[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-1983; Directorate Identifier 2015-NM-020-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 adopt a new airworthiness directive (AD) for all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This proposed AD was prompted by a report of a crack of the forward leg of the left front spar lower chord and cracks on the lower wing skin at three fastener holes common to the nacelle outboard side load fitting. This proposed AD would require repetitive inspections for cracks on the front spar lower chord, inspar skin, and wing skin, and corrective action if necessary. We are proposing this AD to detect and correct fatigue cracking of the forward leg of the front spar lower chord, inspar skin, and wing skin common to the nacelle outboard side load fitting, which could adversely affect the structural integrity of the wing.

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 proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; 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 2015-1983.

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-2015-1983; 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: Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: alan.pohl@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite 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-2015-1983; Directorate Identifier 2015-NM-020-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

We received a report of a crack on the forward leg of the left front spar lower chord at wing buttock line (WBL) 177. The front spar lower chord was removed, repaired, and reinstalled. Upon additional inspection of the repaired spar chord installation, cracks were also discovered on the lower wing skin at three fastener holes common to the nacelle outboard side load fitting at WBL 198.6. These cracks were identified on an airplane that had accumulated 57,617 total flight cycles. Metallurgical analysis of the chord determined that cracks initiated at fastener holes and were propagated by operating load fatigue. The analysis found no anomalies that could have contributed to the cracking. Fatigue cracking of the forward leg of the left front spar lower chord, inspar skin, and lower wing skin common to the nacelle outboard side load fitting, if not corrected, could adversely affect the structural integrity of the wing.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014. The service information describes procedures for repetitive inspections for cracks on the left and right wing front spar lower chord, inspar skin, and wing skin and corrective action if necessary. 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 of this NPRM.

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 these same type designs.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between this Proposed AD and the Service Information." Refer to this service information for details on the procedures and compliance times.

The phrase "corrective actions" is used in this proposed AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Differences Between this Proposed AD and the Service Information

Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

• In accordance with a method that we approve; or

• Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

For Group 2 and 3 airplanes identified in Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014, paragraph (h) of this proposed AD specifies repeating the detailed inspection for cracks on the left and right wing front spar lower chord and inspar skin inspection, except in areas repaired in accordance with the procedures specified in paragraph (k) of this AD.

Explanation of Required for Compliance (RC) Steps in Service Information

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (ARC), to enhance the AD system. One enhancement was a new process for annotating which steps in the service information are required for compliance with an AD. Differentiating these steps from other tasks in the service information is expected to improve an owner's/operator's understanding of crucial AD requirements and help provide consistent judgment in AD compliance. The steps identified as RC (required for compliance) in any service information identified previously have a direct effect on detecting, preventing, resolving, or eliminating an identified unsafe condition.

For service information that contains steps that are labeled as Required for Compliance (RC), the following provisions apply: (1) 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, and an AMOC is required for any deviations to RC steps, including substeps and identified figures; and (2) 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.

Costs of Compliance

We estimate that this proposed AD affects 331 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
Inspection (28 Group 2 airplanes)	7 work-hours X $85 per hour = $595 per inspection cycle	$0	$595 per inspection cycle	$16,660 per inspection cycle
Inspection and fastener installation (302 Group 3 airplanes)	Up to 94 work-hours X $85 per hour = $7,990 per inspection cycle	$0	Up to $7,990 per inspection cycle	Up to $2,412,980 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for the actions specified for the Group 1 airplane in this proposed AD.

We also have received no definitive data that would enable us to provide cost estimates for the on-condition actions 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 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) 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 adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2015-1983; Directorate Identifier 2015-NM-020-AD.

(a) Comments Due Date

We 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 737-100, -200, -200C, -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 of a crack in the forward leg of the left front spar lower chord and cracks on the lower wing skin at three fastener holes common to the nacelle outboard side load fitting. We are issuing this AD to detect and correct fatigue cracking of the forward leg of the front spar lower chord, inspar skin, and wing skin common to the nacelle outboard side load fitting, which could adversely affect the structural integrity of the wing.

(f) Compliance

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

(g) Inspections and Corrective Actions for Group 1 Airplanes

For Group 1 airplanes identified in Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014: Within 120 days after the effective date of this AD, do inspections of the left and right wing front spar lower chord and inspar skin, and the left and right wing nacelle outboard side load fitting fastener holes common to the front spar

lower chord and skin, and do all applicable corrective actions, using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

(h) Repetitive Detailed Inspections and Corrective Actions

For Group 2 and 3 airplanes identified in Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014: Except as provided by paragraph (j)(1) of this AD, at the applicable time specified in Table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014, do a detailed inspection for cracks on the left and right wing front spar lower chord and inspar skin, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014, except as specified in paragraph (j)(2) of this AD. Do all applicable corrective actions before further flight. Repeat the inspection thereafter at the applicable interval specified in Table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014, except in areas repaired in accordance with the procedures specified in paragraph (k) of this AD.

(i) Repetitive High Frequency Eddy Current (HFEC) Inspections and Corrective Actions

For Group 3 airplanes identified in Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014: Except as provided by paragraph (j)(1) of this AD, at the applicable time specified in Table 2 or Table 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014, do the actions specified in paragraphs (i)(1) or (i)(2) of this AD. Repeat the inspection specified in either paragraph (i)(1) or (i)(2) of this AD thereafter at the applicable interval specified in Table 2 or Table 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin737-57A1323, dated December 5, 2014.

(1) Do an HFEC open hole probe inspection for cracks of the left and right wing nacelle outboard side load fitting fastener holes common to the front spar lower chord

and skin, and perform all applicable corrective actions, in accordance with Part 2, Option 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014, except as provided by paragraph (j)(2) of this AD. Do all applicable corrective actions before further flight.

(2) Do an HFEC surface probe inspection for cracks in the wing inspar skin, and perform all applicable corrective actions, in accordance with Part 2, Option 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014, except as provided by paragraph (j)(2) of this AD. Do all applicable corrective actions before further flight.

(j) Exceptions to Service Information Specifications

(1) Where paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014, specifies a compliance time "after the original issue date of this service bulletin," this AD requires compliance within the specified compliance time "after the effective date of this AD."

(2) Although Boeing Alert Service Bulletin 737-57A1323, dated December 5, 2014, specifies to contact Boeing for repair instructions, and specifies that action as "RC" (Required for Compliance), this AD requires repair before further flight using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

(k) 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 (l)(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 required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization that has been authorized by the Manager, Los Angeles ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Except as required by paragraph (j)(2) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (k)(4)(i) and (k)(4)(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

(l) Related Information

(1) For more information about this AD, contact Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: alan.pohl@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; 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 June 12, 2015.

Jeffrey E. Duven,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2015-15398 Filed: 6/23/2015 08:45 am; Publication Date: 6/24/2015]