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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0299; Directorate Identifier 2011-NM-029-AD; Amendment 39-17295; AD 2012-25-13]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 747-100, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400F, and 747SR series airplanes. This AD was prompted by reports of broken and damaged latch pin retention bolts and subsequent migration of the latch pins of the main deck side cargo door (MDSCD). This AD requires various repetitive inspections of the MDSCD latch pin fittings, measuring the latch pin, and related investigative and corrective actions if necessary. This AD also requires modifying the latch pin fittings and installing new latch pins and latch pin fasteners. We are issuing this AD to prevent loss of the cargo door and rapid depressurization of the airplane.

DATES: This AD is effective February 22, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of February 22, 2013.

ADDRESSES: 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; phone: 206-544-5000, extension 1; fax: 206-766-5680; 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, 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; 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 AD, the regulatory evaluation, any comments received, and

other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Bill Ashforth, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6432; fax: 425-917-6590; email: Bill.Ashforth@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM published in the Federal Register on March 27, 2012 (77 FR 18137). That NPRM proposed to require various repetitive inspections of the MDSCD latch pin fittings, measuring the latch pin, and related investigative and corrective actions if necessary. That NPRM also proposed to require modifying the latch pin fittings and installing new latch pins and latch pin fasteners.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (77 FR 18137, March 27, 2012) and the FAA's response to each comment.

Requests To Change Applicability

Boeing and Thai Airways International PCL requested that we limit the applicability of the NPRM (77 FR 18137, March 27, 2012) to airplanes with a Boeing-certified MDSCD instead of airplanes identified in Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011. The commenters requested this change to ensure that airplanes modified in the future to Model 747-400 Boeing Converted Freighter (BCF) with an MDSCD installation are inspected and modified per the intent of Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011.

We partially agree with changing the applicability. The AD already provides coverage for the future Model 747-400 BCF airplanes with an MDSCD installation. That is, the applicability of the AD specifies 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. This service information identifies Model 747-100, 747-200B, 747-200C, 747-200F, 747-300, 747-400, and 747-400F airplanes with an MDSCD installed in production or by a Boeing-approved modification. For clarification, per the Type Certificate Data Sheet (TCDS) for those airplanes, Model 747-400 BCF and 747-400 Special Freighter (SF) airplanes remain as Model 747-400 series airplanes for documentation purposes on the TCDS and with regard to the applicability of ADs. Where Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, specifies "all" airplanes, this means past, present, and future airplanes.

However, we found that Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, does not currently provide a grace period for airplanes that have been modified with an MDSCD after the initial compliance time of 6 months after the effective date of this AD. Therefore, the initial compliance time specified in paragraph (g) of this AD has been modified to add a grace period for airplanes that are modified with an MDSCD after the effective date of this AD. Additionally, the initial compliance time reference to 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, has been removed from paragraph (g) of this final rule.

Request To Change Service Information Reference

Boeing requested that we change the service information reference in paragraphs (g), (h), (i), and (j) of the NPRM (77 FR 18137, March 27, 2012) from 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, to Revision 3 of that service information. (Since Revision 3 has not been published, there is no issue date.) Boeing stated that Revision 3 of Boeing Alert Service Bulletin 747-52A2294 will be a full revision that will "update the effectivity list of Model 747-400 BCF airplanes," and will incorporate changes identified during validation, which was accomplished in March 2012. Boeing stated that Revision 3 of Boeing Alert Service Bulletin 747-52A2294 will add no new work for airplanes having previously incorporated the actions specified in Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011; or Revision 2, dated December 12, 2011.

We disagree with referencing Revision 3 of Boeing Alert Service Bulletin 747-52A2294 in this final rule. Boeing has not submitted Revision 3 of Boeing Alert Service Bulletin 747-52A2294 for FAA approval. We consider it inappropriate to delay correcting the identified unsafe condition to wait for this new service information revision. However, after Revision 3 of Boeing Alert Service Bulletin 747-52A2294 is FAA-approved and issued, operators may submit requests for approval of alternative methods of compliance (AMOCs) under the provisions of paragraph (l) of this AD to use Revision 3. We have not changed the final rule in this regard.

Request To Change Credit for Previous Actions

Boeing requested that we change paragraph (k) of the NPRM (77 FR 18137, March 27, 2012) to also give credit for actions required by paragraphs (g) and (h) of the NPRM, if those actions were performed before the effective date of the AD using 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. Boeing stated that this request is related to its request to replace the service information reference in paragraphs (g), (h), (i), and (j) of the NPRM from 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, to Revision 3 of that service information.

We partially agree. We agree to provide credit for Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, before its revision by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011. However, since we have not changed the AD to refer to Revision 3 of Boeing Alert Service Bulletin 747-52A2294, we disagree with specifying credit for using 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. We have changed paragraph (k) of this AD to specify credit for the actions required by paragraphs (g) and (h) of this AD performed before the effective date of this AD using Boeing Alert Service Bulletin 747-52A2294, dated July 8, 2010; or Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, before its revision by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011.

Request To Change Unsafe Condition Statement

Boeing requested that we modify the unsafe condition statement in the NPRM (77 FR 18137, March 27, 2012) by removing the reference to broken latch pin fittings. Boeing stated that Boeing Alert Service Bulletin 747-52A2294, dated July 8, 2010, was prompted by broken retention bolts and

the subsequent migration of the latch pins rather than by the broken latch pin fittings. Boeing also stated that the service information recommends inspecting the latch pin fittings for damage, but that no broken latch pin fittings have been associated with this issue.

We agree with the commenter's request. We have changed the Summary and paragraph (e) of the AD to state that this AD was prompted by reports of broken and damaged latch pin retention bolts and subsequent migration of the latch pins of the MDSCD.

Request To Add Federal Aviation Regulation Reference

Boeing requested that we add a reference to paragraph (b) of section 25.571 of the Federal Aviation Regulations (14 CFR 25.571) to paragraph (l)(3), "Alternative Methods of Compliance (AMOCs)," of the NPRM (77 FR 18137, March 27, 2012). Boeing stated that paragraph (b) is the specific paragraph of 14 CFR 25.571, Amendment 45, that requires compliance for the Model 747 airframe beyond the original certification basis.

We find that clarification is necessary. The reference to section 25.571 of the Federal Aviation Regulations (14 CFR 25.571), Amendment 45, was included inadvertently in paragraph (l)(3) of the NPRM (77 FR 18137, March 27, 2012). Therefore, we have revised paragraph (l)(3) of this final rule to remove the reference to "14 CFR 25.571, Amendment 45."

Request To Change Compliance Time for Deactivated MDSCDs

KLM Royal Dutch Airlines (KLM) requested that we add alternative compliance times to the NPRM (77 FR 18137, March 27, 2012) for deactivated MDSCDs. KLM stated that a deactivated MDSCD is much less susceptible to mechanical defects than an activated door. KLM suggested that an initial inspection within 6 months after the effective date of the AD, and a modification as required by paragraph (h) of the NPRM within 48 months after the effective date of the AD, would be sufficient to maintain a safe condition. KLM noted that a similar alternative was made for deactivated main entry doors in paragraph (f) of AD 2007-12-11, Amendment 39-15089 (72 FR 31984, June 11, 2007).

We agree that a deactivated MDSCD is much less susceptible to mechanical defects than an activated door. We have changed paragraphs (g) and (i) of this AD to reference an exception in new paragraph (j)(3) of this AD, which states that the repetitive inspections required by paragraphs (g) and (i) of this AD are not applicable to a deactivated MDSCD. The initial inspection required by paragraph (g) of this AD and modifications and replacements required by paragraph (h) of this AD are still applicable to a deactivated MDSCD. In addition, when the MDSCD is reactivated, the repetitive inspections required by paragraphs (g) and (i) of this AD are applicable and must be done 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.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (77 FR 18137, March 27, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 18137, March 27, 2012).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Costs of Compliance

We estimate that this AD affects 77 airplanes of U.S. registry.
We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Detailed inspection, including torque check.	4 work-hours × $85 per hour = $340 per inspection cycle.	$0	$340 per inspection cycle	$26,180 per inspection cycle.
Modification	11 work-hours × $85 per hour = $935.	5,530	$6,465	$497,805.
Post-modification detailed inspection.	2 work-hours × $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 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 × $85 per hour = $595	$11,478	$12,073
Repair/replacements (Group 3 airplanes)	7 work-hours × $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

This AD will not have federalism implications under Executive Order 13132. This AD will 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 this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under 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.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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):

2012-25-13 The Boeing Company: Amendment 39-17295; Docket No. FAA-2012-0299; Directorate Identifier 2011-NM-029-AD.

(a) Effective Date

This AD is effective February 22, 2013.

(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 and subsequent migration of the latch pins of the main deck side cargo door (MDSCD). 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 time specified in paragraph (g)(1) or (g)(2) of this AD, whichever occurs later: Do a detailed inspection of the ten 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, except as required by paragraph (j)(3) of this AD, 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.

(1) Within 6 months after the effective date of this AD.

(2) Within 6 months after the installation of an MDSCD installed in Boeing production or by a Boeing-approved modification.

(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 specified 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, except as required by paragraph (j)(3) of this AD, 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.

(3) The repetitive inspections required by paragraphs (g) and (i) of this AD are not applicable to a deactivated MDSCD. However, the initial inspection required by paragraph (g) of this AD and modifications and replacements required by paragraph (h) of this AD are still applicable to a deactivated MDSCD. When the MDSCD is reactivated, the repetitive inspections required by paragraphs (g) and (i) of this AD are applicable and must be done 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.

(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, which is not incorporated by reference in this AD; or Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011, before its revision by Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011.

(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 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.

(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, WA 98057-3356; phone: 425-917-6432; fax: 425-917-6590; email: 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, WA 98124-2207; phone: 206-544-5000, extension 1; fax: 206-766-5680; Internet: https://www.myboeingfleet.com.

(n) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Service Bulletin 747-52A2294, Revision 1, dated August 16, 2011.

(ii) Boeing Alert Service Bulletin 747-52A2294, Revision 2, dated December 12, 2011.

(3) For The Boeing Company 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; phone: 206-544-5000, extension 1; fax: 206-766-5680; Internet: https://www.myboeingfleet.com.

(4) You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, the FAA, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Renton, Washington, on December 12, 2012.

Ali Bahrami,

Manager, Transport Airplane Directorate,

Aircraft Certification Service.