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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1161; Directorate Identifier 2011-NM-277-AD; Amendment 39-17442; AD 2013-09-01]

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 737-200, -200C, -300, -400, and -500 series airplanes. That AD currently requires a one-time mid-frequency eddy current (MFEC) inspection, a low-frequency eddy current (LFEC) inspection, and a detailed inspection for damage or cracking of stringer S-4L and S-4R lap joints and stringer clips between body station (BS) 540 and BS 727, and follow-on inspections and repair if necessary. This new AD instead requires repetitive external eddy current inspections for cracking of certain fuselage crown lap joints, and corrective actions if necessary; internal eddy current and detailed inspections for cracking of certain fuselage crown lap joints, and repair if necessary; and detailed inspections of certain stringer clips, and replacement with new stringer clips if necessary. This AD also adds airplanes to the applicability. This AD was prompted by reports of cracking of the lap joint lower row. We are issuing this AD to detect and correct cracking of the fuselage lap joints, which could result in sudden decompression of the airplane.

DATES: This AD is effective June 13, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publication listed in the AD as of June 13, 2013.

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of May 17, 2002 (67 FR 17917, April 12, 2002).

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: 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:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2003-08-15, Amendment 39-13128 (68 FR 20341, April 25, 2003). That AD applies to the specified products. The NPRM published in the Federal Register on November 7, 2012 (77 FR 66757). That NPRM proposed to require repetitive external eddy current inspections for cracking of certain fuselage crown lap joints and corrective actions; internal eddy current and detailed inspections for cracking of certain fuselage crown lap joints, and repair if necessary; and detailed inspections of certain stringer clips, and replacement with new stringer clips if necessary.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (77 FR 66757, November 7, 2012) and the FAA's response to each comment.

Support of NPRM (77 FR 66757, November 7, 2012)

Ann Harrison stated that she supports the NPRM (77 FR 66757, November 7, 2012).

Request for Clarification of Inspection Requirements

Boeing and Lufthansa requested clarification that the repetitive inspections referred to in paragraph (i)(3) of the NPRM (77 FR 66757, November 7, 2012) are external inspections. The commenters noted that the internal inspection specified in Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, is a one-time inspection. Lufthansa suggested we delete paragraph (i)(3) from the NPRM. Boeing suggested we revise paragraph (i)(3) of the NPRM to state that the repetitive inspection is external.

We agree that clarification is needed. The internal inspection is required only once prior to the accomplishment of the lap splice modification. Since the external inspection specified in paragraph (g) of this AD is repetitive, we have deleted paragraph (i)(3) of this AD.

Request To Use Previous Alternative Methods of Compliance (AMOCs)

Alaska Airlines requested that we change the NPRM (77 FR 66757, November 7, 2012) to state that "AMOCs approved previously in accordance with AD 2003-08-15 [(68 FR 20341, April 25, 2003)] and AD 2004-18-06 [(69 FR 54206, September 8, 2004)] are approved as AMOCs for the

corresponding provisions of this AD." Alaska Airlines stated that there is a global AMOC for the PEMCO main deck cargo door installation in accordance with supplemental type certificate (STC) SA2969SO (http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/2A10F5D4090A534686257A79006F0F97?OpenDocument&Highlight=stcsa2969so). The commenter stated that since the STC is not a repair, this global AMOC should be specified in paragraph (n) of the NPRM.

We agree with the request to include in the AD previously approved AMOCs for the corresponding requirements of this AD. Installation of the PEMCO main deck cargo door done in accordance with STC SA2969SO (http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/2A10F5D4090A534686257A79006F0F97?OpenDocument&Highlight=stcsa2969so) involves installation of an external doubler onto the existing skin and lap splices from stringer S-3R to S-23L between body station (BS) 312 and BS 500B. We have added new paragraph (n)(6) to this AD to state that installation of STC SA2969SO is approved as an AMOC to the corresponding requirements of paragraphs (g) and (i) of this AD from stringer S-3R to S-23L between BS 312 and BS 500B only.

Boeing requested that we revise paragraph (n)(4) of the NPRM (77 FR 66757, November 7, 2012) to add references to paragraphs (g) and (h) of AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002), in order to provide approval for lap joint modifications that have been approved as AMOCs to paragraphs (g) and (h) of AD 2002-07-08.

We agree with the request. Lap joints modified prior to the effective date of this AD that have been approved as an AMOC for paragraphs (g) and (h) of AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002), should not be subject to the lap joint inspections required by this AD. We have added references to paragraphs (g) and (h) of AD 2002-07-08 to paragraph (n)(4) of this AD.

STC Winglet Comment

Aviation Partners Boeing stated that the installation of winglets per STC ST01219SE (http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/2C6E3DBDDD36F91C862576A4005D64E2?OpenDocument&Highlight=st01219se) does not affect the accomplishment of the manufacturer's service instructions.

We have added paragraph (c)(2) to this AD to state that installation of STC ST01219SE (http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/2C6E3DBDDD36F91C862576A4005D64E2?OpenDocument&Highlight=st01219se) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a "change in product" AMOC approval request is not necessary to comply with the requirements of 14 CFR 39.17. For all other AMOC requests, the operator must request approval for an AMOC in accordance with the procedures specified in paragraph (n) of this AD.

Request To Clarify Locations of Optional Internal Inspections

Boeing requested that we include further clarification in paragraph (h) of the NPRM (77 FR 66757, November 7, 2012) indicating that the optional internal inspections are for cracks between tear straps only. Boeing stated that paragraph (g) of the NPRM inspects for cracking at tear strap locations and between tear straps. Boeing also stated that paragraph (h) of the NPRM provides an optional inspection for the inspections required by paragraph (g), but only for cracking between tear straps. Boeing added that it is important to clarify that the inspections required by paragraph (h) of the NPRM are only applicable at locations between tear straps.

We agree that the requested wording will further clarify the location for the optional internal inspections specified in paragraph (h) of this AD. We have added the phrase "between tear straps" to the beginning of the first sentence of paragraph (h) of this AD.

Boeing also requested that we clarify paragraph (j) of the NPRM (77 FR 66757, November 7, 2012) to indicate that the optional internal inspections are for cracks at tear strap locations. Boeing added that the wording in the NPRM only allows this confirmation when accomplishing the internal

inspections specified in paragraph (i) of the NPRM. Boeing stated that Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, specifies that this optional inspection at tear strap locations is for cracks found during either the external inspection specified in paragraph (g) of the NPRM, or the internal inspections specified in paragraph (i) of the NPRM.

We agree that adding a reference to the tear strap location near the beginning of the first sentence of paragraph (j) of this AD will clarify the requirement. We have revised paragraph (j) of this AD accordingly. We have also added a reference to paragraph (g) of this AD, as requested by the commenter.

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 (77 FR 66757, November 7, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 66757, November 7, 2012).

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

Costs of Compliance

We estimate that this AD affects 307 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	Number of airplanes	Cost on U.S. operators
Internal inspect	Up to 303 work-hours × $85 per hour = $25,755	$0	$25,755	307	$7,906,785
External inspection	Up to 10 work-hours × $85 per hour = $850	0	850	307	260,950

We have received no definitive data that would enable us to provide a cost estimate for the on-condition actions 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) 2003-08-15, Amendment 39-13128 (68 FR 20341, April 25, 2003), and adding the following new AD:

2013-09-01 The Boeing Company: Amendment 39-17442; Docket No. FAA-2012-1161; Directorate Identifier 2011-NM-277-AD.

(a) Effective Date

This AD is effective June 13, 2013.

(b) Affected ADs

This AD supersedes AD 2003-08-15, Amendment 39-13128 (68 FR 20341, April 25, 2003).

(c) Applicability

(1) This AD applies to The Boeing Company Model 737-200, -200C, -300, -400, and -500 series airplanes; certificated in any category; as specified in Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE (http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/2C6E3DBDDD36F91C862576A4005D64E2?OpenDocument&Highlight=st01219se) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a "change in product" alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

(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 of the lap joint lower row. We are issuing this AD to detect and correct cracking of the fuselage lap joints, which could result in sudden decompression of the airplane.

(f) Compliance

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

(g) External Crown Lap Joint Inspection and Repair

For airplanes on which the lap splice modification specified in AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002), has not been accomplished, except as required by paragraphs (l)(1) and (l)(2) of this AD: At the applicable times specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, do an external eddy current inspection for cracking in the crown lap joints, except as provided by paragraphs (h) and (j) of

this AD, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012. At the intervals specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, repeat the inspections, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012. If any cracking is found in a lap joint, before further flight, repair, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(h) Optional Internal Inspections for Mid-bay Fastener Locations

As an option to confirm cracks found between tear straps during the inspections required by paragraph (g) of this AD, do an internal mid-frequency eddy current (MFEC) inspection for cracking in the lap joint fastener row between tear straps of the crown lap and do a detailed inspection of the lap joint lower fastener row for cracking, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(i) Internal Crown Lap Joint Inspection and Repair

For airplanes on which the lap splice modification specified in AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002), has not been accomplished: At the times specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, except as required by paragraphs (l)(1) and (l)(2) of this AD, do an internal MFEC, low frequency eddy current (LFEC), and detailed inspection for cracking in the crown lap joints and stringer clips, except as provided by paragraph (j) of this AD, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(1) If any cracking is found in any lap joint, before further flight, repair, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(2) If any cracking is found in any stringer clip, before further flight, replace the stringer clip with a new stringer clip, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(j) Optional Inspections for Tear Strap Locations Only

As an option to confirm cracks found at tear strap locations while doing the inspections required by paragraph (g) or (i) of this AD, do an open-hole inspection for cracking at the tear strap locations, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(k) Terminating Action

(1) Accomplishing a repair of a crown lap joint in accordance with Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, terminates the inspections required by paragraphs (g) and (i) of this AD for the repaired area only.

(2) Accomplishing the modification of the crown lap joints in accordance with any of the service bulletins specified in paragraphs (k)(2)(i), (k)(2)(ii), and (k)(2)(iii) of this AD terminates the inspections required by paragraphs (g) and (i) of this AD for the modified area only.

(i) Boeing Service Bulletin 737-53A1177, Revision 4, dated September 2, 1999.

(ii) Boeing Service Bulletin 737-53A1177, Revision 5, dated February 15, 2001.

(iii) Boeing Service Bulletin 737-53A1177, Revision 6, dated May 31, 2001.

(l) Exceptions to Service Information

(1) Where paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, specifies a compliance time "from the Revision 1 date of this service bulletin," this AD requires a compliance time "after the effective date of this AD."

(2) Where the "Condition" column, in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, specifies airplanes with certain flight cycles "at the Revision 1 date of this service bulletin," for this AD the condition is for airplanes with corresponding flight cycles "as of the effective date of this AD."

(m) Credit for Previous Actions

This paragraph provides credit for the actions required by paragraphs (g), (h), (i), and (j) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 737-53A1255, Revision 1, dated November 7, 2011, which is not incorporated by reference in this AD.

(n) 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.

(4) AMOCs approved for paragraphs (a), (b), (c), (d), (e), (g), and (h) of AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002), before the effective date of this AD, are approved for the corresponding requirements of paragraphs (g), (i), and (k) of this AD.

(5) As of the effective date of this AD, any AMOCs approved for paragraphs (g) and (i) of this AD are approved as AMOCs for the corresponding requirements of paragraphs (a), (b), (c), (d), and (e) of AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002).

(6) As of the effective date of this AD, installation of STC SA2969SO (http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/2A10F5D4090A534686257A79006F0F97?OpenDocument&Highlight=stc sa2969so) is approved as an AMOC for the corresponding requirements of paragraphs (g) and (i) of this AD from stringer S-3R to S-23L between body station (BS) 312 and BS 500B only.

(o) 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.

(p) 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.

(3) The following service information was approved for IBR on June 13, 2013.

(i) Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(ii) Reserved.

(4) The following service information was approved for IBR on May 17, 2002 (67 FR 17917, April 12, 2002).

(i) Boeing Service Bulletin 737-53A1177, Revision 4, dated September 2, 1999.

(ii) Boeing Service Bulletin 737-53A1177, Revision 5, dated February 15, 2001.

(iii) Boeing Service Bulletin 737-53A1177, Revision 6, dated May 31, 2001.

(5) 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.

(6) 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.

(7) 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 April 18, 2013.

Ali Bahrami,

Manager, Transport Airplane Directorate,

Aircraft Certification Service.