



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0141; Directorate Identifier 2016-SW-067-AD]

RIN 2120-AA64

Airworthiness Directives; The Enstrom Helicopter Corporation

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede airworthiness directive (AD) 2015-08-51 for Enstrom Helicopter Corporation (Enstrom) Model F-28A, 280, F-28C, F-28C-2, F-28C-2R, 280C, F-28F, F-28F-R, 280F, 280FX, and 480 helicopters. AD 2015-08-51 requires an inspection of the main rotor spindle (spindle) and reporting the inspection results to the FAA. This proposed AD was prompted by additional reports of cracked spindles and would require establishing a life limit and a recurring inspection. These proposed actions are intended to prevent the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 days AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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-2017-0141; 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 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 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 service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

FOR FURTHER INFORMATION CONTACT: Monica Nemecek, Continued Operational Safety Program Manager, Chicago Aircraft Certification Office, Small Airplane Directorate, FAA, 2300 East Devon Ave., Des Plaines, IL 60018; (847) 294-7618; email 9-AGL-CHI-ACO-COS@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

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 might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, 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 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 proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

On May 8, 2015, we issued AD 2015-08-51, Amendment 39-18160 (80 FR 28172, May 18, 2015), which was sent previously as an emergency AD to all known U.S. owners and operators of Enstrom Model F-28A, 280, F-28C, F-28C-2, F-28C-2R, 280C, F-28F, F-28F-R, 280F, 280FX, and 480 helicopters. AD 2015-08-51 applies to helicopters with a spindle part number (P/N) 28-14282-11 or 28-14282-13 installed and requires conducting a one-time magnetic particle inspection (MPI) of the spindle for

cracks and reporting the inspection results to the FAA. AD 2015-08-51 was prompted by a fatal accident and reports of spindles with cracks. The actions of AD 2015-08-51 are intended to detect a crack in a spindle and prevent loss of a main rotor blade and subsequent loss of control of the helicopter.

Actions Since AD 2015-08-51 Was Issued

Since we issued AD 2015-08-51, we received additional reports of cracked spindles. Additionally, Enstrom revised its service information to reduce the time for the initial MPI from 3,500 hours TIS to 1,500 hours TIS and extend the compliance time for a recurring MPI of the spindles from 300 hours TIS to 500 hours TIS. Based on a review of the in-service data and a fatigue analysis, the FAA determined a life limit and repetitive MPIs were necessary to reduce the risk of a crack developing in a spindle. We also determined the reporting requirement in AD 2015-08-51 is no longer necessary.

We issued AD 2015-08-51 as interim action; this proposed AD would provide long-term requirements to prevent a spindle failure. Accordingly, this proposed AD would require an MPI of the spindle every 500 hours TIS until the spindle reaches its new life limit of 1,500 hours TIS. These proposed actions are intended to detect a crack in a spindle and prevent loss of a main rotor blade and subsequent loss of control of the helicopter.

FAA's Determination

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

Related Service Information

We reviewed Enstrom Service Directive Bulletin No. 0119, Revision 3, dated June 24, 2016, for Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters with a spindle P/N 28-14282-11 or 28-14282-13. We also reviewed Enstrom Service Directive Bulletin No. T-050, Revision 3, dated June 24, 2016, for Model 480 helicopters, serial numbers 5001 through 5004 and 5006, and with a spindle P/N 28-14282-13, except those aircraft modified with tension-torsion straps. Both service directive bulletins specify sending the spindle to Enstrom for an MPI before the spindle reaches 1,500 hours time-in-service (TIS), or within 5 hours TIS for those spindles with 1,500 or more hours TIS. Thereafter, the service directive bulletins specify returning the spindle to Enstrom for an MPI every 500 hours.

Proposed AD Requirements

This proposed AD would require establishing a life limit of 1,500 hours TIS for spindle P/Ns 28-14282-11 and 28-14282-13. This proposed AD would also require an initial and recurring MPI of the spindles.

Differences Between this Proposed AD and the Service Information

This proposed AD would require establishing a spindle life limit of 1,500 hours TIS. The service information does not specify a life limit.

This proposed AD would require that the MPI be conducted by a Level II or Level III inspector or equivalent. The service information specifies sending the spindle to Enstrom for an MPI.

This proposed AD would require an initial MPI before further flight for a spindle with 500 or more hours TIS, unless an MPI has been done within the last 500 hours TIS.

The service information specifies an initial MPI compliance time of within 5 hours TIS for a spindle with 1,500 or more hours TIS.

Costs of Compliance

We estimate that this proposed AD would affect 323 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. Inspecting the spindles would take about 15 work-hours for an estimated cost of \$1,275 per helicopter and \$411,825 for the U.S. fleet per inspection cycle. Replacing a cracked spindle would cost \$8,164 for parts and no additional work-hours. Replacing a set of three spindles that have reached their life limit would take about 14 work-hours and parts would cost \$17,500 for a total cost of \$18,690 per helicopter.

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.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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) 2015-08-51, Amendment 39-18160 (80 FR 28172, May 18, 2015), and adding the following new AD:

The Enstrom Helicopter Corporation (Enstrom): Docket No. FAA-2017-0141;
Directorate Identifier 2016-SW-067-AD.

(a) Applicability

This AD applies to Enstrom Model F-28A, 280, F-28C, F-28C-2, F-28C-2R, 280C, F-28F, F-28F-R, 280F, and 280FX helicopters, all serial numbers; and Enstrom Model 480 helicopters, serial numbers 5001 through 5006; with a main rotor spindle (spindle) part number (P/N) 28-14282-11 or 28-14282-13, installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in a spindle, which, if not detected, could result in loss of a main rotor blade and subsequent loss of control of the helicopter.

(c) Affected ADs

This AD supersedes AD 2015-08-51, Amendment 39-18160 (80 FR 28172, May 18, 2015).

(d) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(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) Before further flight, remove from service any spindle P/N 28-14282-11 or 28-14282-13 that has 1,500 or more hours time-in-service (TIS). If the hours TIS of a spindle is unknown, use the TIS of the helicopter. Thereafter, remove from service any spindle P/N 28-14282-11 or 28-14282-13 before accumulating 1,500 hours TIS.

(2) For each spindle with 500 or more hours TIS, using the hours TIS of the helicopter if the hours TIS of the spindle is unknown:

(i) Before further flight, unless already done within the last 500 hours TIS, conduct a magnetic particle inspection (MPI) of the spindle for a crack, paying particular attention to the threaded portion of the spindle. The MPI of the spindle must be conducted by a Level II or Level III inspector qualified in the MPI in the Aeronautics Sector according to the EN4179 or NAS410 standard or equivalent. If there is a crack in the spindle, replace it with an airworthy spindle before further flight.

(ii) Thereafter at intervals not to exceed 500 hours TIS, repeat the MPI specified in paragraph (f)(2)(i) of this AD.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Chicago Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Monica Nemecek, Continued Operational Safety Program Manager, Chicago Aircraft Certification Office, Small Airplane Directorate, FAA, 2300 East Devon Ave., Des Plaines, IL 60018; (847) 294-7618;

email 9-AGL-CHI-ACO-COS@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.

(3) AMOCs approved previously in accordance with AD 2015-08-51, Amendment 39-18160 (80 FR 28172, May 18, 2015), are approved as AMOCs for the corresponding requirements in paragraph (f) of this AD.

(h) Additional Information

Enstrom Service Directive Bulletin Nos. 0119 and T-050, both Revision 3 and both dated June 24, 2016, which are not incorporated by reference, contain additional information about the subject of this AD. For 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. You may review the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 6220, Main Rotor Head.

Issued in Fort Worth, Texas, on February 16, 2017.

Lance T. Gant,

Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2017-03950 Filed: 3/1/2017 8:45 am; Publication Date: 3/2/2017]