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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-1191; Product Identifier 2017-SW-046-AD; Amendment 39-19134; AD 2017-26-03]

RIN 2120-AA64

Airworthiness Directives; The Enstrom Helicopter Corporation Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for the Enstrom Helicopter Corporation (Enstrom) Model F-28, F-28A, F-28C, F-28C-2, F-28C-2R, F-28F, F-28F-R, TH-28, 280, 280C, 280F, 280FX, 480, and 480B helicopters. This AD requires inspecting certain rod end bearing assemblies. This AD is prompted by an accident. The actions of this AD are intended to prevent an unsafe condition on these helicopters.

DATES: This AD becomes effective January 4, 2018.

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of January 4, 2018.

We must receive comments on this AD by February 20, 2018.

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-2017-1191; 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 (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 Enstrom Helicopter Corporation, 2209 22nd Street, Menominee, MI; telephone (906) 863-1200; fax (906) 863-6821; or at www.enstromhelicopter.com. 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, TX 76177. It is also available on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-1191.

FOR FURTHER INFORMATION CONTACT: Manzoor Javed, Senior Aerospace Engineer, Chicago ACO Branch, Compliance and Airworthiness Division, Aircraft Certification Service, FAA, 2300 East Devon Ave., Des Plaines, IL 60018; telephone (847) 294-8112; email manzoor.javed@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

We are adopting a new AD for Enstrom Model F-28, F-28A, F-28C, F-28C-2, F-28C-2R, F-28F, F-28F-R, TH-28, 280, 280C, 280F, 280FX, 480, and 480B helicopters with a rod end bearing assembly (bearing assembly) part number (P/N) 01-824-08E-011, 09455-01-824-08E-011, ECD091-1, ASMK8T, M81935/1-08K, MS21242S8K, or MTK8 installed. We received a report of an accident involving an Enstrom Model 480B helicopter in which one of the main rotor (M/R) blades departed in-flight. The preliminary investigation indicated that failure of a rod end bearing assembly of one of the M/R hydraulic damper assemblies may have caused the M/R blade to depart from the helicopter. Based on a partially visible marking, the FAA believes the failed part is assembly P/N ECD091-1, vendor P/N 09455-01-824-08E-011. Analysis of the failed assembly revealed corrosion in the root of the threaded portion of the rod end. Enstrom identified a potential failure mode whereby failure of the rod end bearing assembly may result in the loss of the M/R blade. Because there is no indication of a specific manufacturing or design issue that would limit the potential for this corrosion to have

occurred on other similarly-designed rod ends, the FAA determined it necessary to require an inspection of all approved rod end P/Ns.

Accordingly, this AD requires, within 5 hours time-in-service (TIS), a one-time inspection of the bearing assemblies for corrosion on the threaded portion of the rod end. If there is any corrosion, this AD requires replacing the bearing assembly before further flight. This AD also requires reporting information about the inspection to the FAA within 10 days.

The actions specified by this AD are intended to detect corrosion in the bearing assembly to prevent failure of the rod end, loss of an M/R blade, and subsequent loss of control of the helicopter. Additional inspections at longer intervals may also be necessary. We plan to publish a notice of proposed rulemaking to give the public an opportunity to comment on those long-term requirements.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other helicopters of these same type designs.

Related Service Information Under 1 CFR Part 51

Enstrom has issued Service Directive Bulletin (SDB) No. 0127, Revision 1, dated October 6, 2017, for Model F-28, F-28A, F-28C, F-28C-2, F-28C-2R, F-28F, F-28F-R, 280, 280C, 280F, and 280FX helicopters and SDB No. T-058, dated August 2, 2017, for Model TH-28, 480, and 480B helicopters. This service information provides procedures for inspecting certain vendor specific bearing assemblies P/N ECD091-1 for corrosion on the threaded portion of the rod end.

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.

AD Requirements

This AD requires, within 5 hours TIS, inspecting each M/R hydraulic damper bearing assembly P/N ECD091-1, and for model F-28, F-28A, F-28C, F-28C-2, F-28C-2R, F-28F, F-28F-R, 280, 280C, 280F, and 280FX helicopters each belt tension shaft bearing assembly P/N 01-824-08E-011, 09455-01-824-08E-011, ASMK8T, ECD091-1, MTK8, M81935/1-08K, and MS21242S8K, for corrosion at the root of the thread on the rod end with a 5X or higher power magnifying glass. If there is any corrosion, this AD requires replacing the bearing assembly before further flight.

This AD also requires, within 10 days after completing each inspection, reporting the findings of the inspection to the FAA's Chicago ACO Branch, including: The owner's contact information, helicopter registration number and model, date of the inspection, total hours of the bearing assembly and helicopter, bearing assembly serial number, the location of any corrosion, and a description of any corrosion.

Differences Between This AD and the Service Information

The service information specifies repeating the visual inspection for corrosion at every 100 hour or annual inspection, while this AD does not, as this time interval would allow for sufficient time for notice and comment.

Also, the service information only applies to bearing assembly P/N ECD091-1 and only specifies performing an inspection if marked with vendor P/N 09455-01-824-08E-011 or if the marking is missing or illegible. This AD applies to all P/N ECD091-1, 09455-01-824-08E-011, MTK8, ASMK8T, 01-824-08E-011, M81935/1-08K, and MS21242S8K bearing assemblies. Because the FAA does not have any data that positively confirms the root cause as a manufacturing batch, the AD

requires inspections on all P/Ns of the same type design. The data received about the initial inspections will be used to determine the effectivity of any follow-on actions.

Finally, the service information specifies reporting the inspection findings to Enstrom, while this AD requires reporting the findings to the FAA.

Interim Action

We consider this AD interim action. The inspection reports that are required by this AD will enable us to obtain better insight into the nature of the corrosion and to develop final action to address the unsafe condition. Once final action has been identified, we might consider further rulemaking.

Costs of Compliance

We estimate that this AD affects 513 helicopters of U.S. Registry.

At an average labor rate of $85 per work-hour, we estimate that operators may incur the following costs in order to comply with this AD.

Inspecting the bearing assemblies will require 5 work-hours, for a cost per helicopter of $425 and a total cost of $218,025 to the U.S. fleet.

Reporting the inspection results required by this AD will require about 0.5 work-hour, for a cost per helicopter of $43, and a total cost of $22,059 to the U.S. fleet.

If required, replacing one bearing assembly will not incur any additional work-hours, and required parts will cost $410, for a cost per helicopter of $410.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting required by this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave. SW, Washington, DC 20591. ATTN: Information Collection Clearance Officer, AES-200.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because the bearing assembly inspection required by this AD must be accomplished within 5 hours TIS. Therefore, we find good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reason(s) stated above, we find 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 adding the following new airworthiness directive (AD):

2017-26-03 The Enstrom Helicopter Corporation: Amendment 39-19134; Docket No. FAA-2017-1191; Product Identifier 2017-SW-046-AD.

(a) Applicability

This AD applies to the Enstrom Helicopter Corporation (Enstrom) Model F-28, F-28A, F-28C, F-28C-2, F-28C-2R, F-28F, F-28F-R, TH-28, 280, 280C, 280F, 280FX, 480, and 480B helicopters, certificated in any category, with a rod end bearing assembly (bearing assembly) P/N 01-824-08E-011, 09455-01-824-08E-011, ECD091-1, ASMK8T, M81935/1-08K, MS21242S8K, or MTK8 installed.

(b) Unsafe Condition

This AD defines the unsafe condition as corrosion on a bearing assembly rod end thread. This condition could result in a crack in the bearing assembly, failure of the rod end resulting in loss of a main rotor blade, and loss of control of the helicopter.

(c) Effective Date

This AD becomes effective January 4, 2018.

(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 5 hours time-in-service (TIS), using a 5X or higher power magnifying glass, inspect each main rotor damper bearing assembly for corrosion on the threaded portion of the rod end as shown in Figure 1 of Enstrom Service Directive Bulletin (SDB) No. 0127, Revision 1, dated October 6, 2017 (SDB 0127), for Model F-28, F-28A, F-28C, F-28C-2, F-28C-2R, F-28F, F-28F-R, 280, 280C, 280F, and 280FX helicopters or Enstrom SDB No. T-058, dated August 2, 2017 (SDB T-058), for model TH-28, 480, and 480B helicopters, as appropriate for your model helicopter. If there is any corrosion, before further flight, replace the bearing assembly.

(2) For Model F-28, F-28A, F-28C, F-28C-2, F-28C-2R, F-28F, F-28F-R, 280, 280C, 280F, and 280FX helicopters, within 5 hours TIS, using a 5X or higher power magnifying glass, inspect each belt tension shaft rod end bearing assembly for corrosion on the threaded portion of the rod end as shown in Figure 1 of SDB 0127. If there is any corrosion, before further flight, replace the bearing assembly.

(3) Within 10 days after completing the inspections required by paragraph (e)(1) and (e)(2) of this AD, report the findings of each inspection, including the helicopter owner, address, telephone number, email address, helicopter model, helicopter registration number, date of inspection, total hours TIS of the helicopter, total hours TIS of the bearing, bearing assembly serial number, location

of any corrosion, and a description of any corrosion, by mail or email to the individual listed in paragraph (g)(1) of this AD.

(f) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 30 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Chicago ACO Branch, Compliance and Airworthiness Division, Aircraft Certification Service, FAA, may approve AMOCs for this AD. Send your proposal to: Manzoor Javed, Senior Aerospace Engineer, Chicago ACO Branch, Compliance and Airworthiness Division, Aircraft Certification Service, FAA, 2300 East Devon Ave., Des Plaines, IL 60018; telephone (847) 294-8112; email manzoor.javed@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) Subject

Joint Aircraft Service Component (JASC) Code: 6200 Main Rotor System.

(i) 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) Enstrom Service Directive Bulletin No. 0127, Revision 1, dated October 6, 2017.

(ii) Enstrom Service Directive Bulletin No. T-058, dated August 2, 2017.

(3) For Enstrom service information identified in this AD, contact Enstrom Helicopter Corporation, 2209 22nd Street, Menominee, MI; telephone (906) 863-1200; fax (906) 863-6821; or at www.enstromhelicopter.com.

(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 December 11, 2017.
Scott A. Horn,

Deputy Director for Regulatory Operations, Compliance & Airworthiness Division, Aircraft Certification Service.