



適航指令發布單

Airworthiness Directive Issuance Form

民航局AD編號 AD Number	CAA-2017-09-016	發布日期 Date issued	2017/10/2
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-3A1232, Revision 3, dated July 27, 2015.		
主旨摘要	To detect and correct cracking of the upper skin panel at the chem-milled step above the lap joint, which could result in reduced structural integrity of the airplane.		
民航局 CAA <input type="checkbox"/> 本國產品 Native products <input type="checkbox"/> 其他個案 Other	設計國民航主關機構 Original Authorities <input checked="" type="checkbox"/> FAA <input type="checkbox"/> EASA <input type="checkbox"/> Brazil <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> DGAC <input type="checkbox"/> Germany LBA <input type="checkbox"/> CAA-NL <input type="checkbox"/> UK CAA <input type="checkbox"/> Japan CAB <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____		
	設計國AD編號 Original AD number	2017-19-26	
	1. 直接採用原AD之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) ____ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將AD執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	(i) This AD replaces FAA AD 2008-12-04 (CAA-2008-06-008). (ii) Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015.		
註： 1. AD內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：adcaa@mail.caa.gov.tw Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：adcaa@mail.caa.gov.tw			

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[Rules and Regulations]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9301; Product Identifier 2015-NM-193-AD; Amendment 39-19056; AD 2017-19-26]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are superseding Airworthiness Directive (AD) 2008-12-04, which applied to certain The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes. AD 2008-12-04 required various repetitive inspections to detect cracks along the chem-milled steps of the fuselage skin, and to detect missing or loose fasteners in the area of a certain preventive modification or repairs; replacement of the time-limited repair with a permanent repair, if applicable; and applicable corrective actions which would end certain repetitive inspections. This AD reduces the post-modification inspection compliance times, limits installation of the preventive modification to airplanes with fewer than 30,000 total flight cycles, and adds repetitive inspections for modified airplanes. This AD was prompted by an evaluation by the design approval holder (DAH) that indicated that the upper skin panel at the chem-milled step above the lap joint is subject to widespread fatigue damage (WFD) if the modification was installed after 30,000 total flight cycles. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective October 30, 2017.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 30, 2017.

ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9301.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9301; 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 Docket 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: Alan Pohl, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: alan.pohl@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2008-12-04, Amendment 39-15547 (73 FR 32991, June 11, 2008) (“AD 2008-12-04”). AD 2008-12-04 applied to certain The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes. The NPRM published in the Federal Register on November 22, 2016 (81 FR 83745) (“the NPRM”). The NPRM was prompted by an evaluation by the DAH that indicated that the upper skin panel at the chem-milled step above the lap joint is subject to WFD if the modification was installed after 30,000 total flight cycles. The NPRM proposed to continue to require various repetitive inspections to detect cracks along the chem-milled steps of the fuselage skin, and to detect missing or loose fasteners in the area of the preventive modification or repairs; replacement of the time-limited repair with a permanent repair, if applicable; and applicable corrective actions which would end certain repetitive inspections. The NPRM also proposed to reduce the post-modification inspection compliance times, limit installation of the preventive modification to airplanes with fewer than 30,000 total flight cycles, and add repetitive inspections for modified airplanes. We are issuing this AD to detect and correct cracking of the upper skin panel at the chem-milled step above the lap joint, which could result in reduced structural integrity of the airplane.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Support for the NPRM

Boeing and United Airlines supported the NPRM.

Effect of Winglets on Accomplishment of the Proposed Actions

Aviation Partners Boeing stated that installation of winglets, as provided in Supplemental Type Certificate (STC) ST00830SE, does not affect the ability to accomplish the actions proposed in the NPRM.

We agree with the commenter. We have redesignated paragraph (c) of the proposed AD as (c)(1) and added paragraph (c)(2) to this AD to state that installation of STC ST00830SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC

ST00830SE 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.

Request To Revise Certain Compliance Time Provisions

Southwest Airlines (SWA) asked that we revise certain compliance language in paragraph (p)(4) of the proposed AD, which stipulated that post-repair or post-mod inspections be done at the time specified in the service information or at the time specified in the previously approved AMOC, “whichever occurs first.” SWA stated that previously approved AMOCs for post-repair or post-modification supplemental inspections that comply with certain regulations may contain unique damage tolerance inspection programs that demonstrate a level of safety equivalent to that of AD 2008-12-04. SWA added that altering those supplemental inspections to post-repair or post-modification inspections as specified in Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, when those are done first, could result in incorrect inspection methods to geometrical structure that does not conform to the repair or modification definitions specified in Revisions 1 and 3 of that service information.

We partially agree with the commenter's request. We have determined that repairs and preventive modifications should be handled separately. Fleet experience and subsequent analysis of Model 737-200, -200C, -300, -400, and -500 airplanes, which have similar chem-milled step details, have shown that certain post-preventative modification inspection programs may not adequately address the unsafe condition. Therefore, paragraph (p)(4) of this AD has been changed to remove the language “preventative modifications” and remove the reference to the service information and “whichever occurs first” from the compliance time specified. In addition, we have added paragraph (p)(5) to this AD to address only the preventive modifications without change to the service information and “whichever occurs first” language.

Request To Retain Certain Exceptions

Additionally, SWA asked that paragraphs (j) and (k) of AD 2008-12-04 be included in the proposed AD. Paragraph (j) of AD 2008-12-04 provides an allowance for repairs that are FAA-approved and that have a minimum of three rows of fasteners above and below the chem-milled step. SWA stated that paragraph (k) of AD 2008-12-04 provides a means of inspections without an AMOC when an external repair is covering the chem-milled step, but that the doubler does not span the step by a minimum of three rows of fasteners above and below the chem-milled step. SWA added that both paragraphs (j) and (k) of AD 2008-12-04 are missing from the proposed AD and should be added, with certain clarifications, to paragraph (j) of the proposed AD. First, the repair is an external doubler repair. Second, in lieu of the doing the post-repair supplemental inspections in accordance with table 2 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, the inspections should be done in accordance with 14 CFR 121.1109(c)(2) or 14 CFR 129.109(b)(2) supplemental inspection requirements, or in accordance with FAA-approved damage tolerance inspection requirements.

SWA also stated that if paragraphs (j) and (k) of AD 2008-12-04 are not restated for compliance with existing FAA-approved repairs, operators will be required to seek AMOC approvals for such existing repairs prior to the inspection threshold or repeat interval of table 1 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. SWA stated that not including the exceptions in paragraphs (j) and (k) of AD 2008-12-04 could potentially lead to disruption of operations if it is necessary to request AMOC approvals during repair discovery, or could burden operators with records research to identify these repairs for AMOC approvals prior to the required compliance times.

We agree that an allowance can be made for repairs that meet the criteria specified in paragraph (j) of AD 2008-12-04. These repairs address the unsafe condition identified in this AD. Therefore, we

have added paragraph (l)(3) to this AD to include the provision of paragraph (j) of AD 2008-12-04 for repairs that were accomplished before the effective date of this AD.

We disagree that post-repair inspections for these repairs should be done in accordance with 14 CFR 121.1109(c)(2) or 14 CFR 129.109(b)(2) supplemental inspection requirements. Post-repair inspections for repairs that meet the criteria of paragraph (j) of this AD are to be accomplished in accordance with table 2 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. This is consistent with the DAH’s current recommendation as well as the requirements of paragraph (j) of AD 2008-12-04. Paragraph (l)(3) of this AD reflects these provisions.

We also disagree with the commenter’s request to change the word “repair” to “external doubler repair” in paragraph (l)(3) of this AD because we are retaining the provisions of paragraph (j) of AD 2008-12-04.

We also agree to add certain provisions of paragraph (k) of AD 2008-12-04 to this AD. We have added paragraph (l)(4) to this AD to address certain repairs as defined in paragraph (k) of AD 2008-12-04. However, paragraph (l)(4) of this AD does not include a reference to Boeing Model 737 Non-destructive Test (NDT) Manual, Part 6, Subject 53-30-20, and instead requires that the inspection be done using FAA-approved procedures. We have also added Note 1 to paragraph (l)(4) of this AD to specify that guidance on the inspection specified in paragraph (l)(4) of this AD can be found in Boeing Model 737 NDT Manual, Part 6, Subject 53-30-20.

Clarification of Paragraph (i)(1) of This AD

We have revised the language in paragraph (i)(1) of this AD to clarify which modifications are exempt from the actions required by paragraph (i)(1) of this AD.

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 for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

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

Related Service Information Under 1 CFR Part 51

We reviewed Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. This service information describes procedures for an external detailed inspection and an external nondestructive inspection (NDI) for cracks in the fuselage skin at chem-milled steps. Corrective actions include a permanent or time-limited repair, a preventive modification, and replacement of loose and missing fasteners. Related investigative actions include internal and external detailed inspections of the repair area. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 376 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	Up to 25 work-hours × \$85 per hour = \$2,125 per inspection cycle	\$0	Up to \$2,125 per inspection cycle	Up to \$799,000 per inspection cycle.

We estimate the following costs to do any necessary repairs and replacements that would be required based on the results of the inspections. 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
Fastener replacement	Up to 1 work-hour × \$85 per hour = \$85	Minimal	\$85

We have received no definitive data that would enable us to provide cost estimates for the related investigative actions, certain repairs, and other applicable 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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

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) 2008-12-04, Amendment 39-15547 (73 FR 32991, June 11, 2008), and adding the following new AD:



FAA
Aviation Safety

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

2017-19-26 The Boeing Company: Amendment 39-19056; Docket No. FAA-2016-9301; Product Identifier 2015-NM-193-AD.

(a) Effective Date

This AD is effective October 30, 2017.

(b) Affected ADs

This AD replaces AD 2008-12-04, Amendment 39-15547 (73 FR 32991, June 11, 2008) ("AD 2008-12-04").

(c) Applicability

(1) This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015.

(2) Installation of Supplemental Type Certificate (STC) ST00830SE [http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/184DE9A71EC3FA5586257EAE00707DA6?OpenDocument&Highlight=st00830se] does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST00830SE 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

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by a fatigue test that revealed numerous cracks in the upper skin panel at the chem-milled step above the lap joint, followed by an evaluation by the design approval holder (DAH) that indicated that location is subject to widespread fatigue damage (WFD) on airplanes on which a certain modification was installed after 30,000 total flight cycles. We are issuing this AD to detect and correct cracking of the upper skin panel at the chem-milled step above the lap joint, which could result in reduced structural integrity of the airplane.

(f) Compliance

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

(g) Inspections at Locations Without the Preventive Modification, Time-Limited Repair, or Permanent Repair Installed

At locations where a preventive modification, time-limited repair, or permanent repair has not been installed as specified in Boeing Service Bulletin 737-53A1232: At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, do an external detailed inspection and an inspection specified in either paragraph (g)(1) or (g)(2) of this AD, for any crack in the fuselage skin at the chem-milled steps at specified locations, in accordance with Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. Do all applicable related investigative and corrective actions before further flight in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, except as required by paragraph (l)(1) of this AD, and except as provided in paragraphs (l)(3) and (l)(4) of this AD. Repeat the inspections thereafter at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015.

(1) Do an external medium frequency eddy current (MFEC), or magneto optic imager (MOI), or C-Scan inspection.

(2) Do an external ultrasonic phased array (UTPA) inspection.

(h) Repetitive Post-Modification Inspections and Repair at Any Location With the Preventive Modification But No Time-Limited or Permanent Repair

At any location with a preventive modification installed as specified in Boeing Service Bulletin 737-53A1232: At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, except as required by paragraph (l)(2) of this AD, do the actions specified in paragraphs (h)(1) and (h)(2) of this AD.

(1) Do external detailed and external high frequency and medium frequency eddy current inspections for any crack, in accordance with Part 7 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. If no crack is found during the inspection, repeat the inspections thereafter at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. If any crack is found during any inspection required by this paragraph, repair before further flight, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, except as required by paragraph (l)(1) of this AD.

(2) Do a detailed inspection for any crack and any loose or missing fasteners, in accordance with Part 7 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. Repeat the inspections thereafter at applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. If any crack is found during any inspection, or any loose or missing fastener is found, before further flight, do all applicable corrective actions, in accordance with Part V of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, except as specified in paragraph (l)(1) of this AD.

(i) Additional Actions for Modified Airplanes

(1) At any location where a preventive modification as specified in Boeing Service Bulletin 737-53A1232 was installed after the accumulation of 30,000 total flight cycles, at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, except as required by paragraph (l)(2) of this AD, do all applicable investigative and corrective actions using a method approved in accordance with the procedures specified in paragraph (p) of this AD. For preventive modifications installed on airplanes listed in Appendix A of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, at the specified total flight cycles: The actions specified in this paragraph are not required.

(2) For airplanes which have installed STC ST01697SE
(http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/0812969a86af879b8625766400600)

105/\$FILE/ST01697SE.pdf) and the preventive modification has been installed after 15,000 total flight cycles: Before the accumulation of 25,000 total flight cycles, do all applicable investigative and corrective actions using a method approved in accordance with the procedures specified in paragraph (p) of this AD.

(j) Inspections and Repair at Locations With the Permanent Chem-Milled Step Repair Installed

At any location where a permanent repair has been installed as specified in Boeing Service Bulletin 737-53A1232: At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, do the inspections specified in paragraph (j)(1) or (j)(2) of this AD, in accordance with Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. Repeat the inspections thereafter at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. Do all applicable related investigative and corrective actions before further flight in accordance with Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, except as required by paragraph (l)(1) of this AD.

(1) Do an external low frequency eddy current (LFEC) inspection for any crack, and doubler external LFEC and external detailed inspections for any crack and loose or missing fasteners.

(2) Do an external LFEC inspection for any crack, a doubler external LFEC and external detailed inspections for any crack and loose or missing fasteners, and an internal MFEC for any crack.

(k) Inspection and Replacement at Locations With a Chem-Milled Time-Limited Repair Installed

At any location where a chem-milled time-limited repair is installed, do the actions specified in paragraphs (k)(1) and (k)(2) of this AD, at the applicable time specified in 1.E. “Compliance,” of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015.

(1) Do internal and external detailed inspections of the time-limited repair for any crack, or loose or missing fasteners, in accordance with Part IV of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. Repeat the inspections thereafter at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015. If any crack is found during any inspection, or if any loose or missing fastener is found, before further flight, do all applicable corrective actions, in accordance with Part IV of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, except as specified in paragraph (l)(1) of this AD.

(2) Replace the time-limited repair with the permanent repair, in accordance with Part IV of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015.

(l) Exceptions to Service Information Specifications

(1) Where Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, specifies to contact Boeing for repair instructions, this AD requires repair before further flight using a method approved in accordance with the procedures specified in paragraph (p) of this AD.

(2) Where paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, specifies a compliance time “after the date of Revision 2 of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(3) For airplanes on which the actions specified in paragraph (g) of this AD are required: Inspections specified in table 1 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, are not required in areas that are spanned by an FAA-

approved repair that has a minimum of 3 rows of fasteners above and below the chem-milled step, provided that the repair was installed before the effective date of this AD. Operators must accomplish post-repair inspections at the applicable time specified in table 2 of paragraph 1.E, "Compliance," of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015.

(4) For any airplane that has an external doubler covering the chem-milled step, but the doubler does not span the step by a minimum of 3 rows of fasteners above and below the chem-milled step and the doubler was installed before the effective date of this AD: One method of compliance with the inspection requirement of paragraph (g) of this AD is to inspect all chem-milled steps covered by the repair using non-destructive test (NDT) methods approved in accordance with the procedures specified in paragraph (p) of this AD. These repairs are to be considered time-limited and are subject to the post-repair supplemental inspections and replacement at the times specified in table 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015.

Note 1 to paragraph (l)(4) of this AD: Guidance for the procedures for the alternative inspection specified in paragraph (l)(4) of this AD can be found in the Boeing 737 NDT Manual, Part 6, Subject 53-30-20.

(m) Optional Terminating Action

(1) For airplanes that have accumulated 30,000 total flight cycles or fewer, or for airplanes on which STC ST01697SE was installed and that have accumulated 15,000 total flight cycles or fewer, accomplishment of the preventive modification specified in Part V of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, terminates the inspections required by paragraph (g) of this AD in the modified areas only.

(2) Installation of a permanent repair as specified in Part III of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, or a time-limited repair as specified in Part IV of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, terminates the inspections required by paragraph (g) of this AD in the repaired areas only.

(n) Installation Limitations of Preventive Modification

As of the effective date of this AD, installation of the preventive modification specified in Boeing Service Bulletin 737-53A1232 is prohibited on the airplanes identified in paragraphs (n)(1) and (n)(2) of this AD.

(1) Airplanes that have accumulated more than 30,000 total flight cycles.

(2) Airplanes which have installed STC ST01697SE and that have accumulated more than 15,000 total flight cycles.

(o) Credit for Previous Actions

This paragraph provides credit for the corresponding actions specified in paragraphs (g), (h), (i), (j), (k), and (m) of this AD, if those actions were performed before the effective date of this AD using the service information identified in paragraph (o)(1), (o)(2), or (o)(3) of this AD.

(1) Boeing Special Attention Service Bulletin 737-53A1232, dated April 2, 2007.

(2) Boeing Special Attention Service Bulletin 737-53A1232, Revision 1, dated May 18, 2012.

(3) Boeing Special Attention Service Bulletin 737-53A1232, Revision 2, dated July 26, 2013.

(p) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, 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 certification office, send it to the attention of the person identified in paragraph (q)(1) 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, modification, or alteration 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. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved previously for repairs for AD 2008-12-04 are approved as AMOCs for the installation of the repair specified in this AD, provided all post-repair inspections are done at the applicable times specified in the AMOC.

(5) AMOCs approved previously for preventive modifications for AD 2008-12-04 are approved as AMOCs for the installation of the preventive modification specified in this AD, provided all post-modification inspections are done at the applicable times specified in the AMOC, or in tables 1a and 1b of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015, whichever occurs first. The AMOC must include all of the inspections specified in Tables 1a and 1b of Boeing Alert Service Bulletin 737-53A1232, Revision 3, dated July 27, 2015.

(q) Related Information

(1) For more information about this AD, contact Alan Pohl, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6577; fax: 425-917-6450; email: alan.pohl@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (r)(3) and (r)(4) of this AD.

(r) 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 737-53A1232, Revision 3, dated July 27, 2015.

(ii) Reserved.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 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 14, 2017.

Jeffrey E. Duven,
Director, System Oversight Division,
Aircraft Certification Service.