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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-27042; Directorate Identifier 2006-NM-225-AD; Amendment 39-16531; AD 2010-24-12]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Model 777-200, -300, and -300ER Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Model 777-200, -300, and -300ER series airplanes. This AD requires installing Teflon sleeving under the clamps of certain wire bundles routed along the fuel tank boundary structure, and cap sealing certain penetrating fasteners of the main and center fuel tanks. This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to prevent electrical arcing on the fuel tank boundary structure or inside the fuel tanks, which could result in a fire or explosion.

DATES: This AD is effective January 20, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of January 20, 2011.

ADDRESSES: 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; telephone 206-544-5000, extension 1, fax 206-766-5680; e-mail me.boecom@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: Margaret Langsted, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6500; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a supplemental notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to certain Model 777-200, -300, and -300ER series airplanes. That supplemental NPRM was published in the Federal Register on June 18, 2010 (75 FR 34663). The original NPRM (72 FR 3956, January 29, 2007) proposed to require installing Teflon sleeving under the clamps of certain wire bundles routed along the fuel tank boundary structure, and cap sealing certain penetrating fasteners of the main and center fuel tanks. The supplemental NPRM proposed to revise the original NPRM by adding airplanes and adding and removing certain requirements.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comments received.

Support for Supplemental NPRM

Boeing concurred with the content of the supplemental NPRM. American Airlines has a program in place to address the actions in the proposed rule and had no objection to the supplemental NPRM.

Request To Extend Compliance Time

Air Transport Association (ATA), on behalf of its member Delta Air Lines Inc. (Delta), asked that the 60-month compliance time in the supplemental NPRM be extended to better align with industry standard tank entry intervals. Delta stated that the required modifications will require entry into the main and center fuel tanks, and Delta opens those fuel tanks at 8- and 4-year intervals, respectively. Delta added that the compliance time of 60 months to accomplish the corrective action will be acceptable for work in the center fuel tank but will force main tank entry earlier than normally scheduled.

We do not agree to extend the compliance time. In developing an appropriate compliance time for this action, we considered the urgency associated with the subject unsafe condition and the practical aspect of accomplishing the required modification within a period of time that corresponds to the normal scheduled maintenance for most affected operators. In consideration of these items, in addition to the unsafe condition being electrical arcing in the fuel tank, we have determined that a 60-month interval will ensure an acceptable level of safety. However, according to the provisions of paragraph (j)(1) of this AD, we may approve requests to adjust the compliance time if the request includes data proving that the requested compliance time would provide an acceptable level of safety. We have not changed the AD in this regard.

Request To Include Revision 3 of the Referenced Service Bulletin

Continental Airlines (CAL) asked that the supplemental NPRM be changed to include Revision 3 of Boeing Service Bulletin 777-57A0050, instead of Revision 2, dated May 14, 2009 (referred to for the applicability and for accomplishing certain actions in the supplemental NPRM). CAL stated

that including Revision 3 may be necessary to avoid the alternative methods of compliance approval process because technical errors still exist in Revision 2 of Boeing Service Bulletin 777-57A0050.

We do not agree to include Revision 3 of the referenced service bulletin in this AD, since Revision 3 of Boeing Service Bulletin 777-57A0050 has not yet been issued. Since Revision 2 of Boeing Service Bulletin 777-57A0050 is expected to be revised after issuance of this AD to correct the discrepancies, we might consider approving the revised service bulletin as an alternative method of compliance (AMOC), according to the provisions of paragraph (j)(1) of this AD. We have not changed the AD in this regard.

Clarify Instructions for Continued Airworthiness (ICA)

CAL stated that proper ICA must be provided in order to prevent inadvertent reversal of implemented changes that can lead to violation requirements in the final rule. CAL added that it requested a copy of the ICA from Boeing to review and better understand the approach being taken to support the Special Federal Aviation Regulation No. 88 ("SFAR 88") program; however, the ICA has not been received yet.

We acknowledge the commenter's concern. However, no new ICAs have been developed for the design change required by this AD. Operators and owners are responsible for ensuring that the configuration mandated by this AD is maintained in accordance with section 39.7 of the Federal Aviation Regulations (14 CFR 39.7).

If any new airworthiness limitations (AWLs) related to any of the design features mandated by this AD are developed, we may consider additional rulemaking to mandate incorporations of those AWLs into operators' maintenance programs. We have not changed the AD in regard to this issue.

The FAA is working with industry to evaluate potential changes to the AD process that are intended to more clearly identify how to maintain configurations that are required for AD compliance.

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

There are 694 airplanes of the affected design in the worldwide fleet. This AD affects about 129 airplanes of U.S. registry. We estimate that it will take between 278 and 358 work-hours per product to comply with the basic requirements of this AD. Required parts cost about $2,241 per product. The average labor rate is $85 per work-hour. Based on these figures, we estimate the cost of these actions to the U.S. operators to be between $3,337,359 and $4,214,559, or $25,871 and $32,671 per product, depending on airplane configuration.

Currently, there are no affected Group 3 airplanes on the U.S. Register. However, if a Group 3 airplane is imported and placed on the U.S. Register in the future, the required actions will take about 480 work hours, at an average labor rate of $85 per work hour. Required parts cost about $2,241 per product. Based on these figures, we estimate the cost of this AD for Group 3 airplanes to be $43,041 per airplane.

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:

2010-24-12 The Boeing Company: Amendment 39-16531. Docket No. FAA-2007-27042; Directorate Identifier 2006-NM-225-AD.

Effective Date

(a) This airworthiness directive (AD) is effective January 20, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to The Boeing Company airplanes, certificated in any category, as identified in the applicable service information specified in Table 1 of this AD.

Table 1 – Service Information

For Model –	Boeing –
777-200, -300, and -300ER airplanes	Service Bulletin 777-57A0050, Revision 2, dated May 14, 2009
777-200 and -300 airplanes	Alert Service Bulletin 777-57A0051, dated May 15, 2006
777-200, -300, and -300ER airplanes	Alert Service Bulletin 777-57A0057, Revision 1, dated August 2, 2007
777-200, -300, and -300ER airplanes	Alert Service Bulletin 777-57A0059, dated October 30, 2008

Note 1: Although Boeing Service Bulletin 777-57A0050, Revision 2, dated May 14, 2009, refers to "Model 777-200ER" airplanes, this is a European designation that does not apply to airplanes of U.S. registry. Therefore, the applicability of this AD will not specify Model 777-200ER airplanes. However, U.S. operators should consider any reference to Model 777-200ER airplanes in Boeing Service Bulletin 777-57A0050, Revision 2, as applicable to Model 777-200 airplanes as designated by the type certificate data sheet.

Subject

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

Unsafe Condition

(e) This AD results from fuel system reviews conducted by the manufacturer. The Federal Aviation Administration is issuing this AD to prevent electrical arcing on the fuel tank boundary structure or inside the main and center fuel tanks, which could result in a fire or explosion.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Corrective Actions (Installing Teflon Sleeving, Cap Sealing, One-Time Inspection)

(g) Within 60 months after the effective date of this AD, do the applicable actions specified in paragraph (g)(1), (g)(2), (g)(3), or (g)(4) of this AD.

(1) For airplanes identified in Boeing Service Bulletin 777-57A0050, Revision 2, dated May 14, 2009: Install Teflon sleeving under the clamps of certain wire bundles routed along the fuel tank boundary structure and cap seal certain penetrating fasteners of the fuel tanks, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 777-57A0050, Revision 2, dated May 14, 2009.

(2) For airplanes identified in Boeing Alert Service Bulletin 777-57A0051, dated May 15, 2006: Cap seal certain penetrating fasteners of the fuel tanks, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-57A0051, dated May 15, 2006.

(3) For airplanes identified in Boeing Alert Service Bulletin 777-57A0057, Revision 1, dated August 2, 2007: Do a general visual inspection to determine if certain fasteners are cap sealed and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-57A0057, Revision 1, dated August 2, 2007. Do all applicable corrective actions before further flight.

(4) For airplanes identified in Boeing Alert Service Bulletin 777-57A0059, dated October 30, 2008: Cap seal the fasteners in the center fuel tanks that were not sealed during production, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-57A0059, dated October 30, 2008.

Credit for Actions Done Using Previous Issues of the Service Bulletins

(h) Actions done before the effective date of this AD in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-57A0050, dated January 26, 2006; or Revision 1, dated August 2, 2007; are acceptable for compliance with the corresponding actions required by paragraph (g)(1) of this AD, provided that the applicable additional work specified in Boeing Service Bulletin 777-57A0050, Revision 2, dated May 14, 2009, is done within the compliance time specified in paragraph (g) of this AD. The additional work must be done in accordance with Boeing Service Bulletin 777-57A0050, Revision 2, dated May 14, 2009.

(i) Actions done before the effective date of this AD in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-57A0057, dated August 7, 2006, are acceptable for compliance with the actions required by paragraph (g)(3) 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: Margaret Langsted, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA,

Seattle ACO, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6500; 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, or lacking a principal inspector, your local Flight Standards District Office. 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 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.

Material Incorporated by Reference

(k) You must use the applicable service information contained in Table 2 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

Table 2 – Material incorporated by reference

Document –	**Revision –**	**Date –**
Boeing Alert Service Bulletin 777-57A0051	Original	May 15, 2006
Boeing Alert Service Bulletin 777-57A0057	1	August 2, 2007
Boeing Alert Service Bulletin 777-57A0059	Original	October 30, 2008
Boeing Service Bulletin 777-57A0050	2	May 14, 2009

(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, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1, fax 206-766-5680; e-mail me.boecom@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.

(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 18, 2010.

Ali Bahrami,

Manager, Transport Airplane Directorate,

Aircraft Certification Service.