DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0338; Project Identifier AD-2020-01423-T]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 787-8 and 787-9 airplanes. This proposed AD was prompted by reports that shimming requirements were not met during the assembly of certain structural joints, which can result in reduced fatigue thresholds and cracking of the affected structural joints. This proposed AD would require repetitive inspections for cracking of certain areas of the aft wheel well bulkhead (AWWB) body chord and AWWB side fitting and failsafe straps, and repair of any cracking found. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA 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 https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

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: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet https://www.myboeingfleet.com. You may view this referenced 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 on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0338.

Examining the AD Docket

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0338; 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 NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Greg Rutar, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3529; email: Greg.Rutar@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include
“Docket No. FAA-2021-0338; Project Identifier AD-2020-01423-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments we receive, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Greg Rutar, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206 231 3529; email: Greg.Rutar@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.
Background

The FAA has received reports indicating that shimming requirements were not met during the assembly of certain AWWB structural joints, which can result in reduced fatigue thresholds and cracking of the affected structural joints. The existing inspection program does not adequately detect this fatigue cracking. The affected locations are the forward edge of the AWWB side fitting and failsafe strap at STA 1209 on the left and right side, and the AWWB side fitting outer chord surface and failsafe strap; and the forward edge of the horizontal flange of the AWWB body chord and around all the fastener heads and vertical beam clips common to the AWWB body chord horizontal flange. Not meeting the shimming requirements during assembly of the STA 1209 AWWB side fitting and body chord structural joints results in excessive pull-up forces, fastener shanking, excessive burr heights in metallic members, and metallic chips (foreign object debris) in fastened interfaces, which all degrade fatigue performance of any affected structural joints.

Undetected fatigue cracking could weaken primary structure so it cannot sustain limit load, which could result in reduced structural integrity of the airplane.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin B787-81205-SB530077-00 RB, Issue 001, dated September 8, 2020. The service information describes procedures for repetitive high frequency eddy current (HFEC) inspections for cracking of the forward edge of the AWWB side fitting and failsafe strap at station (STA) 1209 on the left and right side, and the AWWB side fitting outer chord surface and failsafe strap, and repair of any cracking found.

The FAA reviewed Boeing Alert Requirement Bulletin B787-81205-SB530078-00 RB, Issue 001, dated September 8, 2020. The service information describes procedures for repetitive HFEC inspections for cracking of the
forward edge of the horizontal flange of the AWWB body chord and around all the fastener heads and vertical beam clips common to the AWWB body chord horizontal flange.

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**

The FAA is proposing this AD because the agency 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 accomplishment of the actions identified in Boeing Alert Requirements Bulletins B787-81205-SB530077-00 RB and B787-81205-SB530078-00 RB, both Issue 001, both dated September 8, 2020, except for any differences identified as exceptions in the regulatory text of this proposed AD.

For information on the procedures and compliance times, see this service information at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0338.

**Explanation of Requirements Bulletin**

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (AD ARC), to enhance the AD system. One enhancement is a process for annotating which steps in the service information are “required for compliance” (RC) with an AD. Boeing has implemented this RC concept into Boeing service bulletins.

In an effort to further improve the quality of ADs and AD-related Boeing service information, a joint process improvement initiative was worked between the FAA and
Boeing. The initiative resulted in the development of a new process in which the service information more clearly identifies the actions needed to address the unsafe condition in the “Accomplishment Instructions.” The new process results in a Boeing Requirements Bulletin, which contains only the actions needed to address the unsafe condition (i.e., only the RC actions).

Costs of Compliance

The FAA estimates that this proposed AD affects 79 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

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<th>Estimated costs for required actions</th>
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<tr>
<td><strong>Action</strong></td>
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<td>Repetitive inspections</td>
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The FAA has received no definitive data on which to base the cost estimates 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.

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**

The FAA 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 this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866,
2. Would not affect intrastate aviation in Alaska, and
3. Would 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 adding the following new airworthiness directive:

**The Boeing Company**: Docket No. FAA-2021-0338; Project Identifier AD-2020-01423-T.
(a) Comments Due Date

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

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 787-8 and 787-9 airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin B787-81205-SB530077-00 RB, Issue 001, dated September 8, 2020.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by reports that shimming requirements were not met during the assembly of certain aft wheel well bulkhead (AWWB) structural joints, which can result in reduced fatigue thresholds and cracking of the affected structural joints. The FAA is issuing this AD to address undetected fatigue cracking, which could weaken primary structure so it cannot sustain limit load, and 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 Bulletins B787-81205-SB530077-00 RB and B787-81205-SB530078-00 RB, both Issue 001, both dated September 8, 2020, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletins.
Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletins B787-81205-SB530077-00 and B787-81205-SB530078-00, both Issue 001, both dated September 8, 2020, which are referred to in Boeing Alert Requirements Bulletins B787-81205-SB530077-00 RB and B787-81205-SB530078-00 RB, both Issue 001, both dated September 8, 2020.

(h) Exceptions to Service Information Specifications

(1) Where Boeing Alert Requirements Bulletin B787-81205-SB530077-00 RB, Issue 001, dated September 8, 2020, uses the phrase “the issue 001 date of the Requirements Bulletin B787-81205-SB530077-00 RB” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Requirements Bulletin B787-81205-SB530078-00 RB, Issue 001, dated September 8, 2020, uses the phrase “the issue 001 date of the Requirements Bulletin B787-81205-SB530078-00 RB,” this AD requires using “the effective date of this AD.”

(3) Where Boeing Alert Requirements Bulletins B787-81205-SB530077-00 RB and B787-81205-SB530078-00 RB, both Issue 001, both dated September 8, 2020, specify contacting Boeing for repair instructions: This AD requires doing the repair 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, Seattle 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 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, Seattle 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 Greg Rutar, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3529; email: Greg.Rutar@faa.gov.

(2) 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 https://www.myboeingfleet.com. You may view this referenced 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.
Issued on April 20, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
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