



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-9434; Directorate Identifier 2016-NM-136-AD; Amendment 39-18896; AD 2017-10-22]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes. This AD was prompted by an evaluation by the design approval holder (DAH) indicating that the web lap splices in the aft pressure bulkhead are subject to widespread fatigue damage (WFD). This AD requires repetitive inspections of the web lap splices in the aft pressure bulkhead for cracking of the fastener holes, and repair if necessary. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**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 Airplane Directorate, 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-2016-9434.

### **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-2016-9434; 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 Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: [alan.pohl@faa.gov](mailto:alan.pohl@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes. The NPRM published in the Federal Register on December 5, 2016 (81 FR 87496) (“the NPRM”). The NPRM was prompted by an evaluation by the DAH indicating that the web lap splices in the aft pressure bulkhead are subject to WFD. The NPRM proposed to require repetitive inspections of the web lap splices in the aft pressure bulkhead for cracking of the fastener holes, and repair if

necessary. We are issuing this AD to detect and correct cracks of the web lap splices in the aft pressure bulkhead, which could result in possible rapid decompression and loss of 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, United Airlines, and commenter Razia Khan concurred with the content of 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 paragraph (c)(1) of this AD 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 Omit Inspections of Existing Repairs**

Southwest Airlines (SWA) asked that we include provisions for airplanes on which repairs have been accomplished previously per the structural repair manual or per an Organization Designation Authorization (ODA) signed FAA Form 8100-9 to omit the inspections at the repair locations. SWA noted that these existing repairs would inhibit the inspections specified in paragraph (g) of the proposed AD. SWA added that including

follow-on actions as an alternative to the actions specified in Boeing Alert Service Bulletin 737-53A1353, dated July 21, 2016, when an existing repair inhibits the inspections required by paragraph (g) of the proposed AD, would also be acceptable.

We do not agree with the commenter's request. We acknowledge that SWA is requesting relief from additional approval for actions for existing repaired locations. However, SWA did not identify any specific structural repair manual (SRM) repairs or provide a general repair description of repairs previously approved by the Boeing ODA per an FAA Form 8100-9. These criteria have been published by Boeing in related service information for similar issues, but not for this particular issue. Under the provisions of paragraph (i) of this AD, we will consider requests for approval of an AMOC if appropriate data are submitted to substantiate that the method would provide an acceptable level of safety. We have made no change to this AD in this regard.

### **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 737-53A1353, dated July 21, 2016. The service information describes procedures for a low frequency eddy current inspection

to detect cracking of each web lap splice of the aft pressure bulkhead at the fastener row common to the stiffener, and a high frequency eddy current inspection to detect cracking of each web lap splice of the aft pressure bulkhead at the fastener row not common to the stiffener. 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 693 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

**Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspections	26 work-hours X \$85 per hour = \$2,210 per inspection cycle	\$2,210 per inspection cycle	\$1,531,530 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates 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**

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 adding the following new airworthiness directive (AD):

**2017-10-22 The Boeing Company:** Amendment 39-18896; Docket No. FAA-2016-9434; Directorate Identifier 2016-NM-136-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(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 737-53A1353, dated July 21, 2016.

(2) Installation of Supplemental Type Certificate (STC) ST00830SE [[http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/184DE9A71EC3FA5586257EAE00707DA6?OpenDocument&Highlight=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 an evaluation by the design approval holder (DAH) indicating that the web lap splices in the aft pressure bulkhead are subject to widespread fatigue damage (WFD). We are issuing this AD to detect and correct cracks of the web lap splices in the aft pressure bulkhead, which could result in possible rapid decompression and loss of structural integrity of the airplane.

**(f) Compliance**

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

**(g) Repetitive Inspections**

Except as provided by paragraph (h) of this AD, at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1353, dated July 21, 2016: Do a low frequency eddy current (LFEC) inspection to detect cracking of each web lap splice of the aft pressure bulkhead at the fastener row common to the stiffener, and a high frequency eddy current (HFEC) inspection to detect cracking of each web lap splice of the aft pressure bulkhead at the fastener row not common to the stiffener, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1353, dated July 21, 2016.

(1) If no crack is found: Repeat the inspections thereafter at the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1353, dated July 21, 2016.

(2) If any crack is found: Do the actions specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD.

(i) Repair the crack before further flight using a method approved in accordance with the procedures specified in paragraph (i) of this AD. Although Boeing Alert Service Bulletin 737-53A1353, dated July 21, 2016, specifies to contact Boeing for repair instructions, and specifies that action as “RC” (Required for Compliance), this AD requires repair as specified in this paragraph.

(ii) On areas that are not repaired, repeat the inspections thereafter at the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1353, dated July 21, 2016.

**(h) Service Information Exception**

Where paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1353, dated July 21, 2016, 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.

**(i) 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 paragraph (j) 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) Except as required by paragraph (g)(2)(i) of this AD: For service information that contains steps that are labeled as RC, the provisions of paragraphs (i)(4)(i) and (i)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

**(j) Related Information**

For more information about this AD, contact Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: alan.pohl@faa.gov.

**(k) 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 737-53A1353, dated July 21, 2016.

(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 Airplane Directorate, 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 May 10, 2017.

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