



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-6670; Directorate Identifier 2016-NM-006-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 supersede Airworthiness Directive (AD) 2013-19-04, which applies to certain The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes. AD 2013-19-04 currently requires repetitive detailed and high frequency eddy current (HFEC) inspections for cracking of the skin around the eight fasteners common to the ends of the station (STA) 540 bulkhead chords between stringers S-22 and S-23, left and right sides; related investigative actions and corrective actions, if necessary; and provides an optional terminating modification. Since we issued AD 2013-19-04, we have received reports of additional cracks that are larger and initiated sooner than previously predicted. This proposed AD would reduce the inspection threshold and repetitive inspection intervals. We are proposing this AD to detect and correct fatigue cracking in the fuselage skin around the eight fasteners securing the STA 540 bulkhead chords. Such cracking can result in rapid decompression of the cabin.

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-2016-6670.

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-2016-6670; 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 proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-6670; Directorate Identifier 2016-NM-006-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

On September 9, 2013, we issued AD 2013-19-04, Amendment 39-17586 (78 FR 59801, September 30, 2013) (“AD 2013-19-04”), for certain The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes. AD 2013-19-04 requires repetitive detailed and HFEC inspections for cracking of the skin around the eight fasteners common to the ends of the STA 540 bulkhead chords between stringers S-22 and S-23, left and right sides; related investigative actions and corrective actions, if necessary; and provides an optional terminating modification. AD 2013-19-04 resulted from a report of cracks found in the skin at body STA 540 just below the left side of stringer S-22 on a Model 737-700 series airplane. We issued AD 2013-19-04 to detect

and correct fatigue cracking in the fuselage skin around the eight fasteners securing the STA 540 bulkhead chords, which can result in rapid decompression of the cabin.

Actions Since AD 2013-19-04 Was Issued

Since we issued AD 2013-19-04, we have received reports of cracks that initiated sooner and are larger than previously predicted.

Related Service Information under 1 CFR part 51

We reviewed Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015, which specifies procedures for doing inspections for cracking of the skin around the eight fasteners common to the ends of the STA 540 bulkhead chords between stringers S-22 and S-23, left and right sides, repairing cracks, and installing a chord splice as a preventive modification on crack-free skin. 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 designs.

Proposed AD Requirements

Although this proposed AD does not explicitly restate the requirements of AD 2013-19-04, this proposed AD would retain all of the requirements of AD 2013-19-04. Those requirements are referenced in the service information identified previously, which, in turn, is referenced in paragraphs (g) through (k) of this proposed AD. 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-2016-6670.

The phrase “related investigative actions” is used in this proposed AD. 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 used in this proposed AD. Corrective actions 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 Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015, specifies to contact the manufacturer for instructions on how to repair certain conditions, 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.

Costs of Compliance

We estimate that this proposed AD affects 903 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 (left and right side skins)	12 work-hours X \$85 per hour = \$1,020 per inspection cycle	\$0	\$1,020 per inspection cycle	\$921,060 per inspection cycle

We estimate the following costs to do any necessary repairs and inspections 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 repairs:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Preventive modification (each side)	7 work-hours X \$85 per hour = \$595	\$894	\$1,489
Skin repair (each side)	39 work-hours X \$85 per hour = \$3,315	Up to \$5,635	Up to \$8,950

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

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 have 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 that the 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 removing Airworthiness Directive (AD) 2013-19-04, Amendment 39-17586 (78 FR 59801, September 30, 2013), and adding the following new AD:

The Boeing Company: Docket No. FAA-2016-6670; Directorate Identifier 2016-NM-006-AD.

(a) Comments Due Date

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

(b) Affected ADs

This AD replaces AD 2013-19-04, Amendment 39-17586 (78 FR 59801, September 30, 2013) (“AD 2013-19-04”).

(c) Applicability

This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes; certificated in any category; as identified in Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by a report of cracks found in the skin at body station (STA) 540 just below the left side of stringer S-22. We are issuing this AD to detect and correct fatigue cracking in the fuselage skin around the eight fasteners securing the STA 540 bulkhead chords, which can result in rapid decompression of the cabin.

(f) Compliance

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

(g) Inspection and Corrective Action

Except as required by paragraphs (i)(1) and (i)(2) of this AD, at the applicable time specified in table 1 of paragraph 1.E. “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015: Do detailed and high frequency eddy current (HFEC) inspections for cracking of the skin in the area around the eight fasteners securing the STA 540 bulkhead chords between stringers S-22 and S-23; and do all applicable related investigative and corrective actions; in accordance with Parts 1, 2, 3, 4, and 5 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015, except as required by paragraphs (i)(3) and (i)(4) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the detailed and HFEC inspections thereafter at the intervals specified in table 1 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015, until the optional preventive modification specified in paragraph (h) of this AD is done.

(h) Optional Preventive Modification

Accomplishing the preventive modification or repair, including an HFEC inspection for cracking of the skin and STA 540 bulkhead chords, and all applicable repairs, in accordance with paragraph 3.B, Part 2 or Part 4 (left side), and Part 3 or Part 5 (right side), of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015, except as required by paragraph (i)(2) of this AD, terminates the inspection requirements of paragraph (g) of this AD for the side on which the modification is done.

(i) Exceptions to Service Bulletin Specifications

(1) Where paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 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) For airplanes on which Boeing Business Jet Lower Cabin Altitude Supplemental Type Certificate (STC) ST01697SE ([http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/0812969a86af879b8625766400600105/\\$FILE/ST01697SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/0812969a86af879b8625766400600105/$FILE/ST01697SE.pdf)) (6,500 feet maximum cabin altitude in lieu of 8,000 feet) has been incorporated, the flight-cycle related compliance times for the inspection required by paragraph (g) of this AD are different from those specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015. All initial compliance times specified in total flight cycles or flight cycles must be reduced to half of those specified in Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015. All repetitive interval compliance times specified in flight cycles must be reduced to one-quarter of those specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015.

(3) If any cracking is found during any inspection required by this AD, and Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015, specifies to contact Boeing for appropriate action: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(4) The access and restoration instructions identified in the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated

December 9, 2015, are not required by this AD. Operators may perform those actions in accordance with approved maintenance procedures.

(j) Part 26 Supplemental Inspections Not Required by This AD

Table 2 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1294, Revision 2, dated December 9, 2015, specifies post-modification airworthiness limitation inspections in compliance with 14 CFR 25.571(a)(3) at the modified locations, which support compliance with 14 CFR 121.1109(c)(2) or 129.109(b)(2). As airworthiness limitations, these inspections are required by maintenance and operational rules. It is therefore unnecessary to mandate them in this AD. Deviations from these inspections require FAA approval, but do not require an alternative method of compliance.

(k) Credit for Previous Actions

This paragraph provides credit for the actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 737-53-1294, dated March 31, 2011, which is not incorporated by reference in this AD; or Boeing Special Attention Service Bulletin 737-53-1294, Revision 1, dated June 14, 2013, which is incorporated by reference in AD 2013-19-04.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle 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 (m) 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 Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle 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.

(4) AMOCs approved previously for the optional preventive modification installed in accordance with paragraph (h) of AD 2013-19-04, and AMOCs approved previously for repairs for AD 2013-19-04, are approved as AMOCs for the corresponding provisions of this AD, provided that such modification or repair included installation of the splice plate as specified in Boeing Special Attention Service Bulletin 737-53-1294, except as provided by paragraph (l)(5) of this AD.

(5) The time-limited repair approved as specified in FAA Letter 120S-15-140, dated June 3, 2015, is approved as an AMOC to the corresponding requirements of this AD.

(m) 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. 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 May 5, 2016.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2016-11167 Filed: 5/11/2016 8:45 am; Publication Date: 5/12/2016]