[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-1467; Project Identifier AD-2023-01241-T; Amendment 39-22935; AD 2025-02-02]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This AD was prompted by a report indicating cracks in the frame inner chord and web at station (STA) 727. This AD requires an inspection for any repair installed, repetitive inspections of the frame inner chord and web at STA 727 for any crack, and applicable on-condition actions. The FAA is issuing this AD to address the unsafe condition on these products.

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:

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2024-1467; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule,

any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

• For Boeing material identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Boulevard, MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website myboeingfleet.com.

• You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at regulations.gov under Docket No. FAA-2024-1467.

FOR FURTHER INFORMATION CONTACT: Muoi Vuong, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; telephone: 562-627-5205; email: Muoi.Vuong@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. The NPRM published in the *Federal Register* on May 20, 2024 (89 FR 43792). The NPRM was prompted by a report indicating cracks in the frame inner chord and web at STA 727 between S-11L and S-13L. In the NPRM, the FAA proposed to require an inspection for any repair installed, repetitive inspections of the frame inner chord and web at STA 727 for any crack, and applicable on-condition actions. The FAA is issuing this AD to address cracks in the left and right frames at STA 727 before they reach a critical length. The unsafe condition, if

not addressed, may result in the inability of a principal structural element to sustain limit load, which could adversely affect the structural integrity of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from three commenters, including Aviation Partners Boeing, FlyPersia Airline, and Sudan Civil Aviation Authority. In addition, the FAA received a comment from an individual whose request is not specific to this AD or a request the FAA can act on. This comment is outside the scope of this rulemaking. The following presents the comments received on the NPRM and the FAA's response to each comment.

Effect of Winglets on Accomplishment of the Proposed Actions

Aviation Partners Boeing stated that the installation of winglets per the Supplemental Type Certificate (STC) ST01219SE does not affect the actions specified in the proposed AD.

The FAA agrees with the commenter. The FAA has redesignated paragraph (c) of the proposed AD as paragraph (c)(1) of this AD and added paragraph (c)(2) to this AD to state that installation of STC ST01219SE 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.

Request to Expand the Area of Inspection

FlyPersia Airline requested that the area of inspection for any repair and repetitive high frequency eddy current inspection include the frame inner chord and web at STA 663.75 through STA 727 between stringers S-11 and S-13 left and right sides. The commenter stated that the mentioned crack on stringers S-11 and S-13 left and right might also exist on those stringers at STA 663.75 through STA 727, because on Model

737-300 airplanes there is a landing gear cavity, which impresses circumferential structure unity on STA 663.75.

The FAA disagrees with expanding the area of inspection in this AD. The Boeing service bulletin addresses only the frame inner chord and web at STA 727, between S-11 and S-13, left and right sides. STA 727 frame between S-11 and S-13, located at a bulkhead station, is different from other frames forward of STA 727, and therefore is the only area of inspection addressed in this AD. However, if additional data are presented that would justify extending the subject inspection area, the FAA might consider further rulemaking on this issue. No change has been made to this AD regarding this issue.

Request to Reduce the Proposed Grace Period for the Initial Compliance Time

Sudan Civil Aviation Authority requested the grace period for the initial compliance time for the general visual inspection of STA 727 (within 4,500 flight cycles after the original issue date of the requirements bulletin) be reduced. Sudan Civil Aviation Authority stated that the compliance time for some Model 737-400 airplanes may fall beyond the 50,000 total flight cycles at which the crack has been found.

The FAA disagrees. After considering all the available information, the FAA has determined that the grace period, as proposed, represents an appropriate interval of time in which the required actions can be performed in a timely manner within the affected fleet, while still maintaining an adequate level of safety. In developing an appropriate grace period, the FAA considered the safety implications, parts availability, normal maintenance schedules, and the manufacturer's recommendation for timely accomplishment of the modifications. To reduce the grace period of the proposed AD would necessitate (under the provisions of the Administrative Procedure Act) reissuing the notice, reopening the period for public comment, considering additional comments subsequently received, and eventually issuing a final rule. In light of this, and in consideration of the amount of time that has already elapsed since issuance of the original

notice, the FAA has determined that further delay of this AD is not appropriate. However, if additional data are presented that would justify a shorter compliance time, the FAA may consider further rulemaking on this issue. No change has been made to this AD regarding this issue.

Request to Revise Requirements Bulletin to Delete Condition 2.2

Sudan Civil Aviation Authority stated that Condition 2.2: No Crack Found in Group 2, Table 1: Inspection of Frame at STA 727 Between S-11 and S-13, Left and Right Side, 3. Compliance, of Boeing Alert Requirements Bulletin 737-53A1416RB, dated July 21, 2023, needs to be deleted. The commenter pointed out that Condition 2.2 (unrepaired areas) should be deleted because there is no repair found.

The FAA agrees to clarify. Condition 2 is accomplished for airplanes that have no repairs in the inspection area and requires high frequency eddy current (HFEC) inspections of the area before further flight. Condition 2.2 is then accomplished if no crack is found during the initial inspection (Condition 2), repeating the HFEC inspections of the unrepaired areas within 9,000 flight cycles. Condition 2.2 includes footnote (a) because a repair could be installed at any point prior to the repeat HFEC inspection, and that repair could terminate the repeat HFEC inspection. No change has been made to this AD regarding this issue.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin 737-53A1416 RB, dated July 21, 2023. This material specifies procedures for a general visual inspection for any repair and repetitive high frequency eddy current inspections of the frame inner chord and web at STA 727, between S-11 and S-13, left and right sides, for any crack, and applicable on-condition actions. On-condition actions include obtaining and following repair instructions. This material 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

The FAA estimates that this AD affects 245 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	8 work-hours x $85 per hour = $680	$0	$680	$166,600

The FAA has received no definitive data on which to base the 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.

The FAA is 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) Will not affect intrastate aviation in Alaska, and

(3) 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 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:

2025-02-02 The Boeing Company: Amendment 39-22935; Docket No. FAA-2024-1467; Project Identifier AD-2023-01241-T.

(a) Effective Date

This airworthiness directive (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 all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE 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 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by a report indicating cracks in the frame inner chord and web at station (STA) 727. The FAA is issuing this AD to address cracks in the left and right frames at STA 727 before they reach a critical length. The unsafe condition, if not addressed, may result in the inability of a principal structural element to sustain limit load, 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 737-53A1416 RB, dated July 21, 2023: Within 120 days after the effective date of this

AD, inspect for existing repairs and cracking of the frame inner chord and web at STA 727, between S-11 and S-13, left and right sides, using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(h) Required Actions for Group 2 Airplanes

For airplanes identified as Group 2 in Boeing Alert Requirements Bulletin 737-53A1416 RB, dated July 21, 2023: Except as specified by paragraph (i) of this AD, at the applicable times specified in the "Compliance" paragraph of Boeing Alert Requirements Bulletin 737-53A1416 RB, dated July 21, 2023, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-53A1416 RB, dated July 21, 2023.

Note 1 to paragraph (h): Guidance for accomplishing the actions required by this AD can be found in Boeing Service Bulletin 737-53A1416, dated July 21, 2023, which is referred to in Boeing Alert Requirements Bulletin 737-53A1416 RB, dated July 21, 2023.

(i) Exceptions to Requirements Bulletin Specifications

(1) Where the Compliance Time columns of the tables in the "Compliance" paragraph of Boeing Alert Requirements Bulletin 737-53A1416 RB, dated July 21, 2023, refers to the original issue date of Boeing Alert Requirements Bulletin 737-53A1416 RB, this AD requires using the effective date of this AD.

(2) Where Boeing Alert Requirements Bulletin 737-53A1416 RB, dated July 21, 2023, specifies contacting Boeing for repair instructions or for alternative inspections, this AD requires doing the repair, or doing the alternative inspections and applicable on-condition actions, before further flight using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(j) Alternative Methods of Compliance

(1) The Manager, AIR-520, Continued Operational Safety 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 responsible Flight Standards 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 (k)(1) of this AD. Information may be emailed to: AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards 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 Company Organization Designation Authorization (ODA) that has been authorized by the Manager, AIR-520, Continued Operational Safety Branch, FAA, 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.

(k) Related Information

(1) For more information about this AD, contact Muoi Vuong, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; telephone: 562-627-5205; email: Muoi.Vuong@faa.gov.

(2) Material identified in this AD that is not incorporated by reference is available at the address specified in paragraph (l)(3) of this AD.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the material listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this material as applicable to do the actions required by this AD,

unless the AD specifies otherwise.

(i) Boeing Alert Requirements Bulletin 737-53A1416 RB, dated July 21, 2023.

(ii) [Reserved]

(3) For Boeing material identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Boulevard, MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website myboeingfleet.com.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on January 14, 2025.

Suzanne Masterson,
Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.

[FR Doc. 2025-02383 Filed: 2/7/2025 8:45 am; Publication Date: 2/10/2025]