



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-6669; Directorate Identifier 2015-NM-191-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede Airworthiness Directive (AD) 2006-20-11, which applies to certain The Boeing Company Model 757-200, -200CB, and -200PF series airplanes. AD 2006-20-11 currently requires initial and repetitive detailed or high frequency eddy current (HFEC) inspections for cracks around the rivets at the upper fastener row of the skin lap splice of the fuselage, and repairing any crack found. Since we issued AD 2006-20-11, an evaluation done by the design approval holder (DAH) indicated that the fuselage skin lap splice is subject to widespread fatigue damage (WFD). This proposed AD would no longer allow the detailed inspections and would instead require repetitive external HFEC inspections for cracking of the skin lap splices of the fuselage, and repair if necessary. We are proposing this AD to detect and correct fatigue cracking at certain skin lap splice locations of the fuselage, which could result in reduced structural integrity and rapid decompression of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, CA 90846-0001; telephone: 206-544-5000, extension 2; fax: 206-766-5683; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-6669.

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-2016-6669; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Eric Schrieber, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO),

3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5348;
fax: 562-627-5210; email: eric.schrieber@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-6669; Directorate Identifier 2015-NM-191-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On September 22, 2006, we issued AD 2006-20-11, Amendment 39-14781 (71 FR 58485, October 4, 2006) (“AD 2006-20-11”), for certain The Boeing Company Model 757-200, -200CB, and -200PF series airplanes. AD 2006-20-11 requires initial and repetitive detailed or HFEC inspections for cracks around the rivets at the upper fastener row of the skin lap splice of the fuselage, and repairing any crack found. AD 2006-20-11 resulted from reports of cracking in the fuselage skin of the crown skin panel. We issued AD 2006-20-11 to detect and correct premature fatigue cracking at certain skin lap splice locations of the fuselage, and consequent rapid decompression of the airplane.

Structural fatigue damage is progressive. It begins as minute cracks, and those cracks grow under the action of repeated stresses. This can happen because of normal

operational conditions and design attributes, or because of isolated situations or incidents such as material defects, poor fabrication quality, or corrosion pits, dings, or scratches. Fatigue damage can occur locally, in small areas or structural design details, or globally. Global fatigue damage is general degradation of large areas of structure with similar structural details and stress levels. Multiple-site damage is global damage that occurs in a large structural element such as a single rivet line of a lap splice joining two large skin panels. Global damage can also occur in multiple elements such as adjacent frames or stringers. Multiple-site-damage and multiple-element-damage cracks are typically too small initially to be reliably detected with normal inspection methods. Without intervention, these cracks will grow, and eventually compromise the structural integrity of the airplane, in a condition known as WFD. As an airplane ages, WFD will likely occur, and will certainly occur if the airplane is operated long enough without any intervention.

The FAA's WFD final rule (75 FR 69746, November 15, 2010) became effective on January 14, 2011. The WFD rule requires certain actions to prevent structural failure due to WFD throughout the operational life of certain existing transport category airplanes and all of these airplanes that will be certificated in the future. For existing and future airplanes subject to the WFD rule, the rule requires that DAHs establish a limit of validity (LOV) of the engineering data that support the structural maintenance program. Operators affected by the WFD rule may not fly an airplane beyond its LOV, unless an extended LOV is approved.

The WFD rule (75 FR 69746, November 15, 2010) does not require identifying and developing maintenance actions if the DAHs can show that such actions are not necessary to prevent WFD before the airplane reaches the LOV. Many LOVs, however, do depend on accomplishment of future maintenance actions. As stated in the WFD rule,

any maintenance actions necessary to reach the LOV will be mandated by airworthiness directives through separate rulemaking actions.

In the context of WFD, this action is necessary to enable DAHs to propose LOVs that allow operators the longest operational lives for their airplanes, and still ensure that WFD will not occur. This approach allows for an implementation strategy that provides flexibility to DAHs in determining the timing of service information development (with FAA approval), while providing operators with certainty regarding the LOV applicable to their airplanes.

We are proposing this AD to detect and correct fatigue cracking at certain skin lap splice locations of the fuselage, which could result in reduced structural integrity and rapid decompression of the airplane.

Actions Since AD 2006-20-11 Was Issued

Since issuance of AD 2006-20-11, an evaluation done by the DAH indicated that the fuselage skin lap splice is subject to WFD.

We have determined that the detailed inspection that is allowed as an option in AD 2006-20-11, does not adequately address the identified unsafe condition. Only HFEC inspections are adequate to address the identified unsafe condition.

Related Service Information under 1 CFR part 51

We reviewed Boeing Special Attention Service Bulletin 757-53-0090, Revision 1, dated November 19, 2015. The service information describes procedures for repetitive external HFEC inspections for cracking of the skin lap splices of the fuselage. 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.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously. For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-6669.

Costs of Compliance

We estimate that this proposed AD affects 572 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections [retained actions from AD 2006-20-11]	Up to 20 work-hours X \$85 per hour = up to \$1,700 per inspection cycle	\$0	Up to \$1,700 per inspection cycle	Up to \$972,400 per inspection cycle
New proposed inspections	Up to 20 work-hours X \$85 per hour = up to \$1,700 per inspection cycle	\$0	Up to \$1,700 per inspection cycle	Up to \$972,400 per inspection cycle

We have received no definitive data that would enable us to provide a cost estimate for the on-condition repairs specified in this proposed 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.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the 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.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2006-20-11, Amendment 39-14781 (71 FR 58485, October 4, 2006), and adding the following new AD:

The Boeing Company: Docket No. FAA-2016-6669; Directorate Identifier 2015-NM-191-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2006-20-11, Amendment 39-14781 (71 FR 58485, October 4, 2006) (“AD 2006-20-11”). This AD affects AD 2006-11-11, Amendment 39-14615 (71 FR 30278, May 26, 2006) (“AD 2006-11-11”).

(c) Applicability

(c) This AD applies to The Boeing Company Model 757-200, -200CB, and -200PF series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 757-53-0090, Revision 1, dated November 19, 2015.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by an evaluation done by the design approval holder which indicated that the fuselage skin lap splice is subject to widespread fatigue damage. We are issuing this AD to detect and correct fatigue cracking at certain skin lap splice locations of the fuselage, which could result in reduced structural integrity and rapid decompression of the airplane.

(f) Compliance

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

(g) Retained Initial and Repetitive Inspections with Terminating Action

This paragraph restates the requirements of paragraph (f) of AD 2006-20-11, with terminating action. Do initial and repetitive detailed or high frequency eddy current (HFEC) inspections for cracking around the rivets at the upper fastener row of the skin lap splice of the fuselage by doing all the actions in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0090, dated June 2, 2005, except as provided by paragraphs (h) and (i) of this AD. Do the inspections at the applicable times specified in Paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 757-53-0090, dated June 2, 2005; except where Boeing Special Attention Service Bulletin 757-53-0090, dated June 2, 2005, specifies a compliance time “after the original release date of this service bulletin,” this AD requires compliance after November 8, 2006 (the effective date of AD 2006-20-11). Accomplishing an inspection required by paragraph (j) of this AD terminates the inspections required by this paragraph.

(h) Retained Repair with No Changes

This paragraph restates the requirements of paragraph (g) of AD 2006-20-11, with no changes. If any crack is found during any inspection required by paragraph (g) of this

AD: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(i) Retained No Reporting Required with No Changes

This paragraph restates the provision specified in paragraph (h) of AD 2006-20-11, with no changes. Although Boeing Special Attention Service Bulletin 757-53-0090, dated June 2, 2005, recommends that inspection results be reported to the manufacturer, this AD does not include that requirement.

(j) New Repetitive Inspections

At the applicable time specified in table 1 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 757-53-0090, Revision 1, dated November 19, 2015, except as provided by paragraph (l)(1) of this AD: Do an external high frequency eddy current (HFEC) inspection for cracking of the skin lap splices of the fuselage, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0090, Revision 1, dated November 19, 2015. Repeat the inspection thereafter at the applicable times specified in table 1 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 757-53-0090, Revision 1, dated November 19, 2015. Doing an inspection required by this paragraph terminates the inspections required by paragraph (g) of this AD.

(k) Repair for Cracking Found During Inspections Required by Paragraph (j) of this AD

If any cracking is found during any inspection required by paragraph (j) of this AD, repair before further flight using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(l) Exceptions to Service Information

(1) Where Boeing Special Attention Service Bulletin 757-53-0090, Revision 1, dated November 19, 2015, specifies a compliance time “after the Revision 1 date of this

service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Although Boeing Special Attention Service Bulletin 757-53-0090, Revision 1, dated November 19, 2015, specifies to contact Boeing for repair instructions, and specifies that action as “RC” (Required for Compliance), paragraph (k) of this AD requires repair before further flight using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(m) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles Aircraft Certification Office (ACO), 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 ACO, send it to the attention of the person identified in paragraph (n)(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, 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.

(4) AMOCs approved for AD 2006-20-11, are approved as AMOCs for the corresponding provisions of paragraphs (g) and (j) of this AD.

(5) Except as required by paragraph (l)(2) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (m)(5)(i) and (m)(5)(ii) apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(6) The inspections specified in paragraph (g) of this AD are approved as an AMOC to paragraph (h) of AD 2006-11-11 for the inspections of Significant Structural Items (SSI) 53-30-07 and 53-60-07 (fuselage lap splices, left and right upper fastener row) listed in the May 2003 or June 2005 revision of the Boeing 757 Maintenance Planning Data (MPD) Document D622N001-9. This AMOC applies only to the common areas identified in paragraphs (m)(6)(i) and (m)(6)(ii) of this AD. All provisions of AD 2006-11-11 that are not specifically referenced in the above statements remain fully applicable and must be complied with as specified in AD 2006-11-11. Operators may revise their FAA-approved maintenance or inspection program with these alternative inspections for common areas.

(i) Common areas inspected before the effective date of this AD in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0090, dated June 2, 2005.

(ii) Common areas inspected in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0090, Revision 1, dated November 19, 2015.

(n) Related Information

(1) For more information about this AD, contact Eric Schrieber, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5348; fax: 562-627-5210; email: eric.schrieber@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, CA 90846-0001; telephone: 206-544-5000, extension 2; fax: 206-766-5683; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on May 5, 2016.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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