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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-22503; Directorate Identifier 2005-NM-062-AD; Amendment 39-14477; AD 2006-03-13]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas 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

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

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain McDonnell Douglas transport category airplanes. This AD requires an initial ultrasonic inspection for cracks of the studbolts of the inboard and outboard hinge fittings of the left and right outboard flaps of the wings. Based on the inspection results, this AD also requires doing repetitive ultrasonic inspections, replacing upper and/or lower studbolts with new or serviceable studbolts, doing a detailed inspection for corrosion of the upper studbolts, doing a magnetic particle inspection for cracks of studbolts, and changing the protection treatment; as applicable. This AD results from reports of corrosion and failures of the upper and lower studbolts of the outboard flaps inboard and outboard hinge fittings. We are issuing this AD to prevent corrosion and subsequent cracking of studbolts, which could result in failure of the flap hinge fittings and their possible separation from the wing rear spar, and consequent reduced controllability of the airplane.

DATES: This AD becomes effective March 16, 2006.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of March 16, 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, 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: Maureen Moreland, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5238; 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 certain McDonnell Douglas 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. That NPRM was published in the Federal Register on September 22, 2005 (70 FR 55598). That NPRM proposed to require an initial ultrasonic inspection for cracks of the studbolts of the inboard and outboard hinge fittings of the left and right outboard flaps of the wings. Based on the inspection results, that NPRM also proposed to require doing repetitive ultrasonic inspections, replacing upper and/or lower studbolts with new or serviceable studbolts, doing a detailed inspection for corrosion of the upper studbolts, doing a magnetic particle inspection for cracks of studbolts, and changing the protection treatment; as applicable.

Comments

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

Request To Consider Parts Availability

One commenter requests that we consider parts availability before setting an effective date for the AD. The commenter states that there are no kits available to do the proposed replacement. The commenter also states that most quantities of studbolts are minimal (less than 50 available) with additional orders coming in from suppliers in the first half of 2006.

We agree to consider parts availability, but do not agree that there is a shortage of parts. The AD specifies several options for continued operation with existing studbolts that are found not to be cracked. Options include installing new bolts with increased corrosion protections; treating existing studbolts with corrosion protection in accordance with a method approved by us; and replacing the studbolts with equivalent studbolts with follow-on repetitive inspections.

In addition, the airplane manufacturer has informed us that they have developed corrosion protection methodologies and will pursue approval from us once the final rule is issued. We will support this effort. The airplane manufacturer also has informed us that they are scheduled to receive studbolts in March of 2006 to support the required replacement of failed studbolts. For operators that initiate a program to replace all the studbolts as terminating action, the airplane manufacturer recommends placing a specific purchase order for the part numbers and quantities of studbolts required, along with a time frame that supports their replacement program.

In light of these findings, we have determined that no change to the final rule is necessary.

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.

Clarification of Replacement

In paragraph (j)(4) of the NPRM, we inadvertently omitted the reference to the service bulletin. We have revised that paragraph to include the phrase "in accordance with the service bulletin."

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 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 594 airplanes of the affected design in the worldwide fleet. This AD will affect about 297 U.S.-registered 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, and MD-10-30F airplanes; and 69 Model MD-11 and -11F airplanes.

ESTIMATED COSTS FOR REQUIRED ACTIONS

Action	Work hours	Average labor rate per hour	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Initial ultrasonic inspection	16	\$65	None	\$1,040	366	\$380,640

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/

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).

2006-03-13 McDonnell Douglas: Amendment 39-14477. Docket No. FAA-2005-22503; Directorate Identifier 2005-NM-062-AD.

Effective Date

- (a) This AD becomes effective March 16, 2006.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to McDonnell Douglas airplanes identified in Table 1 of this AD, certificated in any category.

TABLE 1.—APPLICABILITY

Model—	As identified in—
(1) 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 and MD-10-30F airplanes.	Boeing Service Bulletin DC10-57-154, dated February 2, 2005.
(2) MD-11 and MD-11F airplanes	Boeing Service Bulletin MD11-57-076, dated February 2, 2005.

Unsafe Condition

- (d) This AD was prompted by reports of corrosion and failures of the upper and lower studbolts of the outboard flaps inboard and outboard hinge fittings. We are issuing this AD to prevent corrosion and subsequent cracking of studbolts, which could result in failure of the flap hinge fittings and their possible separation from the wing rear spar, and consequent reduced controllability 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.

Service Bulletins

(f) The term "service bulletin," as used in this AD, means the Accomplishment Instructions of the applicable service bulletin listed in Table 1 of this AD.

Ultrasonic Inspection

(g) Do an ultrasonic inspection for cracks of the upper and lower studbolts (upper studbolts only for Model MD-11 and -11F airplanes) of the inboard and outboard hinge fittings of the left and right outboard flaps of the wings, in accordance with the service bulletin. Inspect within 72 months from the time the studbolts were last replaced, or within 24 months after the effective date of this AD, whichever occurs later.

Condition 1: No Cracked Studbolts

(h) If no cracked upper or lower studbolt is detected during any ultrasonic inspection required by paragraph (g) of this AD, do the actions specified in paragraph (i), (j), or (k) of this AD.

Condition 1, Option 1: Repetitive Inspections

(i) Repeat the ultrasonic inspection required by paragraph (g) of this AD thereafter at intervals not to exceed 24 months, until the action in paragraph (j)(1), (j)(2), (k)(1), (k)(2)(i), (o)(1), or (o)(2)(i) of this AD is done.

Condition 1, Option 2: Replacement

(j) Within 72 months from the time the studbolts were last replaced, or within 24 months after the effective date of this AD, whichever occurs later, do any one of the replacements in Table 2 of this AD. Thereafter, at the times specified in Table 2, repeat the ultrasonic inspection required by paragraph (g) of this AD (if applicable).

TABLE 2.—REPLACEMENT PARTS

Replace the upper and lower studbolts (as applicable) of the inboard and outboard hinge fittings with—	And repeat the ultrasonic inspection required by paragraph (g) of this AD thereafter—	Accomplishing this replacement terminates—
(1) New studbolts that have increased corrosion protection in accordance with the service bulletin.	None	The repetitive inspection requirements of paragraph (i), (j)(3), and (j)(4) of this AD.
(2) Studbolts changed with protective treatment in accordance with a method approved by the Manager, Los Angeles Aircraft Certification (ACO), FAA.	None	The repetitive inspection requirements of paragraph (i), (j)(3), and (j)(4) of this AD.
(3) Equivalent studbolts in accordance with the service bulletin.	At intervals not to exceed 24 months	None.
(4) Kept serviceable studbolts wet with sealant in accordance with the service bulletin.	At intervals not to exceed 24 months	None.

Condition 1, Option 3: Removal, Inspection(s), and Corrective Actions

(k) Within 72 months from the time the studbolts were last replaced, or within 24 months after the effective date of this AD, whichever occurs later, remove the upper and lower studbolts (as applicable) of the inboard and outboard hinge fittings, and do a detailed inspection for corrosion of the upper and lower studbolts (as applicable), in accordance with the service bulletin.

Note 1: For the purposes of this AD, a detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required."

(1) If no corroded studbolt is found, before further flight, change the protective treatment of all upper and lower studbolts (as applicable) to give increased corrosion protection, in accordance with a method approved by the Manager, Los Angeles ACO, FAA. Accomplishing this change ends the repetitive inspection requirements of paragraph (i) of this AD.

(2) If any corroded studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, thereafter do the repetitive inspections (if applicable) in accordance with Table 2 of this AD, and do a magnetic particle inspection for cracks in any remaining studbolt in accordance with the service bulletin.

(i) If no cracked studbolt is found, before further flight, change the protective treatment of all remaining studbolts to give increased corrosion protection, in accordance with a method approved by the Manager, Los Angeles ACO, FAA. Accomplishing this change ends the repetitive inspection requirements of paragraph (i) of this AD.

(ii) If any cracked studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, and thereafter do the repetitive inspections (if applicable) in accordance with Table 2 of this AD.

Condition 2: Cracked Studbolts

(l) If any cracked studbolt is detected during any ultrasonic inspection required by paragraph (g) of this AD, before further flight, do the actions specified in paragraph (m), (n), or (o) of this AD.

Condition 2, Option 1: Removal, Inspection(s), and Corrective Actions

(m) Remove any cracked upper and lower studbolt (as applicable) of the inboard and outboard hinge fittings, install any studbolt identified in and in accordance with Table 2 of this AD, do the repetitive inspections (if applicable) in accordance with Table 2 of this AD, and do a detailed inspection for corrosion of any remaining studbolts in accordance with the service bulletin.

(1) If no corroded studbolt is found, before further flight, do a magnetic particle inspection for cracks in any remaining studbolt in accordance with the service bulletin. If any crack is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD and do the repetitive inspections (if applicable) in accordance with Table 2 of this AD.

(2) If any corroded studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, do the repetitive inspections (if applicable) in accordance with Table 2 of this AD, and do a magnetic particle inspection for cracks in any remaining studbolt in accordance with the service bulletin.

(i) If no cracked studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, and do the repetitive inspections (if applicable) in accordance with Table 2 of this AD.

(ii) If any cracked studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, and do the repetitive inspections (if applicable) in accordance with Table 2 of this AD.

Condition 2, Option 2: Replacement

(n) Replace all studbolts in accordance with paragraph (j) of this AD.

Condition 2, Option 3: Removal, Inspections, and Installation

(o) Remove any cracked studbolt, install any studbolt identified in and in accordance with Table 2 of this AD, do the repetitive inspections (if applicable) in accordance with Table 2 of this AD, and do a detailed inspection for corrosion of any remaining studbolt in accordance with the service bulletin.

(1) If no corroded studbolt is found, before further flight, do a magnetic particle inspection for cracks in any remaining studbolt in accordance with the service bulletin, and change the protective treatment of all remaining upper and lower studbolts (as applicable) to give increased corrosion protection in accordance with a method approved by the Manager, Los Angeles ACO, FAA. Accomplishing this change ends the repetitive inspection requirements of paragraph (i) of this AD.

(2) If any corroded studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, do the repetitive inspections (if applicable) in accordance with Table 2 of this AD, and do a magnetic particle inspection for cracks in any remaining studbolt in accordance with the service bulletin.

(i) If no cracked studbolt is found, before further flight, change the protective treatment of all remaining studbolts to give increased corrosion protection in accordance with a method approved by the Manager, Los Angeles ACO, FAA. Accomplishing this change ends the repetitive inspection requirements of paragraph (i) of this AD.

(ii) If any cracked studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, and do the repetitive inspections (if applicable) in accordance with Table 2 of this AD.

Alternative Methods of Compliance (AMOCs)

(p)(1) The Manager, Los Angeles 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

(q) You must use the applicable service bulletin in table 3 of this AD 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, 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 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.

TABLE 3.—MATERIAL INCORPORATED BY REFERENCE

Service Bulletin	Date
Boeing Service Bulletin DC10–57–154.	February 2, 2005.
Boeing Service Bulletin MD11–57–076.	February 2, 2005.

Dated: Issued in Renton, Washington, on January 30, 2006.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 06-1148 Filed 2-8-06; 8:45 am]

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