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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-20731; Directorate Identifier 2004-NM-260-AD; Amendment 39-14685; AD 2006-15-05]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-200, -300, and -400 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 Boeing Model 737-200, -300, and -400 series airplanes. This AD requires replacing the existing fueling float switch in the auxiliary fuel tank with a new, improved fueling float switch, installing a new liner system inside the float switch conduit, and performing related investigative and other specified actions. This AD results from reports of chafing of the direct-current-powered float switch wiring insulation in the center fuel tank. We are issuing this AD to prevent contamination of the fueling float switch of the auxiliary fuel tank by moisture or fuel, and chafing of the float switch wiring against the float switch conduit in the fuel tank, which could present an ignition source inside the fuel tank that could cause a fire or explosion.

DATES: This AD becomes effective August 24, 2006.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of August 24, 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: Sherry Vevea, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6514; 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 737-200, -300, and -400 series airplanes. That NPRM was published in the Federal Register on March 31, 2005 (70 FR 16445). That NPRM proposed to require replacing the existing fueling float switch in the auxiliary fuel tank with a new, improved fueling float switch, installing a new liner system inside the float switch conduit, and performing related investigative and other specified actions.

New Relevant Service Information

We have reviewed Boeing Service Bulletin 737-28A1192, Revision 2, dated April 27, 2006. (The NPRM refers to Boeing Service Bulletin 737-28A1192, Revision 1, dated August 21, 2003, as the appropriate source of service information for the proposed actions.) Revision 2 adds a new Part B, which describes procedures for adding environmental protection to the splice and conduit. We have revised paragraph (f) of this AD to refer to Revision 2 as the appropriate source of service information for the actions required by that paragraph. Also, we have revised paragraph (h) of this AD to give credit for actions previously accomplished in accordance with Revision 1 of the service bulletin.

Comments

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

Support for the Proposed AD

Two commenters, Boeing and the National Transportation Safety Board (NTSB), support the proposed AD.

Request to Correct Subject Part Number (P/N)

Continental Airlines (Continental) notes that the P/N specified in paragraph (g) of the proposed AD is different than the P/N specified in paragraph (j) of AD 2004-15-04, amendment 39-13738 (69 FR 44580, July 27, 2004). (The NPRM explains that AD 2004-15-04 requires actions on the fueling float switches in the center and wing fuel tanks which are similar to the actions proposed for the auxiliary fuel tanks.) Similarly, BMI submits a single page from Boeing Service Bulletin 737-28A1192, Revision 1, marked to indicate that the float switch P/N is F8300-146.

We infer that Continental and BMI are asking us to revise paragraph (g) of the proposed AD to correct the float switch P/N. We agree. We made a typographical error in the P/N in paragraph (g) of the NPRM. There is no float switch that has P/N 8300-146. We have revised paragraph (g) of this AD to correct the P/N to F8300-146.

Request To Address Defective Parts Manufacturing Authority (PMA) Parts

The Modification and Replacement Parts Association (MARPA) requests that we revise the proposed AD to cover possible defective PMA alternative parts, rather than just a single P/N, so that those defective PMA parts also are subject to the proposed AD. The MARPA also asks that we determine whether one known PMA part contains the same defect as the original equipment manufacturer's (OEM) part.

The MARPA notes that the proposed AD does not address the possibility that PMA parts may be installed in lieu of the part referenced in Boeing Service Bulletin 737-28A1192. The commenter indicates that Ametek Aerospace has received a PMA for a float switch having P/N F8300-146 which may be installed in lieu of the OEM part. The MARPA states that, by referring solely to the Boeing service bulletin, the proposed AD would not apply to this or any other PMA alternative, though the commenter assumes a PMA part would contain the same defect as the OEM part. The commenter states that this loophole could create a safety issue by allowing defective parts to remain in service.

We concur with the MARPA's general comment that, if we know that an unsafe condition also exists in PMA parts, the AD should address those parts, as well as the OEM parts.

However, we find that we may have caused confusion for the commenter with the typographical error addressed previously under "Request to Correct Subject Part Number (P/N)." The typographical error appears to have caused the commenter to think that there are two float switches of similar design—one produced by the OEM having P/N 8300-146, and the one produced by Ametek Aerospace having P/N F8300-146. This is not the case. We are aware of only one float switch of this design, and this is the float switch having P/N F8300-146 produced by Ametek Aerospace. Thus, the part to which the commenter refers is already subject to the requirements of this AD.

However, the commenter's remarks are timely in that the Transport Airplane Directorate currently is in the process of reviewing this issue as it applies to transport category airplanes. We acknowledge that there may be other ways of addressing this issue to ensure that unsafe PMA parts are identified and addressed. Once we have thoroughly examined all aspects of this issue, including input from industry, and have made a final determination, we will consider whether our policy regarding addressing PMA parts in ADs needs to be revised. We consider that to delay this AD action would be inappropriate, since we have determined that an unsafe condition exists and that replacement of certain parts must be accomplished to ensure continued safety.

We have not changed the final rule in this regard.

Request To Provide Information for Maintaining Configuration

Continental recommends installing identification sleeves on the wiring near the float switch connector at the auxiliary fuel tank. Continental states that such identification sleeves would assist operators in maintaining the configuration after the proposed actions have been done. The commenter notes that, while the proposed AD changes float switch wiring routing and conduit P/Ns, a maintenance person could unintentionally change this configuration at some point in the future. The commenter suggests that the sleeves be marked with a cautionary message that refers to the service bulletin number or other identifying number. The commenter states that similar identification sleeves are used for the wiring installation for the isolated fuel quantity transmitter on Model 737 airplanes.

We agree with the commenter's intent. But we do not agree that any change is necessary. The design of the float switch, conduit, liner, and wiring system will be listed as a critical design configuration control limitation (CDCCL) for the fuel system on Model 737 series airplanes. This will ensure that operators do not modify the fuel system without appropriate design review. Boeing states that it will also ensure that maintenance instructions will require that the conduit liner be replaced with a new liner whenever the wiring is removed from the float switch conduit for any reason.

Request To Revise Statement Regarding Parts

Continental requests that note (a) be removed from Section 2.C., "Parts Necessary for Each Airplane," of the service bulletin. The commenter specifically objects to the instruction in note (a), "Keep the existing part if there are other uses for it."

We infer that the commenter is concerned that an existing float switch removed from the auxiliary fuel tank could be used again. We do not agree that any change is necessary. Note (b) of the same section states, "You cannot use the existing part to replace the new or changed part." This addresses the concern that the part could be reinstalled in the affected area of an airplane subject to this AD. We have not changed the AD in this regard.

Request To Provide for Removed Fuel Tanks

The Air Transport Association (ATA), on behalf of its member Delta Airlines, states no objections to the proposed AD, but suggests adding a statement that no action is required for airplanes that are included in the applicability statement but that have had the auxiliary fuel tank removed.

We acknowledge the commenter's suggestion, but do not agree that any change is necessary. The applicability statement in paragraph (c) of this AD already states that this AD applies to "Boeing Model 737-200, -300, and -400 series airplanes * * * equipped with auxiliary fuel tanks."

Request To Revise Costs of Compliance

Continental states that doing the actions in the Accomplishment Instructions of the service bulletin took approximately 40 work hours (20 elapsed hours) per airplane, excluding the time needed to gain access and close up.

We infer that Continental is asking that we revise the Costs of Compliance to reflect the work hours that it found were necessary. We do not agree. We recognize that the time necessary to do the actions required by an AD may vary somewhat from operator to operator. It is not possible for us to account for all of the potential variances. The estimate of 38 work hours specified in this AD is consistent with the estimate specified in the service bulletin. We find no change is needed in this regard.

Clarification of AD Requirements

As we noted previously, Revision 2 of the service bulletin adds a new Part B, which describes procedures for adding environmental protection to the splice and conduit. Revision 2 of the service bulletin recommends that the actions in Part B be accomplished but does not provide a compliance time for those actions. We find that the actions specified in Part B are not necessary to address the unsafe condition addressed by this AD. Thus, this AD requires accomplishing only Part A of the service bulletin. We have revised paragraph (f) of this AD accordingly. We also added Note 1 to this AD to clarify that this AD does not require the actions in Part B.

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

This AD will affect about 103 airplanes worldwide and 44 airplanes of U.S. registry. The required actions will take about 38 work hours per airplane, at an average labor rate of \$65 per work hour. Required parts will cost about \$1,634 per airplane. Based on these figures, the estimated cost of this AD for U.S. operators is \$180,576, or \$4,104 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

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

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



2006-15-05 Boeing: Amendment 39-14685. Docket No. FAA-2005-20731; Directorate Identifier 2004-NM-260-AD.

Effective Date

(a) This AD becomes effective August 24, 2006.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Boeing Model 737-200, -300, and -400 series airplanes, certificated in any category, equipped with auxiliary fuel tanks.

Unsafe Condition

(d) This AD was prompted by reports of chafing of the direct-current-powered float switch wiring insulation in the center fuel tank. We are issuing this AD to prevent contamination of the fueling float switch of the auxiliary fuel tank by moisture or fuel, and chafing of the float switch wiring against the float switch conduit in the fuel tank, which could present an ignition source inside the fuel tank that could cause a fire or 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.

Replacement

(f) Within 24 months after the effective date of this AD: Replace the existing fueling float switch in the auxiliary fuel tank with a new, improved fueling float switch, install a new liner system inside the float switch conduit, and perform related investigative and other specified actions, by doing all of the actions in accordance with Part A of the Accomplishment Instructions of Boeing Service Bulletin 737-28A1192, Revision 2, dated April 27, 2006.

Note 1: This AD does not require doing the actions in Part B of the Accomplishment Instructions of Boeing Service Bulletin 737-28A1192, Revision 2, dated April 27, 2006.

Parts Installation

(g) As of the effective date of this AD, no person may install a fueling float switch having P/N F8300-146 on the auxiliary fuel tank of any airplane.

Actions Accomplished Previously

(h) Replacements and conduit liner system installations accomplished before the effective date of this AD in accordance with Boeing Alert Service Bulletin 737-28A1192, dated March 27, 2003; or Boeing Service Bulletin 737-28A1192, Revision 1, dated August 21, 2003; are acceptable for compliance with the requirements of this AD.

Alternative Methods of Compliance (AMOCs)

(i)(1) The Manager, Seattle Aircraft Certification Office, 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 14 CFR 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 737-28A1192, Revision 2, dated April 27, 2006, 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 this document 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 July 7, 2006.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6-11418 Filed 7-19-06; 8:45 am]