[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-7426; Directorate Identifier 2015-NM-199-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 certain The Boeing Company Model 737-100, -200, and -200C series airplanes. This proposed AD is intended to complete certain mandated programs intended to support the airplane reaching its limit of validity (LOV) of the engineering data that support the established structural maintenance program. This proposed AD would require repetitive detailed, high frequency eddy current (HFEC), and ultrasonic inspections of the center section rear spar upper clevis lugs and horizontal stabilizer rear spar upper lugs, as applicable, for any cracking, and related investigative and corrective actions if necessary. For certain airplanes, this proposed AD would require replacement of the center section rear spar upper chord with a new part and a serviceable center section assembly. This proposed AD would also require repetitive HFEC and fluorescent dye penetrant inspections of the center section for cracking of the front and rear spar upper clevis lugs or horizontal stabilizer front and rear spar upper lugs, and related investigative and corrective actions if necessary. We are proposing this AD to detect and correct cracking in the rear spar upper clevis lugs of the center section, and in the rear spar upper lugs of the horizontal stabilizer which could result in the loss of structural integrity and controllability 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, 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-2016-7426.

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-2016-7426; 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: Payman Soltani, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5313; fax: 562-627-5210; email: Payman.Soltani@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-2016-7426; Directorate Identifier 2015-NM-199-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

As described in FAA Advisory Circular 120-104 (http://www.faa.gov/documentLibrary/media/Advisory_Circular/120-104.pdf), several programs have been developed to support initiatives that will ensure the continued airworthiness of aging airplane structure. The last element of those initiatives is the requirement to establish a LOV of the engineering data that support the structural maintenance program under 14 CFR 26.21. This proposed AD is the result of an assessment of the previously established programs by the DAH during the process of establishing the LOV for the affected airplanes. The actions specified in this proposed

AD are necessary to complete certain programs to ensure the continued airworthiness of aging airplane structure and to support an airplane reaching its LOV.

This proposed AD is intended to complete certain mandated programs intended to support the airplane reaching its LOV of the engineering data that support the established structural maintenance program. An operator detected a cracked center section at the rear spar upper chord clevis lug. This condition, if not corrected, could result in cracking in the rear spar clevis lugs of the horizontal stabilizer center section, which could result in loss of structural integrity and controllability of the airplane.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015. The service information describes procedures for repetitive detailed, HFEC, and ultrasonic inspections of the center section rear spar upper clevis lugs and rear spar upper lugs of the horizontal stabilizer; HFEC and fluorescent dye penetrant inspections for cracking in the front and rear spar upper clevis lugs of the center section and the front and rear spar upper lugs of the horizontal stabilizer. For certain airplanes, the service information describes procedures for replacement of the center section rear spar upper chord with a new part and replacing the center section with a serviceable center section assembly, or installing bushings and sleeves as applicable. 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, except as discussed under "Differences Between this Proposed AD and the Service Information." 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-2016-7426.

The phrase "related investigative actions" is used in this NPRM. Related investigative actions are follow-on actions that (1) are related to the primary action, and (2) further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

The phrase "corrective actions" is also used in this NPRM. 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 737-55A1033, Revision 2, dated August 7, 2015, specifies to contact the manufacturer for certain instructions, but this proposed AD would require accomplishment of repair methods, modification deviations, and alteration deviations 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.

Where Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, specifies a compliance time or repeat interval as "Horizontal Stabilizer Center Section flight cycles" or "Horizontal Stabilizer flight cycles," this AD requires compliance for the corresponding time or repeat interval in airplane flight cycles.

Costs of Compliance

We estimate that this proposed AD affects 84 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
Repetitive detailed, HFEC, and ultrasonic inspections	9 work-hours X $85 per hour = $765 per inspection cycle	$0	$765 per inspection cycle	$64,260 per inspection cycle
Repetitive HFEC and fluorescent dye penetrant inspections	118 work-hours X $85 per hour = $10,030 per inspection cycle	$0	$10,030 per inspection cycle	$842,520 per inspection cycle
Replacement	Up to 252 work-hours X $85 per hour = $21,420 per inspection cycle	$25,000	Up to $46,420 per inspection cycle	Up to $3,899,280 per inspection cycle

We estimate the following costs to do any necessary inspections, repairs, and replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these inspections, repairs, and replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Bolt and Bushing Removal/Inspection, Fabrication, and Installation	101 work-hours X $85 per hour = $8,585	$0	$8,585
Repair and replacement	Up to 252 work-hours X $85 per hour = $21,420 per inspection cycle	$25,000	Up to $46,420 per inspection cycle

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-2016-7426; Directorate Identifier 2015-NM-199-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

This AD affects AD 84-23-05, Amendment 39-4949 (49 FR 45744, November 20, 1984); and AD 86-12-05, Amendment 39-5321 (51 FR 18771, May 22, 1986).

(c) Applicability

This AD applies to The Boeing Company Model 737-100, -200, and -200C series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015.

(d) Subject

Air Transport Association (ATA) of America Code 55, Stabilizers.

(e) Unsafe Condition

This proposed AD is intended to complete certain mandated programs intended to support the airplane reaching its limit of validity (LOV) of the engineering data that support the established structural maintenance program. We are issuing this AD to detect and correct cracking in the rear spar upper clevis lugs of the center section, and in the rear spar upper lugs of the horizontal stabilizer which could result in the loss of structural integrity and controllability of the airplane.

(f) Compliance

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

(g) Inspections, Related Investigative and Corrective Actions (Service Information Tables 1 and 3)

At the applicable time specified in table 1 or table 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, except as specified in paragraph (o) of this AD: Do detailed, high frequency eddy current (HFEC), and ultrasonic inspections of the center section rear spar upper clevis lugs for any cracking, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015; except as specified in paragraph (p) of this AD. Do all related investigative and corrective actions before further flight. Repeat the inspections thereafter at the applicable times specified in table 1 or table 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015.

(h) Replacement (Service Information Table 1)

For airplanes identified as Group 1, Configuration 1, in Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015: At the applicable time specified in table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, except as specified in paragraph (o) of

this AD, replace the center section rear upper chord with a new part or replace the center section with a serviceable center section assembly, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015.

(i) Repetitive Post-Replacement Inspections, Related Investigative and Corrective Actions (Service Information Table 2)

For airplanes identified as Group 1, Configuration 1, in Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, with a new or serviceable 0.932-inch-thick center section rear spar upper chord: At the applicable time specified in table 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, except as specified in paragraph (o) of this AD, do detailed, HFEC, and ultrasonic inspections of the center section rear spar upper chord clevis lugs for any cracking, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015; except as specified in paragraph (p) of this AD. Do all related investigative and corrective actions before further flight. Repeat the inspections thereafter at the applicable times specified in table 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015.

(j) Post-Replacement Inspections, Related Investigative and Corrective Actions (Service Information Table 4)

For airplanes on which the center section rear spar upper chord was last replaced with a new part or serviceable part: Within the applicable times specified in table 4 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, except as specified in paragraph (o) of this AD, do detailed, HFEC, and ultrasonic inspections of the center section rear spar upper chord clevis lugs for any cracking, and do all applicable related investigative and corrective actions, in

accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015; except as specified in paragraph (p) of this AD. Do all related investigative and corrective actions before further flight. Repeat the inspections thereafter at the applicable times specified in table 4 of 1.E., "Compliance" of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015.

(k) Repetitive Inspections, Related Investigative and Corrective Actions of the Horizontal Stabilizer (Service Information Table 5)

Within the applicable time specified in table 5 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, except as specified in paragraph (o) of this AD, do detailed, HFEC, and ultrasonic inspections of the rear spar upper lugs of the horizontal stabilizer for any cracking, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015; except as specified in paragraph (p) of this AD. Do all related investigative and corrective actions before further flight. Repeat the inspections thereafter at the applicable times specified in table 5 of 1.E., "Compliance" of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015.

(l) Post Replacement Inspections, Related Investigative and Corrective Actions (Service Information Table 6):

For airplanes with a replaced horizontal stabilizer with a new or serviceable part, within the applicable times specified in table 6 of 1.E., "Compliance" of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, except as specified in paragraph (o) of this AD: Do a detailed, HFEC, and ultrasonic inspection of the rear spar upper lugs of the horizontal stabilizer for any cracking, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015; except

as specified in paragraph (p) of this AD. Do all related investigative and corrective actions before further flight. Repeat the inspections thereafter at the applicable times specified in table 6 of 1.E., "Compliance" of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015.

(m) Scheduled Inspections, Related Investigative and Corrective Actions (Service Information Table 7)

Within the applicable times specified in table 7 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, except as specified in paragraph (o) of this AD: Do HFEC and fluorescent dye penetrant inspections for cracking in the front and rear spar upper clevis lugs of the center section and front and rear spar upper lugs of the horizontal stabilizer, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015; except as specified in paragraph (p) of this AD. Do all related investigative and corrective actions before further flight. Repeat the inspections thereafter at the applicable times specified in table 7 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015.

(n) Post Scheduled Inspections, Related Investigative and Corrective Actions (Service Information Table 8)

For airplanes on which the center section rear spar upper chord or horizontal stabilizer rear spar upper chord has been replaced: Within the applicable time specified in table 8 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, except as specified in paragraph (o) of this AD: Do HFEC and fluorescent dye penetrant inspections for cracking in the front and rear spar upper clevis lugs of the center section or front and rear spar upper lugs of the horizontal stabilizer, as applicable, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin

737-55A1033, Revision 2, dated August 7, 2015; except as specified in paragraph (p) of this AD. Do all related investigative and corrective actions before further flight. Repeat the inspections thereafter at the applicable times specified in table 8 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015.

(o) Exceptions to the Service Information: Compliance Times

(1) Where Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, specifies a compliance time "after the Revision 2 date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, specifies a compliance time or repeat interval as "Horizontal Stabilizer Center Section flight cycles" or "Horizontal Stabilizer flight cycles," this AD requires compliance for the corresponding time or repeat interval in airplane flight cycles.

(p) Exception to the Service Information: Repair Compliance Method

If any cracking of the lug is found during any inspection required by this AD, and Boeing Alert Service Bulletin 737-55A1033, Revision 2, dated August 7, 2015, specifies to contact Boeing for appropriate action: Before further flight, repair the lug using a method approved in accordance with the procedures specified in paragraph (r) of this AD.

(q) Terminating Actions

(1) For Model 737-100, -200, and -200C series airplanes: Accomplishment of the inspections specified in paragraph (g) of this AD terminates the requirements of paragraph A. of AD 84-23-05, Amendment 39-4949 (49 FR 45744, November 20, 1984).

(2) For Model 737-200 and -200C series airplanes: Accomplishment of the inspections specified in paragraph (m) and (n) of this AD terminates the requirements of

paragraphs A. and B. of AD 86-12-05, Amendment 39-5321 (51 FR 18771, May 22, 1986).

(r) 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 (s)(1) of this AD.

(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.

(s) Related Information

(1) For more information about this AD, contact Payman Soltani, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5313; fax: 562-627-5210; email: Payman.Soltani@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 28, 2016.

John P. Piccola, Jr.,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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