



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0923; Directorate Identifier 2014-NM-176-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 737-700, -800, and -900ER series airplanes. This proposed AD was prompted by reports of troughs in the skin along the chem-mill pocket edges of certain fuselage crown skin panel assemblies. This proposed AD would require repetitive inspections to detect cracking in the crown skin panel assembly. This proposed AD would also provide optional terminating action for the repetitive inspections. We are proposing this AD to detect and correct cracking from troughs in the chem-mill pocket edges, which could lead to rapid decompression 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 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, 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.

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-2014-0923; 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: Haytham Alaidy, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6573; fax: 425-917-6590; email: haytham.alaidy@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-2014-0923; Directorate Identifier 2014-NM-176-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

Some section 43, 44, and 46 fuselage crown skin panel assemblies may contain troughs in the skin along the chem-mill pocket edges. The troughs are caused during production rework by the automated laser trace process for cutting maskant. The laser disrupted the bond surface and allowed the chemical milling solution to penetrate through, causing a 0.003- to 0.007-inch-deep trough in the skin. The discrepancy was discovered when an operator reported finding troughs around the perimeter of all chem-mill pockets on one crown skin panel assembly. If skin panel assemblies with troughs are not replaced, cracking can occur at the trough locations, which, if not repaired, could result in rapid decompression of the airplane.

Relevant Service Information

We reviewed Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014. 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-2014-0923.

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.”

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 actions, 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” are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Explanation of “RC” Steps in Service Information

The FAA worked in conjunction with industry, under the Airworthiness Directives Implementation Aviation Rulemaking Committee (AD 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 actions specified in the service information described previously include steps that are labeled as RC (required for compliance) because these steps have a direct effect on detecting, preventing, resolving, or eliminating an identified unsafe condition.

As noted in the specified service information, steps labeled as RC must be done to comply with the proposed AD. However, steps that are not labeled as RC are recommended. Those steps that are not labeled as RC may be deviated from, done as part of other actions, or done using accepted methods different from those identified in the service information without obtaining approval of an alternative method of compliance (AMOC), provided the steps labeled as RC can be done and the airplane can be put back in a serviceable condition. Any substitutions or changes to steps labeled as RC will require approval of an AMOC.

Differences Between this Proposed AD and the Service Information

Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 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.

Costs of Compliance

We estimate that this proposed AD affects 1 airplane of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs: required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Medium frequency eddy current Inspections	270 work-hours X \$85 per hour = \$22,950 per inspection cycle	\$0	\$22,950 per inspection cycle	22,950 per inspection cycle

Estimated costs: optional actions

Action	Labor cost	Parts cost	Cost per product
Terminating action (inspection for troughs)	218 work-hours X \$85 per hour = \$18,530	Unknown	\$18,530

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

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.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

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-2014-0923; Directorate Identifier 2014-NM-176-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

(1) This AD applies to The Boeing Company Model 737-700, -800, and -900ER series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014.

(2) For airplanes identified as Group 7 in Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014, no work is required by this AD.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by reports of troughs in the skin along the chem-mill pocket edges of certain fuselage crown skin panel assemblies. We are issuing this AD to detect and correct troughs in the chem-mill pocket edges, which could lead to cracking at the trough locations, and consequent rapid decompression of the airplane.

(f) Compliance

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

(g) Inspections

At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014, except as required by paragraph (h) of this AD: Do external medium frequency eddy current inspections to detect cracking in higher- and lower-stress locations of the crown skin panel assembly, in accordance with Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014. Repeat the inspections thereafter at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014. Accomplishment of the actions specified in paragraph (j) of this AD terminates the requirements of paragraph (g) of this AD.

(h) Exception to Service Information Specifications

Where Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 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.

(i) Crack Repair

If any crack is found during any inspection required by paragraph (g) of this AD, repair before further flight using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(j) Optional Terminating Action

The actions specified in paragraph (g) of this AD may be terminated by accomplishment of a part mark inspection of the crown skin panel assembly in accordance with Part 5 of Work Package 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014, and the applicable actions specified in paragraphs (j)(1) and (j)(2) of this AD.

(1) If “Condition 5,” as defined in Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014, is found, corrective actions must be done before further flight using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(2) If “Condition 6”, as defined in Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014, is found, the actions specified in paragraphs (j)(2)(i) and (j)(2)(ii) of this AD must be done at the applicable specified time.

(i) A report of the findings, including the inspection results (discrepant part number of panel assembly), the airplane serial number, and the manufacturing order code as defined in Appendix C of Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014, must be submitted to <https://www.myboeingfleet.com> before further flight.

(ii) An internal detailed inspection for troughs must be done before further flight in accordance with Boeing Special Attention Service Bulletin 737-53-1334, dated August 4, 2014, and any skin panel assembly with a trough must be replaced before further flight using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(k) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a

collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(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 (k)(1) 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 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. 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) If the service information contains steps that are labeled as RC (Required for Compliance), those steps must be done to comply with this AD; any steps that are not labeled as RC are recommended. Those steps that are not labeled as RC may be deviated from, done as part of other actions, or done using accepted methods different from those identified in the specified service information without obtaining approval of an AMOC, provided the steps labeled as RC can be done and the airplane can be put back in a serviceable condition. Any substitutions or changes to steps labeled as RC require approval of an AMOC.

(m) Related Information

(1) For more information about this AD, contact Haytham Alaidy, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6573; fax: 425-917-6590; email: Haytham.alaidy@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 December 3, 2014.

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

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