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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2015-8131; Directorate Identifier 2015-NM-073-AD; Amendment 39-18575; AD 2016-13-11]**

**RIN 2120-AA64**

#### **Airworthiness Directives; The Boeing Company Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are superseding Airworthiness Directive (AD) 2008-05-06 for certain The Boeing Company Model 737-100, -200, -300, -400, and -500 series airplanes. AD 2008-05-06 required repetitive inspections for fatigue cracking in the longitudinal floor beam web, upper chord, and lower chord located at certain body stations, and repair if necessary. This new AD requires, for certain airplanes, an inspection to determine if tapered fillers are installed, and related investigative and corrective actions if necessary. This AD was prompted by reports of cracks in the center wing box longitudinal floor beams, upper chord, and lower chord. We are issuing this AD to detect and correct fatigue cracking of the upper and lower chords and web of the longitudinal floor beams, which could result in rapid loss of cabin pressure.

**DATES:** This AD is effective August 9, 2016.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of August 9, 2016.

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of April 8, 2008 (73 FR 11538, March 4, 2008).

**ADDRESSES:** For service information identified in this final rule, 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-2015-8131.

## **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-2015-8131; 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:** Galib Abumeri, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5324; fax: 562-627-5210; email: [galib.abumeri@faa.gov](mailto:galib.abumeri@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008) ("AD 2008-05-06"). AD 2008-05-06 applied to certain The Boeing Company Model 737-100, -200, -300, -400, and -500 series airplanes. The NPRM published in the Federal Register on January 12, 2016 (81 FR 1345) ("the NPRM"). The NPRM was prompted by reports of cracks in the center wing box longitudinal floor beams, upper chord, and lower chord. The NPRM proposed to continue to require repetitive inspections for fatigue cracking in the longitudinal floor beam web, upper chord, and lower chord located at certain body stations, and repair if necessary. The NPRM also proposed to require, for certain airplanes, an inspection to determine if tapered fillers are installed, and related investigative and corrective actions if necessary. We are issuing this AD to detect and correct fatigue cracking of the upper and lower chords and web of the longitudinal floor beams, which could result in rapid loss of cabin pressure.

### **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 stated that it has reviewed the NPRM and concurs with the contents.

Ms. Kathleen Whitworth stated that the NPRM is a good idea because the safety of airline passengers outweighs the extra cost of the added inspection and that she is in full support of the NPRM.

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

Aviation Partners Boeing stated that accomplishing the Supplemental Type Certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf)) does not affect accomplishment of the actions specified in the NPRM.

We concur with the commenter. We have redesignated paragraph (c) of the proposed AD as paragraph (c)(1) and added a new paragraph (c)(2) to this AD to state that installation of STC

ST01219SE

([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf)) 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.

## 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 737-57A1296, Revision 2, dated April 1, 2015. The service information describes procedures for various inspections for fatigue cracks in the longitudinal floor beam web, upper chord, and lower chord, located at the applicable body stations, repairs (including related investigative and corrective actions), and preventive modifications (including related investigative and corrective actions) that terminate the repetitive inspections. The service information also describes procedures for an inspection to determine if tapered fillers are installed, and related investigative and corrective actions. 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 652 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 [retained actions from AD 2008-05-06]	Up to 25 work-hours × \$85 per hour = \$2,125 per inspection cycle	\$0	\$2,125 per inspection cycle	\$1,385,500 per inspection cycle.
Tapered filler inspection [new action]	4 work-hours × \$85 per hour = \$340	\$0	\$340	\$221,680.

We estimate the following costs to do any necessary repairs that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these repairs:

### On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Floor beam repair and optional preventative modification	Up to 198 work-hours × \$85 per hour = \$16,830	( <sup>1</sup> )	Up to \$16,830
Tapered filler repair	174 work-hours × \$85 per hour = \$14,790	( <sup>1</sup> )	\$14,790

<sup>1</sup> We have received no definitive data that would enable us to provide parts cost estimates for the 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) 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008), and adding the following new AD:



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**2016-13-11 The Boeing Company:** Amendment 39-18575; Docket No. FAA-2015-8131; Directorate Identifier 2015-NM-073-AD.

**(a) Effective Date**

This AD is effective August 9, 2016.

**(b) Affected ADs**

This AD replaces AD 2008-05-06, Amendment 39-15400 (73 FR 11538, March 4, 2008) ("AD 2008-05-06").

**(c) Applicability**

(1) This AD applies to The Boeing Company Model 737-100, -200, -300, -400, and -500 series airplanes; certificated in any category; as identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf)) 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**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Unsafe Condition**

This AD was prompted by reports of cracks in the center wing box longitudinal floor beams, upper chord, and lower chord. We are issuing this AD to detect and correct fatigue cracking of the upper and lower chords and web of the longitudinal floor beams, which could result in rapid loss of cabin pressure.

**(f) Compliance**

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

**(g) Retained Inspections, With Revised Service Information and Revised Affected Airplanes**

This paragraph restates the requirements of paragraph (f) of AD 2008-05-06, with revised service information and revised affected airplanes. For Groups 1 through 4 airplanes identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, do the various inspections for fatigue cracks in the longitudinal floor beam web, upper chord, and lower chord, located at the

applicable body stations specified in the Accomplishment Instructions of Boeing Service Bulletin 737-57-1296, dated June 13, 2007; or Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015; by doing all the actions in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-57A1296, dated June 13, 2007; or Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015; except as provided by paragraph (h) of this AD. Do the inspections at the time specified in paragraph (g)(1) or (g)(2) of this AD, as applicable. As of the effective date of this AD, only use Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, for accomplishing the actions required by this paragraph.

Note 1 to paragraphs (g) and (h) of this AD: The airplane groups identified in Boeing Service Bulletin 737-57-1296, dated June 13, 2007, do not, in all cases, match the airplane groups identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015 (Group 4 airplanes in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, coincide with certain Group 2 airplanes in Boeing Service Bulletin 737-57-1296, dated June 13, 2007).

(1) For Groups 1 and 2 airplanes, except for line numbers 1 through 291, identified in Boeing Service Bulletin 737-57-1296, dated June 13, 2007: Do the inspections at the applicable initial compliance time listed in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-57-1296, dated June 13, 2007, except where Boeing Service Bulletin 737-57-1296, dated June 13, 2007, specifies a compliance time after the date on the service bulletin, this AD requires compliance within the specified compliance time after April 8, 2008 (the effective date of AD 2008-05-06). Repeat the inspections thereafter at the intervals specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-57-1296, dated June 13, 2007.

(2) For Group 3 airplanes identified in Boeing Service Bulletin 737-57-1296, dated June 13, 2007: Do the inspections at the applicable initial compliance time listed in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-57-1296, dated June 13, 2007, except where Boeing Service Bulletin 737-57-1296, dated June 13, 2007, specifies a compliance time after the date on the service bulletin, this AD requires compliance within the specified compliance time after April 8, 2008 (the effective date of AD 2008-05-06). Repeat the inspections thereafter at the intervals specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-57-1296, dated June 13, 2007.

#### **(h) Retained Repair Instructions, With Revised Service Information That Contains New Repair Actions**

This paragraph restates the requirements of paragraph (g) of AD 2008-05-06, with revised service information that contains new repair actions. If any crack is found during any inspection required by paragraph (g) of this AD, do the applicable actions specified in paragraph (h)(1) or (h)(2) of this AD.

(1) For inspections done using Boeing Service Bulletin 737-57-1296, dated June 13, 2007: If any crack is found during any inspection required by paragraph (g) of this AD, and Boeing Service Bulletin 737-57-1296, dated June 13, 2007, specifies contacting Boeing for repair instructions, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

(2) For inspections done using Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015: If any crack is found during any inspection required by paragraph (g) of this AD, before further flight, repair, including doing all applicable related investigative actions and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015; except where Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, specifies contacting Boeing for repair instructions, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (n) of this AD. Accomplishing a repair specified in Boeing Alert Service Bulletin 737-

57A1296, Revision 2, dated April 1, 2015, terminates the repetitive inspections required by paragraph (g) of this AD for the repaired area only.

**(i) New Requirement of This AD: Inspection for Tapered Fillers for Certain Airplanes, Related Investigative Actions, and Corrective Actions**

For Groups 1 through 4, Configuration 1 airplanes identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015: Except as provided by paragraph (k) of this AD, at the applicable time specified in table 5 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, do an inspection to determine if tapered fillers are installed; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015; except where Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, specifies contacting Boeing for repair instructions, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (n) of this AD. Do all applicable related investigative and corrective actions before further flight. A review of the maintenance records is acceptable in lieu of this inspection if the installation of tapered fillers can be conclusively determined from that review.

**(j) New Requirement of This AD: Inspections and Corrective Actions for Group 5 Airplanes**

For Group 5 airplanes identified in Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015: Except as provided by paragraph (k) of this AD, at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015; accomplish inspections and applicable corrective actions using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

**(k) Exception to Service Information**

Where paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, specifies a compliance time "after the Revision 2 date of this service bulletin," this AD requires compliance within the specified compliance time "after the effective date of this AD."

**(l) Optional Terminating Action**

Accomplishing the applicable preventative modification specified in paragraph 3.B.4., "Preventive Modification" of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, terminates the applicable repetitive inspection required by paragraph (g) of this AD. The preventative modification, including related investigative and corrective actions, must be done in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015; except where Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015, specifies contacting Boeing for repair instructions, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

**(m) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g) and (h)(2) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 737-57-1296, Revision 1, dated September 26, 2012. This document is not incorporated by reference in this AD.

## **(n) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Los Angeles 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 (o)(1) of this AD. Information may be emailed to: 9-ANM-LAACO-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, Los Angeles 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 as specified in the fourth paragraph (related to AD 2008-05-06) of Section 1.F., Approval, of Boeing Service Bulletin 737-57-1296, Revision 1, dated September 26, 2012, for repairs and modifications are not approved for any provision of this AD. All other AMOCs approved for AD 2008-05-06 are approved as AMOCs for the corresponding provisions of this AD.

## **(o) Related Information**

(1) For more information about this AD, contact Galib Abumeri, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5324; fax: 562-627-5210; email: galib.abumeri@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (p)(5) and (p)(6) of this AD.

## **(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 August 9, 2016.

(i) Boeing Alert Service Bulletin 737-57A1296, Revision 2, dated April 1, 2015.

(ii) Reserved.

(4) The following service information was approved for IBR on April 8, 2008 (73 FR 11538, March 4, 2008).

(i) Boeing Service Bulletin 737-57-1296, dated June 13, 2007.

(ii) Reserved.

(5) 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>.

(6) 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.

(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 June 21, 2016.  
Dorr M. Anderson,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.