



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2014-0286; Directorate Identifier 2014-NM-004-AD; Amendment 39-18145; AD 2015-08-09]**

**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 and -700 series airplanes. This AD was prompted by reports of cracking in the body station (STA) 727 bulkhead lower frame. This AD requires a detailed and open hole high frequency eddy current (HFEC) inspection of the left- and right-side lower frame webs and inner chords for cracking, and corrective actions and preventative modifications if necessary. This AD also provides for optional terminating action of the repetitive inspections, under certain conditions. We are issuing this AD to detect and correct cracking in a bulkhead lower frame web and inner chord, which could result in a severed frame and induced skin cracks, and could lead to rapid decompression of the fuselage.

**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 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 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-2014-0286.

### **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-2014-0286; 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, 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 and -700 series airplanes. The NPRM published in the Federal Register on May 28, 2014 (79 FR

30490). The NPRM was prompted by reports of cracking in the body STA 727 bulkhead lower frame. The NPRM proposed to require a detailed and open hole high frequency eddy current (HFEC) inspection of the left- and right-side lower frame webs and inner chords for cracking, as applicable, and corrective actions and preventative modifications if necessary. The NPRM also proposed to provide for an optional terminating action for the repetitive inspections under certain conditions. We are issuing this AD to detect and correct cracking in a bulkhead lower frame web and inner chord, which could result in a severed frame and induced skin cracks, and could lead to rapid decompression of the fuselage.

### **Comments**

We gave the public the opportunity to participate in developing this AD. Boeing and United Airlines stated that they support the NPRM (79 FR 30490, May 28, 2014). The following presents the comments received on the NPRM, and the FAA's response to each comment.

### **Request to Clarify Modification and Repair Requirements**

Southwest Airlines (SWA) requested that we clarify whether the preventative modifications and repairs of the lower frame webs and inner chords (if accomplished) must be done on both the left and right sides at the same time.

SWA stated that paragraph (h) of the NPRM (79 FR 30490, May 28, 2014) reads, "Accomplishment of a modification or a repair, in accordance with Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, terminates the repetitive inspections in this AD for the repaired or modified side only."

SWA stated that Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, provides that for each airplane group, if a repair is installed on one side, a preventative modification must be installed on the opposing side. SWA also stated

that, for airplanes with no cracks, a preventative modification is optional, but that the service information specifies that in this situation, both sides must be modified.

We agree that clarification is necessary. Groups 2 and 3 airplanes are comprised of four airplanes on which a repair to the left side was installed prior to the issuance of Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013. Therefore, SWA's comments are primarily for Group 1 airplanes.

As specified in Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, if a crack is found on one side, then that side must be repaired and the preventative modification concurrently installed on the other side, even if that other side is not cracked. We also agree that if no cracking is found on either side and the operator chooses to install the preventative modification, then both sides must be modified, as specified in paragraph 3.B., Part 2, Step 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013. Installing the preventative modification terminates the repetitive inspections. We have removed the wording "for the repaired or modified side only" from paragraph (h) of this AD.

#### **Effect of Winglets on Accomplishment of the Proposed Actions**

Aviation Partners Boeing stated that accomplishing the supplemental type certificate (STC)

ST00830SE([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/932b6080caa1856e86257d6c005c5a37/\\$FILE/ST00830SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/932b6080caa1856e86257d6c005c5a37/$FILE/ST00830SE.pdf)) does not affect the actions specified in the NPRM (79 FR 30490, May 28, 2014).

We concur with the commenter. We have redesignated paragraph (c) of the NPRM (79 FR 30490, May 28, 2014) as paragraph (c)(1) and added new paragraph (c)(2) to this AD to state that installation of STC ST00830SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/932b6080caa1856e86257d6c005c5a37/\\$FILE/ST00830SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/932b6080caa1856e86257d6c005c5a37/$FILE/ST00830SE.pdf)) 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.

### **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 (79 FR 30490, May 28, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 30490, May 28, 2014).

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 737-53A1325, dated December 3, 2013. The service information describes procedures for a detailed and open hole HFEC inspection of the left- and right-side lower frame webs and inner chords for cracking, and corrective actions and preventative modifications if necessary. The service information also provides for an optional terminating action of the repetitive inspections, under certain conditions. This service information is reasonably available at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0286. Or see ADDRESSES for other ways to access this service information.

### **Costs of Compliance**

We estimate that this AD affects 489 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>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspections	37 work-hours X \$85 per hour = \$3,145	\$0	\$3,145	\$1,537,905

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

**On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Repair (per side)	11 work-hours X \$85 per hour = \$935	\$2,820	\$3,755
Modification	17 work-hours X \$85 per hour = \$1,445	\$1,132	\$2,577

**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):

**2015-08-09 The Boeing Company:** Amendment 39-18145; Docket No. FAA-2014-0286; Directorate Identifier 2014-NM-004-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 and -700 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013.

(2) Installation of Supplemental Type Certificate (STC) ST00830SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/932b6080caa1856e86257d6c005c5a37/\\$FILE/ST00830SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/932b6080caa1856e86257d6c005c5a37/$FILE/ST00830SE.pdf)) 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 reports of cracking in the body station 727 bulkhead lower frame. We are issuing this AD to detect and correct cracking in a bulkhead lower frame web and inner chord, which could result in a severed framed and induced skin cracks, and could lead to rapid decompression of the fuselage.

**(f) Compliance**

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

**(g) Inspections**

At the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, except as provided by paragraph (i)(1) of this AD: Do a detailed and open hole high frequency eddy current (HFEC) inspection of the left- and right-side lower frame webs and inner chords for cracking, as applicable, and do all applicable corrective actions and preventative modifications, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, except as required by paragraph (i)(2) of this AD. Repeat the applicable inspections required by this paragraph thereafter at the applicable intervals specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013. Do all applicable corrective actions and preventative modifications before further flight.

**(h) Terminating Action**

Accomplishment of a modification or a repair, in accordance with Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, terminates the repetitive inspections required by this AD.

**(i) Exceptions to Service Information Specifications**

(1) Where Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, 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.

(2) Where Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, specifies to contact Boeing for appropriate action: Before further flight, accomplish the

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

**(j) Post-Repair Inspections**

The post-repair inspections specified in tables 4, 5, and 6 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, are not required by this AD.

Note 1 to paragraph (j) of this AD: The damage tolerance inspections specified in tables 4, 5, and 6 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, may be used in support of compliance with Section 121.1109(c)(2) or 129.109(b)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(b)(2)). The corresponding actions specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1325, dated December 3, 2013, are not required by this AD.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (l) of this AD. Information may be emailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes

Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(l) Related Information**

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

**(m) 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 737-53A1325, dated December 3, 2013.

(ii) Reserved.

(3) For Boeing 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>.

(4) 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.

(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 April 13, 2015.

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

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