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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–1250; Project Identifier AD–2022–00763–T; Amendment 39–22490; AD 2023–13–05]

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 all The Boeing Company Model 737–600, –700, –700C, –800, –900, and –900ER series airplanes. This AD was prompted by a report indicating fuselage skin lap splice cracking was found between stations (STA) 767 and STA 787, just below S–14R fuselage skin lap splice, where a lower skin panel buckle intersected the upper skin of the lap splice. Cracking was also found just below S–14R between STA 747 and STA 767. This AD requires an inspection for any repair at certain skin lap splices at S–4, S–14, and S–24 and depending on the configuration, repetitive inspections for buckling, wrinkling, or bulging at affected skin lap splices and repair, repetitive inspections for cracking at affected locations common to fuselage skin on the left and right sides and repair, and alternative inspections and on-condition actions. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective October 27, 2023.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 27, 2023.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA–2022–1250; 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 service information identified in this final rule, 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 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* under Docket No. FAA–2022–1250.

FOR FURTHER INFORMATION CONTACT: Owen Bley-Male, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206–231–3992; email: *Owen.F.Bley-Male@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 all The Boeing Company Model 737–600, –700, –700C, –800, –900, and –900ER series airplanes. The NPRM published in the **Federal Register** on November 9, 2022 (87 FR 67581). The NPRM was prompted by a report indicating fuselage skin lap splice cracking was found between STA 767 and STA 787, just below S–14R fuselage skin lap splice, where a lower skin panel buckle intersected the upper skin of the lap splice. Cracking was also found just below S–14R between STA 747 and STA 767. In the NPRM, the FAA proposed to require an inspection for any repair at certain skin lap splices and depending on the configuration, repetitive inspections for buckling, wrinkling, or bulging at affected skin lap splices and repair, repetitive inspections for cracking at affected locations common to fuselage skin on the left and right sides and repair, and alternative inspections and on-condition actions. The FAA is issuing this AD to address cracks, skin buckles, wrinkles, and bulges at fuselage longitudinal lap splice areas at S–4, S–14 and S–24. This condition, if not addressed, could result in cracks in fatigue-critical baseline structure and the inability of a principal structural element to sustain limit loads, which could adversely affect the structural integrity of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from The Air Line Pilots Association, International, who supported the NPRM without change.

The FAA received additional comments from six commenters, including Boeing, Aviation Partners Boeing, Delta Air Lines (Delta), Southwest Airlines (SWA), United Airlines (UAL), and Qantas. The following presents the comments received on the NPRM and the FAA's response to each comment.

Effect of Winglets on Accomplishment of the Proposed Actions

Aviation Partners Boeing stated that accomplishing Supplemental Type Certificate (STC) ST00830SE does not affect the actions specified in the proposed AD.

The FAA concurs with the commenter. The FAA has redesignated paragraph (c) of the proposed AD as paragraph (c)(1) of this AD and added paragraph (c)(2) to this AD to state that installation of STC ST00830SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST00830SE is installed, a ''change in product'' alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17

Request To Correct Errors in Service Information or Refer to Latest Service Information

Boeing, Delta, SWA, UAL, and Qantas requested that the NPRM be revised to correct errors in the referenced service information. Boeing, SWA, UAL, and Qantas requested that the NPRM be

revised to refer to a new revision of Boeing Special Attention Requirements Bulletin 737–53–1399 RB, dated May 20, 2022. The commenters noted that Boeing was drafting a revision to correct several errors in the service information. Boeing stated that the revision would modify a table and several illustrations, inspection steps, and footnotes to clarify the inspection locations, and revise Table 1 in the Accomplishment Instructions to correctly specify the applicable airplanes. SWA suggested the revision would clarify the distinction between the detailed visual and non-destructive testing (NDT) inspections underneath the lap joint. UAL and SWA noted that certain figures incorrectly specify to externally inspect an area that is not visible externally. UAL added that the revision would correct errors in the figures related to orientations of airplane sections. Delta and Qantas noted that Table 1 of the Accomplishment Instructions of Boeing Special Attention Requirements Bulletin 737–53–1399 RB, dated May 20, 2022, includes the compliance actions for Groups 1 through 6 airplanes, but Table 1 specifies it applies only to Group 1 airplanes. UAL pointed out that Table 1 in the Compliance section specifies the inspections are applicable to all airplanes, which contradicts Table 1 in the Accomplishment Instructions of Boeing Special Attention Requirements Bulletin 737–53–1399 RB, dated May 20, 2022.

The FAA agrees with the commenters' request. The FAA has reviewed Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023, which corrects the errors noted by the commenters. Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023, also combines actions for several conditions to remove duplicative instructions and revises related figures accordingly. These revisions allow operators to do all applicable actions for their airplane models without obtaining an AMOC, and do not add additional work. The FAA has revised this AD to refer to Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023.

Request To Clarify Inspection Locations

Boeing requested that the FAA revise the Related Service Information Under 1 CFR part 51 section of the NPRM to clarify the inspection locations, including whether they are on the right (R) or left (L) side of the airplane, and applicable airplane models for each inspection location. Boeing noted that the locations specified in the NPRM don't correspond to the service information due to errors in Boeing Special Attention Requirements Bulletin 737–53–1399 RB, dated May 20, 2022.

The FAA agrees to revise the Related Service Information Under 1 CFR part 51 section for the reasons provided. The FAA has revised this section as requested.

Request To Clarify Root Cause of Cracking

Boeing asked that the FAA change a sentence in the Background section of the NPRM to specify that the skin lap splice cracking ''may have been the result of incorrect procedures . . .'' rather than ''was the result of incorrect procedures . . .'' Boeing noted that it has always stated that the root cause of cracking is unknown.

The FAA agrees that the suggested wording provides clarification on the root cause. However, the sentence in question does not get carried over to the final rule. This AD was not changed regarding this issue.

Request To Clarify Number of Reports

Boeing requested that the FAA revise a sentence in the Background section of the NPRM to specify that the FAA ''received a report from Boeing'' rather than ''received reports'' indicating fuselage skin cracking was found. Boeing noted that it had only one report of crack findings, with only one airplane with cracks reported.

The FAA agrees that the suggested wording is more accurate. However, the sentence in question does not get carried over to the final rule. This AD was not changed regarding this issue.

Request To Remove Reference to Widespread Fatigue Damage (WFD)

Boeing requested that the FAA revise the proposed AD to remove reference to WFD. Boeing explained that, although there was one report of multi-site damage within two bays, it does not consider this cracking to be a WFD issue. Boeing added that, based on its reviews of similar manufactured skins on other models of Boeing airplanes, these skins are not susceptible to WFD. Additionally, Boeing proposed revised language for the unsafe condition sentence in the proposed AD.

The FAA agrees with the commenter's request. After further review, the FAA has determined that a single crack finding is not enough to conclusively indicate that the unsafe condition is related to WFD. However, an unsafe condition still exists because cracks in fatigue-critical baseline structure and the inability of a principal structural element to sustain limit loads could adversely affect the structural integrity of the airplane. The FAA has revised the SUMMARY, Background section, and paragraph (e) of this AD to remove reference to WFD, and revised the Background section and paragraph (e) of this AD to clarify the unsafe condition.

Request To Define Skin Buckles, Wrinkles, and Bulges

Qantas requested that the proposed AD be revised to provide more precise definitions for skin buckles, wrinkles, and bulges, including size, orientation, origin, and depth as well as whether wrinkling is permanent or temporary. Qantas noted that skin panels have minor imperfections due to production assembly processes, but those aren't skin buckles, wrinkles, or bulges. Qantas states that what constitutes a skin buckle, wrinkle, or bulge could be open to interpretation, causing operators to perform unnecessary NDT inspection. The commenter noted that it found a Boeing definition of a buckle and a Boeing Service Letter that states wrinkling is temporary and will have no detrimental long-term effect unless it becomes more severe or permanent. The commenter added that the Boeing Service Letter suggests that you'll find wrinkling in the vicinity of the inspection area. Qantas suggested this would lead to unnecessary repeat inspection on unrepaired areas and cause an undue burden.

The FAA acknowledges the commenter's concern. This terminology reflects the suspected root cause of the discovered cracking, and possible precursors to future cracks. This terminology also reflects commonly used verbiage for possible structural damage, so further explanation is unnecessary. However, the FAA notes that Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023, states that areas of loose paint, discoloration, loose fasteners, lap joint separation, or disturbed sealant can be indicative of areas where a skin buckle, wrinkle, or bulge has occurred. Skin buckles, wrinkles, or bulges could lead to cracks that may result in the inability of a principal structural element to sustain limit load, which could result in reduced structural integrity of the airplane and lead to a decompression event. Therefore, the follow-on inspections for cracks are necessary if any skin buckles, wrinkles, or bulges are found, regardless of size, origin, depth, or other factors. This AD was not changed regarding this issue.

Request To Revise Certain Compliance Times

Qantas noted that, for certain conditions, the NDT inspections must be repeated every 600 flight cycles, regardless whether any buckle, wrinkle, or bulge is found, which is burdensome for operators. The FAA infers the commenter is requesting an extension of the compliance time.

The FAA disagrees with the commenter's request. In developing the compliance times for this AD, the FAA considered the recommendations of the manufacturer as well as the urgency associated with the subject unsafe condition. 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. This AD was not changed regarding this issue.

Request To Clarify Paint Thickness for Certain Inspections

SWA requested clarification regarding the acceptable level of paint thickness for certain inspections. SWA noted that figures 17 through 19 and 28 through 35 in Boeing Special Attention Requirements Bulletin 737–53–1399 RB, dated May 20, 2022, indicate that subsequent NDT inspections can be accomplished with paint in place. SWA added that per the 737 NDT Manual Part 4, 53–30–06, the procedure can only be used with paint up to 0.007 inches thick. SWA suggested adding this guidance in a note, since the repetitive inspections occur every 600 flight cycles.

The FAA notes that the suggested clarification has been added to a note in the applicable figures in Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023. As previously noted, this AD has been revised to refer to Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023. Therefore, no further change to this AD is necessary regarding this issue.

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.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023. This service information specifies procedures for a general visual inspection for any repair, any buckle, any wrinkle, any bulge, and any cracking at skin lap splice at stringers S–4R (737–800 Boeing Converted Freighter airplanes only), S–14L, S–14R, and S–24R (737–600, –700, –700C, 800, –900, and –900ER series airplanes only). This service information also describes procedures, depending on the configuration, for repetitive detailed inspections for buckling, wrinkling, or bulging at unrepaired areas of affected lap splices, and repair; repetitive detailed, high frequency eddy current (HFEC), and ultrasonic (UT) inspections for cracking at affected locations common to fuselage skin on the left and right sides, and repair; and alternative inspections and on-condition actions. 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**.

Costs of Compliance

The FAA estimates that this AD affects 2,462 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
Inspections ...	Up to 34 work-hours × $85 per hour = Up to $2,890 per inspection cycle.	$0	$2,890 per inspection cycle	Up to $7,115,180 per inspection cycle.

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

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:

2023–13–05 The Boeing Company: Amendment 39–22490; Docket No. FAA–2022–1250; Project Identifier AD–2022–00763–T.

(a) Effective Date

This airworthiness directive (AD) is effective October 27, 2023.

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to all The Boeing Company Model 737–600, –700, –700C, –800, –900, and –900ER series airplanes, certificated in any category.

(2) Installation of Supplemental Type Certificate (STC) ST00830SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST00830SE is installed, a ''change in product'' alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by a report indicating fuselage skin lap splice cracking was found between stations (STA) 767 and STA 787, just below S–14R fuselage skin lap splice, where a lower skin panel buckle intersected the upper skin of the lap splice. Cracking was also found just below S–14R between STA 747 and STA 767. The FAA is issuing this AD to address cracks, skin buckles, wrinkles, and bulges at fuselage longitudinal lap splice areas at S–4, S–14 and S–24. This condition, if not addressed, could result in cracks in fatigue-critical baseline structure and the inability of a principal structural element to sustain limit loads, which could adversely affect the structural integrity 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 Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Special Attention Service Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023, which is referred to in Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023.

(h) Exceptions to Service Information Specifications

(1) Where the Compliance Time columns of the tables in the ''Compliance'' paragraph of Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023, use the phrase ''the original issue date of the Requirements Bulletin 737–53–1399 RB,'' this AD requires using ''the effective date of this AD.''

(2) Where Boeing Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023, specifies contacting Boeing for repair instructions or for alternative inspections: This AD requires doing the repair and doing the alternative inspections and applicable on-condition actions using a method approved in accordance with the procedures specified 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: *9-ANM-Seattle-ACO-AMOC-Requests@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 Owen Bley-Male, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206–231–3992; email: *Owen.F.Bley-Male@faa.gov.*

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (4) of this AD.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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 Special Attention Requirements Bulletin 737–53–1399 RB, Revision 1, dated March 14, 2023.

(ii) [Reserved]

(3) For service information 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; internet *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 service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, *fr.inspection@nara.gov,* or go to: *www.archives.gov/federal-register/cfr/ibr-locations.html.*

Issued on June 30, 2023.

Michael Linegang,

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

[FR Doc. 2023–20503 Filed 9–21–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2023–1884; Project Identifier MCAI–2023–00482–A; Amendment 39–22554; AD 2023–19–04]

RIN 2120–AA64

Airworthiness Directives; Aircraft Industries, a.s. 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 Aircraft Industries, a.s. Model L–420, L 410 UVP–E20, and L 410 UVP–E20 CARGO airplanes. This AD was prompted by reports of the pressure plates within the main landing gear (MLG) wheel brake unit malfunctioning. This AD requires replacing certain MLG wheel brake units with serviceable parts and prohibits installing an affected part