

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0303; Directorate Identifier 2012-NM-220-AD; Amendment 39-17620; AD 2013-20-14]

RIN 2120-AA64

Airworthiness Directives; the Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain the Boeing Company Model 747-400 and -400F series airplanes. This AD was prompted by a report of cracks on airplanes prior to line number 1308 in the forward and aft inner chords of the station (STA) 2598 bulkhead, and the bulkhead upper and lower webs. This AD requires, as applicable, repetitive high frequency eddy current (HFEC) and low frequency eddy current (LFEC) inspections for cracks in the splice fitting, support frame, forward and aft inner chords, floor support, bulkhead upper web on the upper left and right side of the bulkhead, and the bulkhead lower web on the lower left side of the bulkhead and repair if necessary; and repetitive post-repair inspections and repair if necessary. We are issuing this AD to detect and correct cracks in the splice fitting, support frame, floor support, forward and aft inner chords, and the bulkhead upper and lower webs of the STA 2598 bulkhead, which could adversely affect the structural integrity of the airplane.

DATES: This AD is effective December 2, 2013.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of December 2, 2013.

ADDRESSES: 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; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the 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.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; 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 AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Nathan Weigand, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6428; fax: 425-917-6590; email: Nathan.P.Weigand@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. The NPRM published in the Federal Register on April 12, 2013 (78 FR 21854). The NPRM proposed to require, as applicable, repetitive HFEC and LFEC inspections for cracks in the splice fitting, support frame, forward and aft inner chords, floor support, bulkhead upper web on the upper left and right side of the bulkhead, and the bulkhead lower web on the lower left side of the bulkhead and repair if necessary; and repetitive post-repair inspections and repair if necessary.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (78 FR 21854, April 12, 2013) and the FAA's response to each comment.

Request To Include the Lower Web in the Inspection of the Unrepaired Structure

Boeing requested that we revise paragraph (g) of the NPRM (78 FR 21854, April 12, 2013) to clarify that the inspection of the unrepaired structure includes the lower webs. Boeing stated that the inspections for the unrepaired structure include both the upper and lower bulkhead webs, but that paragraph (g)(2)(ii) of the NPRM (78 FR 21854, April 12, 2013) specifies only the upper web.

We agree with Boeing's comment. For appropriate service information, the NPRM (78 FR 21854, April 12, 2013) referred to Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012, which also describes procedures for inspecting the bulkhead lower web. We have clarified the inspection in paragraph (g)(2)(ii) of this AD by referring to Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012, for specific inspection procedures and locations.

Request To Revise the Unsafe Condition

Boeing requested that, for clarity, the unsafe condition be revised to more specifically identify the location of potential cracking (i.e., the body station 2598 bulkhead).

We agree with Boeing's request. We have revised the unsafe condition in the SUMMARY and paragraph (e) of this final rule to clarify the location of the bulkhead.

Request To Clarify the Discussion Section

Boeing requested clarification of the Discussion section in the NPRM (78 FR 21854, April 12, 2013). Boeing stated that the Discussion does not mention cracks found in the splice fitting and incorrectly refers to the “cutout for the horizontal stabilizer rear spar.”

We agree that the commenter's proposed clarification provides a more accurate description of the report of cracks. However, the Discussion section is not carried over into the final rule; therefore, no change to this final rule is necessary in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

Are consistent with the intent that was proposed in the NPRM (78 FR 21854, April 12, 2013) for correcting the unsafe condition; and

Do not add any additional burden upon the public than was already proposed in the NPRM (78 FR 21854, April 12, 2013).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Costs of Compliance

We estimate that this AD affects 11 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	28 work-hours × \$85 per hour = \$2,380 per inspection cycle	\$0	\$2,380 per inspection cycle	\$26,180 per inspection cycle.

We estimate the following costs to do any necessary repairs and post-repair inspections that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need this repair:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Repair	13 work-hours × \$85 per hour = \$1,105	\$0	\$1,105
Post-repair Inspection	12 work-hours × \$85 per hour = \$1,020	0	1,020

For any repairs that would be necessary based on the results of the post-repair inspection, we have not received definitive data that would enable us to provide cost estimates for that on-condition action.

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

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 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, 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.

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):



2013-20-14 The Boeing Company: Amendment 39-17620; Docket No. FAA-2013-0303; Directorate Identifier 2012-NM-220-AD.

(a) Effective Date

This AD is effective December 2, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 747-400 and -400F series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by a report of cracks on airplanes prior to line number 1308 in the forward and aft inner chords of the station (STA) 2598 bulkhead, and the bulkhead upper and lower webs. We are issuing this AD to detect and correct cracks in the splice fitting, support frame, floor support, forward and aft inner chords, and the bulkhead upper and lower webs of the STA 2598 bulkhead, which could adversely affect the structural integrity of the airplane.

(f) Compliance

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

(g) High Frequency Eddy Current (HFEC) and Low Frequency Eddy Current (LFEC) Inspections

At the compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012; except as provided by paragraph (h)(2) of this AD: Do HFEC and LFEC inspections, as applicable, for cracks in the splice fitting, support frame, floor support, forward and aft inner chords, the bulkhead upper web on the upper left and right side of the bulkhead, and the bulkhead lower web on the lower left side of the bulkhead, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(1) If no cracking is found, repeat the applicable inspections specified in paragraph (g) of this AD, thereafter, at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(2) If any cracking is found, do the actions specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD.

(i) Before further flight, do the applicable repair, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012; except as provided by paragraph (h)(1) of this AD.

(ii) At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012, do HFEC and LFEC inspections for cracks in the unrepaired structure, and do an HFEC inspection for cracks in the repaired structure; as specified in and in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(A) If no cracking is found, repeat the applicable HFEC and LFEC inspections specified in paragraph (g)(2)(ii) of this AD, thereafter, at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(B) If any cracking is found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(h) Exceptions to the Service Information

(1) If any crack is found during any inspection required by this AD, and Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012, specifies to contact Boeing for appropriate action: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(2) Where Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012, 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.

(i) 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 (j) 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.

(j) Related Information

For more information about this AD, contact Nathan Weigand, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6428; fax: 425-917-6590; email: Nathan.P.Weigand@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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) Boeing Alert Service Bulletin 747-53A2815, dated November 8, 2012.

(ii) Reserved.

(3) For Boeing 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; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>.

(4) You may review copies of the 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.

(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 Renton, Washington, on September 19, 2013.

Ross Landes,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.