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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-19680; Directorate Identifier 2003-NM-215-AD; Amendment 39-14558; AD 2006-08-04]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 767 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 Boeing Model 767 airplanes. This AD requires performing a test of the bonding resistance between the engine fuel feed tube fitting and the front spar, applying sealant on a hex nut inside the dry bay, and performing any applicable corrective actions. This AD results from a report that the engine fuel feed tubes were found not electrically bonded to the front spar. We are issuing this AD to prevent an ignition source from entering the fuel tank during a lightning strike event, which could cause a fuel tank explosion.

DATES: This AD becomes effective May 18, 2006.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of May 18, 2006.

ADDRESSES: You may examine the AD docket on the Internet at *http://dms.dot.gov* or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Nassif Building, Room PL-401, Washington, DC.

Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: John Vann, Aerospace Engineer, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6513; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Examining the Docket

You may examine the airworthiness directive (AD) docket on the Internet at *http://dms.dot.gov* or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the street address stated in the ADDRESSES section.

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to certain Boeing Model 767 series airplanes. That NPRM was published in the Federal Register on November 24, 2004 (69 FR 68272). That NPRM proposed to require performing a test of the bonding resistance between the engine fuel feed tube fitting and the front spar, applying sealant on a hex nut inside the dry bay, and performing any applicable corrective actions.

Comments

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

Requests To Revise Surface Preparation Procedures

Two commenters, Continental Airlines and Britannia Airlines, note that the preparation of the mating surface on the dry bay side of the front spar for bonding requires the use of a stainless steel brush. The commenters recommend that the preparation of the mating surface be accomplished using cleaning procedures 1, 2, or 3, described in Section 20-20-00 of the Boeing Standard Wiring Practices Manual (SWPM), or other cleaning procedures; ideally, by the use of fine abrasive material (100 grit or finer). One of the commenters states, "Since the objective is to achieve a satisfactory bond, any approved cleaning method, which achieves that objective, should be acceptable." Continental Airlines notes disadvantages to the other two cleaning procedures, which involve using a stainless steel brush, or using a rotary abrasive disk. Specifically:

- There is a high possibility of damaging the mating surface when using the stainless steel rotary brush.
- Using a stainless steel rotary brush would introduce unwelcome contamination in the fuel tank area.
- Using a steel rotary brush when attached to an electrical motor tool would create a fire hazard in a fuel vapor area.
- Current flap or shot peen equipment cannot or is very difficult to fit in the area due to access issues.
- Current flap or shot peen equipment is also equipped with an electrical motor which creates a fire hazard in a fuel vapor area.

We agree with the use of fine abrasive material as the primary method for preparing the mating surface for bonding. Since we issued the NPRM, we have reviewed Boeing Service Bulletins 767-28A0071 and 767-28A0072, both Revision 2, both dated December 8, 2005. These service bulletins specify appropriate procedures for preparing the mating surface for bonding. We have determined that the use of a rotary abrasive disk as described in cleaning procedure 3, in Section 20-20-00 of the

Boeing SWPM, should not be allowed as a cleaning method for this AD, for the same reasons/justifications the commenters used against the use of a stainless steel rotary brush. This determination is consistent with Revision 2 of the service bulletin instructions. We recognize that both the stainless steel brush and abrasive disk require the use of an electrical motor tool. However, using the stainless steel brush is not considered to pose such a significant fire hazard to the degree/point that we would not allow it to be used as an alternate procedure to the fine abrasive material, as noted in Revision 2 of the service bulletins. We have revised paragraph (f) of this AD to reference Revision 2 of the service bulletins as the appropriate source of service information. We have also revised paragraph (c) of this AD to reference Revision 2 of the service bulletins, and added paragraph (h) to give credit for actions previously accomplished in accordance with Boeing Alert Service Bulletins 767-28A0071 and 767-28A0072, both Revision 1, both dated January 22, 2004.

Request To Extend the Compliance Time

The Air Transport Association (ATA), on behalf of U.S. Airways, requests that the compliance time be extended from 48 months to 60 months after the effective date of this AD. The ATA notes that we issued AD 2004-10-06, amendment 39-13636 (69 FR 28046, May 18, 2004), which addresses a similar unsafe condition in Boeing Model 737 and 747 airplanes. In AD 2004-10-06, we determined that a 60-month compliance time maintained an acceptable level of safety. Further, the AD requires fuel tank entry, which involves unique scheduling of facilities and resources. Since other initiatives to eliminate potential ignition sources will result from the SFAR 88 effort, and since some will also require fuel tank entry, flexibility in planning those entries should be preserved to the greatest extent that provides an acceptable level of safety to avoid unnecessary fuel tank entries.

We agree to extend the compliance time to 60 months. We have determined that a 60-month compliance time is consistent with the requirements of existing ADs 2004-10-06 and 2005-04-01, amendment 39-13973 (70 FR 7841, February 16, 2005) (also an SFAR 88 AD). This new compliance time is consistent with Boeing's new recommendation specified in Revision 2 of the service bulletins (described previously). We have also determined that extending the compliance time will not adversely affect safety. We have revised paragraph (g) of this AD to require the new compliance time.

Request To Revise Order of Tasks

ATA, on behalf of United Airlines, requests that we allow accomplishment of the sealant application in paragraph 3.B.7. of Revision 1 of the service bulletins to be performed after the leak checks in paragraph 3.B.8. of Revision 1 of the service bulletins. The commenter explains that sealing of the coupling could mask leaks during the leak checks of the fuel feed line, and an undetected leak could manifest into subsequent related problems. The commenter states that Boeing concurred with this re-sequencing.

We agree. Boeing has revised the service bulletins to re-sequence the steps in Revision 2 of the service bulletins. As explained previously, we have revised paragraph (g) to require accomplishment of actions in accordance with Revision 2 of the service bulletins.

Request To Allow Use of an Alternative Material

United Airlines requests that we allow the use of CRES lock-wire, part number (P/N) MS20995C32, as an option to the Monel lock-wire, P/N MS20995NC32, that is defined in the service bulletin. The commenter states that the CRES lock-wire is listed as an acceptable standard parts substitution for the Monel lock-wire in Boeing Drawing 012W6100–
Materials, Parts and Process Substitution and Equivalents. The commenter also states that Boeing did not state any technical objection to this substitution.

We do not agree to allow the use of the CRES stainless-steel lock-wire. Pieces of the CRES lock-wire could be in the fuel tank due to breakage or be left in the tank during the lock-wire installation process. These pieces of lock-wire could then be ingested into the fuel pump inlets, and contact stainless-steel components in the fuel pump. Such contact in the fuel pump between stainless-steel materials could produce sparks or excessive heat. Neither the commenter nor the manufacturer has provided any data that would indicate whether pieces of CRES lock-wires could create sparks when ingested by the fuel pump. While Boeing did not state any objection to United's substitution, it did not include the CRES wire as an option in Revision 2 of the service bulletins either. In light of the properties of stainless-steel, and the absence of any sparking characteristics data that can be used to show that the level of safety with stainless-steel wire is acceptable, we currently cannot determine that the potential impact to the level of safety is acceptable. The commenter is welcome to submit a request for an alternative method of compliance (AMOC) with sparking characteristics data to support the request. We have not changed the AD in this regard.

Request To Revise Cost Estimate

American Airlines states that it is accomplishing the actions proposed in the NPRM, and estimates that the bonding test of the engine fuel feed tube will require approximately 21 work hours. We infer that the commenter wants the cost estimate to be revised.

We disagree with the commenter's request. Our estimate of the work hours required is based on information provided by the manufacturer, without any follow-on/conditional corrective actions, or access/close-up actions included. We have not changed the cost estimate of this AD.

Clarification of AMOC Paragraph

We have revised this action to clarify the appropriate procedure for notifying the principal inspector before using any approved AMOC on any airplane to which the AMOC applies.

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.

Costs of Compliance

There are about 867 airplanes of the affected design in the worldwide fleet. This AD will affect about 400 airplanes of U.S. registry. The actions will take about 3 work hours per airplane, at an average labor rate of $65 per work hour. Based on these figures, the estimated cost of the AD for U.S. operators is $78,000, or $195 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

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):

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

www.faa.gov/aircraft/safety/alerts/

2006-08-04 Boeing: Amendment 39-14558. Docket No. FAA-2004-19680; Directorate Identifier 2003-NM-215-AD.

Effective Date

(a) This AD becomes effective May 18, 2006.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Boeing Model 767-200, -300, and -300F series airplanes, as identified in Boeing Service Bulletin 767-28A0071, Revision 2, dated December 8, 2005; and Model 767-400ER series airplanes, as identified in Boeing Service Bulletin 767-28A0072, Revision 2, dated December 8, 2005; certificated in any category.

Unsafe Condition

(d) This AD was prompted by a report that the engine fuel feed tubes were found not electrically bonded to the front spar. We are issuing this AD to prevent an ignition source from entering the fuel tank during a lightning strike event, which could cause a fuel tank explosion.

Compliance

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

Service Bulletin Definition

(f) The term "service bulletin," as used in this AD, means the Work Instructions of the following service bulletins, as applicable:

(1) For Model 767-200, -300, and -300F series airplanes: Boeing Service Bulletin 767-28A0071, Revision 2, dated December 8, 2005; and

(2) For Model 767-400ER series airplanes: Boeing Service Bulletin 767-28A0072, Revision 2, dated December 8, 2005.

Investigative and Corrective Actions

(g) Within 60 months after the effective date of this AD: Do a test of the bonding resistance between the engine fuel feed tube fitting and the front spar, apply sealant on a hex nut inside the dry bay, and do all applicable corrective actions, by accomplishing all of the actions in the applicable service bulletin. Do all applicable corrective actions before further flight.

Previous Actions

(h) Actions done before the effective date of this AD in accordance with Boeing Alert Service Bulletin 767-28A0071, Revision 1, dated January 22, 2004; or Boeing Alert Service Bulletin 767-28A0072, Revision 1, dated January 22, 2004, are acceptable for compliance with the requirements of paragraph (g) of this AD.

Alternative Methods of Compliance (AMOCs)

(i)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

Material Incorporated by Reference

(j) You must use Boeing Service Bulletin 767-28A0071, Revision 2, dated December 8, 2005; or Boeing Service Bulletin 767-28A0072, Revision 2, dated December 8, 2005; as applicable; to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of these documents in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Room PL-401, Nassif Building, Washington, DC; on the Internet at *http://dms.dot.gov*; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the 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 April 4, 2006.
Kevin M. Mullin,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
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