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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-1880; Project Identifier AD-2023-01149-T; Amendment 39-23088; AD 2025-15-01]

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 737-600, -700, -700C, -800, -900, and -900ER series airplanes. This AD was prompted by a report of a frame web crack at a certain fuselage station (STA) between certain stringers common to the frame web notch. This AD requires repetitive inspections for cracks of the frames and repair of cracks. The FAA is issuing this AD to address the unsafe condition on these products.

DATES:

This AD is effective August 25, 2025.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of August 25, 2025.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA-2024-1880; 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 Westminister Blvd., 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 St., 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-2024-1880.

FOR FURTHER INFORMATION CONTACT:

Owen Bley-Male, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3992; email: Owen.F.Bley-Male@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 737-600, -700, -700C, -800, -900, and -900ER series airplanes. The NPRM published in the **Federal Register** on July 2, 2024 ([89 FR 54737](#)). The NPRM was prompted by a report of a frame web crack at fuselage STA 328 between stringers S-20R and S-21R on a Model 737-700 airplane. The crack was common to the frame web notch and was approximately 0.85 inch long. In the NPRM, the FAA proposed to require repetitive detailed and high frequency eddy current (HFEC) inspections for cracks of the frames and repair of any cracks. The FAA is issuing this AD to address undetected cracks in the frame, which could lead to the inability of the principal structural element to sustain limit loads and result in the subsequent loss of structural integrity of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from United Airlines, which supported the NPRM without change.

The FAA also received comments from Aviation Partners Boeing, The Boeing Company (Boeing), Southwest Airlines (Southwest), and Sudan Civil Aviation Authority (Sudan CAA). 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 installing winglets under Supplemental Type Certificate (STC) ST00830SE does not affect accomplishment of the actions specified in the proposed AD.

The FAA agrees. 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 ST00830SE does not

affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST00830SE 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 Revise Stringer Range

Boeing requested the FAA clarify the preamble with respect to the stringer range for each affected frame. Boeing noted that the Background section of the NPRM identifies the affected area as “STA 312, STA 328, and STA 344 from stringers S-20R to S-23R.” Boeing requested that the text specify the stringer range for each frame and be changed to “STA 312 (Stringers S-20R to S-23R), STA 328 (Stringers S-19R to S-22R), and STA 344 (Stringers S-20R to S-23R).”

The FAA agrees that the requested change would clarify the affected area. However, as this information from the NPRM is not restated in this final rule, no change is necessary as a result of this comment.

Requests Regarding Frame Replacement

Southwest requested the FAA change the proposed AD to allow replacement of a cracked frame with a new frame as an option instead of repairing the frame. Southwest further requested that, for frames replaced with a new frame, the FAA allow the compliance time to start from the date of the new frame installation. Southwest stated that this adjusted threshold is similar to the principle structural element replacement guidance in the FAA-approved airworthiness limitations for the affected model airplanes.

The FAA acknowledges that removal and replacement with type design parts is possible but does not agree to include this option in paragraph (h)(2) of this AD or adjust the compliance time for allowing this replacement as a repair without complete substantiating data. Replacement might involve oversizing holes, replacing more than just the frame, or other actions that would impact the appropriate compliance time, including requiring shorter inspection intervals. Each replacement would involve unique circumstances, so the FAA cannot determine whether allowing the compliance time to start from the date of the new frame installation would provide an adequate level of safety. Therefore, the FAA has not changed the AD in this regard. The FAA will, however, consider AMOCs in accordance with paragraph (i) of this AD for alternative repair actions or compliance time changes, provided substantiation data is submitted to show that an acceptable level of safety is maintained using the alternative actions and compliance times.

Request To Expand Inspection Areas

Sudan CAA requested that the inspection areas for each station be expanded beyond the stringers specified in Boeing Alert Requirements Bulletin 737-53A1410 RB, dated October 11, 2023. Sudan CAA stated that typical cracks in the frame start at the blanket pin hole, the fastener in the inner chord, or the frame web notch, and cracking could occur at adjacent areas that are not covered by the service information. Sudan CAA therefore concluded that the proposed AD may not address the unsafe condition.

The FAA disagrees with this request. The inspection area is determined for each frame by the design and loading of the frame, which are similar, but not identical, across the three frames. This AD was prompted by a frame web crack at fuselage STA 328 between stringers S-20R and S-21R. Because the

load transfer is similar in adjacent areas, the frames at STA 312, STA 328, and STA 344 from stringers S-20R to S-23R are also subject to the unsafe condition. Based on the fleet data the FAA has received, the FAA determined that the actions specified in the referenced service information adequately address the unsafe condition. Therefore, the FAA has not changed this AD as a result of this comment. If new information becomes available, the FAA might consider further rulemaking.

Request To Revise Applicability

Boeing requested that the FAA revise the applicability to only include line numbers 1 through 9273. Boeing stated that line numbers 9274 and subsequent will have a new design change in notch radius (0.25" changed from 0.16") that will mitigate the safety issue. Boeing further stated it will revise its service information to reflect this change in effectivity.

The FAA does not agree to reduce the applicability of this AD. Boeing is still in the process of having the design change approved. In addition, once approved, the FAA will need to determine whether the design change adequately addresses the unsafe condition. Should the FAA determine the design change provides an acceptable level of safety to address the unsafe condition, operators may request approval of the design change as an AMOC using the procedures in paragraph (i) of this AD.

Request To Correct Typographical Error

Sudan CAA requested a revision to note (b) of Figure 1 in Boeing Alert Requirements Bulletin 737-53A1410 RB, dated October 11, 2023, which refers to a certain structural detail that "is inspected." Sudan CAA requested replacing "is inspected" with "is to be inspected" for clarification.

The FAA does not find the requested change necessary. The FAA reviewed the requirements bulletin and determined that it provides sufficient clarity.

Conclusion

The FAA reviewed the relevant data, considered the 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 737-53A1410 RB, dated October 11, 2023. This material specifies procedures for repetitive detailed inspections of the forward and aft sides of the frames, and surface and open hole HFEC inspections of the frames, at STA 312 from S-20R to S-23R, STA 328 from S-19R to S-22R, and STA 344 from S-20R to S-23R for cracks. This material also specifies repairing any crack found. 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 1,583 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	9 work-hours × \$85 per hour = \$765 per inspection cycle	\$0	\$765 per inspection cycle	\$1,210,995 per inspection cycle.

Estimated Costs of On-Condition Actions

The extent of damage/cracking found during the required inspections could vary significantly from airplane to airplane. The FAA has no way of determining the type of repair or cost to repair any cracks on each airplane or the number of airplanes that may require repair.

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\(f\)](#), [40113](#), [44701](#).

[§ 39.13](#) [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2025-15-01 The Boeing Company: Amendment 39-23088; Docket No. FAA-2024-1880; Project Identifier AD-2023-01149-T.

(a) Effective Date

This airworthiness directive (AD) is effective August 25, 2025.

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category.

(2) Installation of Supplemental Type Certificate (STC) ST00830SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST00830SE 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 of a frame web crack at fuselage station 328 between stringers S-20R and S-21R common to the frame web notch. The FAA is issuing this AD to address undetected cracks in the frame. The unsafe condition, if not addressed, could lead to the inability of the principal

structural element to sustain limit loads, which could result in the subsequent loss of structural integrity of the airplane.

(f) Compliance

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

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 737-53A1410 RB, dated October 11, 2023, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-53A1410 RB, dated October 11, 2023.

Note 1 to paragraph (g):

Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 737-53A1410, dated October 11, 2023, which is referred to in Boeing Alert Requirements Bulletin 737-53A1410 RB, dated October 11, 2023.

(h) Exceptions to Requirements Bulletin Specifications

(1) Where the “Boeing Recommended Compliance Time” column in the table under the “Compliance” paragraph of Boeing Alert Requirements Bulletin 737-53A1410 RB, dated October 11, 2023, refers to “the Original Issue date of Requirements Bulletin 737-53A1410 RB,” this AD requires using the effective date of this AD.

(2) Where Boeing Alert Requirements Bulletin 737-53A1410 RB, dated October 11, 2023, specifies contacting Boeing for repair instructions, this AD requires doing the repair using a method approved in accordance with the procedures in paragraph (i) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

(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 (j)(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.

(j) Related Information

(1) For more information about this AD, contact Owen Bley-Male, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3992; email: Owen.F.Bley-Male@faa.gov.

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

(k) 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 737-53A1410 RB, dated October 11, 2023.

(ii) [Reserved]

(3) For the material 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; website myboeingfleet.com.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety 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 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 July 16, 2025.

Peter A. White,

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

[[FR Doc. 2025-13595](#) Filed 7-18-25; 8:45 am]

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