



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0837; Directorate Identifier 2013-NM-112-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 737-200, -200C, -300, -400, and -500 series airplanes. This proposed AD was prompted by reports of cracking found in the skin at the lower aft corner of the forward entry doorway on airplanes that do not have an airstair door cutout. This proposed AD would require repetitive inspections for cracking in the lower corners of the forward entry doorway on airplanes that do not have an airstair door cutout, and repair if necessary. We are proposing this AD to detect and correct cracking in the lower corners of the forward entry doorway, which could lead to crack progression and consequent rapid decompression of the airplane.

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; 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 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: Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6450; fax: (425) 917-6590; email: alan.pohl@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-2013-0837; Directorate Identifier 2013-NM-112-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 have received five reports of cracking found in the skin at the lower aft corner of the forward entry doorway on airplanes that do not have an airstair door cutout. The cracks ranged from 0.25 to 2.0 inches in length. The airplanes had accumulated between 34,813 and 73,083 total flight cycles. Cracking in the lower corners of the forward entry doorway is caused by fatigue loads in the skin and bear strap, and are magnified by local stress concentrations due to the door cutout and edge margin effects at fastener locations near the corner radius. Cracking can also be initiated from impact damage due to a high usage rate of the forward entry door. This condition, if not corrected, could result in crack progression and consequent rapid decompression of the airplane.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013. This service bulletin describes procedures for repetitive inspections for cracking in the skin assembly and bear strap at the lower corners of the forward entry doorway. This service bulletin describes the following actions:

- Internal detailed inspection of the skin assembly and bear strap;
- Internal high frequency eddy current (HFEC) inspection of the bear strap;
- External detailed and HFEC inspections of the skin assembly; and,
- Contacting Boeing for inspection (for Group 1 airplanes), inspection (for Groups 2 and 3 airplanes), and crack repair instructions (Group 3 airplanes).

Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013, specifies compliance times for the initial inspection as before the accumulation of 27,000 total flight cycles or within 4,500 flight cycles after the issue date of the service bulletin, whichever occurs later. The repetitive interval is 4,500 flight cycles. Repairs are to be done before further flight.

Other Relevant Rulemaking

For The Boeing Company Model 737-300, -400, and -500 series airplanes, the repair identified in Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013, may affect certain areas of Significant Structural Item F-13A inspections required by paragraphs (g) and (h) of AD 2008-09-13, Amendment 39-15494 (73 FR 24164, May 2, 2008).

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 the same type design.

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.”

Differences Between this Proposed AD and the Service Information

Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013, specifies contacting the manufacturer for inspection instructions (for Group 1 airplanes) and for repair instructions (all airplanes), but this proposed AD would require accomplishing those actions 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 whom we have authorized to make those findings.

This difference has been coordinated with Boeing.

Costs of Compliance

We estimate that this proposed AD affects 376 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
Inspection of the lower corners of the forward entry doorway (Groups 2 and 3 airplanes) ¹	5 work-hours X \$85 per hour = \$425, per inspection cycle	\$0	\$425, per inspection cycle	\$159,800, per inspection cycle

¹ We have received no definitive data that would enable us to provide cost estimates for the inspection on Group 1 airplanes

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

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-2013-0837; Directorate Identifier 2013-NM-112-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

For The Boeing Company Model 737-300, -400, and -500 series airplanes: Certain requirements of AD 2008-09-13, Amendment 39-15494 (73 FR 24164, May 2, 2008), may be affected by certain requirements of this AD.

(c) Applicability

This AD applies to The Boeing Company Model 737-200, -200C, -300, -400, and -500 series airplanes, certificated in any category, without an airstair door cutout, as identified in Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013.

(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 found in the skin at the lower aft corner of the forward entry doorway on airplanes that do not have an airstair door cutout. We are issuing this AD to detect and correct cracking in the lower corners of the forward entry doorway, which could lead to crack progression and consequent rapid decompression of the airplane.

(f) Compliance

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

(g) Repetitive Inspections

Except as provided by paragraph (i)(1) of this AD, at the applicable times specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013, do the actions specified in paragraph (g)(1) or (g)(2) of this AD, as applicable.

(1) For Group 1 airplanes, as identified in Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013: Except as provided by paragraph (i)(2) of this AD, inspect the lower corners of the forward entry doorway for cracking, using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(2) For Group 2 and Group 3 airplanes, as identified in Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013: At the forward entry doorway lower forward and aft corners, as applicable, do an internal detailed inspection of the skin assembly and bear strap, an internal high frequency eddy current (HFEC) inspection of the bear strap, and external detailed and HFEC inspections of the skin assembly for cracking, in accordance with Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013. If no cracking is found during any inspection required by this paragraph: Except as provided by paragraph (i)(1) of this AD, repeat the applicable inspections at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013.

(h) Repair

(1) If any cracking is found during any inspection required by paragraph (g) of this AD: For Group 3 airplanes with cracking at the aft lower corner of the forward entry doorway, before further flight, repair in accordance with Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013. Accomplishment of this repair terminates the repetitive inspections required by this AD in the area common to the repair for Group 3 airplanes only. For all other cracking found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(2) Installation of a repair approved in accordance with paragraph (j) of this AD terminates the repetitive inspections required by this AD for the repaired area only.

(i) Exceptions to Service Information Specifications

(1) Where Boeing Alert Service Bulletin 737-53A1329, dated June 4, 2013, 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 737-53A1329, dated June 4, 2013, specifies contacting Boeing for information on certain inspections and repairs, this AD requires that those actions be done by using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle 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 the Related Information section 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

(1) For more information about this AD, contact Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6450; fax: (425) 917-6590; email: alan.pohl@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; 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. Issued in Renton, Washington, on September 25, 2013.

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

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