

[Federal Register Volume 76, Number 105 (Wednesday, June 1, 2011)]
[Rules and Regulations]
[Pages 31462-31464]
From the Federal Register Online via the Government Printing Office [www.gpo.gov]
[FR Doc No: 2011-12592]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-1044; Directorate Identifier 2010-NM-033-AD; Amendment 39-16704; AD 2011-11-05]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F; Model MD-10-10F, MD-10-30F, MD-11, and MD-11F Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding an existing airworthiness directive (AD) for the products listed above. That AD currently requires an inspection to determine if a certain fuel pump housing electrical connector is installed. The existing AD also requires a revision to the FAA-approved airplane flight manual (AFM) to advise the flightcrew of the appropriate procedures for disabling certain fuel pump electrical circuits following failure of a fuel pump housing electrical connector if applicable. The existing AD also requires the deactivation of certain fuel tanks or fuel pumps and the installation of placards if applicable. The existing AD allows the optional replacement of the fuel pump housing electrical connectors with new, improved parts, which would terminate the AFM revisions, deactivation of certain fuel tanks and fuel pumps, and placard installation. This new AD instead requires replacing the fuel pump housing electrical connector assembly with a new part and doing repetitive inspections for continuity, resistance, and insulation resistance, and doing corrective actions if necessary. This AD was prompted by reports of failures of a certain fuel pump housing electrical connector. We are issuing this AD to detect and correct insulation resistance degradation and arcing in the potted backside of the electrical connector assembly of the fuel boost/transfer pump housing, which could compromise its performance and cause an ignition source in the fuel tank, resulting in a fuel tank explosion and consequent loss of the airplane.

DATES: This AD is effective July 6, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of July 6, 2011.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach,

California 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; e-mail dse.boecom@boeing.com; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced 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.

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 (phone: 800-647-5527) is 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: Philip Kush, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; phone: 562-627-5263; fax: 562-627-5210.; e-mail: philip.kush@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede airworthiness directive (AD) 2007-15-05, amendment 39-15134 (72 FR 40216, July 24, 2007). That AD applies to the specified products. The NPRM published in the Federal Register on November 5, 2010 (75 FR 68246). That NPRM proposed to require replacing the fuel pump housing electrical assembly with a new part and doing repetitive inspections for continuity, resistance, and insulation resistance, and doing corrective actions, if necessary.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and the FAA's response to each comment.

Request for Addition of Part Number

FedEx requested that we add, in the header above the Summary and paragraphs (c), (e), and (f) of the proposed AD, the part number of the fuel pump housing electrical connector assembly requiring replacement. FedEx stated that the change will clarify the AD and avoid unnecessary work and cost to the operators.

We partially agree with the commenter. We disagree with adding the part number of the fuel pump housing electrical connector assembly requiring replacement to the header information, paragraph (c), and paragraph (f) of this AD because the affected part could be rotated onto any of the airplanes listed in the applicability. However, we agree that clarification of paragraph (h) of this AD (referred to as paragraph (g) in the NPRM) is needed. In order to comply with this AD, for all airplanes in the applicability it must be determined if the fuel pump housing electrical connector assembly having part number (P/N) 60-84355-1 is installed. We have added paragraph (g) to specify the inspection to determine the part number. We have also added a reference of P/N 60-84355-1 to paragraph (h) of this AD for clarification. In addition, we have added a reference of P/N 60-84355-1 to paragraph (e) of this AD for clarification.

Clarification of Paragraph (i) of This AD

We have revised paragraph (i) of this AD by replacing the phrase, "replacing the fuel pump electrical connector assembly as required by paragraph (g) of this AD" with the phrase, "installing the fuel pump housing electrical connector assembly having P/N 60-84351, in accordance with Boeing Alert Service Bulletin DC10-28A261 or Boeing Alert Service Bulletin MD11-28A143," to clarify that P/N 60-84351 must be repetitively inspected after installation.

Conclusion

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting the AD with the change described previously—and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Costs of Compliance

We estimate that this AD affects 281 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs

Action	Work hours	Average labor rate per hour	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Inspection	Between 20 and 36 per inspection cycle.	\$85	\$0	Between \$1,700 and \$3,060 per inspection cycle.	281	Between \$477,700 and \$859,860 per inspection cycle.
Replacement	Up to 44	85	Up to \$4,478	Up to \$8,218	281	Up to \$2,309,258.

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),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

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 removing airworthiness directive (AD) 2007-15-05, Amendment 39-15134 (72 FR 40216, July 24, 2007), and adding the following new AD:



2011-11-05 The Boeing Company: Amendment 39-16704; Docket No. FAA-2010-1044; Directorate Identifier 2010-NM-033-AD.

Effective Date

(a) This airworthiness directive (AD) is effective July 6, 2011.

Affected ADs

(b) This AD supersedes AD 2007-15-05, Amendment 39-15134.

Applicability

(c) This AD applies to all The Boeing Company Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F airplanes, certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 28: Fuel.

Unsafe Condition

(e) This AD results from reports of failures of the fuel pump housing electrical connector having P/N 60-84355-1. The Federal Aviation Administration is issuing this AD to detect and correct insulation resistance degradation and arcing in the potted backside of the electrical connector assembly of the fuel boost/transfer pump housing, which could compromise its performance and cause an ignition source in the fuel tank, resulting 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.

Inspection and Change

(g) For all airplanes: Within 10 months after the effective date of this AD, do an inspection of the fuel pump housing electrical connector to determine if part number (P/N) 60-84355-1 is installed. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the fuel pump housing electrical connector can be conclusively determined from that review.

(h) If, during the inspection required by paragraph (g) of this AD, any airplane is determined to have fuel pump housing electrical connector assembly having P/N 60-84355-1: Within 10 months after the effective date of this AD, do the actions in paragraph (h)(1) or (h)(2) of this AD, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin DC10-28A261,

dated December 1, 2009; or Boeing Alert Service Bulletin MD11-28A143, dated December 2, 2009; as applicable.

(1) Replace the fuel pump housing electrical connector assembly having P/N 60-84355-1 with new P/N 60-84351; or

(2) Do the actions required by paragraphs (h)(2)(i) and (h)(2)(ii) of this AD.

(i) Using a digital multi-meter, do a continuity, resistance, and insulation resistance inspection from the terminal strip through the fuel boost/transfer pump; and all applicable corrective actions specified in Boeing Alert Service Bulletin DC10-28A261, dated December 1, 2009; or Boeing Alert Service Bulletin MD11-28A143, dated December 2, 2009; as applicable. Do all applicable corrective actions before further flight.

(ii) Within 12 months after accomplishing the inspection required by paragraph (h)(2)(i) of this AD: Replace the fuel pump housing electrical connector assembly having P/N 60-84355-1 with a new fuel pump housing electrical connector assembly having P/N 60-84351.

(i) Before further flight after installing t

he new fuel pump housing electrical connector assembly, insert the applicable interim operating procedure regarding abnormal operations for failure of the fuel pump housing electrical connector into the Procedures section of the applicable Boeing airplane flight manual, in accordance with the applicable service information identified in Table 1 of this AD.

Table 1—Service Information

Bulletin—	Date—	To the—
Boeing DC–10 Operations Bulletin 2–001B	January 25, 2010	Boeing DC–10 Flight Crew Operating Manual.
Boeing MD–10 Flight Crew Operations Manual Advisory Bulletin 2–01B	January 25, 2010	Boeing MD–10 Flight Crew Operations Manual.
Boeing MD–11 Flight Crew Operations Manual Advisory Bulletin 2–05C	January 25, 2010	Boeing MD–11 Flight Crew Operations Manual.

Repetitive Inspections for P/N 60-84351

(j) Within 18 months after installing the fuel pump housing electrical connector assembly having P/N 60-84351, in accordance with Boeing Alert Service Bulletin DC10-28A261 or Boeing Alert Service Bulletin MD11-28A143: Do a continuity, resistance, and insulation resistance inspection from the terminal strip through the fuel boost/transfer pump, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin DC10-28A261, dated December 1, 2009; or Boeing Alert Service Bulletin MD11-28A143, dated December 2, 2009; as applicable. Do all applicable corrective actions before further flight in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin DC10-28A261, dated December 1, 2009; or Boeing Alert Service Bulletin MD11-28A143, dated December 2, 2009; as applicable. Repeat the inspections thereafter at intervals not to exceed 18 months.

Alternative Methods of Compliance (AMOCs)

(k)(1) The Manager, Los Angeles 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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Philip Kush, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles

Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; phone: 562-627-5263; fax: 562-627-5210; e-mail: philip.kush@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

Material Incorporated by Reference

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

Table 2—All Material Incorporated by Reference

Document	Date
Boeing Alert Service Bulletin DC10-28A261	December 1, 2009.
Boeing Alert Service Bulletin MD11-28A143	December 2, 2009.
Boeing DC-10 Operations Bulletin 2-001B to the Boeing DC-10 Flight Crew Operating Manual	January 25, 2010.
Boeing MD-10 Flight Crew Operations Manual Advisory Bulletin 2-01B to the Boeing MD-10 Flight Crew Operations Manual.	January 25, 2010.
Boeing MD-11 Flight Crew Operations Manual Advisory Bulletin 2-05C to the Boeing MD-11 Flight Crew Operations Manual.	January 25, 2010.

(The document number of Boeing DC-10 Operations Bulletin 2-001B is specified only on the first page of the document.)

(1) The Director of the Federal Register approved the incorporation by reference of the service information contained in table 2 of this AD 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, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, California 90846-0001; telephone: 206-544-5000, extension 2; fax: 206-766-5683; e-mail: dse.boecom@boeing.com; Internet <https://www.myboeingfleet.com>.

(3) You may review copies of the referenced 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 an NARA facility, 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 May 12, 2011.

Jeffrey E. Duven,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.