



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0899; Product Identifier 2018-NM-099-AD;

Amendment 39-19615; AD 2019-07-04]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all The Boeing Company Model 757 airplanes. This AD was prompted by an evaluation by the design approval holder (DAH) indicating that the inner skin of the lap splices, at the lower fastener row, is subject to scratch cracks that may interact with widespread fatigue damage (WFD). This AD requires a general visual inspection (GVI) of certain lap splice inspection areas for any repair common to the fuselage skin lap splice dual frequency eddy current (DFEC) inspection areas, repetitive DFEC inspections of certain lap splice inner skins for any crack, and applicable on-condition actions. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: 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; phone: 562-797-1717; internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Transport Standards 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 on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0899.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0899; 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, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) 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.

FOR FURTHER INFORMATION CONTACT: David Truong, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5224; fax: 562-627-5210; email: david.truong@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We 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 757 airplanes. The NPRM published in the Federal Register on October 15, 2018 (83 FR 51887). The NPRM was prompted by an evaluation by the DAH indicating that the inner skin of the lap splices, at the lower fastener row, is subject to scratch cracks that may interact with

WFD. The NPRM proposed to require a general visual inspection of certain lap splice inspection areas for any repair common to the fuselage skin lap splice inspection areas, repetitive DFEC inspections of a certain lap splice inner skin for any crack, and applicable on-condition actions.

We are issuing this AD to address scratches that can grow into scratch cracks, which could interact with multi-site damage (MSD) fastener hole fatigue cracking. This condition, if not addressed, could result in accelerated crack growth rate, which could result in reduced structural integrity of the airplane.

Comments

We gave the public the opportunity to participate in developing this final rule. 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) ST01518SE does not affect the actions specified in the proposed AD.

We concur with the commenter. We have 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 ST01518SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01518SE 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 for Clarification of the Affected Airplanes

Boeing requested that we clarify the affected airplanes in the NPRM. Boeing pointed out that the SUMMARY of the NPRM currently states "for certain The Boeing Company Model 757 airplanes," and requested that we change the SUMMARY of the NPRM to state "for all The Boeing Company Model 757 airplanes."

We acknowledge this typographical error. Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018, specifies “all The Boeing Company Model 757 airplanes,” and our intent was to match the service information. We have revised the SUMMARY and paragraph (c)(1) of this AD accordingly.

Request to Revise the Safety Issue

Boeing requested that we clarify the nature of the safety issue. Boeing pointed out that the SUMMARY of the NPRM suggests that the safety issue is limited to WFD. Boeing also mentioned that lap splice WFD for the Model 757 fleet is already addressed by AD 2018-18-07, Amendment 39-19386 (83 FR 45037, September 5, 2018) (“AD 2018-18-07”). Boeing specified that the safety issue that the NPRM is mitigating is the potential for interaction between MSD and scratch cracks on the inner skin of the lap splices. Boeing requested that we revise the “prompted by” statement in the SUMMARY of the NPRM to specify “...at the lower fastener row is subject to scratch cracks that may interact with WFD.”

We acknowledge the commenter’s concern. As written, the SUMMARY of the NPRM can be misconstrued to specify duplicate actions (lap splice WFD) already addressed by AD 2018-18-07. The intent of this AD action is to address the potential for interaction between MSD and scratch cracks on the inner skin of the lap splices. Therefore, we have revised the SUMMARY and paragraph (e) of this AD accordingly.

Request for Clarification of the GVI Inspection Area

Boeing requested that we clarify the GVI inspection area. Boeing mentioned that the SUMMARY and “Related Service Information Under 1 CFR Part 51” section of the NPRM each describe a GVI common to the fuselage skin lap splice inspection areas. Boeing pointed out that the wording seems confusing and could be perceived as a circular description (i.e. that the inspection area is common to the inspection area). Boeing also

pointed out that there is no mention of the commonality of the DFEC inspection areas and the GVI inspection areas.

We agree with the commenter's request for the reasons provided. We have revised the SUMMARY and "Related Service Information Under 1 CFR Part 51" section of this AD accordingly.

Request for Clarification of the Affected Inspection Area

Boeing requested that we clarify the affected inspection area. Boeing mentioned that the SUMMARY of the NPRM states "... DFEC inspections of a certain lap splice inner skin...." Boeing pointed out that this statement suggests that only one skin panel is affected. Boeing requested that we revise the SUMMARY of the NPRM to state "...DFEC inspections of certain lap splice inner skins...."

We agree with the commenter's request for the reasons provided. We have revised the SUMMARY of this AD accordingly.

Request to Clarify that the Inspections are not Limited to Lap Splices at Stringer (S) 14

Boeing requested that we clarify that the inspections are not limited to lap splices at S-14. Boeing mentioned that the "Related Service Information Under 1 CFR Part 51" section of the NPRM describes the service information as procedures for "... repetitive DFEC inspections of the S-14 lap splice inner skin for any crack" Boeing pointed out that the description does not mention any of the other lap splice stringer locations where the inspections are required. Boeing requested that we revise the description to specify "... repetitive DFEC inspections of certain lap splice inner skins for any crack"

We agree with the commenter's request for the reasons provided. We have revised the "Related Service Information Under 1 CFR Part 51" section of this AD accordingly.

Request to Revise the Costs of Compliance of the NPRM

Boeing requested that we clarify the Costs of Compliance of the NPRM. Boeing mentioned that the NPRM specified 451 airplanes of U.S. registry. Boeing specified that its records show there to be 561 airplanes of U.S. registry that would be affected by the NPRM. Boeing also pointed out that the difference in affected airplanes significantly increases the overall costs to the U.S. registered Model 757 fleet.

We agree that Boeing records account for U.S. registered airplanes that the FAA did not include in the NPRM, and that this number may be a more accurate representation of the U.S. registered airplanes. We did not originally include airplanes in our cost estimate that are in storage or not currently active. We have updated the Costs of Compliance section of this AD to reflect the specific number of U.S. registered airplanes and the revised cost on U.S. operators.

Request to Include Required for Compliance (RC) Language

Boeing requested that we revise paragraph (i) of the proposed AD to include RC language. Boeing mentioned that this change would clarify which actions are mandated.

We agree that clarification is necessary, however, we disagree with the request to include RC language in paragraph (i) of this AD. As noted in Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018, if an RB is mandated by an AD, then all applicable requirements specified in the RB must be done. We did not include RC language because this AD requires accomplishment of all the actions specified in the Accomplishment Instructions of Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018. Therefore, we have not changed this AD in this regard.

Request to Exclude Airplanes with Certain Modifications

FedEx and VT Mobile Aerospace Engineering (MAE) Inc. requested that we revise the NPRM to specify that inspections, methods, and compliance times regarding certain lap splices specified in Boeing Alert Requirements Bulletin 757-53A0111 RB,

dated May 21, 2018, be omitted for the FedEx fleet of Model 757-200 airplanes. FedEx mentioned that its fleet has been modified using certain VT MAE Inc. supplemental type certificates (STCs), and is no longer configured as passenger airplanes. FedEx pointed out that its Model 757-200 fleet is identified as Groups 1, 4, and 5 in Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018. VT MAE Inc. pointed out that because of the change in configuration related to the VT MAE Inc. STCs, certain lap splice inspection areas have been removed and those airplanes are unable to fully comply with the inspection procedures specified in Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018. VT MAE Inc. proposed certain exceptions to the service information in the final rule. The proposed exceptions are for the lap splice inspections affected by the change in configuration related to the VT MAE Inc. STCs. FedEx requested that, in lieu of requesting an AMOC after publication, we include the exceptions proposed by VT MAE Inc. in the final rule.

We acknowledge the commenters' remarks, however, we disagree with the request to include exceptions in this final rule that are specific to certain airplanes operated by FedEx. There are many different airplane configurations across multiple operators, and ADs cannot accommodate all possible configurations. However, under the provisions of paragraph (i) of this AD, we will consider requests for approval of an AMOC that addresses the VT MAE Inc. STCs, if appropriate data are submitted to substantiate that the method would provide an acceptable level of safety. We have not changed this AD in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

Related Service Information Under 1 CFR part 51

We reviewed Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018. This service information describes procedures for a GVI of certain lap splice inspection areas for any repair common to the fuselage skin lap splice DFEC inspection areas, repetitive DFEC inspections of certain lap splice inner skins for any crack, and applicable 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 the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 561 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
General visual inspection	Up to 6 work-hours X \$85 per hour = up to \$510	\$0	Up to \$510	Up to \$286,110
Repetitive DFEC inspections	Up to 124 work-hours X \$85 per hour = up to \$10,540 per inspection cycle	\$0	Up to \$10,540 per inspection cycle	Up to \$5,912,940 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for the 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.

We are 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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

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) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

Adoption of 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 (AD):

2019-07-04 **The Boeing Company**: Amendment 39-19615; Docket No. FAA-2018-0899; Product Identifier 2018-NM-099-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to all The Boeing Company Model 757-200, -200PF, -200CB, and -300 series airplanes, certificated in any category.

(2) Installation of Supplemental Type Certificate (STC) ST01518SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01518SE 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 an evaluation by the design approval holder (DAH) indicating that the inner skin of the lap splices, at the lower fastener row, is subject to scratch cracks that may interact with widespread fatigue damage (WFD). We are issuing this AD to address scratches that can grow into scratch cracks, which could interact with multi-site damage (MSD) fastener hole fatigue cracking. This condition, if not addressed, could result in accelerated crack growth rate, which could result in reduced 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 Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018.

Note 1 to paragraph (g) of this AD: Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 757-53A0111, dated May 21, 2018, which is referred to in Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018.

(h) Exceptions to Service Information Specifications

(1) For purposes of determining compliance with the requirements of this AD: Where Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018, uses the phrase “the original issue date of Requirements Bulletin 757-53A0111 RB,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018, specifies contacting Boeing for alternative inspections or repair instructions, this AD requires alternative inspection or repair before further flight using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(3) Inspections performed in accordance with Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018, are not necessary in areas where existing FAA approved repairs cover the affected inspection areas; provided the outermost repair doubler extends a minimum of three rows of fasteners above and below the original group of lap splice fasteners subject to the inspection. Damage tolerance inspections specified for existing repairs must continue. Inspections outside of the repaired boundaries are still required as specified in Boeing Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO 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 local Flight Standards District 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-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district 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 Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO 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 David Truong, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5224; fax: 562-627-5210; email: david.truong@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 (k)(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 Alert Requirements Bulletin 757-53A0111 RB, dated May 21, 2018.

(ii) [Reserved]

(3) For service information 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; phone: 562-797-1717; internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Standards 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, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on April 8, 2019.

Michael J. Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

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