

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-27341; Directorate Identifier 2006-NM-272-AD; Amendment 39-15073; AD 2007-11-16]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model MD-11 and MD-11F Airplanes

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

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all McDonnell Douglas Model MD-11 and MD-11F airplanes. This AD requires installing bracket assemblies and jumper wires in the center main wheel well to improve the bonding path between the structure (wall) of the lower auxiliary fuel tank and its internal fuel pumps; measuring the electrical resistance between the fuel pump housings and the fuel tank structure; and doing corrective actions if necessary. This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to detect and correct an inadequate bond between the internal fuel pump housings and the structure of the lower auxiliary fuel tank. This condition, if not corrected, could fail to meet fault current requirements and result in a potential ignition source that, in combination with flammable fuel vapors, could cause a fuel tank explosion and consequent loss of the airplane.

DATES: This AD becomes effective July 5, 2007.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of July 5, 2007.

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, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024), for service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Samuel Lee, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5262; fax (562) 627-5210.

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 all McDonnell Douglas Model MD-11 and MD-11F airplanes. That NPRM was published in the Federal Register on February 26, 2007 (72 FR 8311). That NPRM proposed to require installing bracket assemblies and jumper wires in the center main wheel well to improve the bonding path between the structure (wall) of the lower auxiliary fuel tank and its internal fuel pumps; measuring the electrical resistance between the fuel pump housings and the fuel tank structure; and doing corrective actions if necessary.

Comments

We provided the public the opportunity to participate in the development of this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Clarification of Alternative Method of Compliance (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 and determined that air safety and the public interest require adopting the AD with the change described previously. We have determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

There are about 195 airplanes of the affected design in the worldwide fleet. This AD affects about 107 airplanes of U.S. registry. The following table provides the estimated costs for U.S. operators to comply with this AD, at an average labor rate of \$80 per work hour.

Estimated Costs

Action	Work Hours	Parts	Cost per Airplane	Fleet Cost
Install bracket assemblies and jumper wires	4	\$1,928	\$2,248	\$240,536
Do electrical resistance measurement	1	None required	\$80	\$8,560

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):



2007-11-16 McDonnell Douglas: Amendment 39-15073. Docket No. FAA-2007-27341; Directorate Identifier 2006-NM-272-AD.

Effective Date

- (a) This AD becomes effective July 5, 2007.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to all McDonnell Douglas Model MD-11 and MD-11F airplanes; certificated in any category.

Unsafe Condition

(d) This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to detect and correct an inadequate bond between the internal fuel pump housings and the structure of the lower auxiliary fuel tank. This condition, if not corrected, could fail to meet fault current requirements and result in a potential ignition source that, in combination with flammable fuel vapors, could cause a fuel tank explosion and consequent loss of the airplane.

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.

Installation of Brackets and Jumpers, and Resistance Measurement

(f) Within 60 months after the effective date of this AD, do the actions described in paragraphs (f)(1) and (f)(2) of this AD, in accordance with the Accomplishment Instructions of Boeing Service Bulletin MD11-28-127, dated September 19, 2006.

(1) Install bracket assemblies and jumper wires between the structure of the lower auxiliary fuel tank and its internal fuel pumps.

(2) Do an electrical resistance measurement between the fuel pump housings and the lower auxiliary fuel tank wall.

Corrective Action

(g) If any resistance measurement done in accordance with paragraph (f)(2) of this AD is greater than 2.5 milliohms on either fuel pump housing: Before further flight, rework the electrical bonding between the fuel pump housings and the lower auxiliary fuel tank wall as needed to achieve a resistance measurement of 2.5 milliohms or less on both fuel pump housings, in accordance with the Accomplishment Instructions of Boeing Service Bulletin MD11-28-127, dated September 19, 2006.

Alternative Methods of Compliance (AMOCs)

(h)(1) The Manager, Los Angeles 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) 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 appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

Material Incorporated by Reference

(i) You must use Boeing Service Bulletin MD11-28-127, dated September 19, 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, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024), for a copy of this service information. You may review copies at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on May 21, 2007.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E7-10111 Filed 5-29-07; 8:45 am]