適航指令發布單
Airworthiness Directive Issuance Form

民航局AD編號 AD number	CAA-2024-10-003	發布日期 Date issued	2024/10/14
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	This AD applies to The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F seriesairplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023.		
主旨摘要 Subject	This AD requires external or internal (depending on configuration) inspections for any cracking of the left and right side fuselage skin common to the UWL, and applicable on-condition actions.		

民航局
CAA

○ 本國產品
Native product

○ 其他個案
Other

設計國民航主管機構
Original Authority

◉ FAA	○ Germany LBA
○ EASA	○ CAA-NL
○ Brazil	○ UK CAA
○ Transport Canada Civil Aviation	○ Japan CAB
○ DGAC	○ CAA of Israel
	○ Other____

設計國AD編號 Original AD number	2024-16-09

1. 直接採用原AD之內容? (Is the original AD directly adopted?)
   ◉ 是(Yes)　○ 否(No)_
   a. 生效日期另訂為(Re-specify the effective date as):
   b. 執行時限另訂為(Re-specify the compliance time or period as):
2. 使用人是否需要將AD執行結果向民航局提出報告?
   (Do users need to report the status of compliance to the CAA?)
   ○ 需要(Yes)　◉ 不需要(No)

備註 Note	This AD affects AD 2023-17-14(CAA-2023-09-001)。

註：
1. AD內容後附。
2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。
3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, adcaa@mail.caa.gov.tw

Note：
1. The AD text is enclosed.
2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval.
3. For further information, please contact Civil Aviation Administration on Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, adcaa@mail.caa.gov.tw

[Federal Register, Volume 89 Number 195 (Tuesday, October 8, 2024)]
[Rules and Regulations]
[Pages 81314-81320]
From the Federal Register Online via the Government Publishing Office [www.gpo.gov]
[FR Doc No: 2024-23117]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-0769; Project Identifier AD-2023-00556-T; Amendment 39-22815; AD 2024-16-09]

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 777-200, -200LR, -300, -300ER, and 777F series airplanes. This AD was prompted by a report indicating multiple findings of cracks in the fuselage skin common to the underwing longeron (UWL). This AD requires external or internal (depending on configuration) inspections for any cracking of the left and right side fuselage skin common to the UWL, and applicable on-condition actions. The FAA is issuing this AD to address the unsafe condition on these products.

DATES:

This AD is effective November 12, 2024.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of November 12, 2024.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA-2024-0769; 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 Westminster 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-2024-0769.

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 by adding an AD that would apply to certain The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes. The NPRM published in the **Federal Register** on March 28, 2024 (89 FR 21446). The NPRM was prompted by a report indicating multiple findings of cracks in the fuselage skin common to the UWL. In the NPRM, the FAA proposed to require external or internal (depending on configuration) inspections for any cracking of the left and right side fuselage skin common to the UWL, and applicable on-condition actions. The FAA is issuing this AD to address fuselage skin cracking caused by cold work surface upset that is not removed from the mating parts and high joint load transfer or significant local bending stresses at critical fastener locations. The unsafe condition, if not addressed, could result in an inability of a principal structural element (PSE) to sustain limit load, leading to reduced structural integrity of the airplane and possible loss of control of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from FedEx Express, who found no issues that could interfere with the timely implementation of the proposed actions in the NPRM.

The FAA received additional comments from three commenters, including American Airlines, Boeing, and United Airlines. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request To Clarify Locations Specified in Paragraph (h)(3) of the Proposed AD

Boeing requested that paragraph (h)(3) of the proposed AD be clarified to specify that only the fuel tank side of fastener locations that penetrate the fuel tank boundary require cap seal dimensions to meet the dimensions given in Figure 1 to paragraph (h)(3) of the proposed AD. Boeing stated that the service information referenced in Boeing Alert Requirements Bulletin 777-53A0100 RB, dated

March 16, 2023, contain instructions for applying cap seals to fasteners that penetrate a fuel tank boundary and fasteners that do not penetrate a fuel tank boundary. Boeing added that for fasteners that do not penetrate a fuel tank boundary, fastener sealing is used as a pressure seal to help mitigate corrosion and have sealing specifications that include minimum thickness requirements less than the amount shown in paragraph (h)(3) of the proposed AD that are acceptable for their intended function outside of the fuel tank. Boeing stated that for fasteners that penetrate the fuel tank, the cap seals on the interior side of the fuel tank act as a primary fuel seal, providing fault tolerance against electromagnetic effects (electrical fault currents and lightning currents), and are also cap sealed on the exterior side for corrosion prevention.

Boeing concluded that only the cap seals on the interior side of the fuel tank require the dimensions specified in Figure 1 of paragraph (h)(3) of the proposed AD to perform their intended function, which is consistent with the labels shown in Figure 1 of paragraph (h)(3) of the proposed AD. Boeing recommended replacing the text "applying a cap seal (sealant) to a fastener, fastener head, and fastener threads and collars, for this AD, during application of any cap seal to a fastener, fastener head, or fastener threads and collars" with the text "applying a cap seal (sealant) to a fastener location that penetrates the fuel tank boundary, for this AD, during application of any cap seal to a fastener, fastener head, or fastener threads and collars inside the fuel tank."

The FAA agrees to clarify paragraph (h)(3) of this AD for the reasons provided by the commenter. Locations that do not penetrate the fuel tank boundary do not require the same sealant application procedures. The FAA has added the text "inside the fuel tank" to paragraph (h)(3) of this AD. However, the FAA did not replace the text "to a fastener, fastener head, and fastener threads and collars" with the text "to a fastener location that penetrates the fuel tank boundary," as recommended by the commenter, because the text "to a fastener, fastener head, and fastener threads and collars inside the fuel tank" better aligns with the language within the service information.

Request To Clarify Service Information in Paragraph (h)(3) of the Proposed AD

American Airlines requested that the FAA provided a comprehensive list of all service information that will be impacted by paragraph (h)(3) of the proposed AD. American Airlines stated that the statement "Where any service information referenced in Boeing Alert Requirements Bulletin 777-53A0100 RB" is vague and could potentially lead to confusion.

The FAA agrees to specify the service information affected by paragraph (h)(3) of this AD. In addition, the FAA notes that paragraph (h)(2) of this AD has similar language ("Where . . . any service information referenced in Boeing Alert Requirements Bulletin 777-53A0100 RB"). The FAA has added a note to paragraphs (h)(2) and (3) of this AD to specify that Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, refers to Boeing Service Bulletin 777-53-0084, Revision 2, dated December 9, 2020; Boeing Service Bulletin 777-53-0087, Revision 1, dated March 4, 2020; and Boeing Alert Requirements Bulletin 777-57A0122 RB, dated October 8, 2021.

Request To Add a Note to Paragraph (h)(3) of the Proposed AD

Boeing requested that the FAA add a note to paragraph (h)(3) of the proposed AD to refer to Boeing Model 777 Aircraft Maintenance Manual (AMM) section 28-11-00 as an acceptable cap sealing procedure to accomplish the actions required in that paragraph. Boeing stated it has received numerous queries from operators on Figure 1 to paragraph (h)(4) of AD 2023-17-14, which is identical to Figure 1 to paragraph (h)(3) of the proposed AD. Operators have asked whether Boeing Model 777 AMM section 28-11-00 would be an acceptable procedure for accomplishing the

requirements of paragraph (h)(4) of AD 2023-17-14. Boeing stated it believes that AMM 28-11-00 is an acceptable procedure for performing cap sealing inside the fuel tank because the AMM is the source material for the contents in Figure 1 to paragraph (h)(3) of the proposed AD and contains the same minimum seal thickness dimensions as shown in Figure 1.

The FAA agrees. Boeing 777 AMM 28-11-00 meets the sealant requirements of Figure 1 to paragraph (h)(3) of this AD. As such, it would be an acceptable procedure to follow when sealing inside the fuel tank in accordance with paragraph (h)(3) of this AD. The FAA has added a note to paragraph (h)(3) of this AD accordingly.

Request for Removal of Certain Exceptions That Are Related to Other ADs

United Airlines (United) requested removal of the exceptions in paragraphs (h)(4) through (6) of the proposed AD that are for service information other than Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023. United stated that it agrees with the intention of the proposed AD, but found the exceptions stated in paragraphs (h)(4) through (6) of the proposed AD to be unclear. United stated that it has other ongoing projects that use the instructions of Boeing Service Bulletin 777-53-0084, Revision 2, dated December 9, 2020; Boeing Service Bulletin 777 53-0087, Revision 1, dated March 4, 2020; and Boeing Alert Requirements Bulletin 777-57A0122 RB, dated October 8, 2021; to comply with the requirements of AD 2019-11-02, Amendment 39-19648 (84 FR 28722, June 20, 2019) (AD 2019-11-02) and AD 2023-17-14, Amendment 39-22541 (88 FR 60111, August 31, 2023) (AD 2023-17-14). United pointed out that ADs 2019-11-02 and 2023-17-14 have not been updated to include the exceptions in those AD requirements and recommends that the exceptions removed from paragraphs (h)(4) through (6) of the proposed AD be added to the requirements of ADs 2019-11-02 and 2023-17-14.

The FAA disagrees with the request to remove the exceptions in paragraphs (h)(4) through (6) of this AD. If cracking is found during certain inspections required by Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, then certain actions in Boeing Service Bulletin 777-53-0084, Revision 2, dated December 9, 2020; Boeing Service Bulletin 777-53-0087, Revision 1, dated March 4, 2020; or Boeing Alert Requirements Bulletin 777-57A0122 RB, dated October 8, 2021; might be required as corrective actions. In order to address the identified unsafe condition, the service information, as applicable, must be accomplished with the exceptions specified in (h)(4) through (6) of this AD. There are no new requirements for AD 2019-11-02 and AD 2023-17-14. However, as stated in paragraph (i) of this AD, for airplanes on which a front spar lower chord modification specified in Boeing Alert Requirements Bulletin 777-57A0122 RB is done as part of the requirements of paragraphs (g) and (h)(6) of this AD, the modification requirements of paragraph (g) of AD 2023-17-14 are terminated for the applicable side (left or right) on which the modification was done.

In addition, in the “Approval” paragraphs of Boeing Service Bulletin 777-53-0084, Revision 2, dated December 9, 2020; Boeing Service Bulletin 777-53-0087, Revision 1, dated March 4, 2020; and Boeing Alert Requirements Bulletin 777-57A0122 RB, dated October 8, 2021; it specifies that certain actions are an alternative method of compliance (AMOC) to the inspection and corrective action requirements of paragraph (g) of AD 2019-11-02, for modified longerons only. The FAA has not changed this AD in this regard.

Request To Add Paragraph for Terminating Action for AD 2019-11-02

American Airlines requested that the FAA add a paragraph similar to paragraph (i) of the proposed AD for terminating action for AD 2023-17-14 that refers to Boeing Service Bulletin 777-53-0087,

Revision 1, dated March 4, 2020, as the terminating action to AD 2019-11-02.

The FAA does not agree. As previously stated, the “Approval” paragraph of Boeing Service Bulletin 777-53-0087, Revision 1, dated March 4, 2020, already includes an approval paragraph for the requirements of AD 2019-11-02. The FAA has not revised this AD in this regard.

Request To Add Clarifying Paragraph for Repetitive Inspections

American Airlines requested that the FAA add a paragraph clarifying that “If SB 777-53-0087 Rev 1 is accomplished due to findings from the inspections described in SB 777-53A0081 R02 (AD 2019-11-02), and NO skin repair is done, the repetitive inspections IAW SB 777-53A0100 will still be required since terminating action for those inspections is only valid if the underwing longeron AND fuselage skin modification is accomplish in accordance with SB 777-53-0087 R01.”

The FAA concurs with American Airlines' statement that repetitive inspections continue until the fuselage skin modification is done. The UWL with fuselage skin modification is terminating action to the repeat inspections in Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023. If Boeing Service Bulletin 777-53-0087, Revision 1, dated March 4, 2020, is accomplished without the fuselage skin modification, repeat inspections in accordance with Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, continue to apply. The FAA notes that flagnote (a) in the tables in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, specifies “Accomplishment of the left side UWL with fuselage skin modification in accordance with Revision 1 of Boeing Service Bulletin 777-53-0087 is terminating action for this repeat inspection.”

The FAA also notes where in the second paragraph of “Other Relevant Rulemaking” of the NPRM states “The accomplishment of the longeron modification specified in Boeing Service Bulletin 777-53-0084, Revision 2, dated December 9, 2020, or Boeing Service Bulletin 777-53-0087, Revision 1, dated March 4, 2020” the text should state “The accomplishment of the longeron modification with fuselage skin modification specified in Boeing Service Bulletin 777-53-0084, Revision 2, dated December 9, 2020, or Boeing Service Bulletin 777-53-0087, Revision 1, dated March 4, 2020.” However, the “Other Relevant Rulemaking” paragraphs are not restated in this AD. The FAA has not revised this AD in this regard.

Request To Allow Later Revisions of Service Information

American Airlines requested that the FAA allow the use of future revisions of Boeing Service Bulletin 777-53-0087, Revision 1, dated March 4, 2020. American Airlines stated the Revision 2 of Boeing Service Bulletin 777-53-0087 will add new replacement and supplemental kits, add fastener installation instructions, update bracket installation instructions, correct fastener callouts and correct typographical errors.

The FAA does not agree. Revision 2 of Boeing Service Bulletin 777-53-0087 has not yet been FAA approved nor been published. The FAA may not refer to any document that does not yet exist in an AD. To allow operators to use later revisions of the referenced document (issued after publication of the AD), either the FAA must revise the AD to reference specific later revisions, or operators must request approval to use later revisions as an alternative method of compliance with this AD under the provisions of paragraph (j) of this AD.

Request To Clarify Paragraph (h)(5) of the Proposed AD

American Airlines requested that the FAA clarify if paragraph (h)(5) of the proposed AD is exclusive to the center wing fuel tank location, or whether adjustments should also be made to the other steps that offer the choice to utilize Boeing Material Specification (BMS) 5-95 sealant or other sealants.

The FAA agrees to clarify. The exception in paragraph (h)(5) of this AD is applicable to sealant application in the center wing fuel tank only. The use of BMS 5-95 sealant instead of BMS 5-45 sealant is only a concern when the location being sealed is inside a fuel tank such that the sealant is directly exposed to fuel. Only Figure 13 and Figure 49 describe sealing operations inside a fuel tank using BMS 5-95 sealant. As such, paragraph (h)(5) of this AD is specifically limited to flagnote (f) of Figure 13 and Figure 49. Other locations (*i.e.,* other flagnotes and figures) in the service information that provide an option of BMS 5-45 and BMS 5-95 are acceptable as written. The FAA also notes that a similar rationale applies to the exception in paragraph (h)(4) of this AD. 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 777-53A0100 RB, dated March 16, 2023. This material specifies procedures for external or internal (depending on configuration) detailed and ultrasonic or surface high frequency eddy current (HFEC) inspections for any cracking of the left and right side fuselage skin common to the UWL, and applicable on-condition actions. On-condition actions include, among other things, modification of the fuselage skin, and post-modification inspections and applicable corrective actions (repairs of cracking). Compliance times for on-condition actions depend on inspection type, inspection findings, and modification status.

The FAA also reviewed Boeing Multi Operator Message MOM-MOM-24-0054-01B, dated January 26, 2024. This material specifies corrections for Boeing Alert Requirements Bulletin 777-57A0122 RB, dated October 8, 2021, that address a non-destructive test manual (NDTM) error, fastener callout errors, inadequate cap seal instructions, figure orientation errors, minimum gap errors, missing fasteners on certain figures, affected groups missing from certain figures, and typographical errors.

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 272 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
External or internal inspections	Up to 21 work-hours × $85 per hour = $1,785 per inspection cycle	$0	$1,785 per inspection cycle	$485,520 per inspection cycle.

The FAA estimates the following costs to do any necessary on-condition actions 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 these actions:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Modification	420 work-hours × $85 per hour = $35,700	$40,620	$76,320.
Post-modification inspections	46 work-hours × $85 per hour = $3,910 per inspection cycle	0	$3,910 per inspection cycle.

The FAA has received no definitive data on which to base the cost estimates for the on-condition repairs specified in this AD.

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:

2024-16-09 The Boeing Company: Amendment 39-22815; Docket No. FAA-2024-0769; Project Identifier AD-2023-00556-T.

(a) Effective Date

This airworthiness directive (AD) is effective November 12, 2024.

(b) Affected ADs

This AD affects AD 2023-17-14, Amendment 39-22541 (88 FR 60111, August 31, 2023) (AD 2023-17-14).

(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 777-53A0100 RB, dated March 16, 2023.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by a report indicating multiple findings of cracks in the fuselage skin common to the underwing longeron (UWL). The FAA is issuing this AD to address fuselage skin cracking caused by cold work surface upset that is not removed from the mating parts and high joint load transfer or significant local bending stresses at critical fastener locations. The unsafe condition, if not addressed, could result in an inability of a principal structural element (PSE) to sustain limit load, leading to reduced structural integrity of the airplane and possible loss of control 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 777-53A0100 RB, dated March 16, 2023, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 777-53A0100, dated March 16, 2023, which is referred to in Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023.

Note 2 to paragraph (g): Guidance for accomplishing certain on-condition actions required by paragraph (g) of this AD can be found in Boeing Service Bulletin 777-53-0084, Revision 2, dated December 9, 2020; Boeing Service Bulletin 777-53-0087 Revision 1, dated March 4, 2020; and Boeing Alert Requirements Bulletin 777-57A0122 RB, dated October 8, 2021.

(h) Exceptions to Requirements Bulletin Specifications

(1) Where the Compliance Time columns of the tables in the "Compliance" paragraph of Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, use the phrase "the original issue date of Requirements Bulletin 777-53A0100 RB," this AD requires using the effective date of this AD.

(2) Where Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, and any service information referenced in Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, specifies contacting Boeing for repair instructions: This AD requires doing the repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

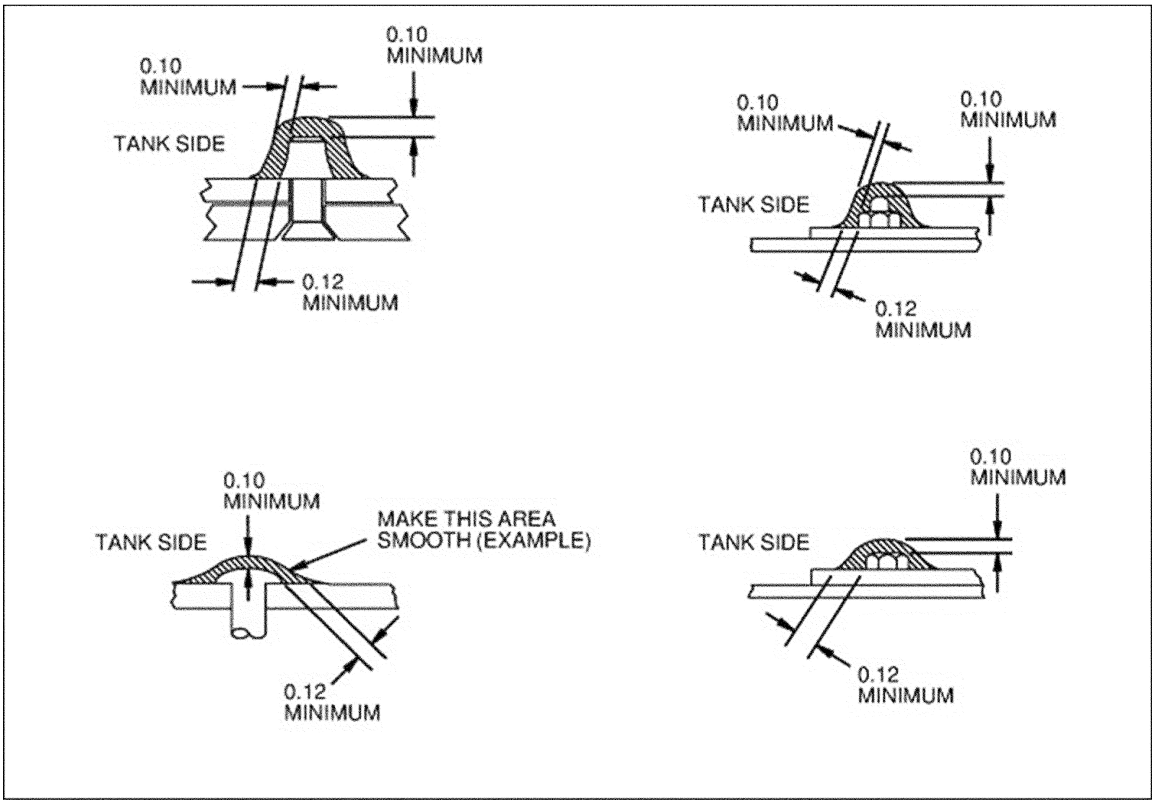
Note 3 to paragraph (h)(2): This note applies to paragraphs (h)(2) and (3) of this AD. Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, refers to Boeing Service Bulletin 777-53-0084, Revision 2, dated December 9, 2020; Boeing Service Bulletin 777-53-0087, Revision 1, dated March 4, 2020; and Boeing Alert Requirements Bulletin 777-57A0122 RB, dated October 8, 2021.

(3) Where any service information referenced in Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, specifies applying a cap seal (sealant) to a fastener, fastener head, and fastener threads and collars inside the fuel tank, for this AD, during application of any cap seal to a fastener, fastener head, or fastener threads and collars inside the fuel tank, the cap seal must be

applied using a cap sealing procedure with thickness greater than or equal to the dimensions given in Figure 1 to paragraph (h)(3) of this AD.

Note 4 to paragraph (h)(3): Guidance on an acceptable cap sealing procedure for accomplishing the actions required by paragraph (h)(3) of this AD can be found in Boeing Model 777 Aircraft Maintenance Manual (AMM) section 28-11-00.

Figure 1 to Paragraph (h)(3)—Cap Sealing Dimensions (all Dimensions are in Inches)



(4) Where Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, specifies doing actions "in accordance with Revision 2 of Boeing Service Bulletin 777-53-0084," for this AD, where flagnote (f) of Figure 7 and Figure 22 of that referenced service information ("Revision 2 of Boeing Service Bulletin 777-53-0084") includes a sealant callout of Boeing Material Specification (BMS) 5-45 or an optional BMS 5-95, only BMS 5-45 is allowed.

(5) Where Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, specifies doing actions "in accordance with Revision 1 of Boeing Service Bulletin 777-53-0087," for this AD, where flagnote (f) of Figure 13 and Figure 49 of that referenced service information ("Revision 1 of Boeing Service Bulletin 777-53-0087") includes a sealant callout of BMS 5-45 or an optional BMS 5-95, only BMS 5-45 is allowed.

(6) Where Boeing Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023, specifies doing actions "in accordance with the original issue of Boeing Alert Requirements Bulletin 777-57A0122 RB," for this AD, the exceptions specified in paragraph (h)(6)(i) through (v) of this AD apply to that referenced service information ("the original issue of Boeing Alert Requirements Bulletin 777-57A0122 RB") and the corrections identified in Boeing Multi Operator Message MOM-MOM-24-0054-01B, dated January 26, 2024, apply to that referenced service information.

(i) Where the "Compliance" paragraph of the referenced service information identifies "Tables 1 through 50," the correct number of tables is Tables 1 through 54.

(ii) The referenced service information does not specify the application of cap seals to underwing longeron fasteners, fastener heads, and fastener threads and collars for the airplane groups and configurations identified in paragraphs (h)(6)(ii)(A) through (D) of this AD. For those airplane groups and configurations, the application of a cap seal to the underwing longeron fasteners at the locations identified in Figures 81 and 144 is required during installation of the underwing longeron and must be applied using a cap sealing procedure with thickness greater than or equal to the dimensions given in Figure 1 to paragraph (h)(3) of this AD.

(A) Groups 7 and 8, Configurations 5 through 8, on the left side.

(B) Group 9, Configurations 1 and 2, on the left side.

(C) Groups 7 and 8, Configurations 2, 6, 10, and 14, on the right side.

(D) Group 9, Configurations 1 and 3, on the right side.

(iii) For any inspection that may require the removal of fastener cap seals, if the cap seal is removed, a cap seal of BMS 5-45 sealant must be reapplied using a cap sealing procedure with a thickness equal to or greater than the dimensions specified in Figure 1 to paragraph (h)(3) of this AD before further flight after completion of the inspection.

(iv) The referenced service information does not require the restoration of any sealant removed to accomplish high frequency eddy current and ultrasonic inspections external to the fuel tank in Figures 1, 7, 11, and 17. Following completion of any inspection required by those figures, replacement of the sealant described in paragraph (h)(6)(iv)(A) and repair of the sealant described in paragraph (h)(6)(iv)(B) of this AD, as applicable, is required.

(A) Where any sealant was removed from the heads of fasteners, before further flight, cover and fillet seal the fasteners using BMS 5-45 or BMS 5-95 sealant.

Note 5 to paragraph (h)(6)(iv)(A): Guidance for accomplishing the actions required by paragraph (h)(6)(iv)(A) of this AD can be found in the Boeing Standard Overhaul Practices Manual (SOPM) section 20-50-19.

(B) Following any sealant replacement required by paragraph (h)(6)(iv)(A) of this AD, where any secondary fuel barrier coating was removed, before further flight, repair the secondary fuel barrier using BMS 5-81 sealant.

Note 6 to paragraph (h)(6)(iv)(B): Guidance for accomplishing the actions required by paragraph (h)(6)(iv)(B) of this AD can be found in Boeing Model 777 Aircraft Maintenance Manual (AMM) section 28-11-00.

(v) The Effectivity of the referenced service information does not include Boeing Model 777F series airplanes having line numbers 1713, 1717, 1720, and 1724 through 1742 inclusive. For those airplanes the applicable actions for Group 6 must be done.

(i) Terminating Action for AD 2023-17-14

For airplanes on which a front spar lower chord modification specified in Boeing Alert Requirements Bulletin 777-57A0122 RB is done as part of the requirements of paragraphs (g) and (h)(6) of this AD, the modification requirements of paragraph (g) of AD 2023-17-14 are terminated for the applicable side (left or right) on which the modification was done.

(j) 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 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (k)(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.

(k) Related Information

(1) 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*.

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

(l) 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 Alert Requirements Bulletin 777-53A0100 RB, dated March 16, 2023.

(ii) Boeing Multi Operator Message MOM-MOM-24-0054-01B, dated January 26, 2024.

(3) For Boeing material, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster 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 August 1, 2024.

Peter A. White,

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

[FR Doc. 2024-23117 Filed 10-7-24; 8:45 am]

BILLING CODE 4910-13-P