DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0097; Product Identifier 2019-NM-208-AD]

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 all The Boeing Company Model 737-300, -400, and -500 series airplanes. This proposed AD was prompted by a report that a crack indication consistent with fatigue cracking was found on the left nacelle support overwing fitting flange fastener hole during teardown of a Model 737-300 series airplane. This proposed AD would require a general visual inspection of the strut to wing diagonal brace at a certain location for cracking. For certain airplanes, this proposed AD would also require an ultrasonic inspection of certain fasteners of the nacelle support overwing fitting at a certain location for cracking. For certain other airplanes, this proposed AD would also require a magnetic check of the nacelle support overwing fitting at a certain location to determine the material composition. This proposed AD would also require applicable on-condition actions. 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.

• 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: 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, 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 locating Docket No. FAA-2020-0097.

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-2020-0097; 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, the regulatory evaluation, any comments received,
and other information. The street address for Docket Operations is listed above.

Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Wayne Ha, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5238; fax: 562-627-5210; email: wayne.ha@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 the ADDRESSES section. Include “Docket No. FAA-2020-0097; Product Identifier 2019-NM-208-AD” at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

The FAA will post all comments, without change, to https://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact the agency receives about this proposed AD.

Discussion

The FAA has received a report indicating that a crack indication consistent with fatigue cracking was found on the left nacelle support overwing fitting flange fastener hole during teardown of a Model 737-300 series airplane. Further analysis determined the
root cause of the crack is stress at the first two forward fasteners of the nacelle support overwing fitting being higher than anticipated. Existing maintenance planning document (MPD) inspections do not provide opportunities to detect a failed nacelle support overwing fitting at wing buttock line (WBL) 191. The crack finding occurred at 67,695 total flight cycles and 80,269 total flight hours. This condition, if not addressed, could result in an undetected crack in the nacelle support overwing fittings or strut to wing diagonal brace, which could result in the inability of the structure to carry limit load and could adversely affect the structural integrity of the airplane.

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

The FAA reviewed Boeing Alert Requirements Bulletin 737-57A1345 RB, dated December 17, 2019. This service information describes procedures for a magnetic check to determine material composition of the nacelle support overwing fitting at WBL 191; ultrasonic inspections of the nacelle support overwing fitting at WBL 191 for cracking; general visual inspections of the strut to wing diagonal brace at nacelle station (STA) 278 for cracking; and applicable on-condition actions. On-condition actions include repetitive ultrasonic inspections of the nacelle support overwing fitting at WBL 191 for cracking, repetitive general visual inspections of the strut to wing diagonal brace at nacelle STA 278 for cracking, and 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.
FAA’s Determination

The FAA is proposing this AD because the FAA 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 Bulletin 737-57A1345 RB, dated December 17, 2019, described previously, 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-2020-0097.

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 158 airplanes of U.S. registry.

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

**Estimated costs for required actions**

<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>Magnetic Check</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>$0</td>
<td>$85</td>
<td>$13,430</td>
</tr>
<tr>
<td>Ultrasonic Inspection</td>
<td>5 work-hours X $85 per hour = $425</td>
<td>$0</td>
<td>$425</td>
<td>$67,150</td>
</tr>
<tr>
<td>General Visual Inspection</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>$0</td>
<td>$85</td>
<td>$13,430</td>
</tr>
</tbody>
</table>

The FAA estimates the following costs to do any necessary on-condition inspections that would be required. The FAA has no way of determining the number of aircraft that might need these on-condition inspections:

**Estimated costs of on-condition inspections**

<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>Ultrasonic Inspections</td>
<td>5 work-hours X $85 per hour = $425 per inspection cycle</td>
<td>$0</td>
<td>$425 per inspection cycle</td>
<td>$67,150 per inspection cycle</td>
</tr>
<tr>
<td>General Visual Inspections</td>
<td>1 work-hour X $85 per hour = $85 per inspection cycle</td>
<td>$0</td>
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<td>$13,430 per inspection cycle</td>
</tr>
</tbody>
</table>

The FAA has received no definitive data that would enable us to provide 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) 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 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 (AD):

   The Boeing Company: Docket No. FAA-2020-0097; Product Identifier 2019-NM-208-AD.

   (a) Comments Due Date

   The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

   (b) Affected ADs

   None.

   (c) Applicability

   This AD applies to all The Boeing Company Model 737-300, -400, and -500 series airplanes, certificated in any category.

   (d) Subject

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

This AD was prompted by a report that a crack indication consistent with fatigue cracking was found on the left nacelle support overwing fitting flange fastener hole during teardown of a Model 737-300 series airplane. The FAA is issuing this AD to address the potential for undetected cracks in the nacelle support overwing fittings or strut to wing diagonal brace, which could result in the inability of the structure to carry limit load and 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 Alert Requirements Bulletin 737-57A1345 RB, dated December 17, 2019, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-57A1345 RB, dated December 17, 2019. Actions identified as terminating actions in Boeing Alert Requirements Bulletin 737-57A1345 RB, dated December 17, 2019, terminate the applicable required actions of this AD, provided the terminating action is done in accordance with the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-57A1345 RB, dated December 17, 2019.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 737-57A1345, dated December 17, 2019, which is referred to in Boeing Alert Requirements Bulletin 737-57A1345 RB, dated December 17, 2019.
(h) Exceptions to Service Information Specifications

(1) Where Boeing Alert Requirements Bulletin 737-57A1345 RB, dated December 17, 2019, uses the phrase “the original issue date of Requirements Bulletin (RB) 737-57A1345 RB,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Requirements Bulletin 737-57A1345 RB, dated December 17, 2019, specifies contacting Boeing for repair instructions: This AD requires doing the repair 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, 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 Company 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 Wayne Ha, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5238; fax: 562-627-5210; email: wayne.ha@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, 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.

Issued on February 11, 2020.