action for the inspections in this AD.

(ii) Manually rotate the bearing and inspect for a friction point, brinelling, and a noise from the bearing. If there is a hard point, any brinelling, or any noise from the bearing, before further flight, replace the bearing with bearing P/N 704A33651269.

(3) Replacing bearing P/N 704A33651243 with bearing P/N 704A33651269, or replacing hydraulic pump drive assembly P/N 350A35-0132-00 with hydraulic pump drive assembly P/N 350A35-0132-01, constitutes terminating action for the inspections required by this AD.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, FAA, may approve AMOCs for this AD. Send your proposal to: Stephen Barbini, Manager, Safety Management Section, Policy and Innovation Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; 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

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2014-0233, dated October 23, 2014. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2015-4031.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 2913, Hydraulic Pump (Electric/Engine), Main.

(j) 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 No. AS350-63.00.24, Revision 0, dated October 21, 2014.

(ii) Reserved.

(3) For Airbus Helicopters service information identified in this AD, contact 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>.

(4) You may view this service information at 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, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on October 17, 2017.

James A. Grigg,
Acting Director, Compliance & Airworthiness Division,
Aircraft Certification Service.