

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0553; Directorate Identifier 2008-NM-199-AD; Amendment 39-16111; AD 2009-24-17]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-100, 747-100B, 747-200B, 747-200C, 747-200F, and 747SR Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are issuing a new airworthiness directive (AD) for certain Boeing Model 747-100, 747-100B, 747-200B, 747-200C, 747-200F, and 747SR series airplanes. This AD requires a one-time general visual inspection for missing fasteners in certain stringer-to-stringer clip joints at the station (STA) 760 through STA 940 frames, and related investigative and corrective actions if necessary. This AD results from a report of broken and cracked frame shear ties, cracks on the frame doubler and frame web, and missing fasteners in the stringer (S) -10L stringer-to-stringer clip joint at the STA 820 frame. We are issuing this AD to detect and correct missing fasteners in the stringer-to-stringer clip joints, which could result in shear tie and skin cracks and rapid in-flight decompression of the airplane.

DATES: This AD is effective January 8, 2010.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of January 8, 2010.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207; telephone 206-544-9990; fax 206-766-5682; e-mail DDCS@boeing.com; Internet <https://www.myboeingfleet.com>.

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 (telephone 800-647-5527) is the 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: Nick Kusz, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6449; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to certain Model 747-100, 747-100B, 747-200B, 747-200C, 747-200F, and 747SR series airplanes. That NPRM was published in the Federal Register on June 23, 2009 (74 FR 29630). That NPRM proposed to require a one-time general visual inspection for missing fasteners in certain stringer-to-stringer clip joints at the station (STA) 760 through STA 940 frames, and related investigative and corrective actions if necessary.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comment received. Boeing concurs with the contents of the NPRM.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

We estimate that this AD affects 84 airplanes of U.S. registry. The following table provides the estimated costs for U.S. operators to comply with this AD.

Estimated costs						
Action	Work hours	Average labor rate per hour	Parts	Cost per product	Number of U.S.-registered airplanes	Fleet cost
Inspection	4	\$80	\$0	\$320 per inspection cycle	84	\$26,880 per inspection cycle

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), and
- (3) 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.

You can find our regulatory evaluation and the estimated costs of compliance in the AD Docket.

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 AD:



FAA
Aircraft Certification Service

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

2009-24-17 Boeing: Amendment 39-16111. Docket No. FAA-2009-0553; Directorate Identifier 2008-NM-199-AD.

Effective Date

(a) This airworthiness directive (AD) is effective January 8, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Boeing Model 747-100, 747-100B, 747-200B, 747-200C, 747-200F, and 747SR series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 747-53A2751, dated October 9, 2008.

Subject

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

Unsafe Condition

(e) This AD results from a report of broken and cracked frame shear ties, cracks on the frame doubler and frame web, and missing fasteners in the stringer (S)-10L stringer-to-stringer clip joint at the station (STA) 820 frame. We are proposing this AD to detect and correct missing fasteners at the stringer-to-stringer clip joints, which could result in shear tie and skin cracks and rapid in-flight decompression of the airplane.

Compliance

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

Inspection for Missing Fasteners

(g) Within 3,000 flight cycles after the effective date of this AD: Do a one-time general visual inspection for missing fasteners in the left and right side S-10, S-10A, and S-11 stringer-to-stringer clip joints at the STA 760 through 940 frames, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2751, dated October 9, 2008. If any fasteners are missing, before further flight, do detailed and surface high frequency eddy current inspections to detect cracking of the adjacent frame and skin structure in accordance with the Accomplishment Instructions of the service bulletin. Install all missing fasteners before further flight.

(h) If any crack is found during the inspection required by paragraph (g) of this AD: Before further flight, repair any cracked shear ties, frame web, and/or skin in accordance with Boeing Alert Service Bulletin 747-53A2751, dated October 9, 2008.

(i) If any repair is done in accordance with paragraph (h) of this AD, before 20,000 total flight cycles or within 3,000 flight cycles from the repair installation, whichever occurs later: Do a detailed inspection of the repair(s) and the adjacent structure within 10 inches of the repair(s) for cracking. Repeat the inspection thereafter at intervals not to exceed 3,000 flight cycles. If any crack is found during this inspection, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

Alternative Methods of Compliance (AMOCs)

(j)(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. Send information to Attn: Nick Kusz, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6449; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, in the FAA Flight Standards District Office (FSDO), or lacking a principal inspector, your local FSDO. The AMOC approval letter must specifically reference this AD.

(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 an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who 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.

Material Incorporated by Reference

(k) You must use Boeing Alert Service Bulletin 747-53A2751, dated October 9, 2008, as applicable, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207; telephone 206-544-9990; fax 206-766-5682; e-mail DDCS@boeing.com; Internet <https://www.myboeingfleet.com>.

(3) You may review copies of the 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 or 425-227-1152.

(4) You may also review copies of the 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/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on November 19, 2009.
Stephen P. Boyd,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.