



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-1301; Project Identifier AD-2024-00035-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 adopt a new airworthiness directive (AD) for certain The Boeing Company Model 787-9 and 787-10 airplanes. This proposed AD was prompted by reports that some floor beam side-of-body fittings have been manufactured with an incorrect material type. This proposed AD would require replacing the incorrectly manufactured floor beam side-of-body fittings, inspecting the fuselage frame and fastener holes for damage, and repairing any damage. 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-2024-1301; 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 service information, 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 service information 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-2024-1301.

FOR FURTHER INFORMATION CONTACT: Joseph Hodgkin, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3962; email: Joseph.J.Hodgin@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 ADDRESSES. Include “Docket No. FAA-2024-1301; Project Identifier AD-2024-00035-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 Joseph Hodgins, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3962; email: Joseph.J.Hodgins@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 has received reports that some floor beam side-of-body fittings have been manufactured with an incorrect material type between station 1233 and station 1593. The incorrect material type is a grade 1 or 2 commercially pure unalloyed titanium, which has significantly reduced strength, fatigue, and damage-tolerance properties

compared to the type design grade 5 Ti-6Al-4V material. The discrepant floor beam side-of-body fitting part numbers are installed on Model 787-9 and -10 airplanes.

This condition, if not addressed, could result in failure of the fittings. The failure of multiple adjacent fittings may lead to inability of the surrounding principal structure elements to sustain limit loads and damage to critical systems under the floor; these conditions could cause loss of control of the airplane. Additionally, in the event of an emergency landing or full certified rapid decompression, failure of multiple adjacent fittings could result in the inability of the passenger floor grid to maintain the loads and could result in serious injury or impeded egress for passengers.

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.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin B787-81205-SB530084-00 RB, Issue 001, dated December 8, 2023. This service information specifies performing an x-ray fluorescence spectrometer inspection of the floor beam side-of-body fittings between station 1233 and station 1593 to determine whether the fitting was manufactured with type design grade 5 Ti-6Al-4V material. Alternatively, operators may replace all floor beam side-of-body fittings between station 1233 and station 1593 with fittings made of the correct material without performing an x-ray fluorescence spectrometer inspection. For any floor beam side-of-body fitting that needs replacement, this service information specifies inspecting the fuselage frame and fastener holes for damage, repairing any damage, and installing a floor beam side-of-body fitting made of the correct material.

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 ADDRESSES.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in the service information 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 service information at regulations.gov under Docket No. FAA-2024-1301.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 60 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs—Option 1

Action	Labor cost	Parts cost	Cost per airplane	Cost on U.S. operators
X-ray fluorescence spectrometer inspection to determine material type	77 work-hours X \$85 per hour = \$6,545	\$0	\$6,545	Up to \$392,700

Estimated costs—Option 2

Action	Labor cost	Parts cost	Cost per airplane
Replace all affected floor beam side-of-body fittings and inspect for damage	527 work-hours X \$85 per hour = \$44,795	\$218,250	\$263,045

The FAA estimates the following costs to do any replacements that would be required based on the results of the proposed inspection. The agency has no way of determining the number of aircraft that might need this replacement:

On-condition costs for Option 1

Action	Labor cost	Parts cost	Cost per fitting
Replace floor beam side-of-body fitting and inspect for damage (per fitting)	18 work-hours X \$85 per hour = \$1,530	\$8,730	\$10,260

The extent of damage found during the inspection done when the fittings are replaced could vary significantly from airplane to airplane. The FAA has no way of determining how much damage may be found on each airplane, the cost to repair damaged parts on each airplane, or the number of airplanes that may require repair.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators.

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 adding the following new airworthiness directive:

The Boeing Company: Docket No. FAA-2024-1301; Project Identifier AD-2024-00035-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

None.

(c) Applicability

This AD applies to The Boeing Company Model 787-9 and 787-10 airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin B787-81205-SB530084-00 RB, Issue 001, dated December 8, 2023.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports that some floor beam side-of-body fittings have been manufactured with an incorrect material type between station 1233 and station 1593. The FAA is issuing this AD to address the floor beam side-of-body fittings that do not meet type design and prevent failure of the fittings. The unsafe condition, if not addressed, could result in the inability of the surrounding principal structure elements to sustain limit loads and in damage to critical systems under the floor; these conditions could cause loss of control of the airplane. Additionally, in the event of an emergency landing or full certified rapid decompression, failure of multiple adjacent fittings could result in the inability of the passenger floor grid to maintain the loads and could result in serious injury or impeded egress for passengers.

(f) Compliance

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

(g) Required Actions

Except as specified in paragraph (h) of this AD: At the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin B787-81205-SB530084-00 RB, Issue 001, dated December 8, 2023, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin B787-81205-SB530084-00 RB, Issue 001, dated December 8, 2023.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin B787-81205-SB530084-00, Issue 001, dated December 8, 2023, which is referred to in Boeing Alert Requirements Bulletin B787-81205-SB530084-00 RB, Issue 001, dated December 8, 2023.

(h) Exceptions to Service Information Specifications

(1) Where the “Boeing Recommended Compliance Time” column in the tables under the “Compliance” paragraph of Boeing Alert Requirements Bulletin B787-81205-SB530084-00 RB, Issue 001, dated December 8, 2023, refers to “the Issue 001 date of Requirements Bulletin B787-81205-SB530084-00 RB,” this AD requires using the effective date of this AD.

(2) Where Boeing Alert Requirements Bulletin B787-81205-SB530084-00 RB, Issue 001, dated December 8, 2023, specifies contacting Boeing for repair instructions, this AD requires doing the repair before further flight 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 Joseph Hodgkin, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3962; email: Joseph.J.Hodgin@faa.gov.

(2) For service information identified in this AD that is not incorporated by reference, 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.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference 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 B787-81205-SB530084-00 RB, Issue 001, dated December 8, 2023.

(ii) [Reserved]

(3) For service information, 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 service information 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 May 7, 2024.

James D. Foltz,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2024-10299 Filed: 5/16/2024 8:45 am; Publication Date: 5/17/2024]