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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2006-26771; Directorate Identifier 2005-SW-07-AD; Amendment 39-15059; AD 2007-11-02]**

**RIN 2120-AA64**

**Airworthiness Directives; Enstrom Helicopter Corporation Model F-28A, F-28C, F-28F, TH-28, 280, 280C, 280F, 280FX, 480, and 480B Helicopters**

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

**ACTION:** Final rule.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD) for Enstrom Helicopter Corporation (Enstrom) Model F-28A, F-28C, F-28F, TH-28, 280, 280C, 280F, 280FX, 480, and 480B helicopters that requires determining the installation dates for each main rotor push-pull control rod (push-pull rod), inspecting the push-pull rods for corrosion, replacing any push-pull rod which has corrosion that is severe enough to cause pitting, or has visible moisture inside the rod, and repairing each push-pull rod that has corrosion but no pitting. This amendment is prompted by one reported incident in which the helicopter pilot encountered severe in-flight vibration due to the failure of a push-pull rod, requiring an emergency landing. The actions specified by this AD are intended to detect corrosion and prevent failure of a push-pull rod, and subsequent loss of control of the helicopter.

**DATES:** Effective October 2, 2007.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 2, 2007.

**ADDRESSES:** You may get the service information identified in this AD from The Enstrom Helicopter Corporation, Twin County Airport, P.O. Box 490, Menominee, Michigan 49858.

#### **Examining the Docket**

You may examine the docket that contains this AD, any comments, and other information on the Internet at <http://dms.dot.gov> or at the Docket Operations office, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Shawn Malekpour, Aviation Safety Engineer, FAA, Chicago Aircraft Certification Office, 2300 East Devon Ave., Des Plaines, Illinois 60018, telephone (847) 294-7837, fax (847) 294-7834.

**SUPPLEMENTARY INFORMATION:** A proposal to amend 14 CFR part 39 to include an AD for the specified model helicopters was published in the Federal Register on January 8, 2007 (72 FR 669). That action proposed to require reviewing the helicopter maintenance records and determining the installation dates for the push-pull rods. If the dates cannot be determined from the maintenance records, using the "Date MFD", which is located on the helicopter data plate, was proposed to be used as the installation date for the push-pull rods. That action also proposed to require a visual inspection for corrosion on the exterior and interior of the three push-pull rods, part number (P/N) 28-16253-all dash numbers (for Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters) or P/N 4140532-all dash numbers (for Model TH-28, 480, and 480B helicopters), using the compliance times stated in the following table. Replacing any push-pull rod that has corrosion that is severe enough to cause pitting or has moisture inside the rod, and repairing any push-pull rod that has corrosion but no pitting, was proposed to be required before further flight. Repairing a push-pull rod consists of cleaning the push-pull rod, applying a protective coating, and sealing the push-pull rod before remarking and reinstalling it on a helicopter.

<b>Helicopter models</b>	<b>Push-pull rod service life</b>	<b>Compliance times</b>
Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters.	Push-pull rod that has been installed for 20 or more years.	Inspect within 10 hours time-in-service (TIS) or at next annual inspection, whichever occurs first.
Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters.	Push-pull rod that has been installed for 10 or more years, but less than 20 years.	Inspect within 50 hours TIS or at the next annual inspection, whichever occurs first.
Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters.	Push-pull rod that has been installed for less than 10 years.	Inspect before the service life of the push-pull rod reaches 10 years since initial installation.
Model TH-28, 480, and 480B helicopters.	Push-pull rod that has been installed for 10 or more years.	Inspect within 50 hours TIS or at the next annual inspection, whichever occurs first.
Model TH-28, 480, and 480B helicopters.	Push-pull rod that has been installed for less than 10 years.	Inspect before the service life of the push-pull rod reaches 10 years since initial installation.

We have reviewed the following service information:

- Enstrom Helicopter Corporation Service Directive Bulletin No. 0096, dated September 10, 2003, which describes visually inspecting the push-pull rods for corrosion and internal moisture, provides for repairing light corrosion, and is applicable to Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters.
- Enstrom Helicopter Corporation Service Directive Bulletin No. T-019, dated September 10, 2003, which describes visually inspecting the push-pull rods for corrosion and internal moisture, provides for repairing light corrosion, and is applicable to Model TH-28, 480, and 480B helicopters.
- Enstrom Helicopter Corporation Service Information Letter (SIL) No. T-019, dated December 9, 2003, applicable to Model TH-28, 480, and 480B helicopters, which describes visually inspecting each push-pull rod for a crack, nick, scratch, dent, corrosion, damaged threads, bending, and contact wear. We are not proposing to require the inspections specified in the SIL.

- Enstrom Helicopter Corporation Service Information Letter No. 0156, dated December 9, 2003, applicable to Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters, which describes visually inspecting each push-pull rod for a crack, nick, scratch, dent, corrosion, damaged threads, bending, and contact wear. We are not proposing to require the inspections specified in the SIL.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposal or the FAA's determination of the cost to the public. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

The FAA estimates that this AD will affect 378 helicopters of U.S. registry, and the required actions will take the following numbers of work hours to accomplish on each helicopter at an average labor rate of \$80 per work hour:

- 8 work hours to remove, disassemble, and inspect the 3 push-pull rods;
- 9 work hours to repair corrosion without pitting, remark each push-pull rod, and reassemble each push-pull rod; and
- 3 work hours to reinstall 3 push-pull rods on the helicopter.

Required parts will cost approximately \$900 per helicopter. Based on these figures, the total cost impact of the AD on U.S. operators will be \$945,000 (\$2,500 per helicopter), assuming 3 push-pull rods are replaced on each helicopter.

## **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 DMS 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:



**2007-11-02 Enstrom Helicopter Company:** Amendment 39-15059. Docket No. FAA-2006-26771; Directorate Identifier 2005-SW-07-AD.

**Applicability:** Model F-28A, F-28C, and F-28F helicopters, excluding serial number (S/N) 816 and subsequent; Model 280, 280C, 280F, and 280FX helicopters, excluding S/N 2100 and subsequent; and Model TH-28, 480, and 480B helicopters, excluding S/N 5058 and subsequent, certificated in any category.

**Compliance:** Required as indicated, unless accomplished previously.

To detect corrosion and prevent failure of a main rotor push-pull control rod (push-pull rod), and subsequent loss of control of the helicopter, accomplish the following:

(a) Within 10 hours time-in-service (TIS) or at the next annual inspection, whichever occurs first, review the helicopter maintenance records and determine the date that each push-pull rod, part number (P/N) 28-16253—all dash numbers (for Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters) and P/N 4140532—all dash numbers (for Model TH-28, 480, and 480B helicopters), was installed. If the date cannot be determined from the maintenance records, use the "Date MFD", which is located on the helicopter data plate, as the installation date for the push-pull rod.

(b) For Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters, using the compliance times stated in Table 1 of this AD, visually inspect the exterior and interior of each of the three push-pull rods for corrosion severe enough to cause pitting or any moisture, paying special attention to the area of the lower fitting, in accordance with section 5.1., INSPECTION, in Enstrom Helicopter Corporation Service Directive Bulletin No. 0096, dated September 10, 2003 (SDB 0096).

**Table 1**

<b>Helicopter models</b>	<b>Push-pull rod service life</b>	<b>Compliance times</b>
Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters.	Push-pull rod that has been installed for 20 or more years.	Inspect within 10 hours time-in-service (TIS) or at next annual inspection, whichever occurs first.
Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters.	Push-pull rod that has been installed for 10 or more years, but less than 20 years.	Inspect within 50 hours TIS or at the next annual inspection, whichever occurs first.
Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters.	Push-pull rod that has been installed for less than 10 years.	Inspect before the service life of the push-pull rod reaches 10 years since initial installation.

(1) Before further flight, if corrosion without pitting is found on a push-pull rod, then repair, reassemble, remark, and reinstall it in accordance with section 5.2., REPAIR/REASSEMBLY, in SDB 0096.

(2) Before further flight, if corrosion is found that is severe enough to cause pitting, or if any moisture is visible on the inside of a push-pull rod, replace it with an airworthy push-pull rod.

Note 1: Determining continued serviceability of the push-pull rods by inspecting the exterior only of each push-pull rod is described in Enstrom Helicopter Corporation Service Information Letter No. 0156, dated December 9, 2003.

(c) For Model TH-28, 480 and 480B helicopters, using the compliance times stated in Table 2 of this AD, visually inspect the exterior and interior of each of the three push-pull rods for corrosion severe enough to cause pitting or any moisture, paying special attention to the area of the lower fitting, in accordance with section 5.1., INSPECTION, in Enstrom Helicopter Corporation Service Directive Bulletin No. T-019, dated September 10, 2003 (SDB T-019).

**Table 2**

<b>Helicopter models</b>	<b>Push-pull rod service life</b>	<b>Compliance times</b>
Model TH-28, 480, and 480B helicopters.	Push-pull rod that has been installed for 10 or more years.	Inspect within 50 hours TIS or at the next annual inspection, whichever occurs first.
Model TH-28, 480, and 480B helicopters.	Push-pull rod that has been installed for less than 10 years.	Inspect before the service life of the push-pull rod reaches 10 years since initial installation.

(1) Before further flight, if corrosion without pitting is found on a push-pull rod, then repair, reassemble, remark, and reinstall it in accordance with section 5.2., REPAIR/REASSEMBLY, in SDB T-019.

(2) Before further flight, if corrosion is found that is severe enough to cause pitting, or if any moisture is visible on the inside of a push-pull rod, replace it with an airworthy push-pull rod.

Note 2: Determining continued serviceability of the push-pull rods by inspecting the exterior only of each push-pull rod is described in Enstrom Helicopter Corporation Service Information Letter No. T-019, dated December 9, 2003.

(d) 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 Chicago Aircraft Certification Office, Small Airplane Directorate, FAA, for information about previously approved alternative methods of compliance.

(e) The inspection and replacement, if necessary, shall be done in accordance with Enstrom Helicopter Corporation Service Directive Bulletin No. 0096, dated September 10, 2003; Enstrom Helicopter Corporation Service Directive Bulletin No. T-019, dated September 10, 2003; Enstrom Helicopter Corporation Service Information Letter No. T-019, dated December 9, 2003; or Enstrom Helicopter Corporation Service Information Letter No. 0156, dated December 9, 2003, as applicable. The Director of the Federal Register approved these incorporations by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from The Enstrom Helicopter Corporation, Twin County Airport, P.O. Box 490, Menominee, Michigan 49858. 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).

(f) This amendment becomes effective on October 2, 2007.

Issued in Fort Worth, Texas, on July 5, 2007.

David A. Downey,

Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. E7-16770 Filed 8-27-07; 8:45 am]