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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-28348; Directorate Identifier 2007-NM-060-AD; Amendment 39-16530; AD 2010-24-11]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Model 737-600, -700, -700C, -800, and -900 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Model 737-600, -700, -700C, -800, and -900 series airplanes. This AD requires sealing the fasteners on the front and rear spars inside the main fuel tank and on the lower panel of the center fuel tank, inspecting the wire bundle support installation in the equipment cooling system bays to identify the type of clamp installed and determine whether the Teflon sleeve is installed, and doing related corrective actions if necessary. This AD results from a design review of the fuel tank systems. We are issuing this AD to prevent arcing at certain fuel tank fasteners in the event of a lightning strike or fault current event, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

DATES: This AD becomes effective January 5, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of January 5, 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: Tom Thorson, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6508; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a second supplemental notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to certain Model 737-600, -700, -700C, -800, and -900 series airplanes. That second supplemental NPRM was published in the Federal Register on March 23, 2009 (74 FR 12094). That second supplemental NPRM proposed to require sealing the fasteners on the front and rear spars inside the main fuel tank and on the lower panel of the center fuel tank, inspecting the wire bundle support installation in the equipment cooling system bays to identify the type of clamp installed and determine whether the Teflon sleeve is installed, and doing related corrective actions if necessary.

Relevant Service Information

The second supplemental NPRM cited Boeing Alert Service Bulletin 737-57A1279, Revision 1, dated September 25, 2008, as the appropriate source of service information. Boeing has since revised the service bulletin. Boeing Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010, incorporates additional data that were included in Boeing Information Notice (IN) 737-57A1279 IN 02, dated September 25, 2008; 737-57A1279 IN 03, dated October 30, 2008; and 737-57A1279 IN 04, dated March 13, 2009. This additional information does not add more work.

Boeing has also issued IN 737-57A1279 IN 05, dated April 8, 2010. This IN specifies that Model 737-800 and -900 airplanes may have an additional clamp located at stringer 10 that requires the work shown in the steps of Figures 6, 7, 10, and 11 of Boeing Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010, in the environmental control system bay of the affected airplanes.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received on the second supplemental NPRM.

Support for the Second Supplemental NPRM

Boeing reviewed the second supplemental NPRM and concurred with the contents of the proposed rule.

Request To Delay AD Action

Continental Airlines (CAL) expressed continued concern that the manufacturer needs to update the maintenance service documents to avoid inadvertently demodifying the work that this AD requires, which would result in potential enforcement action against CAL. CAL commented that to ensure compliance with the maintenance planning data Fuel System Airworthiness Limitations, the requirements of Appendix H.1(a) of the Federal Aviation Regulations (14 CFR 25); and the requirements of sections 26.1(a), 26.1(b)(2), and 26.1(b)(3) of the Federal Aviation Regulations (14

CFR 26.1(a), 14 CFR 26.1(b)(2), and 14 CFR 26.1(b)(3)); must be complied with by the original equipment manufacturer or type certificate holder. In addition, the operator must also comply with section 91.1507(e) of the Federal Aviation Regulations (14 CFR 91.1507(e)); and section 121.1113(e) of the Federal Aviation Regulations (14 CFR 121.1113(e)). CAL stated that these procedures conflict with the regulations of sections 25.1529 and 25.1729 of the Federal Aviation Regulations (14 CFR 25.1529 and 25.1729) and applicable provisions of 14 CFR parts 21 and 26.

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.

CAL cited sections 91.1507(e) of the Federal Aviation Regulations (14 CFR 91.1507(e)) and other regulations and expresses concern that the absence of the ICAs could result in enforcement action. That section requires operators to include in their maintenance programs all fuel system ICAs developed under Special Federal Aviation Regulation (SFAR) 88. However, that regulation requires operators to incorporate ICAs provided by the design approval holder. Since no ICAs were developed for the required modification, operators do not violate that regulation if their maintenance programs do not yet contain ICAs for the referenced design change. However, under section 39.7 of the Federal Aviation Regulations (14 CFR 39.7), it is still the responsibility of the operators to keep their airplanes in a configuration that is in compliance with the AD. 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.

Request To Clarify Airplanes Subject to Paragraph (i) of the AD

The Air Transport Association (ATA), on behalf of its member American Airlines (AA), requested that we clarify the "applicability requirements" in paragraph (i) of the second supplemental NPRM to state that modifications should be acceptable for compliance with the AD if they were made in accordance with Boeing Alert Service Bulletin 737-57A1279, dated January 24, 2007, and if the table in paragraph 1.A., "Effectivity," of that service bulletin was used to correctly determine which airplanes are subject to the requirements of paragraph (i) of the AD. The commenter noted that the variable numbers following the table are erroneous.

Lufthansa Technik (LTK) also requested that we revise paragraph (i) of the second supplemental NPRM. LTK requested that we consider airplanes with line numbers 571 through 1691 inclusive on which the referenced actions have been performed in accordance with Boeing Alert Service Bulletin 737-57A1279, dated January 24, 2007, to be compliant with the proposed AD.

We agree with the requests to clarify which airplanes are subject to the requirements of paragraph (i) of this final rule. We have revised paragraph (i) of this final rule to state that actions done using the group assignments by line numbers found in the table in paragraph 1.A., "Effectivity," and in accordance with the original service bulletin, Boeing Service Bulletin 737-57A1279, dated January 24, 2007, are acceptable for compliance with the corresponding requirements of this AD.

Request To Allow Alternative Teflon Sleeving Procedure

The ATA, on behalf of its member AA, proposed an alternative sleeving procedure. In its comment, AA stated that the Teflon sleeve installation cannot be accomplished as shown in Figure 13 of Boeing Alert Service Bulletin 737-57A1279, dated January 24, 2007. AA stated that Figure 9 of the service bulletin shows that the adjacent tube conduit does not allow the sleeve to be 3 inches long

and centered on the clamp. AA proposed that an alternative sleeving procedure extend the sleeving at least 1 inch beyond the edge of the clamp. If 1 inch of sleeving cannot be achieved, AA suggested that the sleeving be extended as far as possible.

We agree that clarification may be necessary. Boeing is revising Boeing Alert Service Bulletin 737-57A1279 to address this issue. However, due to the urgency of the unsafe condition and in consideration of the amount of time that has already elapsed since issuance of the original service bulletin, we have determined that further delay of this final rule is not appropriate. We disagree with the request to allow an alternative Teflon sleeving procedure in this final rule. We do not have sufficient data that indicate this procedure provides an acceptable level of safety. If operators can provide sufficient data to indicate that an alternative Teflon sleeving procedure would provide an acceptable level of safety, operators can request approvals of AMOCs in accordance with the requirements of paragraph (j) of this final rule. We have not changed the final rule regarding this issue.

Request To Allow Alternative Procedure To Seal Fasteners on Wing and Main Tanks

The ATA, on behalf of its member AA, requested that we remove the proposed requirement to reseal the fasteners if already done previously in accordance with Boeing Alert Service Bulletin 737-57A1279, dated January 24, 2007. In its comment, AA stated that sealant has been previously applied at some fastener locations in the center tank and the wing tanks during airplane assembly. Therefore, AA stated, it is not possible to accomplish the steps in Figures 14 and 15 of that service bulletin, and AA proposed that if the fasteners are sealed in accordance with that service bulletin, then no further work should be required. AA also stated that Boeing 737-57A1279 Information Notice (IN) 04, dated March 13, 2009, addresses this issue.

We agree with the commenter. Boeing 737-57A1279 IN 04, dated March 13, 2009, states that for fasteners that have been previously sealed to the specifications of Boeing Alert Service Bulletin 737-57A1279, it is not required for the existing seal to be removed and the fastener sealed again. Boeing Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010, incorporates the information included in Boeing 737-57A1279 IN 04, dated March 13, 2009. We updated this final rule to refer to Boeing Alert Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010, as an appropriate source of service information.

Request To Reference Additional Service Information

The ATA, on behalf of its member AirTran Airways, requested that we approve Boeing Information Notices 03 and 04 as sources of service information for the supplemental NPRM. In its comment, AirTran Airways stated that the information notices clarify and provide corrections to Boeing Service Bulletin 737-57A1279, Revision 1, dated September 25, 2008.

We partially agree. We acknowledge that the information contained in these notices may be useful to operators to complete the requirements of this AD. However, Boeing has issued Boeing Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010, to include the information in the information notices. We have revised the final rule accordingly.

Explanation of Change Made to This AD

We have revised this AD to identify the legal name of the manufacturer as published in the most recent type certificate data sheet for the affected airplane models.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously.

We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Explanation of Change to Costs of Compliance

Since issuance of the NPRM, we have increased the labor rate used in the Costs of Compliance from \$80 per work-hour to \$85 per work-hour. The Costs of Compliance information, below, reflects this increase in the specified hourly labor rate.

Costs of Compliance

There are about 1,754 airplanes of the affected design in the worldwide fleet; of these, 645 airplanes are U.S.-registered. The following table provides the estimated costs for U.S. operators to comply with this final rule, at an average hourly labor rate of \$85.

Estimated Costs					
Action	Group	Work hours	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Sealant application	1	62	\$ 5,270	586	\$ 3,088,220
	2	28	\$ 2,380	44	\$ 104,720
	3	28	\$ 2,380	15	\$ 35,700
Inspection	1	4	\$ 340	586	\$ 199,240
	2	4	\$ 340	44	\$ 14,960
	3	2	\$ 170	15	\$ 2,550

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 have determined that 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

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 Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):



2010-24-11 The Boeing Company: Amendment 39-16530. Docket No. FAA-2007-28348; Directorate Identifier 2007-NM-060-AD.

Effective Date

(a) This AD becomes effective January 5, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes, certificated in any category; as identified in Boeing Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010.

Subject

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

Unsafe Condition

(e) This AD results from a design review of the fuel tank systems. The Federal Aviation Administration is issuing this AD to prevent arcing at certain fuel tank fasteners in the event of a lightning strike or fault current event, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

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.

Fastener Sealant

(g) Within 60 months after the effective date of this AD: Seal the fasteners on the front and rear spars inside the main fuel tank and on the lower panel of the center fuel tank, as applicable, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010.

Inspection and Corrective Action

(h) Within 60 months after the effective date of this AD: Perform a general visual inspection of the wire bundle support installation in the equipment cooling system bays to identify the type of clamp installed, and determine whether the Teflon sleeve is installed. Do these actions in accordance

with the Accomplishment Instructions of Boeing Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010. Do all applicable corrective actions before further flight in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010. Certain Model 737-800 and 737-900 airplanes may have an additional clamp location at stringer 10 that is required to perform the steps of Figures 6, 7, 10, and 11 of Boeing Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010, in the environmental control systems (ECS) bay.

Actions Accomplished Previously

(i) Actions done before the effective date of this AD using the group assignments with the line numbers in the table in paragraph 1.A., "Effectivity," and in accordance with Boeing Alert Service Bulletin 737-57A1279, dated January 24, 2007; or Revision 1, dated September 25, 2008; are acceptable for compliance with the corresponding requirements 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: Tom Thorson, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 917-6510; fax (425) 917-6508. 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.

Material Incorporated by Reference

(k) You must use Boeing Service Bulletin 737-57A1279, Revision 2, dated February 2, 2010, 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, 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.