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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1254; Directorate Identifier 2010-NM-178-AD; Amendment 39-17083; AD 2012-12-04]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding an existing airworthiness directive (AD) for certain The Boeing Company Model 737-300, -400, and -500 series airplanes. That AD currently requires repetitive external detailed inspections or non-destructive inspections to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2R, between station (STA) 400 and STA 460, and repair if necessary. This new AD adds inspections for cracking in additional fuselage skin locations, and repair if necessary. This new AD also reduces the inspection thresholds and repetitive intervals for certain airplanes. This AD was prompted by reports of additional crack findings of the fuselage skin at the chem-mill steps. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin panels at the chem-mill steps, which could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane.

DATES: This AD is effective July 23, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of July 23, 2012.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 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 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: Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6447; fax: 425-917-6590; email: wayne.lockett@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2008-19-03, Amendment 39-15670 (73 FR 56958, October 1, 2008). That AD applies to the specified products. The NPRM published in the Federal Register on November 28, 2011 (76 FR 72853). That NPRM proposed to continue to require repetitive external detailed inspections or non-destructive inspections to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2R, between station (STA) 400 and STA 460, and repair if necessary. That NPRM also proposed to add inspections for cracking in additional fuselage skin locations, and repair if necessary. That NPRM also proposed to reduce the inspection thresholds and repetitive intervals for certain airplanes.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (76 FR 72853, November 28, 2011) and the FAA's response to each comment.

Support for the NPRM (76 FR 72853, November 28, 2011)

The National Transportation Board supports the NPRM (76 FR 72853, November 28, 2011).

Request To Revise Paragraph (j) of the NPRM (76 FR 72853, November 28, 2011)

Boeing asked that we include Boeing Alert Service Bulletin 737-53A1293, Revision 1, dated July 7, 2010, in the exception to the service bulletin specified in paragraph (j) of the NPRM (76 FR 72853, November 28, 2011). (Paragraph (j) of the NPRM is identified as paragraph (j)(1) in this final rule.) Boeing stated that the compliance times in paragraph 1.E. "Compliance" of Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011, are based on the release date of Boeing Alert Service Bulletin 737-53A1293, Revision 1, dated July 7, 2010. Boeing added that paragraph (j) of the NPRM should be changed to reference Boeing Alert Service Bulletin 737-53A1293, Revision 1, dated July 7, 2010.

We agree with the commenter's request for the reason provided. We have changed paragraph (j)(1) of this AD accordingly.

Request To Clarify the Language in Paragraph (k) of the NPRM (76 FR 72853, November 28, 2011)

Boeing asked that the language specified in paragraph (k) of the NPRM (76 FR 72853, November 28, 2011) be clarified. (Paragraph (k) of the NPRM is identified as paragraph (j)(2) in this final rule.) Boeing stated that the intent of paragraph (k) of the NPRM is "to specify an exception to the compliance time for accomplishing the next service bulletin inspection, being the effective date of the AD, for the condition addressed by the paragraph." Boeing added that the language does not clearly describe that it is an exception to the compliance time; rather, it could be interpreted as an exception to the condition.

We agree to provide clarification. Paragraph (j)(2) of this AD is an exception to the conditions, and is provided to establish a date from which to determine if an inspection has been previously accomplished. Therefore, we have made no change to the AD in this regard.

Change to Final Rule

This final rule has been changed to include an optional modification of the chem-milled steps at any location identified in Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011, which would eliminate the need for the repetitive inspections required by paragraph (g) of this AD. We have determined that we can better ensure long-term continued operational safety by including this modification. Therefore, we have added a new paragraph (i) to this AD to include this modification, and reidentified subsequent paragraphs accordingly. In addition, we have indicated in the Costs of Compliance section of this AD that we do not have data regarding the cost of the optional terminating action.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the 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 (76 FR 72853, November 28, 2011) for correcting the unsafe condition; and

Do not add any additional burden upon the public than was already proposed in the NPRM (76 FR 72853, November 28, 2011).

Interim Action

We consider this AD interim action. If final action is identified later, we might consider further rulemaking then.

Costs of Compliance

We estimate that this AD affects 596 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 (required actions in AD 2008-19-03, Amendment 39-15670 (73 FR 56958, October 1, 2008))	5 work-hours X \$85 per hour = \$425 per inspection cycle	N/A	\$425 per inspection cycle	\$253,300 per inspection cycle
New inspections	Between 7 and 15 work-hours, depending on airplane configuration = between \$595 and \$1,275 per inspection cycle	N/A	Between \$595 and \$1,275 per inspection cycle	Between \$354,620 and \$759,900 per inspection cycle

We have received no definitive data that would enable us to provide a cost estimate for the on-condition actions or the optional terminating action specified in this 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 have determined that 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 removing airworthiness directive (AD) 2008-19-03, Amendment 39-15670 (73 FR 56958, October 1, 2008), and adding the following new AD:

SUPERSEDED



2012-12-04 The Boeing Company: Amendment 39-17083; Docket No. FAA-2011-1254; Directorate Identifier 2010-NM-178-AD.

(a) Effective Date

This airworthiness directive (AD) is effective July 23, 2012.

(b) Affected ADs

This AD supersedes AD 2008-19-03, Amendment 39-15670 (73 FR 56958, October 1, 2008).

(c) Applicability

This AD applies to The Boeing Company Model 737-300, -400, and -500 series airplanes, certificated in any category; as identified in Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011.

(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 additional crack findings of the fuselage skin at the chem-mill steps. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin panels at the chem-mill steps, which could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane.

(f) Compliance

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

(g) Repetitive Inspections

At the applicable times specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011, except as provided by paragraphs (j)(1) and (j)(2) of this AD: Do both a detailed inspection and a nondestructive inspection (NDI) (medium frequency eddy current, magneto optical imaging, C-scan, or ultrasonic phased array) to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2R, between station (STA) 400 and STA 460, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011. Repeat the applicable inspections thereafter at intervals not to exceed those specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011.

(h) Repair

(1) If any crack is found during any inspection required by paragraph (g) of this AD, before further flight, repair in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011; except as provided by paragraph (h)(2) of this AD. Installation of a repair that meets the conditions specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011, terminates the repetitive inspections required by paragraph (g) of this AD for the repaired area only.

(2) If any crack is found during any inspection required by paragraph (g) of this AD and Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011, specifies to contact Boeing for repair: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(i) Optional Modification

Accomplishing a modification of the chem-milled steps at any location identified in Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011, using a method approved in accordance with the procedures specified in paragraph (l)(1) of this AD, terminates the repetitive inspections required by paragraph (g) of this AD for the modified area only.

(j) Exceptions to Service Bulletin

(1) Where Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011, specifies a compliance time relative to the date of Boeing Alert Service Bulletin 737-53A1293, Revision 1, dated July 7, 2010, this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where the Condition column of paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011, specifies a condition based on whether an airplane has or has not been inspected, this AD bases the condition on whether an airplane has or has not been inspected as of the effective date of this AD.

(3) The post-repair inspection specified in Tables 4 and 6 of paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-53A1293, Revision 2, August 10, 2011, is not required by this AD.

Note 1 to paragraph (j)(3) of this AD: The damage tolerance inspections specified in Tables 4 and 6 of paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-53A1293, Revision 2, August 10, 2011, may be used in support of compliance with section 121.1109(c)(2) or 129.109(c)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(c)(2)).

(k) Credit for Previous Actions

This paragraph provides credit for the actions required by paragraphs (g), (h), and (i) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 737-53A1293, Revision 1, dated July 7, 2010.

(l) 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 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) AMOCs approved for AD 2008-19-03, Amendment 39-15670 (73 FR 56958, October 1, 2008), are approved as AMOCs for the corresponding requirements in this AD.

(m) Related Information

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, Washington 98057-3356; phone: 425-917-6447; fax: 425-917-6590; email: wayne.lockett@faa.gov.

(n) Material Incorporated by Reference

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51:

(i) Boeing Service Bulletin 737-53A1293, Revision 2, dated August 10, 2011.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>.

(3) 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.

(4) You may also review copies of the 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 May 31, 2012.

Michael Kaszycki,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.