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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2010-0825; Directorate Identifier 2010-SW-072-AD; Amendment 39-16410; AD 2010-16-51]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Eurocopter France Model SA330J Helicopters**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

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**SUMMARY:** This document publishes in the Federal Register an amendment adopting Airworthiness Directive (AD) 2010-16-51, which was sent previously to all known U.S. owners and operators of Eurocopter France (Eurocopter) Model SA330J helicopters by individual letters. This AD requires, within 10 hours time-in-service (TIS), inspecting for a gap between the main gearbox (MGB) oil cooling fan assembly (fan) rotor blade and the upper section of the guide vane bearing housing. This inspection must be accomplished by using a feeler gauge attached to a rigid rod. If the feeler gauge cannot be inserted between the blade and the housing, this AD requires replacing the two fan rotor shaft bearings with two airworthy bearings. This AD is prompted by the separation of a fan rotor blade that caused puncture holes in the transmission deck. This condition, if not corrected, could lead to damage to the hydraulic lines and flight controls, and subsequent loss of control of the helicopter.

**DATES:** Effective September 17, 2010, to all persons except those persons to whom it was made immediately effective by Emergency AD 2010-16-51, issued on July 19, 2010, which contained the requirements of this amendment.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of September 17, 2010.

Comments for inclusion in the Rules Docket must be received on or before November 1, 2010.

**ADDRESSES:** Use one of the following addresses to submit comments on this AD:

- Federal eRulemaking Portal: Go to <http://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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

You may get the service information identified in this AD from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, TX 75053-4005, telephone (800) 232-0323, fax (972) 641-3710, or at <http://www.eurocopter.com>.

Examining the docket: You may examine the docket that contains the AD, any comments, and other information 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 Docket Operations office (telephone (800) 647-5527) is located in Room W12-140 on the ground floor of the West Building at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Rao Edupuganti, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-4389, fax (817) 222-5961.

**SUPPLEMENTARY INFORMATION:** On July 19, 2010, we issued Emergency AD 2010-16-51 for Eurocopter Model SA330J helicopters, which requires, within 10 hours TIS, inspecting for a gap between the MGB fan rotor blade and the upper section of the guide vane bearing housing over the entire width of the blade. The inspection must be accomplished by using a 0.2 millimeter (mm) (0.008 inch) feeler gauge attached to a rigid rod. If the feeler gauge cannot be inserted between the upper blade and the upper housing, the Emergency AD requires replacing the two fan rotor shaft bearings with two airworthy bearings. That action was prompted by a rotor burst of MGB oil fan. Investigation of the incident has shown that some fan rotor blades struck the upper area of the guide vane bearing housing of the fan and separated from the rotor, striking the MGB compartment environment, and punctured holes in the transmission deck. This interference was due to internal degradation of the bearings of the fan rotor shaft. This condition, if not corrected, could lead to fan rotor burst, damage to the hydraulic lines and flight controls, and subsequent loss of control of the helicopter.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, notified us that an unsafe condition may exist on these helicopter models. EASA advises of a case of rotor burst of a fan. Investigation has shown that some fan rotor blades interfered with the upper area of the guide vane bearing housing of the fan. The blades detached from the rotor, impacted the MGB compartment environment, and punctured holes in the transmission deck. This interference was due to internal degradation of the bearings of the fan rotor shaft. EASA states that this condition, if not corrected could lead to fan rotor burst and possibly result in damage to hydraulic pipes and flight controls located nearby the MGB cooling fan.

Eurocopter has issued Emergency Alert Service Bulletin No. 05.96, dated July 12, 2010 (EASB), for Model SA330J helicopters and for non-FAA type-certificated Model SA330Ba, Ca, Ea, L, Jm, S1, and Sm military helicopters. The EASB specifies checking for a minimum play of 0.2 millimeters (mm) between a fan blade and the guide vane bearing housing using a locally manufactured tool. The EASB also states that if the minimum play is not complied with, replace the two bearings of the fan rotor shaft. EASA classified the EASB as mandatory and issued AD No. 2010-0147-E, dated July 14, 2010, to ensure the continued airworthiness of these helicopters. This AD differs from EASA Emergency AD No. 2010-0142-E in that we use the term "hours time-in-service" rather than "flight hours." Also, for clarification, we specify inspecting for a "gap" rather than checking for "play."

This helicopter model is manufactured in France and is type certificated for operation in the United States under the provisions of 14 CFR 21.29 and the applicable bilateral agreement. Pursuant to the applicable bilateral agreement, EASA has kept us informed of the situation described above. We have examined the findings of EASA, reviewed all available information, and determined that

AD action is necessary for helicopters of this type design that are certificated for operation in the United States.

Since the unsafe condition described is likely to exist or develop on other Eurocopter Model SA330J helicopters of the same type design, we issued Emergency AD 2010-16-51 to prevent a rotor burst of the MGB fan, damage to the hydraulic lines and flight controls, and subsequent loss of control of the helicopter. The Emergency AD requires, within 10 hours TIS, using a 0.2 mm (0.008 inch) feeler gauge attached to a rigid rod, inspecting for a gap between a fan rotor blade and the upper section of the guide vane bearing housing over the entire width of the blade. If the feeler gauge can be inserted between the blade and the housing (a gap greater than or equal to 0.2 mm), no further action is required. If the feeler gauge cannot be inserted between the blade and the housing (a gap less than 0.2 mm), replacing the two fan rotor shaft bearings with two airworthy bearings is required. After installing airworthy bearings, reinspecting the gap to ensure there is sufficient clearance between the blade and the housing is also required. The actions must be accomplished by following specified portions of the EASB described previously.

The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the structural integrity and controllability of the helicopter. Therefore, the actions previously described are required within a very short time period, and this AD must be issued immediately.

Since it was found that immediate corrective action was required, notice and opportunity for prior public comment thereon were impracticable and contrary to the public interest, and good cause existed to make the AD effective immediately by individual letters issued on July 19, 2010 to all known U.S. owners and operators of Eurocopter Model SA330J helicopters. These conditions still exist, and the AD is hereby published in the Federal Register as an amendment to 14 CFR 39.13 to make it effective to all persons.

We estimate that this AD will affect 12 helicopters of U.S. registry. Each inspection will take approximately 2 work hours. Replacing both bearings on each helicopter will take approximately 6 work hours. The average labor rate is \$85 per work hour. Required parts will cost approximately \$935 per helicopter (2 bearings per helicopter). Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$19,380 (\$1,615 per helicopter, assuming 1 inspection and replacement of both bearings on each helicopter).

### **Comments Invited**

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2010-0825; Directorate Identifier 2010-SW-072-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of our docket Web site, you can find and read the comments to any of our dockets, including the name of the individual who sent the comment. You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

### **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 the 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); 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.

We prepared an economic evaluation of the estimated costs to comply with this AD. See the AD docket to examine the economic evaluation.

### **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.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding a new airworthiness directive to read as follows:



**2010-16-51 EUROCOPTER FRANCE:** Amendment 39-16410. Docket No. FAA-2010-0825; Directorate Identifier 2010-SW-072-AD.

**Applicability:** Model SA330J helicopters, certificated in any category.

**Compliance:** Required as indicated.

To prevent rotor burst of the main gearbox (MGB) oil cooling fan assembly (fan), damage to the hydraulic lines and flight controls, and subsequent loss of control of the helicopter, do the following:

(a) Within 10 hours time-in-service (TIS), unless accomplished previously, and thereafter at intervals not to exceed 10 hours TIS, using a 0.2 millimeter (mm) (0.008 inch) feeler gauge attached to a rigid rod, inspect for a minimum gap of 0.2 mm between a fan rotor blade and the upper section of the guide vane bearing housing over the entire width of the blade as depicted in Figure 1 and as shown in Figure 2 of Eurocopter Emergency Alert Service Bulletin No. 05.96, dated July 12, 2010 (EASB), and by following the Accomplishment Instructions, paragraph 3.B., of the EASB.

(1) If the feeler gauge can be inserted between the blade and the housing (a gap greater than or equal to 0.2 mm), no further action is required.

(2) If the feeler gauge cannot be inserted between the blade and the housing (a gap less than 0.2 mm), before further flight, replace the two fan rotor shaft bearings, with two airworthy bearings, part number 704A33651114. Reinspect to ensure compliance with paragraph (a) of this AD after installing airworthy bearings. Replacing the two fan rotor shaft bearings does not constitute terminating action for the inspection requirements of this AD.

(b) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Safety Management Group, FAA, ATTN: Rao Edupuganti, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-4389, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(c) The Joint Aircraft System/Component (JASC) Code is 6322: Main gearbox oil cooler fan.

(d) The inspections shall be done in accordance with the specified portions of Eurocopter Emergency Alert Service Bulletin No. 05.96, dated July 12, 2010. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, TX 75053-4005, telephone (800) 232-0323, fax (972) 641-3710, or at <http://www.eurocopter.com>. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas, or 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(e) This amendment becomes effective on September 17, 2010, to all persons except those persons to whom it was made immediately effective by Emergency AD 2010-16-51, issued July 19, 2010, which contained the requirements of this amendment.

Issued in Fort Worth, Texas, on August 5, 2010.  
Scott A. Horn,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.