



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-1287; Project Identifier AD-2023-00992-T; Amendment 39-22982; AD 2025-05-10]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2012-07-06, which applied to certain The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes. AD 2012-07-06 required revising the maintenance program to update inspection requirements to detect fatigue cracking of principal structural elements (PSEs). This AD was prompted by new revisions to the airworthiness limitations of the maintenance planning document and damage tolerance rating check form document. This AD requires revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. 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 certain publications listed in this AD as of [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 other publication listed in this AD as of May 15, 2012 (77 FR 21429, April 10, 2012).

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-1287; 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](https://www.regulations.gov) under Docket No. FAA-2024-1287.

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:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2012-07-06, Amendment 39-17012 (77 FR 21429, April 10,

2012) (AD 2012-07-06). AD 2012-07-06 applied to certain The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes. The NPRM published in the *Federal Register* on May 14, 2024 (89 FR 41908). The NPRM was prompted by new revisions to the airworthiness limitations of the maintenance planning document and damage tolerance rating check form document. In the NPRM, the FAA proposed to retain the requirements of AD 2012-07-06 until the new or more restrictive airworthiness limitations are incorporated. The NPRM also proposed to require revising the existing maintenance or inspection program to incorporate new and more restrictive airworthiness limitations. The NPRM also proposed to require sending inspection results to Boeing.

The FAA issued a supplemental NPRM (SNPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes. The SNPRM published in the *Federal Register* on October 4, 2024 (89 FR 80827). The SNPRM was prompted by new revisions to the airworthiness limitations of the maintenance planning document and damage tolerance rating check form document. Boeing published Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision April 2023, of the Boeing 777-200/200LR/300/300ER/777F Maintenance Planning Data (MPD) Document; and Boeing 777-200/200LR/300/300ER/777F Damage Tolerance Rating (DTR) Check Form Document, D622W001-DTR, Revision April 2023. Those documents contain new and more restrictive airworthiness limitations (inspections and life limits have been updated). The FAA is issuing this AD to address fatigue cracking of various principal structural elements. The unsafe condition, if not addressed, could adversely affect the structural integrity of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from FedEx Express and three individuals, who supported the SNPRM without change.

The FAA received an additional comment from Boeing. The following presents the comment received on the SNPRM and the FAA's response to the comment.

Request to Correct a Typographical Error

Boeing requested that the FAA remove the extra words "could result in" from the last sentence of paragraph (e) in the proposed AD (in the SNPRM): "The unsafe condition, if not addressed, could result in could adversely affect the structural integrity of the airplane." The extra words "could result in" add confusion and can be omitted.

The FAA agrees and has revised paragraph (e) of this AD accordingly.

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 SNPRM. None of the changes will increase the economic burden on any operator.

Material Incorporated by Reference under 1 CFR Part 51

The FAA reviewed Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision April 2023, of the Boeing 777-200/200LR/300/300ER/777F Maintenance Planning Data (MPD) Document. Subsection B, Airworthiness Limitations-Structural Inspections and Subsection C, Airworthiness Limitations-Structural Safe-Life Limits, of this material

contains airworthiness limitations for structural inspections and structural life limits, among other limitations.

The FAA also reviewed Boeing 777-200/200LR/300/300ER/777F Damage Tolerance Rating (DTR) Check Form Document, D622W001-DTR, Revision April 2023. This material provides the DTR check forms and the procedure for their use.

This AD also requires Section 9, “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document, which the Director of the Federal Register approved for incorporation by reference as of May 15, 2012 (77 FR 21429, April 10, 2012).

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

The FAA estimates the total cost per operator for the retained actions from AD 2012-07-06 to be \$7,650 (90 work-hours x \$85 per work-hour).

The FAA has determined that revising the existing maintenance or inspection program takes an average of 90 work-hours per operator, although the FAA recognizes that this number may vary from operator to operator. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate.

The FAA estimates the total cost per operator for the new actions to be \$7,650 (90 work-hours x \$85 per work-hour).

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Reporting	1 work-hour X \$85 per hour = \$85	\$0	\$85

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to take approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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:

- a. Removing Airworthiness Directive (AD) 2012-07-06, Amendment 39-17012

(77 FR 21429, April 10, 2012); and

b. Adding the following new AD:

2025-05-10 The Boeing Company: Amendment 39-22982; Docket No. FAA-2024-1287; Project Identifier AD-2023-00992-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

This AD replaces AD 2012-07-06, Amendment 39-17012 (77 FR 21429, April 10, 2012) (AD 2012-07-06).

(c) Applicability

This AD applies to The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes, certificated in any category, with an original airworthiness certificate or original export certificate of airworthiness issued before September 5, 2024.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight Controls; 28, Fuel; 32, Landing Gear; 52, Doors; 53, Fuselage; 54, Nacelles/Pylons; 55, Stabilizers; 57, Wings.

(e) Unsafe Condition

This AD was prompted by new revisions to the airworthiness limitations of the maintenance planning document and damage tolerance rating check form document. The FAA is issuing this AD to address fatigue cracking of various principal structural elements. The unsafe condition, if not addressed, could adversely affect the structural integrity of the airplane.

(f) Compliance

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

(g) Retained Revision of Maintenance Program with No Changes

This paragraph restates the requirements of paragraph (g) of AD 2012-07-06, with no changes. For airplanes with an original airworthiness certificate or original export certificate of airworthiness issued before September 1, 2010: Comply with the requirements of paragraphs (g)(1) through (3) of this AD. Accomplishing the revision of the existing maintenance or inspection program required by paragraph (i) of this AD terminates the requirements of this paragraph.

(1) Within 12 months after May 15, 2012 (the effective date of AD 2012-07-06), revise the maintenance program by incorporating the information in Subsection B, Airworthiness Limitations-Structural Inspections, of Section 9, “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document, except as provided by paragraph (h) of this AD.

(2) The initial compliance time for the inspections is within the applicable times specified in Subsection B, Airworthiness Limitations-Structural Inspections, of Section 9, of “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document, or within 18 months after May 15, 2012 (the effective date of AD 2012-07-06), whichever occurs later, or within the applicable time specified in Subsection B, Airworthiness Limitations-Structural Inspections, of Section 9, “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document, from the time of installation for new parts.

(3) Reports specified in Section 9, “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document may be submitted within

10 days after the airplane is returned to service, instead of 10 days after each individual finding as specified in this document.

(h) Retained Alternative Inspections and Inspection Intervals with an Additional Exception

This paragraph restates the requirements of paragraph (h) of AD 2012-07-06, with an additional exception. After accomplishing the actions required by paragraph (g) of this AD, no alternative inspections or inspection intervals may be used unless the alternative inspection or interval is required by paragraph (i) of this AD or approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k) of this AD.

(i) Revision of Maintenance or Inspection Program

(1) Within 12 months after the effective date of this AD, revise the existing maintenance or inspection program by incorporating the information in Subsection B, Airworthiness Limitations-Structural Inspections and Subsection C, Airworthiness Limitations-Structural Safe-Life Limits, of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision April 2023, of the Boeing 777-200/200LR/300/300ER/777F Maintenance Planning Data (MPD) Document; and in Boeing 777-200/200LR/300/300ER/777F Damage Tolerance Rating (DTR) Check Form Document, D622W001-DTR, Revision April 2023.

(2) The initial compliance time for the tasks is within the applicable times specified in Subsection B, Airworthiness Limitations-Structural Inspections and Subsection C, Airworthiness Limitations-Structural Safe-Life Limits, of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision April 2023, of the Boeing 777-200/200LR/300/300ER/777F Maintenance Planning Data (MPD) Document; and in Boeing 777-200/200LR/300/300ER/777F Damage Tolerance Rating (DTR) Check Form Document, D622W001-DTR, Revision April 2023, or within 12 months after the

effective date of this AD, whichever occurs later, or within the applicable time specified in Subsection B, Airworthiness Limitations-Structural Inspections, and Subsection C, Airworthiness Limitations-Structural Safe-Life Limits, of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision April 2023, of the Boeing 777-200/200LR/300/300ER/777F Maintenance Planning Data (MPD) Document, from the time of installation for new parts.

(3) Reports specified in Boeing 777-200/200LR/300/300ER/777F Damage Tolerance Rating (DTR) Check Form Document, D622W001-DTR, Revision April 2023 may be submitted within 10 days after the airplane is returned to service, instead of 10 days as specified in the document.

(j) Alternative Inspections and Inspection Intervals

After accomplishing the actions required by paragraph (i) of this AD, no alternative inspections or inspection intervals may be used unless the alternative inspection or interval is approved as an AMOC in accordance with the procedures specified in paragraph (k) of this AD.

(k) 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 (l) 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, 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) AMOCs approved for AD 2012-07-06 are approved as AMOCs for the corresponding provisions of paragraph (g) of this AD.

(5) AMOCs approved for repairs and alterations for AD 2012-07-06 are approved as AMOCs for the corresponding provisions of paragraph (i) of this AD. All other AMOCs approved for AD 2012-07-06 are not approved as AMOCs for the corresponding provisions of paragraph (i) of this AD.

(l) 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.

(m) 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 this AD specifies otherwise.

(3) The following material was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision April 2023, of the Boeing 777-200/200LR/300/300ER/777F Maintenance Planning Data (MPD) Document.

(ii) Boeing 777-200/200LR/300/300ER/777F Damage Tolerance Rating (DTR)

Check Form Document, D622W001-DTR, Revision April 2023.

(4) The following material was approved for IBR on May 15, 2012 (77 FR 21429, April 10, 2012).

(i) Section 9, “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document.

(ii) [Reserved]

(5) 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.

(6) 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.

(7) 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 March 5, 2025.

Peter A. White,
Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.
[FR Doc. 2025-06004 Filed: 4/7/2025 8:45 am; Publication Date: 4/8/2025]