[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0538; Directorate Identifier 2012-NM-212-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 737-100, -200, -200C, -300, -400, and -500 series airplanes. This proposed AD was prompted by a report of cracks in stringer splices at body station STA 360 and STA 908, between stringer (S) S-10L and S-10R; cracks in butt straps between S-5L and S-3L, and S-3R and S-5R; vertical chem-mill fuselage skin cracks at certain butt joints; and an instance of cracking that occurred in all those three structural elements on one airplane. This proposed AD would require repetitive inspections for any cracking of stringer splices and butt straps, and related corrective and investigative actions if necessary. We are proposing this AD to detect and correct cracking in the three structural elements, which could result in the airplane not being able to sustain limit load requirements and possibly result in uncontrolled decompression.

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, Washington. 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: Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6447; fax: (425) 917-6590; email: wayne.lockett@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-2013-0538; Directorate Identifier 2012-NM-212-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 197 stringer splice cracks at body station (STA) 360 and STA 908, between stringer (S) S-10L and S-10R; 16 butt strap cracks between S-5L and S-3L, and S-3R and S-5R; and 12 vertical chem-mill fuselage skin cracks at certain butt joints. On one airplane, a maintenance inspection found that all three structural elements were cracked. Analysis indicates the cracking of the stringer splices is attributed to airplane fatigue loads. Cracking of the butt strap at STA 360 and STA 908 is attributed to fatigue loading from the S-4 lap joint. This condition, if not corrected, could result in the airplane not being able to sustain limit load requirements and possibly result in uncontrolled decompression.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012. For information on the procedures and compliance times, see this service

information at http://www.regulations.gov by searching for Docket No. FAA-2013-0538.

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 the Proposed AD and the Service Information."

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

In addition, the phrase "corrective actions" might be 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.

Differences Between the Proposed AD and the Service Information

Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012, 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.

Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012, specifies to contact the manufacturer for instructions on how to inspect airplanes having line

number 1 through 291, but this proposed AD would require inspections in accordance with a method we approve.

Costs of Compliance

We estimate that this proposed AD affects 612 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	Up to 362 work-hours X $85 per hour = $30,770, per inspection cycle	None	Up to $30,770, per inspection cycle	Up to $18,831,240, per inspection cycle
Removal and reinstallation of butt strap fastener(s)	Up to 2 work-hours X $85 per hour = $170, per inspection cycle	$0	Up to $170, per inspection cycle	Up to $104,040, per inspection cycle

We estimate the following costs to do any necessary replacements 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 replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Stringer splice replacement	3 work-hours X $85 per hour = $255	Operator-supplied, information not available	$255

The work-hour estimate and parts cost information are not available for estimating the cost of a butt strap replacement.

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-2013-0538; Directorate Identifier 2012-NM-212-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 737-100, -200, -200C, -300, -400, and -500 series airplanes, certified in any category, as identified in Boeing Alert Service Bulletin 737-53A1322, dated November 5, 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 in stringer splices at body station STA 360 and STA 908, between stringer (S) S-10L and S-10R; cracks in butt straps between S-5L and S-3L, and S-3R and S-5R; vertical chem-mill fuselage skin cracks at certain butt joints; and an instance of cracking that occurred in all those three structural elements on one airplane. We are issuing this AD to detect and correct cracking in the three structural elements, which could result in the airplane not being able to sustain limit load requirements and possibly result in uncontrolled decompression.

(f) Compliance

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

(g) Actions for Group 1 Airplanes

For Group 1 airplanes, as identified in Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012: At the compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012, except as provided by paragraph (j)(2) of this AD, inspect the stringers and butt straps and repair as applicable, using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

(h) Actions for Groups 2 through 6 Airplanes

For Groups 2 through 6 airplanes, as identified in Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012: At the applicable compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012, do the applicable inspections for cracking identified in paragraphs (h)(1) through (h)(4) of this AD, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012, except as provided by paragraph (j) of this AD. Do all applicable corrective actions before further flight. Thereafter, repeat the applicable inspections at the

compliance times specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012. Accomplishing the corrective actions for a cracked stringer splice, as specified in Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012, terminates the repetitive inspections required by this paragraph for that stringer splice only.

(1) Internal detailed inspections of the stringer splices and butt straps.

(2) Internal high-frequency eddy current (HFEC) surface inspections of the butt straps.

(3) Internal low-frequency eddy current (LFEC) inspection of the butt straps.

(4) HFEC open hole rotary probe inspections of butt straps or of one location of a butt strap, as applicable.

(i) Post-Repair Inspections

The post-repair inspection specified in Table 11 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012, is not required by this AD.

Note 1 to paragraph (i) of this AD: The post-repair inspections specified in Table 11 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1322, dated November 5, 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 737-53A1322, dated November 5, 2012, are not required by this AD.

(j) Exceptions to the Service Information

(1) Where Boeing Alert Service Bulletin 737-53A1322, dated November 5, 2012, specifies to contact Boeing for appropriate action: Before further flight, repair using a

method approved in accordance with the procedures specified in paragraph (k) of this AD.

(2) Where Boeing Alert Service Bulletin 737-53A1322, dated November 5, 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.

(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 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.

(l) Related Information

(1) For more information about this AD, contact Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601

Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6447; fax: (425) 917-6590; email: wayne.lockett@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, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on June 13, 2013.

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

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