



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-9391; Directorate Identifier 2016-NM-129-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 737-300, -400, and -500 series airplanes. This proposed AD was prompted by a report of a crack in a certain body station (BS) frame inboard chord during supplemental structural inspection document (SSID) inspections. This proposed AD would require repetitive detailed and high frequency eddy current (HFEC) inspections for any crack at the frame inboard chords, and repair if necessary. We are proposing this AD to prevent the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, 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-2016-9391.

### **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-2016-9391; 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 proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**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:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section.

Include “Docket No. FAA-2016-9391; Directorate Identifier 2016-NM-129-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

We have received a report indicating a crack of approximately 1.00 inch was found in the BS 616 frame inboard chord during SSID inspections. The crack was located at the lowest fastener hole of the inboard chord inboard strap below stringer S-11R. The airplane had accumulated 75,584 total flight hours and 63,570 total flight cycles. Cracking in the inboard chord is the result of fatigue caused by cyclic pressurization of the fuselage. This condition, if not corrected, could result in structural failure of the frame and possible rapid decompression.

### **Related Service Information under 1 CFR part 51**

We reviewed Boeing Alert Service Bulletin 737-53A1366, dated May 17, 2016. The service information describes procedures for repetitive detailed and HFEC inspections for cracking at the frame inboard chords, and repair. 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.

### **FAA’s Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between this Proposed AD and the Service Information.” For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9391.

### **Differences Between this Proposed AD and the Service Information**

Boeing Alert Service Bulletin 737-53A1366, dated May 17, 2016, specifies to contact the manufacturer for certain instructions, but this proposed AD would require using repair methods, modification deviations, and alteration deviations in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

### **Costs of Compliance**

We estimate that this proposed AD affects 400 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Detailed and HFEC Inspections	8 work-hours X \$85 per hour = \$680 per inspection cycle	\$0	\$680 per inspection cycle	\$272,000 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 proposed 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 determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the 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.

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

**The Boeing Company:** Docket No. FAA-2016-9391; Directorate Identifier 2016-NM-129-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all The Boeing Company Model 737-300, -400, and -500 series airplanes, certificated in any category.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD was prompted by a report of a crack in the body station (BS) 616 frame inboard chord during supplemental structural inspection document (SSID) inspections; the crack was located at the lowest fastener hole of the inboard chord inboard strap below stringer S-11R. We are issuing this AD to detect and correct any crack in the inboard chord of the BS 616 frame below stringers S-11L or S-11R, which could result in structural failure of the frame and possible rapid decompression.

**(f) Compliance**

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

**(g) Repetitive Detailed and High Frequency Eddy Current (HFEC) Inspections**

Except as required by paragraph (i) of this AD, at the applicable times specified in table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1366, dated May 17, 2016: Do detailed and HFEC inspections for any crack at the frame inboard chords, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1366, dated May 17, 2016. Repeat the inspections thereafter at the time specified in table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1366, dated May 17, 2016.

**(h) Repair**

If any crack is found during any inspection required by paragraph (g) of this AD, repair before further flight using a method approved in accordance with the procedures specified in paragraph (j) of this AD. Although Boeing Alert Service Bulletin

737-53A1366, dated May 17, 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.

**(i) Service Information Exceptions**

Where Boeing Alert Service Bulletin 737-53A1366, dated May 17, 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.

**(j) 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 (k) 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) Except as required by paragraph (h) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (j)(4)(i) and (j)(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 sub-step is labeled “RC Exempt,” then the RC requirement is removed from that step or sub-step. 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.

**(k) Related Information**

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

(2) 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>. 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.

Issued in Renton, Washington, on November 7, 2016.

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