



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-1428; Directorate Identifier 2015-NM-026-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 777-200 and -300 series airplanes. This proposed AD was prompted by reports of fatigue cracking of a certain chord of the pivot bulkhead. This proposed AD would require repetitive inspections for cracking of the left side and right side forward outer chords of the pivot bulkhead, and related investigative and corrective actions if necessary. This proposed AD provides a modification of the pivot bulkhead, which would terminate the repetitive inspections. We are proposing this AD to detect and correct fatigue cracking of the outer flanges of the left and right side forward outer chords of the pivot bulkhead, which could result in a severed forward outer chord and consequent loss of horizontal stabilizer control.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; phone: 206-544-5000, extension 1; fax: 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-1428.

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-2015-1428; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Narinder Luthra, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6513; fax: 425-917-6590; email: narinder.luthra@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-1428; Directorate Identifier 2015-NM-026-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received reports of fatigue cracking of the forward outer chord of the STA 2370 pivot bulkhead. Cracks in the forward outer chords of the STA 2370 pivot bulkhead that are not found and repaired can become large and result in a severed forward outer chord. The cracks were caused by a stress concentration, which is generated at the transition radius of the forward outer flange of the chord prior to the chord splice at the upper longeron. Since the horizontal stabilizer is attached to the STA 2370 bulkhead at two pivot locations, fatigue cracking of the outer flanges of the left and right side forward outer chords of the STA 2370 pivot bulkhead, if not corrected, could result in a severed forward outer chord and consequent loss of horizontal stabilizer control.

Related Service Information under 1 CFR part 51

We reviewed the following Boeing service information.

- Boeing Alert Service Bulletin 777-53A0075, dated January 14, 2015, describes procedures for repetitive detailed and high frequency eddy current (HFEC) inspections for cracking of the outer flanges of the left and right side forward outer chords of the STA 2370 pivot bulkhead, repetitive post-repair inspections for certain airplanes, and related investigative and corrective actions.

- Boeing Service Bulletin 777-53-0076, dated January 14, 2015, describes procedures for a modification of the STA 2370 pivot bulkhead by replacing the left and right side forward outer chords and upper splice angles, and related investigative and corrective actions.

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 of this NPRM.

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.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between this Proposed AD and the Service Information." Refer to this service information for details on the procedures and compliance times.

The phrase “related investigative actions” is used in this proposed AD. “Related investigative actions” are follow-on actions that (1) are related to the primary actions, and (2) further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

The phrase “corrective actions” is used in this proposed AD. “Corrective actions” are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Explanation of “RC” Steps in Service Information

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (ARC), to enhance the AD system. One enhancement was a new process for annotating which steps in the service information are required for compliance with an AD. Differentiating these steps from other tasks in the service information is expected to improve an owner’s/operator’s understanding of crucial AD requirements and help provide consistent judgment in AD compliance. The steps identified as RC (required for compliance) in any service information identified previously have a direct effect on detecting, preventing, resolving, or eliminating an identified unsafe condition.

For service information that contains steps that are labeled as Required for Compliance (RC), the following provisions apply: (1) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD, and an AMOC is required for any deviations to RC steps, including substeps and identified figures; and (2) steps not labeled as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

Differences Between this Proposed AD and the Service Information

The service bulletin specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD affects 60 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections of left and right side pivot bulkhead forward chord	Up to 15 work-hours X \$85 per hour = \$ 1,275 per inspection cycle	\$0	Up to \$1,275 per inspection cycle	Up to \$76,500 per inspection cycle
Post-Repair Inspections	Up to 11 work-hours X \$85 per hour = \$935 per inspection cycle	\$0	Up to \$935 per inspection cycle	Up to \$56,100 per inspection cycle

We estimate the following costs to do any necessary repairs and modifications that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these actions:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Small crack repair	Up to 45 work-hours X \$85 per hour = \$3,825 per side	¹	Up to \$7,650
Modification of the STA 2370 Pivot Bulkhead (forward outer chord replacement)	Up to 137 work-hours X \$85 per hour = \$11,645	\$34,086	Up to \$45,731

¹ We have received no definitive data that would enable us to provide parts cost estimates for the on-condition repair specified in this proposed AD.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

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 above, 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, 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.

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 adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2015-1428; Directorate Identifier 2015-NM-026-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 777-200 and -300 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 777-53A0075, dated January 14, 2015.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of fatigue cracking of the forward outer chord of the station (STA) 2370 pivot bulkhead. We are issuing this AD to detect and correct fatigue cracking of the outer flanges of the left and right side forward outer chords of the STA 2370 pivot bulkhead, which could result in a severed forward outer chord and consequent loss of horizontal stabilizer control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspections and Corrective Actions

At the times specified in table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 777-53A0075, dated January 14, 2015, except as provided in paragraph (j)(1) of this AD: Do a detailed inspection and high frequency eddy current (HFEC) inspections for cracking of the left and right side forward outer chords of the STA 2370 pivot bulkhead, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service

Bulletin 777-53A0075, dated January 14, 2015, except as provided in paragraph (j)(2) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the inspections thereafter at the applicable intervals specified in table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 777-53A0075, dated January 14, 2015, until the modification specified in paragraph (i) of this AD is done.

(h) Post-Repair Inspections

For airplanes on which a repair specified in Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 777-53A0075 has been done: At the times specified in table 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 777-53A0075, dated January 14, 2015, do a surface HFEC inspection, an open-hole HFEC inspection, and a detailed inspection for cracking of the left side and right side forward outer chords of the STA 2370 pivot bulkhead, and do all applicable related investigative and corrective actions, in accordance with Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 777-53A0075, dated January 14, 2015, except as required by paragraph (j)(2) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the inspections thereafter at the applicable times specified in table 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 777-53A0075, dated January 14, 2015, until the modification specified in paragraph (i) of this AD is done.

(i) Terminating Action

Modifying the STA 2370 pivot bulkhead by replacing the left and right side forward outer chords and upper splice angles, and doing all applicable related investigative and corrective actions, terminates the repetitive inspections required by paragraphs (g) and (h) of this AD for the modified location only. The modification must be done in accordance with the Accomplishment Instructions of Boeing Service Bulletin 777-53-0076, dated January 14, 2015, except as required by paragraph (j)(2) of this AD.

(j) Exceptions to Service Bulletin Specifications

(1) Where Boeing Alert Service Bulletin 777-53A0075, dated January 14, 2015, specifies a compliance time “after the Original Issue date of this Service Bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Although Boeing Alert Service Bulletin 777-53A0075, dated January 14, 2015; and Boeing Service Bulletin 777-530076, dated January 14, 2015; specify to contact Boeing for appropriate action, and Boeing Alert Service Bulletin 777-53A0075, dated January 14, 2015, specifies that action as “RC” (Required for Compliance), this AD requires repair before further flight using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the

repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Except as required by paragraph (j)(2) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (k)(4)(i) and (k)(4)(ii) apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(l) Related Information

(1) For more information about this AD, contact Narinder Luthra, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6513; fax: 425-917-6590; email: narinder.luthra@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; phone: 206-544-5000, extension 1; fax: 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on June 2, 2015.

Jeffrey E. Duven,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2015-14231 Filed: 6/12/2015 08:45 am; Publication Date: 6/15/2015]