



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0526; Directorate Identifier 2017-NM-026-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 737-100, -200, -200C, -300, -400, and -500 series airplanes. This proposed AD was prompted by reports of cracking in the upper aft skin at the rear spar of the wings. This proposed AD would require repetitive inspections for cracking of the upper aft skin of the wings, and repair if necessary. We are proposing this AD to address 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 Westminster 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-2017-0526.

### **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-2017-0526; 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:** Payman Soltani, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5313; fax: 562-627-5210; email: [payman.soltani@faa.gov](mailto:payman.soltani@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0526; Directorate Identifier 2017-NM-026-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 reports of cracking in the upper aft skin at the rear spar of the wings on Model 737-200, -200C, -300, -400, and -500 series airplanes. One operator found a crack originating from a fastener hole common to the upper aft skin and strap aft of the rear spar at wing buttock line (WBL) 187. The airplane had accumulated 49,461 flight hours and 47,718 flight cycles. A total of 73 cases of upper aft skin cracks were reported between 1993 and 2015; the cracks measured from 0.02 to 3.0 inches long. Cracks between WBL 159 and WBL 200 were found during open-hole high frequency eddy current (HFEC) inspections of a previous repair of the upper chord splice of the wing rear spar. The majority of larger cracks were found at WBL 171, 183, 187, and 200 at the end fasteners common to the straps attaching the wing trailing edge to the wing upper aft skin. This condition, if not corrected, could result in the inability of a principal structural element to sustain limit load, and consequent reduced structural integrity of the airplane.

### **Explanation of Applicability**

Model 737-100, -200, and -200C series airplanes having line numbers 1 through 291 have a limit of validity (LOV) of 34,000 total flight cycles, and the actions proposed in this NPRM, as specified in Boeing Alert Service Bulletin 737-57A1329, dated January 16, 2017, would be required at a compliance time occurring after that LOV. Although

operation of an airplane beyond its LOV is prohibited by 14 CFR 121.1115 and 129.115, this NPRM includes those airplanes in the applicability so that they are tracked in the event the LOV is extended in the future.

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

We reviewed Boeing Alert Service Bulletin 737-57A1329, dated January 16, 2017. The service information describes procedures for repetitive surface HFEC, low frequency eddy current, and detailed inspections on airplanes with or without an external repair, for cracking of the upper aft skin from WBL 159 to WBL 220. 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. 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-2017-0526.

### **Costs of Compliance**

We estimate that this proposed AD affects 471 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
Inspection	Up to 9 work-hours X \$85 per hour = up to \$765 per inspection cycle	\$0	Up to \$765 per inspection cycle	Up to \$360,315 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-2017-0526; Directorate Identifier 2017-NM-026-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 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD was prompted by reports of cracking in the upper aft skin at the rear spar of the wings. We are issuing this AD to detect and correct cracks in the upper aft skin of the wings, which could result in the inability of a principle structural element to sustain limit load, and consequent reduced structural integrity of the airplane.

**(f) Compliance**

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

**(g) For Group 1 Airplanes: Inspections**

For airplanes identified as Group 1 in Boeing Alert Service Bulletin 737-57A1329, dated January 16, 2017: Within 120 days after the effective date of this AD, do an inspection for cracking of the upper aft skin of the wings, using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

**(h) For Groups 2 and 3 Airplanes: Repetitive Inspections and Repair**

For Groups 2 and 3 airplanes identified in Boeing Alert Service Bulletin 737-57A1329, dated January 16, 2017: At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1329, dated January 16, 2017, except as required by paragraph (i) of this AD, do the applicable inspection for cracking of the upper aft skin of the wings from wing buttock line (WBL) 159 to WBL 220, in accordance with the Work Instructions of Boeing Alert Service Bulletin 737-57A1329, dated January 16, 2017. If any cracking is found, repair before further flight, in accordance with the procedures specified in paragraph (j) of this AD. Repeat the

inspection thereafter at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1329, dated January 16, 2017.

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

(1) Where Boeing Alert Service Bulletin 737-57A1329, dated January 16, 2017, specifies a compliance time “after the original issue date of this service bulletin,” paragraph (h) of this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Although Boeing Alert Service Bulletin 737-57A1329, dated January 16, 2017, specifies to contact Boeing for repair instructions, and specifies that action as “RC” (Required for Compliance), this AD requires repair in accordance with the procedures specified in paragraph (j) 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)(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) Except as required by paragraph (i)(2) 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 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.

**(k) Related Information**

(1) For more information about this AD, contact Payman Soltani, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5313; fax: 562-627-5210; email: [payman.soltani@faa.gov](mailto:payman.soltani@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 May 23, 2017.

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

[FR Doc. 2017-11257 Filed: 6/2/2017 8:45 am; Publication Date: 6/5/2017]