[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0299; Directorate Identifier 2011-NM-029-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Boeing Model 747-100, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400F, and 747SR series airplanes. This proposed AD was prompted by reports of broken and damaged latch pin retention bolts of the main deck side cargo door (MDSCD), latch pin migration, and broken latch pin fittings. This proposed AD would require various repetitive inspections of the MDSCD latch pin fittings, measuring the latch pin, and related investigative and corrective actions if necessary; and modifying the latch pin fittings and installing new latch pins and latch pin fasteners. We are proposing this AD to prevent loss of the cargo door and rapid depressurization 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 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, Washington 98124-2207; phone: 206-544-5000, extension 1; fax: 206-766-5680; e-mail: me.boecom@boeing.com; Internet: https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. 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; 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: Bill Ashforth, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6432; fax: 425-917-6590; e-mail: Bill.Ashforth@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-2012-0299; Directorate Identifier 2011-NM-029-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received damage reports on MDSCD latch pin fittings. Six operators have reported that broken latch pin retention bolts were found on eight airplanes. On one airplane that had accumulated 101,609 total flight hours and 12,862 total flight cycles, the retention bolts on both the #9 and #10 latch pin fittings were broken. Latch pin #10 had migrated aft and was not engaging the latch cam. On another airplane that had accumulated 33,983 total flight hours and 4,723 total flight cycles, the retention bolt on the #10 latch pin fitting was broken and the #9 latch pin was damaged. On another airplane that had accumulated 67,188 total flight hours and 14,440 total flight cycles, the retention bolt for the #10 latch pin fitting was completely sheared, which allowed the latch pin to migrate aft until it no longer engaged the door latch cam. On four airplanes, only the retention bolt on the #10 latch pin fitting was found to be broken. On one

airplane, the retention bolt on the #10 latch pin fitting was damaged. A loose, broken, or missing retention bolt can result in a migrated latch pin, which can become disengaged from the cargo door latch cams and lead to increased loads in the adjacent latch pin fittings and latch cams. Increased loads can cause damage to the cargo door latch mechanism and/or the lower sill structure. The migration of two or more latch pins and subsequent failure of the latch mechanism or lower sill structure can result in the inability of the cargo door to carry limit loads. This condition, if not corrected, could result in the loss of the cargo door and rapid depressurization of the airplane.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011. For information on the procedures and compliance times, see this service information at http://www.regulations.gov by searching for Docket No. FAA-2012-0299.

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 repetitive detailed inspections of the 10 MDSCD latch pin fittings to detect loose, broken, missing, or damaged retention bolts and nuts; measuring latch pin diameter; and related investigative and corrective actions, if necessary. The related investigative actions include a torque check of the latch pin retention bolt to determine if the bolt is broken; and checking the latch pin for migration and, if necessary, a detailed inspection for damage of the latch pin fitting and the adjacent

(forward and aft) latch pin fittings, the door cutout structure, the affected latch cam and the adjacent latch cams, and the door structure. The corrective actions include replacing the latch pin, the retention bolt, and related parts with a new latch pin, retention bolt, and related parts; and repairing of any damage to the adjacent door, door cutout structure, and latch cams.

This proposed AD would also require modifying the MDSCD latch pin fittings, replacing the latch pins with new latch pins, and replacing the latch pin retention fasteners with new latch pin retention fasteners. In addition, this proposed AD would require post-modification/replacement repetitive detailed inspections of the MDSCD latch pin fittings to detect damaged latch pins, and loose, broken, or missing retention bolts and nuts; measuring the latch pin diameter; and related investigative and corrective actions if necessary. The related investigative actions include checking the latch pin for migration and, if necessary, a detailed inspection for damage of the latch pin fitting and the adjacent latch pin fittings, the door cutout structure, the affected latch cam and the adjacent latch cams on the door, and the door structure. The corrective actions include replacing the latch pin, the retention bolt, and related parts with a new latch pin, retention bolt, and related parts; or repairing any damage.

Differences Between the Proposed AD and the Service Information

Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011. as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011, 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 will affect 77 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
Detailed inspection, including torque check	4 work-hours X $85 per hour = $340 per inspection cycle	$0	$340 per inspection cycle	$26,180 per inspection cycle
Modification	11 work-hours X $85 per hour = $935	$5,530	$6,465	$497,805
Post-modification detailed inspection	2 work-hours X $85 per hour = $170 per inspection cycle	$0	$170 per inspection cycle	$13,090 per inspection cycle

We estimate the following costs to do necessary 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 repairs.

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair/Replacements (Groups 1 and 2 airplanes)	7 work-hours X $85 per hour = $595	$11,478	$12,073
Repair/Replacements (Group 3 airplanes)	7 work-hours X $85 per hour = $595	$12,254	$12,849

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-2012-0299; Directorate Identifier 2011-NM-029-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 747-100, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400F, and 747SR series airplanes; certificated in any category; as identified in Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 52, Doors.

(e) Unsafe Condition

This AD was prompted by reports of broken and damaged latch pin retention bolts of the main deck side cargo door (MDSCD), latch pin migration, and broken latch pin fittings. We are issuing this AD to prevent loss of the cargo door and rapid depressurization of the airplane.

(f) Compliance

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

(g) Inspection and Corrective Action

At the applicable compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011, except as provided by paragraph (j)(2) of this AD: Do a detailed inspection of the 10 MDSCD latch pin fittings to detect loose, broken, damaged, or missing retention bolts and nuts; measure the latch pin diameter; and do all applicable related investigative and corrective actions, except as required by paragraph (j)(1) of this AD; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011. Do all applicable related investigative and corrective actions before further flight. Repeat the inspection thereafter at intervals not to exceed those specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011.

(h) Modification of Latch Pin Fittings and Replacement of Latch Pins and Latch Pin Retention Fasteners

At the time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011, except as provided by paragraph (j)(2) of this AD: Modify the 10 MDSCD latch pin fittings, replace the latch pins with new latch pins, and replace the latch pin retention fasteners with new latch pin retention fasteners, except as required by paragraph (j)(1) of this AD, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011. Accomplishment of the actions in paragraph (h) of this AD terminates the inspection required in paragraph (g) of this AD.

(i) Post-Modification Inspection and Corrective Action

At the applicable compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011, except as provided by paragraph (j)(2) of this AD: Do a detailed inspection of the 10 MDSCD latch pin fittings to detect loose, broken, damaged, or missing retention bolts and nuts; measure the latch pin diameter; and do all applicable related investigative and corrective actions, except as required by paragraph (j)(1) of this AD; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011. Do the applicable related investigative and corrective actions before further flight. Repeat the inspection thereafter at intervals not to exceed those specified in paragraph 1.E., "Compliance," of Boeing

Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011.

(j) Exceptions to Service Bulletin Specifications

(1) If any damage is found during any inspection required by this AD, and Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011, 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 747-52A2294, Revision 1, dated August 16, 2011, as revised by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011, specifies a compliance time relative to the issue date of that service bulletin, this AD requires compliance within the specified compliance time after the effective date of this AD.

(k) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 747-52A2294, dated July 8, 2010.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office, 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 the Related Information section of this AD. Information may be e-mailed 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 14 CFR 25.571, Amendment 45, and the approval must specifically refer to this AD.

(m) Related Information

(1) For more information about this AD, contact Bill Ashforth, Aerospace Engineer, Airframe Branch, ANM-120S, Seattle Aircraft Certification Office (ACO), FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6432; fax: 425-917-6590; e-mail: Bill.Ashforth@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, Washington 98124-2207; phone: 206-544-5000, extension 1; fax: 206-766-5680; e-mail: me.boecom@boeing.com; Internet: https://www.myboeingfleet.com. You may also review the referenced service information in the docket at www.regulations.gov (refer to Docket No. FAA-2012-0299). You may review copies of the referenced service

information at the FAA, Transport Airplane Directorate, the FAA, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on March 19, 2012.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2012-7283 Filed 03/26/2012 at 8:45 am; Publication Date: 03/27/2012]