

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0211; Directorate Identifier 2012-NM-230-AD; Amendment 39-17597; AD 2013-19-15]

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 747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, -400F, and 747SR series airplanes. This AD was prompted by reports of cracking at the aft upper corner of the main entry door (MED) 5 cutout. This AD requires inspecting for the presence of repairs and measuring the edge margin at certain fastener locations around the upper aft corner of the door cutout, inspecting for any cracking of the fuselage skin assembly and bear strap in the aft upper corner area of the door cutout, and repairing or modifying the fuselage skin assembly and bear strap if necessary. We are issuing this AD to detect and correct cracking of the skin and bear straps at the aft upper corner of the MED 5 cutout, which could result in in-flight depressurization.

DATES: This final rule is effective November 6, 2013.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of November 6, 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: Bill Ashforth, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6432; fax: (425) 917-6590; email: bill.ashforth@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to the specified products. The NPRM published in the Federal Register on March 28, 2013 (78 FR 18917). The NPRM proposed to require inspecting for the presence of repairs and measuring the edge margin at certain fastener locations around the upper aft corner of the door cutout, inspecting for any cracking of the fuselage skin assembly and bear strap in the aft upper corner area of the door cutout, and repairing or modifying the fuselage skin assembly and bear strap 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 18917, March 28, 2013) and the FAA's response to each comment.

Request To Provide Clarification or Revision of Corrective Actions Phrase in Paragraph (g)(2) of the NPRM (78 FR 18917, March 28, 2013)

UPS requested that the phrase "applicable corrective or additional actions" be used in place of "applicable corrective actions" in paragraph (g)(2) of the NPRM (78 FR 18917, March 28, 2013). UPS found the use of "applicable corrective actions" to be confusing in the case when no cracks are found during the inspection and stated the phrase could lead to problems with interpretation. UPS stated that for airplanes on which no cracks are found, Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, specifies the installation of a preventative modification, with the option of doing the repetitive inspections until installation of the preventative modification. UPS added that it is not intuitively clear that corrective action is required for the case where no cracks are found.

We agree that clarification is necessary. We have revised the phrasing and paragraph structure of paragraph (g)(2) of this final rule to clarify what is required or acceptable in the case of no crack findings. However, we have not used the phrase "applicable corrective or additional actions" as suggested by UPS.

Request To Add Option To Do Certain Actions by Using Service Information

Boeing requested that paragraph (g)(1) of the NPRM (78 FR 18917, March 28, 2013) be revised to refer to Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, for instructions instead of referencing the alternative method of compliance (AMOC) process. Boeing referred to

similar language in the last sentence of paragraph (g)(2) of the NPRM and suggested adding that language to paragraph (g)(1) of the NPRM would clarify the required actions.

We disagree. For the condition addressed by paragraph (g)(1) of this final rule, Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, states to "Do inspections or change the repair, as described by Boeing." To require operators to contact Boeing for these actions would be delegating our rulemaking authority to the manufacturer. Paragraph (h)(2) of this final rule also requires using the AMOC process instead where Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, specifies to contact Boeing. We have not changed this final rule in this regard.

Request To Approve an Alternate Generic Repair Scheme as an AMOC

British Airways requested that an alternate generic repair scheme be approved as an AMOC to this final rule. British Airways stated that it is in favor of doing the detailed inspections for the presence of repairs and measuring the edge margin, as it has had several findings during the accomplishment of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012. However, due to insufficient availability of the modification kit (due to the service bulletin validation process), Boeing had provided an alternate generic repair scheme to British Airways which allowed British Airways to manufacture certain repair parts. British Airways stated it has requested that Boeing include the alternate generic repair scheme in the next revision of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012.

We disagree. An AMOC is issued only after an AD has been issued and only after data are provided to show that the proposed solution is complete and addresses the unsafe condition. The alternate generic repair scheme that British Airways attached to its comment states that the "repair is generic, and may need to be modified to account for the existing configuration and reported conditions." Therefore, each repair will need to be evaluated on a case-by-case basis. Once we issue this final rule, anyone may submit an AMOC request to use an alternate generic repair scheme under the provisions of paragraph (j) of this final rule. Sufficient data must be submitted to substantiate the generic repair and show that it would provide an acceptable level of safety. We have not changed this final rule 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 18917, March 28, 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 18917, March 28, 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 246 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
Inspect for repair and measure edge margin	1 work-hour × \$85 per hour = \$85 per door (up to 2 doors per airplane)	None	Up to \$170	Up to \$41,820.

We estimate the following costs to do any necessary repetitive inspections, repairs or modifications that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these inspections, repairs or modification:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Repetitive inspections of un-repaired area	6 work-hours × \$85 per hour = \$510 per door, per inspection cycle	None	\$510 per door, per inspection cycle.
Repair or modification	10 work-hours × \$85 per hour = \$850 per door	Between \$7,654 and \$17,426 per door	Between \$8,504 and \$18,276 per door.

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):



2013-19-15 The Boeing Company: Amendment 39-17597; Docket No. FAA-2013-0211; Directorate Identifier 2012-NM-230-AD.

(a) Effective Date

This AD is effective November 6, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, -400F, and 747SR series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 747-53A2839, dated November 6, 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 reports of cracking at the aft upper corner of the main entry door (MED) 5 cutout. We are issuing this AD to detect and correct cracking of the skin and bear straps at the aft upper corner of the MED 5 cutout, which could result in in-flight depressurization.

(f) Compliance

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

(g) Inspections and Measurement

Except as specified in paragraph (h)(1) of this AD, at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012: Do a detailed inspection for the presence of repairs at the aft upper corner of the MED 5 cutout, and measure the edge margin at certain fastener locations around the corner of the door cutout, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012.

(1) If a repair is found: Before further flight, inspect or change the repair, using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(2) If no repair is found, except as specified in paragraph (h)(1) of this AD, at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012: Do detailed and high frequency eddy current (HFEC) inspections for any

cracking of the fuselage skin assembly and bear strap in the aft upper corner area of the door cutout, as applicable, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, except as required by paragraph (h)(2) of this AD. Do all applicable corrective actions before further flight. If no cracking is found: Before further flight, install a preventative modification, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, except as required by paragraph (h)(2) of this AD.

(i) Options provided in Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, for accomplishing the applicable corrective action are acceptable for the corresponding requirements of paragraph (g)(2) of this AD, provided that the inspections and preventative modification are done at the applicable times in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012.

(ii) Options provided in Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, for accomplishing the preventative modification when no cracking is found are acceptable for the corresponding requirements of paragraph (g)(2) of this AD, provided that the inspections and preventative modification are done at the applicable times in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012.

(h) Exceptions to the Service Information

(1) Where Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, specifies compliance times "after the original issue date of this service bulletin," this AD requires compliance within the specified compliance times "after the effective date of this AD."

(2) Where Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, specifies to contact Boeing for appropriate action: Before further flight, do the action using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(i) Post-Repair/Post-Modification Inspections

The post-repair or post-modification inspections specified in table 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, are not required by this AD.

Note 1 to paragraph (i) of this AD: The post-repair or post-modification inspection specified in table 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, may be used in support of compliance with section 121.1109(c)(2) or 129.109(b)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(b)(2)). The corresponding actions specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2839, dated November 6, 2012, are not required by this AD.

(j) 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 (k) 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.

(k) Related Information

For more information about this AD, contact Bill Ashforth, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6432; fax: (425) 917-6590; email: bill.ashforth@faa.gov.

(l) 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 747-53A2839, dated November 6, 2012.

(ii) Reserved.

(3) 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>.

(4) You may view this service information at 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 13, 2013.

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