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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2003-NM-144-AD; Amendment 39-13254; AD 2003-16-02]**

**RIN 2120-AA64**

#### **Airworthiness Directives; McDonnell Douglas Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD) that is applicable to certain McDonnell Douglas transport category airplanes listed above. This action requires inspecting the fuel boost/transfer pumps or reviewing the airplane maintenance records to determine the part number of the fuel boost/transfer pumps, and follow-on actions if necessary. This action is necessary to prevent heated localized temperatures within the fuel boost/transfer pumps due to frictional heating, which could result in a potential source of ignition in a fuel tank and consequent fire or explosion. This action is intended to address the identified unsafe condition.

**DATES:** Effective August 25, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of August 25, 2003.

Comments for inclusion in the Rules Docket must be received on or before October 7, 2003.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2003-NM-144-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2003-NM-144-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in this AD may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024). This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Philip C. Kush, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5263; fax (562) 627-5210.

**SUPPLEMENTARY INFORMATION:** The FAA has received two reports of evidence of heat damage to the reprime impeller area found during a visual inspection of the fuel pumps on certain Boeing Model 747 series airplanes. The heat discoloration of the damaged parts indicates that the fuel pumps were exposed to high temperatures due to frictional heating between pump components. Such conditions within the pumps can create a potential ignition source and auto-ignition of vapors could occur, which could result in fire or explosion in a fuel tank.

A review of design data by the manufacturer revealed that a fuel boost/transfer pump having Hydro-Aire part number (P/N) 60-847-1A has less internal fuel retention capability than other fuel boost/transfer pumps. It was determined that the smaller fuel retention capability of the Hydro-Aire fuel pumps may intensify the frictional heating. Replacement of the Hydro-Aire fuel pumps with the improved pumps will minimize the risk of a potential ignition source in the fuel tank.

### **Similar Models**

The fuel boost/transfer pumps of the reprime impeller area of the Hydro-Aire P/N 60-847-1A on McDonnell Douglas Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes are similar to those on Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes, Model 747 series airplanes, and Model 757 series airplanes. Therefore, all of these models may be subject to the same unsafe condition.

### **Other Relevant Rulemaking**

The FAA has previously issued the following two ADs that concern the fuel boost/transfer pumps on Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes, Model 747 series airplanes, and Model 757 series airplanes:

1. AD 2002-24-51, amendment 39-12992 (68 FR 10, January 2, 2003), applicable all Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes, Model 747 series airplanes, and Model 757 series airplanes, requires revising the Airplane Flight Manual (AFM) to require the flightcrew to maintain certain minimum fuel levels in the center fuel tanks, and, for certain airplanes, to prohibit the use of the horizontal stabilizer fuel tank and certain center auxiliary fuel tanks.

2. AD 2002-24-52, amendment 39-12993 (68 FR 14, January 2, 2003), applicable to all Boeing Model 747-400, -400D, and -400F series airplanes, requires revising the AFM to require the flightcrew to maintain certain minimum fuel levels in the center fuel tanks, and to prohibit the use of the horizontal stabilizer fuel tank. That AD also removes the reference to placards that was specified in the operating limitations required by AD 2002-24-51.

This AD will not affect the current requirements of any of those previously issued ADs.

## **Explanation of Relevant Service Information**

The FAA has reviewed and approved Boeing Alert Service Bulletin (ASB) DC10-28A241, dated April 24, 2003, which describes, among other things, the following:

- Condition 1—Procedures for reviewing the airplane maintenance records to determine if any fuel boost/transfer pump having P/N 60-847-1A is installed. If the records show that none of the pumps have P/N 60-847-1A, no further action is necessary.
- Condition 2—Procedures for a visual inspection to determine if a pump having P/N 60-847-1A is installed. If the inspection shows that no pump having P/N 60-847-1A is installed, no further action is necessary.
- Condition 3, Option 1a.—Procedures to replace the pump with a new pump, if the records or visual inspection verify that a pump having P/N 60-847-1A is installed and replacement pumps are available.
- Condition 3, Option 2a.—Procedures to deactivate any pump having P/N 60-847-1A if replacement pumps are not available.
- Condition 3, Option 2b.—Procedures to relocate pumps having P/N 60-847-1A, if replacement pumps are not available.

In addition, Appendix A, Recommended Operating Limitations, of the ASB describes certain operating procedures, limitations, and related maintenance actions intended to prevent fuel vapors from coming into contact with a possible ignition source in the fuel tanks.

The accomplishment of certain actions specified in the service bulletin is intended to adequately address the identified unsafe condition.

## **Explanation of the Requirements of the Rule**

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design registered in the United States, this AD requires accomplishment of certain actions specified in the service bulletin described previously, except as discussed below.

## **Differences Between This AD and the Service Bulletin**

The service bulletin recommends a review of the airplane maintenance records to determine if a certain P/N for the fuel boost/transfer pump is installed. This AD requires a general visual inspection to determine the P/N. In lieu of the inspection, a review of the airplane maintenance records is acceptable if the P/N of the pump can be positively determined from that review.

While Option 2.b. of the service bulletin recommends replacement of all relocated pumps within 18 months after issue date of the service bulletin, this AD requires only the relocation of the pumps, or deactivation of the pumps having P/N 60-847-1A per the McDonnell Douglas DC-10 Minimum Equipment List.

Appendix A of the service bulletin contains operating limitations and related maintenance actions for fuel boost/transfer pumps having P/N 60-847-1A that are installed in all locations except those boost pumps located in the aft position of the main tanks. This AD does not specify implementation of the operating limitations and related maintenance actions for boost pumps in the aft position of the main tanks since these pumps are always covered with fuel during takeoff, which prevents heated localized temperatures from occurring within the fuel boost/transfer pump due to frictional heating.

## **Changes to 14 CFR Part 39/Effect on the AD**

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance (AMOCs). Because we have now included this material in part 39, only the office authorized to approve AMOCs is identified in each individual AD.

## **Determination of Rule's Effective Date**

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

## **Comments Invited**

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

*Submit comments using the following format:*

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2003-NM-144-AD." The postcard will be date stamped and returned to the commenter.

## **Regulatory Impact**

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT

Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding the following new airworthiness directive:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

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

*We post ADs on the internet at "www.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2003-16-02 McDonnell Douglas:** Amendment 39-13254. Docket 2003-NM-144-AD.

**Applicability:** Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes; as listed in Boeing Alert Service Bulletin (ASB) DC10-28A241, dated April 24, 2003; certificated in any category.

**Compliance:** Required as indicated, unless accomplished previously.

To prevent heated localized temperatures within the fuel boost/transfer pumps due to frictional heating, which could result in a potential source of ignition in a fuel tank and consequent fire or explosion, accomplish the following:

## Inspection/Records Review/Follow-on Actions

(a) Within 90 days after the effective date of this AD: Do a general visual inspection of the fuel boost/transfer pumps to determine if Hydro-Aire part number (P/N) 60-847-1A is installed. Instead of inspecting the pumps, a review of the airplane maintenance records is acceptable if the P/N of the pumps can be positively determined from that review. Do the actions per the Work Instructions of Boeing Alert Service Bulletin DC10-28A241, dated April 24, 2003.

(1) If the inspection and/or records verify that no pump having P/N 60-847-1A is installed, no further action is required by this paragraph.

(2) If the inspection and/or records verify that a pump having P/N 60-847-1A is installed, do the applicable actions specified in paragraph (b) of this AD.

**Note 1:** For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

(b) With the exception of fuel boost pumps having P/N 60-847-1A that are located in the aft position of the main tanks: Do the applicable actions specified in paragraph (b)(1) or (b)(2) of this AD, at the applicable times specified, per the Work Instructions of Boeing Alert Service Bulletin DC10-28A241, dated April 24, 2003.

(1) If replacement pumps having either P/N 60-847-2 or P/N 60-847-3 are available, within 90 days after the effective date of this AD, replace the pumps per Option 1 of Condition 3 of the ASB. With the exception of paragraph (c) of this AD, this constitutes terminating action for the requirements of this AD.

(2) If replacement pumps are not available, do the actions specified in paragraph (b)(2)(i), (b)(2)(ii), or (b)(2)(iii) of this AD within 90 days after the effective date of this AD.

(i) Deactivate pumps having P/N 60-847-1A per the McDonnell Douglas DC-10 Minimum Equipment List (MEL) and replace the pump with a pump having P/N 60-847-2 or 60-847-3 within the time limitations specified in the MEL, per Option 2a. of Condition 3 of the ASB.

(ii) Relocate the pumps per Option 2b. of Condition 3 of the ASB. Or,

(iii) Insert Appendix A of the ASB into the Limitations Section of the Airplane Flight Manual.

**Note 2:** Fuel boost pumps having P/N 60-847-1A that are located in the aft position of the main tanks are always covered with fuel during takeoff; therefore, operating the airplane per the operations limitations specified in Appendix A of Boeing Alert Service Bulletin DC10-28A241, dated April 24, 2003, is unnecessary.

### **Parts Installation**

(c) As of the effective date of this AD, no person shall replace a fuel boost/transfer pump on any airplane with a fuel boost/transfer pump having Hydro-Aire P/N 60-847-1A, unless that pump is installed in the aft position of the main tanks. A fuel boost/transfer pump having Hydro-Aire P/N 60-847-1A that is removed for inspection per paragraph (a) of this AD may be reinstalled until paragraph (b) of this AD is complied with.

### **Alternative Methods of Compliance**

(d) In accordance with 14 CFR 39.19, the Manager, Los Angeles Aircraft Certification Office, FAA, is authorized to approve alternative methods of compliance for this AD.

### **Incorporation by Reference**

(e) Unless otherwise specified in this AD, the actions shall be done per Boeing Alert Service Bulletin DC10-28A241, dated April 24, 2003. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

### **Effective Date**

(f) This amendment becomes effective on August 25, 2003.

Issued in Renton, Washington, on July 29, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03-19682 Filed 8-7-03; 8:45 am]

BILLING CODE 4910-13-P