



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0446; Product Identifier 2018-NM-069-AD; Amendment 39-19288; AD 2018-10-12]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This AD requires repetitive high frequency eddy current (HFEC) and detailed inspections, as applicable, for cracking of certain aft vertical stiffeners; repetitive detailed inspections for cracking of time-limited repairs, as applicable; a one-time HFEC inspection for cracking of the keel beam upper chord inboard flanges; a one-time general visual inspection for cracking of a certain angle; and applicable on-condition actions. This AD was prompted by a report of cracks in the left-side and right-side keel beam upper chords and aft vertical stiffeners. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 15 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 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this 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 final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0446.

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-2018-0446; 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 final rule, 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 Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5324; fax: 562-627-5210; email: Galib.Abumeri@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We have received a report indicating that cracks were discovered in the left-side and right-side keel beam upper chords and both aft vertical stiffeners on an airplane that had accumulated 1,304 flight cycles since the aft vertical stiffeners had been inspected in accordance with Boeing Service Bulletin 737-57A1269. The Boeing Company has done an analysis of the affected structure and found that the actual stresses on aft vertical stiffeners at left buttock line (LBL) and right buttock line (RBL) 6.15 are more than those used to design the structure. The increased stresses cause fatigue cracks in the stiffeners. If the aft vertical stiffeners have cracks or are severed, the fatigue damage may extend into the adjacent keel beam structure. The Boeing Company has determined that the

existing inspections in Boeing Service Bulletin 737-57A1269, required by AD 2005-20-01, Amendment 39-14294 (70 FR 56358, September 27, 2005) (“AD 2005-20-01”), do not provide sufficient inspection intervals for timely crack detection in the aft vertical stiffeners. Cracking of the aft vertical stiffeners, if not addressed, could result in the inability of the keel beam structure to sustain required flight loads, which could adversely affect the structural integrity of the airplane.

We have determined that both AD 2005-20-01 and this AD must be done in order to address the identified unsafe condition. Boeing plans to issue a revision to Service Bulletin 737-57A1269 in the near future and at that time we may consider superseding AD 2005-20-01.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018. The service information describes procedures for repetitive surface HFEC and detailed inspections for cracking of the aft vertical stiffeners; repetitive detailed inspections for cracking of time-limited repairs; a one-time surface HFEC inspection for cracking of the keel beam upper chord inboard flanges and a general visual inspection for cracking of the associated angle; and applicable on-condition 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.

FAA's Determination

We are issuing 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.

AD Requirements

This AD requires accomplishing the actions identified as “RC” (required for compliance) in the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018, described previously, except for any differences identified as exceptions in the regulatory text of this AD.

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-2018-0446.

Explanation of Requirements Bulletin

The FAA worked in conjunction with industry, under the Airworthiness Directives Implementation Aviation Rulemaking Committee (AD ARC), to enhance the AD system. One enhancement is a process for annotating which steps in the service information are “required for compliance” (RC) with an AD. Boeing has implemented this RC concept into Boeing service bulletins. In an effort to further improve the quality of ADs and AD-related Boeing service information, a joint process improvement initiative was worked between the FAA and Boeing. The initiative resulted in the development of a new process in which the service information more clearly identifies the actions needed to address the unsafe condition in the “Accomplishment Instructions.”

The new process results in a Boeing Requirements Bulletin, which contains only the actions needed to address the unsafe condition (i.e., only the RC actions).

Interim Action

We consider this AD interim action. We are currently considering requiring the replacement of the vertical stiffeners on certain airplanes, which would constitute terminating action for certain inspections required by this AD action. The planned compliance time for replacing the vertical stiffeners would allow enough time to provide notice and opportunity for prior public comment on the merits of the modification.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because cracks in the keel beam upper chords could result in the inability of the keel beam structure to sustain required flight loads, which could adversely affect the structural integrity of the airplane. Therefore, we find good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reason(s) stated above, we find that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, we invite you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include the docket number

FAA-2018-0446 and Product Identifier 2018-NM-069-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this final rule. We will consider all comments received by the closing date and may amend this final rule 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 final rule.

Costs of Compliance

We estimate that this AD affects 67 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
Surface HFEC and detailed inspections of aft vertical stiffeners (for Configuration 1 airplanes)	2 work-hours X \$85 per hour = \$170 per inspection cycle	\$0	\$170 per inspection cycle	Up to \$11,390 per inspection cycle
Detailed inspection of aft vertical stiffeners and time-limited repair (for Configuration 2 airplanes)	2 work-hours X \$85 per hour = \$170	\$0	\$170 per inspection cycle	Up to \$11,390 per inspection cycle
Surface HFEC inspection of the keel beam upper chord inboard flanges and a general visual inspection of the angle (for all airplanes)	2 work-hours X \$85 per hour = \$170	\$0	\$170	\$11,390

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

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):

2018-10-12 The Boeing Company: Amendment 39-19288; Docket

No. FAA-2018-0446; Product Identifier 2018-NM-069-AD.

(a) Effective Date

This AD is effective [INSERT DATE 15 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; 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by a report of cracks in the left-side and right-side keel beam upper chords and aft vertical stiffeners. Cracks in the aft vertical stiffeners may lead to the inability of the keel beam structure to sustain required flight loads, which could adversely affect the structural integrity of the airplane.

(f) Compliance

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

(g) Required Actions for Group 1 Airplanes

For airplanes identified as Group 1 in Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018: Within 120 days after the effective date of this AD, inspect the airplane and do all applicable corrective actions using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

(h) Required Actions for Group 2 Airplanes

Except as required by paragraph (i) of this AD: For airplanes identified as Group 2 in Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018, at the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018.

Note 1 to paragraph (h) of this AD: Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 737-57A1339, dated April 16, 2018, which is referred to in Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018.

(i) Exceptions to Service Information Specifications

(1) For purposes of determining compliance with the requirements of this AD: Where Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018, uses the phrase “the original issue date of Requirements Bulletin 737-57A1339 RB,” this AD requires using the effective date of this AD.

(2) Where Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018, specifies contacting Boeing, this AD requires repair using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

(j) Optional Terminating Action for Repetitive Inspections

Removal of the time-limited repair and accomplishment of additional actions in accordance with the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018, terminate the repetitive inspections of the aft

vertical stiffeners and time-limited repair, as specified in the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-57A1339 RB, dated April 16, 2018, and required by paragraph (h) of this AD.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO Branch, 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 certification office, send it to the attention of the person identified in paragraph (l)(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 Branch, 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.

(l) Related Information

(1) For more information about this AD, contact Galib Abumeri, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 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 (m)(3) and (m)(4) of this AD.

(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 Requirements Bulletin 737-57A1339 RB, dated April 16, 2018.

(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 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on May 11, 2018.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

[FR Doc. 2018-10920 Filed: 5/22/2018 8:45 am; Publication Date: 5/23/2018]