

**§ 39.13 [Amended]**

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

**2025-06-12 The Boeing Company:**  
Amendment 39-23000; Docket No. FAA-2024-2713; Project Identifier AD-2024-00328-T.

**(a) Effective Date**

This airworthiness directive (AD) is effective May 2, 2025.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin 777-22A0046 RB, dated October 25, 2022.

**(d) Subject**

Air Transport Association (ATA) of America Code 22, Auto flight.

**(e) Unsafe Condition**

This AD was prompted by a report indicating that an airplane experienced a glideslope (G/S) beam anomaly during an instrument landing system (ILS) approach, which resulted in a higher-than-expected descent rate during the final segment of an ILS approach. The FAA is issuing this AD to address misleading flight director guidance that the flightcrew might follow after disconnecting the autopilot, without reference to the other available information and flight deck indications. The unsafe condition, if not addressed, could result in a late touchdown, a runway excursion, or controlled flight into terrain.

**(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 paragraph 3., "Compliance," of Boeing Alert Requirements Bulletin 777-22A0046 RB, dated October 25, 2022, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 777-22A0046 RB, dated October 25, 2022.

**Note 1 to paragraph (g):** Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 777-22A0046, dated October 25, 2022, which is referred to in Boeing Alert Requirements Bulletin 777-22A0046 RB, dated October 25, 2022.

**(h) Exception to Service Information Specifications**

Where the Compliance Time column of the table in the "Compliance" paragraph of Boeing Alert Requirements Bulletin 777-22A0046 RB, dated October 25, 2022, refers to "the Original Issue date of Requirements

Bulletin 777-22A0046 RB," this AD requires using the effective date 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](mailto: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 Michael Closson, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3973; email: [Michael.P.Closson@faa.gov](mailto:Michael.P.Closson@faa.gov).

(2) Material identified in this AD that is not incorporated by reference is available at the address specified in paragraph (k)(3) of 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 777-22A0046 RB, dated October 25, 2022.

(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](http://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](http://www.archives.gov/federal-register/cfr/ibr-locations) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov).

Issued on March 24, 2025.

**Peter A. White,**

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

[FR Doc. 2025-05296 Filed 3-27-25; 8:45 am]

**BILLING CODE 4910-13-P**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

**[Docket No. FAA-2024-2410; Project Identifier AD-2024-00509-T; Amendment 39-22998; AD 2025-06-10]**

**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 certain The Boeing Company Model 787-8, 787-9, and 787-10 airplanes. This AD was prompted by possible horizontal stabilizer pivot pin lockring, outer pivot pin, and outboard spacer misalignment at final assembly. This AD requires inspection of the left-side and right-side horizontal stabilizer pivot pin assemblies for misalignment and incorrect gapping, and applicable on-condition actions. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective May 2, 2025.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of May 2, 2025.

**ADDRESSES:**

**AD Docket:** You may examine the AD docket at [regulations.gov](http://regulations.gov) under Docket No. FAA-2024-2410; 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](http://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–2024–2410.

**FOR FURTHER INFORMATION CONTACT:**

Joseph Hodgin, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206–231–3962; email: [Joseph.J.Hodgin@faa.gov](mailto:Joseph.J.Hodgin@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 certain The Boeing Company Model 787–8, 787–9, and 787–10 airplanes. The NPRM published in the **Federal Register** on November 22, 2024 (89 FR 92612). The NPRM was prompted by possible misalignment, at final assembly, of the horizontal stabilizer pivot pin lockring, outer pivot pin, and outboard spacer. In the NPRM, the FAA proposed to require inspection of the left-side and right-side horizontal stabilizer pivot pin assemblies for misalignment and incorrect gapping, and applicable on-condition actions. The FAA is issuing this AD to address a pivot pin outboard spacer that has been found to not be set correctly flush against the horizontal stabilizer pivot bearing and outboard washer due to a misaligned pivot pin lockring. The unsafe condition, if not addressed, could result in decreased lateral load capacity, which could cause the loss of pivot pin retention parts and lead to loss of the horizontal stabilizer and loss of continued safe flight and landing.

**Discussion of Final Airworthiness Directive**

**Comments**

The FAA received comments from Air Line Pilots Association, International (ALPA), Boeing, United Airlines (United), and Etihad Airways (Etihad). ALPA supported the NPRM and had additional comments. The following presents the comments received on the NPRM and the FAA's response to each comment.

**Request To Clarify Inspection Area**

Boeing, United, and Etihad requested the proposed AD be revised to clarify an inspection area. The commenters said that flag notes [1] and [3] in Table 1 of Task 5 in Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, state

to do a detailed inspection of the right side horizontal stabilizer pivot pin. The commenters stated Task 5 is for the left side horizontal stabilizer pivot pin assembly and the wording “right side” in Task 5, Table 1, Flag Notes [1] and [3] is a typographical error. Etihad stated that Boeing has confirmed this and other errors in Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, and stated that Boeing plans to revise the service information to address these errors. Etihad added that it would not be able to accomplish the proposed requirements without approved deviations.

The FAA agrees with the request to correct the inspection area for the reasons provided. The FAA has added an exception in paragraph (h)(2) of this AD accordingly. Further, the FAA notes that the other errors mentioned by Etihad are addressed in the following comment responses.

**Request To Correct a Part Number**

Boeing and Etihad requested the proposed AD be revised to correct a part number. The commenters said Step 15 of Table 1 of Task 6 in Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, specifies an incorrect part number for TRAP FITTING, *i.e.*, listed as part number (P/N) 182W6405–1. Boeing stated that the part number for TRAP FITTING in Task 6, Table 1, Step 15 should be 313Z6455–501.

The FAA agrees with the request to correct a part number for the reasons provided. The FAA has added an exception in paragraph (h)(3) of this AD accordingly.

**Request To Remove Incorrect Part Number**

Boeing, United, and Etihad requested the proposed AD be revised to remove reference to an incorrect part number. The commenters observed that several places in Tasks 5 through 8 in Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, specify an incorrect antirotation plate part number, noting the specified part number is for the trap fitting. United added that the trap fitting part number is not mentioned in other steps and should be removed. Etihad and Boeing noted that the antirotation plate is kept and reinstalled, so specifying a part number is not necessary.

The FAA agrees with the request to remove references to the incorrect antirotation part for the reasons provided. The FAA has added an

exception in paragraph (h)(4) of this AD accordingly.

**Request To Correct Certain Instructions**

Etihad requested that instructions in Part 4 step (a) and Part 5 step (a) of Boeing Alert Service Bulletin B787–81205–SB550013–00, Issue 001, dated August 30, 2024, be corrected to specify that the referenced AMM [Aircraft Maintenance Manual] task is for installation, not removal. The commenter noted that the AMM title is incorrectly listed as being “. . . Assembly—Removal,” when it should be “. . . Assembly—Installation.” Etihad stated that Boeing confirmed the information would be corrected in the next bulletin revision.

The FAA acknowledges the typographical error in the service information. However, those instructions are not in Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024. They are only included in the related service bulletin, which, as specified in Note 1 to paragraph (g) of this AD, provides guidance for accomplishing the actions in this AD. Instructions not included in Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, are not required for compliance with this AD. Therefore, the FAA has determined this AD does not need to be changed regarding this issue.

**Request To Refer to Later Revision of the Service Information**

ALPA noted that, based on information provided by an air carrier in the docket for the proposed AD, it appears that Boeing is in the process of updating the service information referenced in the proposed AD. ALPA therefore recommended updating the proposed AD to refer to the latest version of the service information.

The FAA agrees to clarify. A revised version of Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, has not been issued. However, as previously noted, this AD has been revised to address several errors that would otherwise prevent operators from complying with this AD. The FAA might consider additional rulemaking, however, if revised service information is published that requires additional actions to address the unsafe condition. The FAA has not changed this AD in this regard.

**Request To Extend Compliance Time**

United and Etihad requested an extension of the compliance time to 36

months. United requested the extension to match the existing Maintenance Planning Data check interval. Etihad stated it expects the AD will be due before the next C check of certain aircraft (due in quarter 1 of 2025) and therefore it might look for an option to either have dedicated inputs to comply with the AD or to advance the next C check, which is not desirable.

The FAA disagrees with the request. In developing an appropriate compliance time for this action, the FAA considered the recommendations of the manufacturer, the urgency associated with the subject unsafe condition, the availability of required parts, and the practical aspect of accomplishing the required actions within a period of time that corresponds to the normal scheduled maintenance for most affected operators. In consideration of these items, the FAA has determined that a 32 month compliance time will ensure an acceptable level of safety. However,

under the provisions of paragraph (i) of this AD, the FAA will consider requests for approval of an extension of the compliance time if sufficient data are submitted to substantiate that the new compliance time would provide an acceptable level of safety. The FAA has not changed this AD in this regard.

**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 B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024. This material specifies procedures for a detailed inspection of the left-side and right-side horizontal stabilizer pivot pin assemblies for misalignment and incorrect gapping and applicable on-condition actions. On-condition actions include replacement of the left or right horizontal stabilizer pivot pin assembly if any misalignment or incorrect gapping is 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 145 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
Inspection .....	2 work-hours × \$85 per hour = \$170 .....	\$0	\$170	\$24,650

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

ON-CONDITION COSTS			
Action	Labor cost	Parts cost	Cost per product
Replacement .....	12 work-hours × \$85 per hour = \$1,020 .....	\$47,730	\$48,750

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this 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**

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:

**2025–06–10 The Boeing Company:**

Amendment 39–22998; Docket No. FAA–2024–2410; Project Identifier AD–2024–00509–T.

**(a) Effective Date**

This airworthiness directive (AD) is effective May 2, 2025.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 787–8, 787–9, and 787–10 airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024.

**(d) Subject**

Air Transport Association (ATA) of America Code 55, Stabilizers.

**(e) Unsafe Condition**

This AD was prompted by possible misalignment, at final assembly, of the horizontal stabilizer pivot pin lockring, outer pivot pin, and outboard spacer. The FAA is issuing this AD to address a pivot pin outboard spacer that has been found to not be set correctly flush against the horizontal stabilizer pivot bearing and outboard washer due to a misaligned pivot pin lockring. The unsafe condition, if not addressed, could result in decreased lateral load capacity, which could cause the loss of pivot pin retention parts and lead to loss of the horizontal stabilizer and loss of continued safe flight and landing.

**(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 B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024.

**Note 1 to paragraph (g):** Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin B787–81205–SB550013–00, Issue 001, dated August 30, 2024, which is referred to in Boeing Alert Requirements Bulletin

B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024.

**(h) Exceptions to Requirements Bulletin Specifications**

(1) Where the Compliance Time columns of the tables in the “Compliance” paragraph of Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, refers to the Issue 001 date of Requirements Bulletin B787–81205–SB550013–00 RB, this AD requires using the effective date of this AD.

(2) Where flag notes [1] and [3] of Table 1 of Task 5 in Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, state to do a detailed inspection of the horizontal stabilizer pivot pin “right side,” this AD requires replacing that text with “left side.”

(3) Where Step 15 of Table 1 of Task 6 in Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, specifies to install a trap fitting having part number “182W6405–1,” this AD requires replacing that text with “313Z6455–501.”

(4) Where Tasks 5 to 8 specified in Boeing Alert Requirements Bulletin B787–81205–SB550013–00 RB, Issue 001, dated August 30, 2024, specify a part number for the antirotation plate of “313Z6455–501,” this AD requires replacing that text with “–.”

**(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](mailto: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 Hodgins, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206–231–3962; email: [Joseph.J.Hodgin@faa.gov](mailto:Joseph.J.Hodgin@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 B787–81205–SB550013–00 RB, Issue 001, dated August 30, 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](http://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](http://www.archives.gov/federal-register/cfr/ibr-locations) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov).

Issued on March 21, 2025.

**Paul R. Bernado,**

*Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.*

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**BILLING CODE 4910–13–P**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA–2025–0471; Project Identifier MCAI–2024–00467–T; Amendment 39–22997; AD 2025–06–09]

**RIN 2120–AA64**

**Airworthiness Directives; Embraer S.A. (Type Certificate Previously Held by Yaborá Indústria Aeronáutica S.A.; Embraer S.A.) Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Embraer S.A. Model ERJ 190–300 and ERJ 190–400 airplanes. This AD was prompted by a report of a MAU 3B failure which led to brake fault advisory messages followed by loss of normal braking that was undetected until the brakes were pressed by the pilots. This AD requires revising the existing airplane flight manual (AFM) to incorporate procedures associated with the failure of certain modular avionics