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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0503; Directorate Identifier 2011-SW-032-AD Amendment 39-18276; AD 2015-19-14]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters Deutschland GmbH (formerly Eurocopter Deutschland GmbH) (Airbus Helicopters) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Airbus Helicopters Model BO-105A, BO-105C, and BO-105S helicopters. This AD requires inspections to detect oil contamination in the main gearbox (MGB). This AD was prompted by initial findings from an accident investigation of a Model BO-105 helicopter, which indicated deterioration of the MGB caused by a contaminated oil supply. The actions of this AD are intended to detect oil contamination in the MGB, which could result in MGB deterioration, MGB failure, and subsequent loss of control of the helicopter.

DATES: This AD is effective November 3, 2015.

ADDRESSES: 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>.

- 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-2012-0503; 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 proposed 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 proposed 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 the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, Texas 76177.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> 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 EASA AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy., Fort Worth, Texas 76177; telephone (817) 222-5110; email matthew.fuller@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On May 11, 2012, at 77 FR 27659, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to add an AD that would apply to Eurocopter Deutschland GmbH (now Airbus Helicopters) Model BO-105A, BO-105C, and BO-105S helicopters. The NPRM proposed to require inspecting the MGB oil filter and MGB magnetic plug and, if the MGB oil filter or magnetic plug contained metallic fuzz, cleaning the magnetic plug, flushing the main transmission, changing the oil, and performing a ground run. If there was a chip in the MGB oil filter or MGB magnetic plug, the NPRM proposed replacing the main transmission with an airworthy main transmission and cleaning the oil cooler and oil lines. The NPRM proposed repeating the MGB magnetic plug inspection every 10 hours time-in-service (TIS) and repeating the MGB oil filter inspection every 100 hours TIS.

The NPRM was prompted by AD No. 2011-0091, dated May 18, 2011, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Model BO105 A, BO105 C, BO105 D, and BO105S helicopters. EASA AD No. 2011-0091 requires an inspection of the MGB magnetic plug every 10 flight hours and an inspection of the Mann oil filter every 100 flight hours.

Actions Since NPRM Was Issued

Since we issued the NPRM, EASA superseded AD No. 2011-0091 and issued AD No. 2014-0230, dated October 21, 2014, to provide different inspection intervals if an improved Purolator oil

filter is installed. After reviewing the EASA AD, we have determined that the actions should address installation of a Purolator oil filter and that the AD should only apply if a certain part-numbered Mann or Purolator oil filter is installed. The AD also increases the inspection interval if a Purolator oil filter is installed.

Comments

We gave the public the opportunity to comment on the NPRM. The following presents the one comment received on the NPRM and the FAA's response to the comment.

Request

The commenter, Timberland Logging, requested that the wording be clarified so that the AD would require an inspection of the magnetic plug only and not the chip detector. The commenter noted that the term "magnetic plug/chip detector" in the NPRM implies that the 10-hour inspection applies to both the magnetic plug and the chip detector. The commenter stated that the chip detector will activate a warning light on the pilot's caution panel with any accumulation of fuzz or chips.

We agree that the wording "magnetic plug/chip detector" is confusing; therefore, we have revised the wording to remove "chip detector" and only refer to the "magnetic plug."

FAA's Determination

These helicopters have been approved by the aviation authority of Germany and are approved for operation in the United States. Pursuant to our bilateral agreement with Germany, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined 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 changes previously described. These 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.

Differences Between This AD and the EASA AD

The EASA AD applies to Model BO105D helicopters; this AD does not because this model is not type certificated in the U.S. The EASA AD allows for a grace period between checking the magnetic plug by +10 hours TIS. This AD does not allow the grace period.

Related Service Information

Airbus Helicopters issued Alert Service Bulletin (ASB) No. ASB B0105-10-125, Revision 3, dated May 27, 2014 (ASB BO105-10-125), to specify repetitive inspections of the magnetic plug and oil filter with different inspection intervals based upon what type of oil filter is installed. Eurocopter (now Airbus Helicopters) Service Bulletin B0105-10-126, Revision 1, dated August 6, 2013 (ASB B0105-10-126), introduces an improved oil filter, Purolator part number (P/N) 1740001-13. Eurocopter states that Mann oil filter P/N 6140063321 will not be available in the future and will be replaced by a new oil filter provided by Purolator. Installation of the Purolator oil filter increases the inspection interval of the magnetic plug from 10 flight hours to 50 flight hours and increases the inspection interval of the oil filter from 100 flight hours to 600 flight hours.

Costs of Compliance

We estimate that this AD will affect 68 helicopters of U.S. Registry.

We estimate that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work hour. We estimate 2 work hours to inspect the oil filter and chip detector at an estimated \$170 per helicopter and \$11,560 for the fleet per inspection cycle. We estimate 40 hours to replace a transmission with a required parts cost of \$225,000 for a total cost of \$228,400.

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 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, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the 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 proposed 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 adding the following new airworthiness directive (AD):



2015-19-14 Airbus Helicopters Deutschland GmbH (AHD) (formerly Eurocopter Deutschland GmbH) Helicopters: Amendment 39-18276; Docket No. FAA-2012-0503; Directorate Identifier 2011-SW-032-AD.

(a) Applicability

This AD applies to Model BO-105A, BO-105C, and BO-105S helicopters with a Mann oil filter part number (P/N) 6140063321 or a Purolator oil filter P/N 1740001-13, installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as deterioration of the main gearbox (MGB) caused by oil contamination. This condition could result in MGB failure and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective November 3, 2015.

(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

(1) Within 100 hours time-in-service (TIS) or at the next MGB magnetic plug or chip detector inspection, whichever occurs first, and thereafter at intervals not to exceed 100 hours TIS if a Mann oil filter is installed or 600 hours TIS if a Purolator oil filter is installed, clean and inspect the MGB oil filter for chips and the MGB magnetic plug for fine particles (metallic fuzz) or chips. A "chip" is a solid piece of metal but not metallic fuzz.

(i) If there are no chips on the MGB oil filter or on the magnetic plug, and the metallic fuzz covers less than 25% of the magnetic plug, clean the magnetic plug.

(ii) If there are no chips on the MBG oil filter or on the magnetic plug, but the metallic fuzz covers 25% or more of the magnetic plug, flush the main transmission, change the oil, perform a ground run for 15 minutes at the flight-idle power setting, and then re-inspect the MGB oil filter and magnetic plug for a chip and the quantity of metallic fuzz on the magnetic plug.

(iii) If there is a chip on the MGB oil filter or on the magnetic plug, or, after complying with paragraph (e)(1)(ii) of this AD, metallic fuzz covers 25% or more of the magnetic plug, replace the main transmission with an airworthy main transmission and clean the oil cooler and oil lines.

(2) At intervals not to exceed 10 hours TIS if a Mann oil filter is installed and 50 hours TIS if a Purolator oil filter, inspect the magnetic plug for a chip or metallic fuzz in accordance with the requirements of paragraph (e)(1) of this AD.

(3) If a Purolator oil filter has been installed on a helicopter, do not install a Mann oil filter on that helicopter.

(f) Special Flight Permit

A special flight permit will be permitted for up to 10 hours TIS for the purpose of operating the aircraft to a maintenance facility only.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy., Fort Worth, Texas 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

(1) Airbus Helicopters Alert Service Bulletin No. ASB B0105-10-125, Revision 3, dated May 27, 2014, and Eurocopter Service Bulletin B0105-10-126, Revision 1, dated August 6, 2013, which are not incorporated by reference, contain 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 <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, Texas 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD 2014-0230, dated October 21, 2014. You may view the EASA AD on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2012-0503.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 6320 Main Gear Box.

Issued in Fort Worth, Texas, on September 17, 2015.

James A. Grigg,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.