



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2025-1105; Project Identifier AD-2024-00721-T]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD)

2013-08-11, which applies to certain The Boeing Company Model 737-900 and -900ER series airplanes. AD 2013-08-11 requires repetitive inspections for cracking of the fuselage skin along chem-mill steps at certain crown skin and shear wrinkle areas and repair if necessary. Since the FAA issued AD 2013-08-11, the FAA has determined that the compliance times are not adequate. This proposed AD would continue to require the actions in AD 2013-08-11 but at reduced compliance times and would require post-modification inspections if an optional modification is accomplished. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA 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 [regulations.gov](https://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.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2025-1105; 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 NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For Boeing material identified in this proposed 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](https://www.regulations.gov) under Docket No. FAA-2025-1105.

FOR FURTHER INFORMATION CONTACT: Luis Cortez-Muniz, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3958; email: luis.a.cortez-muniz@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites 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-2025-1105; Project Identifier AD-2024-00721-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Luis Cortez-Muniz, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3958; email: luis.a.cortez-muniz@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2013-08-11, Amendment 39-17428 (78 FR 24338, April 25, 2013) (AD 2013-08-11), for The Boeing Company Model 737-900 and -900ER series airplanes with certain line numbers. AD 2013-08-11 was prompted by reports of early fatigue cracks at chem-mill areas on the crown skin panels. AD 2013-08-11 requires repetitive inspections for cracking of the fuselage skin along chem-mill steps at certain crown skin and shear wrinkle areas, as applicable, and repair if necessary. AD 2013-08-11 requires the initial inspections before the airplane accumulates 43,000 total flight cycles. AD 2013-08-11 also provides modification of the inspection areas as an optional terminating action for the repetitive inspections. The agency issued AD 2013-08-11 to detect and correct fatigue cracking of the skin panel at the specified chem-mill step locations, which could result in rapid decompression of the airplane.

Actions Since AD 2013-08-11 Was Issued

Since the FAA issued AD 2013-08-11, the FAA received reports of three suspected fuselage fatigue cracks found adjacent to non-chem-mill skin bays on Model 737-700 airplanes with between 40,000 and 43,000 total flight cycles—earlier than the inspection thresholds specified by AD 2013-08-11. Boeing has reported that the inspection compliance times and repetitive intervals in Boeing Service Bulletin 737-53-1312, Revision 1, dated March 14, 2012, are not adequate. The reports indicate that crack growth is faster and cracks are more distributed along the chem-mill steps between the tear straps, resulting in longer cracks than initially observed in the test data that prompted Boeing Service Bulletin 737-53-1312, Revision 1, dated March 14, 2012. As a result of these findings, the FAA has determined that reduced inspection thresholds and intervals for the chem-mill areas and the post modification inspections (for airplanes on which the optional terminating action is accomplished) are now necessary to address the unsafe condition.

The FAA is considering superseding similar ADs for Model 737-600, -700, -700C, and -800 series airplanes, which have crown skin panels that are of a similar design as those on Model 737-900 and -900ER series airplanes and may be subject to the same unsafe condition.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Material Incorporated by Reference under 1 CFR Part 51

The FAA reviewed Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024. This material specifies procedures for repetitive external detailed inspections and either (1) external medium frequency eddy current (MFEC), magneto optic imager (MOI), or C-scan inspections or (2) external ultrasonic phased array (UTPA) inspections, and repairing any cracks. This material also describes procedures for installing modification doublers in certain locations, which involves an external detailed inspection and an external non-destructive (MFEC, MOI, C-Scan, or UTPA) inspection for any cracking of the area to be modified prior to the doubler being placed on that area, and a high frequency eddy current inspection of all existing holes for cracking. This material specifies that accomplishment of the modification terminates the repetitive inspections provided post-modification inspections are performed for the modified areas.

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.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in the material already described, except for any differences identified as exceptions in the regulatory text of this proposed AD. For information on the procedures and compliance times, see this material at regulations.gov under Docket No. FAA-2025-1105.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 56 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	31 work-hours X \$85 per hour = \$2,635 per inspection cycle	\$0	\$2,635 per inspection cycle	\$147,560 per inspection cycle

Estimated costs for optional actions

Action	Labor cost	Parts cost	Cost per product
Modification	632 work-hours X \$85 per hours = \$53,720	Minimal	\$53,720
Post-modification inspection	50 work-hours X \$85 per hour = \$4,250 per inspection cycle	\$0	\$4,250 per inspection cycle

The extent of cracking found during the inspections could vary significantly from airplane to airplane. The FAA has no way of determining which conditions may be found on each airplane, the cost to correct or repair 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

The FAA 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) Would not affect intrastate aviation in Alaska, and
- (3) Would 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:

a. Removing Airworthiness Directive AD 2013-08-11, Amendment 39-17428 (78 FR 24338, April 25, 2013), and

b. Adding the following new airworthiness directive:

The Boeing Company: Docket No. FAA-2025-1105; Project Identifier

AD-2024-00721-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2013-08-11, Amendment 39-17428 (78 FR 24338, April 25, 2013) (AD 2013-08-11).

(c) Applicability

(1) This AD applies to The Boeing Company Model 737-900 and -900ER series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024.

(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 reports of fatigue cracks at chem-mill areas on the crown skin panels and by recent reports of fuselage fatigue cracks adjacent to non-chem-mill skin bays. The FAA is issuing this AD to detect and correct fatigue cracking of the skin panel at the specified chem-mill step locations. The unsafe condition, if not addressed, could result in rapid decompression of the airplane.

(f) Compliance

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

(g) Inspections of Crown Skin Areas

At the applicable times specified in paragraph 1.E., Compliance, of Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024, except as required by paragraph (k) of this AD, do an external detailed inspection and an external nondestructive inspection (a medium frequency eddy current (MFEC), magneto optic imager (MOI), C-scan, or ultrasonic phased array (UTPA) inspection) for cracking in the fuselage skin along the chem-mill steps at certain locations specified in, and in accordance with, paragraph 3.B.2.a. of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024. Repeat the inspections thereafter at the applicable times specified in paragraph 1.E., Compliance, of Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024.

(h) Inspections of Shear Wrinkle Areas

For Group 1 airplanes as identified in Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024: At the applicable time specified in paragraph 1.E., Compliance, of Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024, except as required by paragraph (k) of this AD, do an external detailed inspection and an external nondestructive inspection (MFEC, MOI, C-scan, or UTPA) for cracking in the fuselage skin along the chem-mill steps at certain shear wrinkle locations specified in, and in accordance with, paragraph 3.B.2.b. of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024. Repeat the inspections thereafter at the applicable times specified in paragraph 1.E., Compliance, of Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024.

(i) Repair

If any cracking is found during any inspection required by paragraph (g) or (h) of this AD, before further flight, repair the cracking using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(j) Optional Terminating Actions

Accomplishment of the actions in paragraphs (j)(1) through (3) of this AD terminates the repetitive inspections required by paragraph (g) of this AD for the modified area only.

(1) Do an external detailed inspection and an external nondestructive inspection (MFEC, MOI, C-scan, or UTPA) for cracking of the area to be modified, and if no cracking is found, do the modification, including doing a high frequency eddy current inspection of all existing holes for cracking in accordance with paragraph 3.B.3., “Part 3: Modification,” of the Accomplishment Instructions in Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024.

(2) Repair, before further flight, any cracking found during any inspection specified in paragraph (j)(1) or (3) of this AD using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(3) Do the post-modification repetitive inspections specified in paragraph 1.E., Compliance, and in Part 5 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024. The inspections must be performed and repeated at the applicable times specified in paragraph 1.E., Compliance, of Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024, except as required by paragraph (k) of this AD.

(k) Exceptions to Service Bulletin Specifications

Where the Compliance Time column in the tables under the “Compliance” paragraph of Boeing Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024, refer to the Revision 2 date of Boeing Special Attention Service Bulletin 737-53-1312, dated May 22, 2024, this AD requires using the effective date of this AD.

(l) Credit for Previous Actions

This paragraph provides credit for the optional actions in paragraph (j)(1) of this AD, if the modification was performed before the effective date of this AD using Boeing Service Bulletin 737-53-1312, dated October 21, 2011, as revised by Boeing Service Bulletin 737-53-1312, Revision 1, dated March 14, 2012.

(m) 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 (n) 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.

(n) Related Information

For more information about this AD, contact Luis Cortez-Muniz, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3958; email: luis.a.cortez-muniz@faa.gov.

(o) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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 Special Attention Service Bulletin 737-53-1312, Revision 2, dated May 22, 2024.

(ii) [Reserved]

(3) 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.

(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 June 12, 2025.

Peter A. White,
Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.
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