

Proposed Rules

Federal Register

Vol. 71, No. 61

Thursday, March 30, 2006

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-24270; Directorate Identifier 2005-NM-200-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 777 Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Boeing Model 777 airplanes. This proposed AD would require, for the drive mechanism of the horizontal stabilizer, repetitive detailed inspections for discrepancies; repetitive lubrication of the ballnut and ballscrew; repetitive measurements of the freeplay between the ballnut and the ballscrew; and corrective action if necessary. This proposed AD results from a report of extensive corrosion of a ballscrew in the drive mechanism of the horizontal stabilizer on a Boeing Model 757 airplane, which is similar in design to the ballscrew on certain Model 777 airplanes. We are proposing this AD to prevent an undetected failure of the primary load path for the ballscrew in the horizontal stabilizer and subsequent wear and failure of the secondary load path, which could lead to loss of control of the horizontal stabilizer and consequent loss of control of the airplane.

DATES: We must receive comments on this proposed AD by May 15, 2006.

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

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.

- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, room PL-401, Washington, DC 20590.

- Fax: (202) 493-2251.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for the service information identified in this proposed AD.

FOR FURTHER INFORMATION CONTACT: Kelly McGuckin, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6490; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to submit any relevant written data, views, or arguments regarding this proposed AD. Send your comments to an address listed in the **ADDRESSES** section. Include the docket number "FAA-2006-24270; Directorate Identifier 2005-NM-200-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. We will consider all comments received by the closing date and may amend the proposed AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of that web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR

19477-78), or you may visit <http://dms.dot.gov>.

Examining the Docket

You may examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the DOT street address stated in the **ADDRESSES** section. Comments will be available in the AD docket shortly after the Docket Management System receives them.

Discussion

On January 31, 2000, there was an accident involving a McDonnell Douglas Model DC-9-83 (MD-83) airplane. The National Transportation Safety Board (NTSB) determined that the probable cause of the accident was a loss of airplane pitch control resulting from the in-flight failure of the acme nut threads of the jackscrew assembly of the horizontal stabilizer trim system. The NTSB concluded that the thread failure was caused by excessive wear, resulting from insufficient lubrication of the jackscrew assembly.

The drive mechanism of the horizontal stabilizer on Model DC-9-83 (MD-83) airplanes has a jackscrew assembly with an acme screw. The drive mechanism of the horizontal stabilizer on Boeing Model 777 airplanes uses a ballscrew assembly. Acme screws and ballscrews have some differences in design, but perform similar functions and have the same airplane-level effect following failure. The manufacturer's safety analysis of the Model 777 drive mechanism found no safety problems with the configuration of the drive mechanism, but showed that changes to the maintenance procedures and maintenance intervals are required to keep the drive mechanism properly maintained and operating as designed.

We have received a report indicating that the ballscrew in the drive mechanism of the horizontal stabilizer on a Boeing Model 757 airplane showed extensive corrosion, which could lead to excessive wear. The ballscrew on certain Model 757 airplanes is similar to that on the Model 777 airplanes that are the subject of this proposed AD. Therefore, both of these airplane models could have the same unsafe condition.

We are considering separate rulemaking action for Model 757 airplanes and other similar Boeing airplanes.

Extensive corrosion of the ballscrew in the drive mechanism of the horizontal stabilizer, if not corrected, could cause an undetected failure of the primary load path for the ballscrew and subsequent wear and failure of the secondary load path, which could lead to loss of control of the horizontal stabilizer and consequent loss of control of the airplane.

Relevant Service Information

We have reviewed Boeing Alert Service Bulletin 777-27A0059, Revision 1, dated August 18, 2005. The service bulletin describes procedures for performing repetitive detailed inspections of the horizontal stabilizer trim actuator ballnut and ballscrew for discrepancies; repetitive measurements (inspections) of the freeplay between the actuator ballnut and ballscrew; repetitive lubrication of the actuator ballnut and ballscrew; and, if necessary, replacing the actuator with a new or serviceable actuator. Discrepancies of the actuator ballnut and ballscrew may include cracking; metal flaking; thread deformation, cross threading, and stripping; corrosion; metal particles or corrosion products in the lubricating grease; large amounts of grease exuding from the top seal of the ballnut or around the ballnut return tubes; bent or lifted ballnut return tubes; loose or missing ball bearings; and other damage or obvious wear. Accomplishing the actions specified in the service information is intended to adequately address the unsafe condition.

The service bulletin refers to the Boeing 777 Aircraft Maintenance Manual (AMM), subjects 12-21-05, 27-41-13, and 29-11-00, as additional sources of service information for accomplishing the detailed inspections, lubrications, freeplay measurements, and replacement of the horizontal stabilizer trim actuator.

FAA's Determination and Requirements of the Proposed AD

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on airplanes of this type design. For this reason, we are proposing this AD, which would require accomplishing the actions specified in the service information described previously, except as discussed under "Difference Between the Proposed AD and Service Information."

Differences Between the Proposed AD and Service Information

The Summary Action section and paragraph 1.D "Description" of the service bulletin specify changing the position of the horizontal stabilizer to allow inspecting the entire ballscrew. However, this instruction does not appear in the Work Instructions of the service bulletin or in the referenced AMM sections. To ensure that the detailed inspection is performed properly, we have included this instruction in paragraph (h) of the proposed AD.

Although the service bulletin does not require a maintenance records check to determine prior replacement of the horizontal stabilizer trim actuator, this proposed AD would include such a requirement in order to ensure that all subject actuators meet the requirements of this proposed AD.

Clarification of Compliance Times

The manufacturer determined that, if an operator has previously removed and replaced the actuator, it is possible that the replacement actuator might not meet the serviceability criteria intended by the actions specified in the service bulletin. Therefore, the manufacturer determined that a revised initial compliance time was necessary, as specified in paragraph (l) of this AD.

The service bulletin specifies "recommended" intervals for repeating specified actions. However, we have determined that the "acceptable" intervals also specified by the service bulletin will allow operators to accomplish all specified repetitive actions without an unacceptable increase in safety risk to any airplane. Therefore, we have specified the "acceptable" intervals in this proposed AD.

Costs of Compliance

There are about 596 airplanes of the affected design in the worldwide fleet. This proposed AD would affect about 130 airplanes of U.S. registry.

The proposed detailed inspection would take about 1 work hour per airplane, at an average labor rate of \$80 per work hour. Based on these figures, the estimated cost of the proposed inspection for U.S. operators is \$10,400, or \$80 per airplane, per inspection cycle.

The proposed freeplay measurement would take about 5 work hours per airplane, at an average labor rate of \$80 per work hour. Based on these figures, the estimated cost of the proposed freeplay measurement for U.S. operators is \$52,000, or \$400 per airplane, per measurement cycle.

The proposed lubrication would take about 1 work hour per airplane, at an average labor rate of \$80 per work hour. Based on these figures, the estimated cost of the proposed lubrication for U.S. operators is \$10,400, or \$80 per airplane, per lubrication cycle.

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 have 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 above, I certify that the 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); 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 a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket. See the **ADDRESSES** section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, 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 Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):

Boeing: Docket No. FAA-2006-24270; Directorate Identifier 2005-NM-200-AD.

Comments Due Date

(a) The FAA must receive comments on this AD action by May 15, 2006.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all Boeing Model 777-200, -300, and -300ER series airplanes, certificated in any category.

Unsafe Condition

(d) This AD results from a report of extensive corrosion of a ballscrew in the drive mechanism of the horizontal stabilizer of a Boeing Model 757 airplane, which is similar in design to the ballscrew on certain Model 777 airplanes. We are issuing this AD to prevent an undetected failure of the primary load path for the ballscrew in the drive mechanism of the horizontal stabilizer and subsequent wear and failure of the secondary load path, which could lead to loss of control of the horizontal stabilizer and consequent loss of control of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Service Bulletin Reference

(f) The term "service bulletin," as used in this AD, means Boeing Alert Service Bulletin 777-27A0059, Revision 1, dated August 18, 2005.

Note 1: The service bulletin refers to the Boeing 777 Aircraft Maintenance Manuals (AMM), subjects 12-21-05, 27-41-13, and 29-11-00, as additional sources of service information for accomplishing the actions required by this AD.

Maintenance Records Check

(g) Within 180 days or 3,500 flight hours after the effective date of this AD, whichever occurs first: Perform a maintenance records check or inspect to determine if any horizontal stabilizer trim actuator has been replaced for any issue described in the

service bulletin with a serviceable actuator that was not new or overhauled, and has not received a detailed inspection and freeplay measurement since the replacement.

(1) If the actuator has not been replaced, perform all actions of this AD except for paragraph (l) of this AD.

(2) If the actuator has been replaced, perform the actions specified by paragraph (l) of this AD.

Detailed Inspection

(h) Before the accumulation of 15,000 total flight hours or within 18 months after the effective date of this AD, whichever occurs later, except as provided by paragraph (l) of this AD: Perform a detailed inspection for discrepancies of the horizontal stabilizer trim actuator ballnut and ballscrew in accordance with Part 1 of the Accomplishment Instructions of the service bulletin, changing the position of the horizontal stabilizer as needed to allow inspecting the entire ballscrew. Repeat the detailed inspection thereafter at intervals not to exceed 3,500 flight hours or 12 months, whichever occurs first. If any discrepancy is found during any inspection required by this AD, before further flight, replace the actuator with a new or serviceable actuator in accordance with the service bulletin.

Freeplay Measurement (Inspection)

(i) Before the accumulation of 15,000 total flight hours or within 18 months after the effective date of this AD, whichever occurs later, except as provided by paragraph (l) of this AD: Perform a freeplay measurement of the ballnut and ballscrew in accordance with Part 2 of the Accomplishment Instructions of the service bulletin. Repeat the freeplay measurement thereafter at intervals not to exceed 18,000 flight hours or 60 months, whichever occurs first. If the freeplay is found to exceed the limits specified in the service bulletin during any measurement required by this AD, before further flight, replace the actuator with a new or serviceable actuator in accordance with the service bulletin.

Lubrication

(j) Before the accumulation of 15,000 total flight hours or within 18 months after the effective date of this AD, whichever occurs later: Lubricate the ballnut and ballscrew in accordance with Part 3 of the Accomplishment Instructions of the service bulletin. Repeat the lubrication thereafter at intervals not to exceed 2,000 flight hours or 12 months, whichever occurs first.

Credit for Using Original Issue of Service Bulletin

(k) Actions performed prior to the effective date of this AD in accordance with Boeing Alert Service Bulletin 777-27A0059, dated September 18, 2003, are considered acceptable for compliance with the corresponding actions of this AD.

Prior Replacement of Actuator

(l) If, prior to the effective date of this AD, any horizontal stabilizer trim actuator was replaced in accordance with Boeing Alert Service Bulletin 777-27A0059, dated September 18, 2003, with a serviceable

actuator that was not new or overhauled, and has not received a detailed inspection and freeplay measurement since the replacement, perform an inspection and freeplay measurement of that actuator as required by paragraphs (h) and (i) of this AD within 24 months or 3,500 flight hours after the effective date of this AD, whichever occurs first.

Parts Installation

(m) As of the effective date of this AD, no person may install, on any airplane, a horizontal stabilizer trim actuator that is not new or overhauled, unless a detailed inspection and freeplay measurement of that actuator is performed before further flight, in accordance with paragraphs (h) and (i) of this AD.

Alternative Methods of Compliance (AMOCs)

(n)(1) The Manager, Seattle Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

Issued in Renton, Washington, on March 22, 2006.

Michael Zielinski,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6-4619 Filed 3-29-06; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-24245; Directorate Identifier 2005-NM-166-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-200C Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede an existing airworthiness directive (AD) that applies to all Boeing Model 737-200C series airplanes. The existing AD currently requires a one-time external detailed inspection for cracking of the fuselage skin in the lower lobe cargo compartment; repetitive internal detailed inspections for cracking of the frames in the lower lobe cargo compartment; repair of cracked parts; and terminating action for