DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0871; Product Identifier 2019-NM-139-AD; Amendment 39-19846; AD 2020-03-22]

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 787-8 airplanes. This AD was prompted by a report of fatigue cracking at certain frame tie rod locations of the wing. This AD requires repetitive inspections for cracking of the left- and right-side frame tie rod assemblies and stub beam upper chords, and applicable on-condition actions. The FAA is 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 publications 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; telephone
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 https://www.regulations.gov by searching for and

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-2019-0871; 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 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: 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:

Discussion

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 787-8
airplanes. The NPRM published in the Federal Register on November 19, 2019 (84 FR
63825). The NPRM was prompted by a report of fatigue cracking at certain frame tie rod
locations of the wing. The NPRM proposed to require repetitive inspections for cracking of the left- and right-side frame tie rod assemblies and stub beam upper chords, and applicable on-condition actions.

The FAA is issuing this AD to address cracking in the frame tie rod assemblies and consequent failure of a principal structural element to sustain limit load, which could adversely affect the structural integrity of the airplane and result in possible decompression of the airplane.

**Comments**

The FAA gave the public the opportunity to participate in developing this final rule. The FAA has considered the comment received. Boeing indicated its support for the NPRM.

**Conclusion**

The FAA reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. The FAA has 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.

**Related Service Information under 1 CFR Part 51**

The FAA reviewed Boeing Alert Requirements Bulletin B787-81205-SB570041-00 RB, Issue 001, dated March 7, 2019. The service information
describes procedures for repetitive high frequency eddy current (HFEC) inspections for cracking of the left- and right-side frame tie rod assemblies, repetitive ultrasonic (UT) inspections for cracking of the left- and right-side stub beam upper chords, and applicable on-condition actions. On-condition actions include repair. 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**

The FAA estimates that this AD affects 55 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspections</td>
<td>19 work-hours X $85 per hour = $1,615 per inspection cycle</td>
<td>$0</td>
<td>$1,615 per inspection cycle</td>
<td>$88,825 per inspection cycle</td>
</tr>
</tbody>
</table>

The FAA has received no definitive data that enables the agency 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.

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.

**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):


(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

This AD applies to The Boeing Company Model 787-8 airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin B787-81205-SB570041-00 RB, Issue 001, dated March 7, 2019.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by a report of fatigue cracking at certain frame tie rod locations of the wing. The FAA is issuing this AD to address cracking in the frame tie rod assemblies and consequent failure of a principal structural element to sustain limit load, which could adversely affect the structural integrity of the airplane and result in possible decompression 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 B787-81205-SB570041-00 RB, Issue 001, dated March 7, 2019, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin B787-81205-SB570041-00 RB, Issue 001, dated March 7, 2019.

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 B787-81205-SB570041-00, Issue 001, dated March 7, 2019, which is referred to in Boeing Alert Requirements Bulletin B787-81205-SB570041-00 RB, Issue 001, dated March 7, 2019.

(h) Exceptions to Service Information Specifications

(1) For purposes of determining compliance with the requirements of this AD: Where Boeing Alert Requirements Bulletin B787-81205-SB570041-00 RB, Issue 001, dated March 7, 2019, uses the phrase “the issue 001 date of Requirements Bulletin B787-81205-SB570041-00 RB,” this AD requires using the effective date of this AD.

(2) Where Boeing Alert Requirements Bulletin B787-81205-SB570041-00 RB, Issue 001, dated March 7, 2019, specifies contacting Boeing for repair instructions: This AD requires doing the repair and applicable on-condition actions before further flight 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 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) 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 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 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**

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.
(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.


(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 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, email fedreg.legal@nara.gov, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on February 14, 2020.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2020-03964 Filed: 2/26/2020 8:45 am; Publication Date: 2/27/2020]