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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-1243; Directorate Identifier 2007-SW-03-AD; Amendment 39-17267; AD 2012-23-11]

RIN 2120-AA64

Airworthiness Directives; Erickson Air-Crane Incorporated Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Erickson Air-Crane Incorporated (Erickson) Model S-64F helicopters. This AD requires inspecting for cracking or working rivets in each left and right splice fitting (transition fitting), the pylon bulkhead assembly-canted (bulkhead assembly), and the pylon steel strap (strap). This AD was prompted by several reports of cracking in the transition fittings, the bulkhead assembly, and the pylon. The actions specified by this AD are intended to detect cracking in the rotary rudder boom or pylon due to fatigue, and to prevent failure from static overload and subsequent loss of control of the helicopter.

DATES: This AD is effective January 14, 2013.

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of January 14, 2013.

ADDRESSES: For service information identified in this AD, contact Erickson Air-Crane Incorporated, ATTN: Chris Erickson/Compliance Officer, 3100 Willow Springs Rd., P.O. Box 3247, Central Point, OR 97502; telephone (541) 664-5544; fax (541) 664-2312; email cerickson@ericksonaircrane.com. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

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, any incorporated-by-reference service information, 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: Michael Kohner, Aviation Safety Engineer, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5170; email 7-avs-asw-170@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On November 26, 2008, at 73 FR 71952, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to Erickson Model S-64F helicopters with a transition fitting, part number (P/N) 6420-66341-101, -102, -103, or -104; bulkhead assembly, P/N 6420-66340-041, -043, or -044; or a strap, P/N 6420-66301-119 or -127, installed. That NPRM proposed to require inspecting for cracking or working rivets in each transition fitting, the bulkhead assembly, the strap, and the attaching rotary rudder boom and pylon structure, and repairing or replacing any cracked or damaged part with an airworthy part. The NPRM also proposed to require, for any part where you could not visually determine that a crack does not exist, inspecting using a 10-power or higher magnifying glass. If you could not determine that a crack does not exist in the part after inspecting it with a 10-power or higher magnifying glass, the NPRM proposed to require performing a fluorescent particle inspection (FPI) of any part other than a strap, and performing a magnetic particle inspection (MPI) of any strap. The NPRM also proposed to require replacing any loose or working rivet. The proposed requirements were intended to detect cracking in the rotary rudder boom or pylon due to fatigue, and to prevent failure from static overload and subsequent loss of control of the helicopter.

Comments

After our NPRM (73 FR 71952, November 26, 2008) was published, we received comments from one commenter.

Request

A commenter from Erickson Air-Crane asked that we delete the bulkhead assembly, P/N 6420-66340-041, from the applicability and compliance section of the NPRM (73 FR 71952, November 26, 2008) since that P/N is not used on Erickson Model S-64F helicopters. We agree and have revised this AD accordingly.

The commenter also asked that we delete the words "other than a strap" from the requirement to perform an FPI on a part other than a strap if you cannot determine that a crack does not exist, and delete the entire requirement to perform an MPI of the strap if you cannot determine that a crack does not exist. The commenter states that an MPI cannot be performed on the strap when it is installed on a helicopter; instead an FPI of the strap would need to be performed with the other parts. We partially agree. We agree that an MPI cannot be performed on the strap while it is installed on the helicopter because the strap is attached to the aluminum pylon section. An MPI for the strap was initially proposed in the NPRM (73 FR 71952, November 26, 2008) because this would be the type of inspection normally used for a steel part. Instead of changing the MPI on the strap to an FPI as requested, after further review, we determined that deleting this inspection, as well as the magnifying glass inspection and certain FPIs that were proposed in the NPRM, will not impact the overall level of safety. These inspections were included in the event a visual inspection was insufficient to

determine whether a crack exists. If any additional inspections are necessary to determine if a crack exists, a qualified individual performing the inspection must make this determination.

FAA's Determination

We have reviewed the relevant information, considered the comments received, and determined that an unsafe condition exists and is likely to exist or develop on other products of the same type design and that air safety and the public interest require adopting the AD requirements as proposed with the changes described previously and minor editorial changes. We have also revised the estimated costs of complying with this AD to reflect an average labor rate of $85 per work-hour instead of $80 per work-hour. These changes are consistent with the intent of the proposals in the NPRM (73 FR 71952, November 26, 2008) and will not increase the economic burden on any operator nor increase the scope of the AD.

Related Service Information

We have reviewed Erickson Service Bulletin (SB) No. 64B20-6, Revision A, dated December 12, 2007, which describes procedures for inspecting the transition fittings, the bulkhead assembly, the strap, and the attaching rotary rudder boom and pylon structure for cracking or working rivets. We have also reviewed Erickson SB No. 64F General-3, Revision C, dated December 12, 2007, which summarizes a listing of a portion of the Model S-64F helicopter components, their part numbers, and the corresponding SBs to use when performing the structural inspections.

Costs of Compliance

We estimate that this AD will affect 7 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. It will take about 0.75 work-hour to visually inspect the transition fittings, skin panels, the bulkhead assembly, strap, and pylon exterior in the strap area; we estimate 30 of these visual inspections per year. It will take about 0.50 work-hour to visually inspect the pylon interior in the strap area; we estimate 4 of these visual inspections per year. It will take about 0.75 work-hour to visually and fluorescent penetrant inspect the skin panels at the transition fitting; we estimate performing these inspections 1 time per year. It will take about 40 work-hours to repair a pylon structural assembly. The average labor rate is $85 per work-hour and the cost for required parts to repair a pylon structural assembly is approximately $50,000. Based on these figures, we estimate the annual cost of the inspections will be $2,146 per helicopter and $15,024 for the fleet on U.S. operators. The estimated cost to repair a pylon structural assembly, including the cost for replacement parts and labor, is $53,400.

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

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 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 adding the following new airworthiness directive (AD):

2012-23-11 Erickson Air-Crane Incorporated: Amendment 39-17267; Docket No. FAA-2008-1243; Directorate Identifier 2007-SW-03-AD.

(a) Applicability

This AD applies to Erickson Air-Crane Incorporated (Erickson) Model S-64F helicopters with a left or right splice fitting (transition fitting), part number (P/N) 6420-66341-101, -102, -103, or -104; pylon bulkhead assembly-canted (bulkhead assembly), P/N 6420-66340-043 or -044; or a pylon steel strap (strap), P/N 6420-66301-119 or -127, installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as cracking in the rotary rudder boom or pylon due to fatigue, failure from static overload, and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective January 14, 2013.

(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 20 hours time-in-service (TIS), and thereafter at intervals not to exceed 20 hours (TIS):

(i) Visually inspect each transition fitting, P/N 6420-66341-101, -102, -103, or -104, for a crack or working rivets on the inboard face of the rotary rudder boom and pylon, paying particular attention to the fastener attachment holes, as depicted in Figure 1, Detail A, of the Accomplishment Instructions in Erickson Air-Crane Incorporated Service Bulletin No. 64B20-6, Revision A, dated December 12, 2007 (SB).

(ii) Visually inspect the outboard face of each rotary rudder boom and pylon skin panel (skin panel) that attaches to the transition fittings for a crack or working rivets in the transition fitting attachment areas, paying particular attention to the fastener attachment holes, as shown in Figure 1, Detail B, of the Accomplishment Instructions in the SB.

(iii) Visually inspect the forward and aft sides of each bulkhead assembly, P/N 6420-66340-043 or -044, for a crack. Pay particular attention to the circled areas shown in Figure 2 of the Accomplishment Instructions in the SB.

(iv) Visually inspect the upper 12 inches of each strap, P/N 6420-66301-119 or -127, for a crack or for working rivets as shown in Figure 3 of the Accomplishment Instructions in the SB.

(v) Visually inspect the pylon for a crack or working rivets on each side of the upper 12 inches of the strap, and also 6 inches above the end of the strap as shown in Figure 3 of the Accomplishment Instructions in the SB.

(2) For any pylon with a strap installed, within 155 hours TIS, and thereafter at intervals not to exceed 155 hours TIS, remove the inspection access covers, P/N 6420-66304-109 and P/N 6420-66303-125, on the forward and aft sides of the pylon and visually inspect the left-hand cap angle (longeron), P/N 6420-66304-136, and the interior area of the pylon adjacent to the upper 12 inches of the strap, as well as 6 inches above the end of the strap, for a crack or working rivets, as shown in Figure 3 of the Accomplishment Instructions in the SB.

(3) At each transition fitting replacement, which is required at intervals not to exceed 8,300 hours TIS:

(i) With each transition fitting removed, visually inspect both sides of each skin panel for a crack in the areas to which the transition fitting attaches, paying particular attention to the fastener attachment holes, as depicted in Details A and B, Figure 1, of the Accomplishment Instructions in the SB.

(ii) Perform a fluorescent penetrant inspection of each skin panel for a crack in the areas around the fastener holes where the transition fittings attach to the rotary rudder boom and pylon.

(4) If there is a crack, before further flight, replace any cracked part with an airworthy part, or repair the cracked part if the damage is within the maximum repair damage limits.

Note to paragraph (e)(4) of this AD: The maximum repair damage limitations are stated in the applicable Component and Repair Overhaul Manual.

(5) If any loose or working rivets are found, before further flight, remove the rivets and visually inspect the fastener holes and surrounding area for a crack or any other damage. Replace any part that is cracked with an airworthy part; replace any damaged part with damage exceeding the maximum repair damage limits with an airworthy part; or repair any damaged part that is within the maximum repair damage limits. Also, replace any loose or working rivets.

(f) Special Flight Permits

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the inspection requirements of this AD can be accomplished. No special flight permits will be issued to accomplish replacements or repairs, or if a crack is suspected.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Rotorcraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Michael Kohner, Aviation Safety Engineer, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5170; email 7-avs-asw-170@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

Erickson Air-Crane Service Bulletin No. 64F General-3, Revision C, dated December 12, 2007, which is not incorporated by reference, contains additional information about the subject of this AD. For this service information, contact Erickson Air-Crane Incorporated, ATTN: Chris Erickson/Compliance Officer, 3100 Willow Springs Rd., P.O. Box 3247, Central Point, OR 97502; telephone (541) 664-5544; fax (541) 664-2312; email cerickson@ericksonaircrane.com. You may also review this service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 5302, Rotorcraft Tail Boom.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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) Erickson Air-Crane Incorporated Service Bulletin No. 64B20-6, Revision A, dated December 12, 2007.

(ii) Reserved.

(3) For Erickson Air-Crane Incorporated service information identified in this AD, contact Erickson Air-Crane Incorporated, ATTN: Chris Erickson/Compliance Officer, 3100 Willow Springs Rd., P.O. Box 3247, Central Point, OR 97502; telephone (541) 664-5544; fax (541) 664-2312; email cerickson@ericksonaircrane.com.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. 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 November 13, 2012.
Kim Smith,
Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.