



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9523; Product Identifier 2016-NM-134-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposal to supersede Airworthiness Directive (AD) 2014-12-13, which applies to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. The first SNPRM proposed to revise the proposal by expanding the inspection area, and terminating, rather than superseding, the requirements of AD 2014-12-13, after accomplishment of the initial inspections. This action proposes to again revise the proposal by requiring the installation of standard-size fasteners for a certain configuration. We are proposing this AD to address the unsafe condition on these products. Since these actions impose an additional burden over that proposed in the first SNPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

DATES: The comment period for the SNPRM published in the Federal Register on August 11, 2017 (82 FR 37549), is reopened.

We must receive comments on this SNPRM 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 SNPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 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-2016-9523.

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-2016-9523; 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 SNPRM, 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 Section, FAA, Los Angeles ACO Branch, 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-2016-9523; Product Identifier 2016-NM-134-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this SNPRM. We will consider all comments received by the closing date and may amend this SNPRM 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 issued AD 2014-12-13, Amendment 39-17874 (79 FR 39300, July 10, 2014) (“AD 2014-12-13”). AD 2014-12-13 requires actions to address an unsafe condition on all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. AD 2014-12-13 requires repetitive inspections for cracking of the aft support fitting for the main landing gear (MLG) beam, and the rear spar upper chord and rear spar web; and repair if necessary.

We issued an NPRM to amend 14 CFR part 39 by adding an AD to supersede AD 2014-12-13 that would apply to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. The NPRM published in the Federal Register on January 5, 2017 (82 FR 1254) (“the NPRM”). The NPRM was prompted by reports of

cracking in locations outside the inspection area identified in AD 2014-12-13, in the inspar upper skin at Wing Buttock Line (WBL) 157 and in the skin at two holes common to the rear spar in the same area, and in the rear spar web on both wings. Subsequent inspections revealed that the right rear spar upper chord was almost completely severed and the left rear spar upper chord was completely severed. The NPRM proposed to expand the inspection area and add applicable related investigative and corrective actions.

We subsequently issued an SNPRM, which was published in the Federal Register on August 11, 2017 (82 FR 37549) (“the first SNPRM”). The first SNPRM was prompted by reports of additional cracking in the inspar upper skin at WBL 157 and in the skin at two holes common to the rear spar in the same area, and rear spar web cracks were also noted on both wings. The first SNPRM proposed to expand the inspection area and terminate (rather than supersede) the requirements of AD 2014-12-13, after accomplishment of the initial inspections.

Actions Since the First SNPRM was Issued

Since we issued the first SNPRM, we have determined that standard-size fasteners are required for installation for a certain configuration, as explained below under “Request to Install Standard-Size Fasteners.”

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016. The service information describes procedures for repetitive high frequency eddy current (HFEC) open hole inspections for any cracking in the forward support fitting, the aft support fitting, the rear spar upper chord, and the rear spar web at the 12 fastener holes (locations 1-12). The service information also describes procedures for optional HFEC open hole inspections for any cracking in the forward support fitting, the aft support fitting, the rear spar upper chord, and the rear spar web, and HFEC surface inspections for any cracking in the rear spar upper chord and rear spar upper web, as

applicable. The service information also describes procedures for related investigative and corrective actions.

We also reviewed Boeing Alert Service Bulletin 737-57A1328, dated July 22, 2016. The service information describes procedures for repetitive eddy current inspections of the left and right wing for any cracking in the inspar upper skin and at the repair parts if applicable, and related investigative and corrective actions.

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.

Comments

We gave the public the opportunity to comment on the first SNPRM. The following presents the comments received on the first SNPRM and the FAA's response to each comment.

Request to Install Standard-Size Fasteners

Boeing requested that standard-size fasteners be used for installation on the airplane instead of same-type and same-size fasteners. Boeing stated that for Group 7, Configuration 1 airplanes specified in Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016, the service information specifies to install standard-size fasteners (not oversize) and specifies a loose-fit design feature common to the aft fitting at fastener #5. Boeing commented that the loose-fit design feature is consistent with the type design and decreases the potential for future cracking. Boeing also stated that if the actions of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013, have been done, it is possible that the fasteners have already been oversized and the loose-fit design feature has already been eliminated. Boeing commented that this recommendation will allow the opportunity to restore the fastener #5 location to the

intended fastener fit (i.e., loose fit in the aft fitting and tight fit in the forward fitting, web and chord).

We agree with the commenter for the reasons provided above. We have revised paragraph (h)(2) of this proposed AD to require the installation of standard-size fasteners, and if the existing fastener holes exceed the permitted hole diameter, operators must do a repair before further flight using a method approved in accordance with the procedures specified in paragraph (l) of this proposed AD.

Request for Credit for Previous Actions

All Nippon Airlines (ANA) requested credit for previous actions specified in paragraph (h) of the proposed AD (in the first SNPRM). ANA stated that credit should be provided if those actions were performed before the effective date of the AD using option 1 or 2 of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013, and the HFEC open hole inspection for the forward support fitting should be done at the same time as the existing inspection within a shortened inspection interval.

ANA commented that based on the current descriptions of the proposed AD (in the first SNPRM), all operators must do the initial inspection even if they have chosen option 1 or 2 of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013. Since AD 2014-12-13 has been effective since July 25, 2014, ANA believes many operators have already completed the initial inspection and started the repetitive inspection in accordance with Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013. ANA questioned the reasonableness of the requirement for operators who have chosen option 1 or 2 of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013, to do the initial inspection again within the compliance time specified in table 2 through table 9 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016.

We disagree with the commenter's request. Paragraph (h) of the proposed AD (in the first SNPRM) includes a requirement to do the HFEC open hole inspection of the forward fitting in addition to the inspections that were previously required by AD 2014-12-13 with updated service information, Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016. Since AD 2014-12-13 was issued, there have been reports of cracks found in the forward fitting. Therefore, Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016, has added an inspection of the forward fitting. Paragraph (l) of this proposed AD would allow operators to request approval of an alternative method of compliance (AMOC) if they previously performed the HFEC open hole inspection of this stack up, including the forward fitting, and they have documentation that the inspection of the forward fitting was done. We have not changed this proposed AD regarding this issue.

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. Certain changes described above expand the scope of the first SNPRM. As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this second SNPRM.

Proposed Requirements of this SNPRM

This SNPRM 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-2016-9523.

The phrase “related investigative actions” is used in this SNPRM. 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 SNPRM. Corrective actions correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Differences Between this SNPRM and the Service Information

Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016; and Boeing Alert Service Bulletin 737-57A1328, dated July 22, 2016; specify 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.

Costs of Compliance

We estimate that this proposed AD affects 471 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
HFEC open hole inspections	82 work-hours X \$85 per hour = \$6,970 per inspection cycle	\$0	\$6,970 per inspection cycle	\$3,282,870 per inspection cycle

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Eddy current inspection	14 work-hours X \$85 per hour = \$1,190 per inspection cycle	\$0	\$1,190 per inspection cycle	\$560,490 per inspection cycle

Estimated costs for optional actions

Action	Labor cost	Parts cost	Cost per product
Inspection	Up to 41 work-hours X \$85 per hour = \$3,485 per inspection cycle	\$0	Up to \$1,641,435 per inspection cycle

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

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.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the

Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

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-2016-9523; Product Identifier 2016-NM-134-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 affects AD 2014-12-13, Amendment 39-17874 (79 FR 39300, July 10, 2014) (“AD 2014-12-13”), and AD 2015-21-08, Amendment 39-18301 (80 FR 65921, October 28, 2015) (“AD 2015-21-08”).

(c) Applicability

(1) This AD applies to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by reports of additional cracking in the inspar upper skin at Wing Buttock Line (WBL) 157 and in the skin at two holes common to the rear spar in the same area, and rear spar web cracks were also noted on both wings. Subsequent

inspections revealed that the right rear spar upper chord was almost completely severed and the left rear spar upper chord was completely severed. We are issuing this AD to detect and correct cracking of the forward and aft support fittings for the main landing gear (MLG) beam, and the rear spar upper chord and rear spar web in the area of rear spar station (RSS) 224.14, which could grow and result in a fuel leak and possible fire.

(f) Compliance

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

(g) Required Actions for Group 1 Airplanes (MLG Support Fittings and Rear Spar)

For airplanes identified as Group 1 in Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016: At the applicable time specified in table 1 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016, do applicable inspections and corrective actions using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(h) Required Actions for Groups 2-7 Airplanes (MLG Support Fittings and Rear Spar)

For airplanes identified as Groups 2-7 in Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016: At the applicable time specified in table 2 through table 9 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016, except as required by paragraph (j)(3) of this AD, do high frequency eddy current (HFEC) open hole inspections for any cracking in the forward support fitting, the aft support fitting, the rear spar upper chord, and the rear spar web at the 12 fastener holes (locations 1–12); or HFEC open hole inspections for any cracking in the forward support fitting, the aft support fitting, the rear spar upper chord, and the rear spar web, and an HFEC surface inspection for any cracking in the rear spar upper chord and rear spar upper web; as applicable; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions

of Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016, except as provided by paragraph (h)(1) of this AD, and except as required by paragraphs (h)(2) and (j)(1) of this AD. Do all applicable related investigative and corrective actions before further flight. Thereafter, repeat the HFEC inspection at the applicable time specified in table 2 through table 9 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016.

(1) Options provided in Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016, for accomplishing the inspection are acceptable for the corresponding requirements in the introductory text of paragraph (h) of this AD, provided that the inspections are done at the applicable times in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016.

(2) For Group 7, Configuration 1, airplanes identified in Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016: Install standard-size fasteners in accordance with figures 29 and 30 of Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016. If the existing fastener holes exceed the permitted hole diameter, repair before further flight using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(i) Eddy Current Inspection (Inspar Upper Skin)

For airplanes identified in Boeing Alert Service Bulletin 737-57A1328, dated July 22, 2016: At the applicable time specified in table 1 and table 2 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1328, dated July 22, 2016, except as required by paragraph (j)(2) of this AD, do an eddy current inspection of the left and right wings for any cracking in the inspar upper skin, and at the repair parts if installed, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1328, dated July 22, 2016, except as required by paragraph (j)(1) of this AD. Do all related

investigative and corrective actions before further flight. Thereafter, repeat the eddy current inspection at the applicable time specified in table 1 and table 2 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-57A1328, dated July 22, 2016.

(j) Exceptions to the Service Information

(1) If any cracking is found during any inspection required by this AD, and Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016; or Boeing Alert Service Bulletin 737-57A1328, dated July 22, 2016; 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.

(2) Where Boeing Alert Service Bulletin 737-57A1328, dated July 22, 2016, 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.

(3) Where Boeing Alert Service Bulletin 737-57A1318, Revision 1, dated July 22, 2016, specifies a compliance time “after the Revision 1 date of this service bulletin, whichever occurs later,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(k) Terminating Action

(1) Accomplishing the initial inspections and applicable related investigative and corrective actions required by paragraphs (g), (h), and (i) of this AD, as applicable, terminates all requirements of AD 2015-21-08.

(2) Accomplishing the initial inspections and applicable related investigative and corrective actions required by paragraphs (g) and (h) of this AD, as applicable, terminates all requirements of AD 2014-12-13.

(l) 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 (m)(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 Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO Branch, 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 AD 2014-12-13 are approved as AMOCs for the corresponding provisions of paragraphs (g) and (h) of this AD.

(5) Except as required by paragraph (j)(1) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (l)(5)(i) and (l)(5)(ii) of this AD 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. If a step or sub-step is labeled “RC Exempt,” then the RC requirement is removed from that step or sub-step. 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.

(m) Related Information

(1) For more information about this AD, contact Payman Soltani, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 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: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Staff, 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 28, 2017.

John P. Piccola, Jr., Acting Director,
System Oversight Division,
Aircraft Certification Service.

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