

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [65 FR 50621 8/21/2000]

[Docket No. 2000-NM-50-AD; Amendment 39-11866; AD 2000-16-10]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model DC-10-10, -15, -30, -30F (KC-10A Military), and -40 Series Airplanes; and Model MD-10-10F and MD-10-30F Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain McDonnell Douglas Model DC-10-10, -15, -30, -30F (KC-10A military), and -40 series airplanes, and Model MD-10-10F and MD-10-30F series airplanes that requires performing repetitive ultrasonic inspections of the attaching bolts on the inboard and outboard support on the inboard and outboard flap assembly to detect failed bolts, or verifying the torque of the attaching bolts on the inboard support on the outboard flap; and follow-on actions. This AD also requires replacing all bolts with bolts made from Inconel, which constitutes terminating action for the repetitive inspection requirements. This amendment is prompted by an in-flight loss of the inboard flap assembly on an airplane during approach for landing. The actions specified by this AD are intended to prevent in-flight loss of inboard and outboard flap assemblies due to failure of H-11 attaching bolts, which could result in reduced controllability of the airplane.

DATES: Effective September 25, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of September 25, 2000.

ADDRESSES: 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: Technical Publications Business Administration, Dept. C1-L51 (2-60). This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, 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: Ron Atmur, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5224; fax (562) 627-5210.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain McDonnell Douglas Model DC-10-10, -15, -30, -30F (KC-10A military), and -40 series airplanes was published in the **Federal Register** on May 10, 2000 (65 FR 30021). That action proposed to require performing repetitive ultrasonic inspections of the attaching bolts on the inboard and outboard support on the inboard and outboard flap assembly to detect failed bolts, or verifying the torque of the attaching bolts on the inboard support on the outboard flap; and follow-on actions. That action also proposed to require replacing all bolts with bolts made from Inconel, which constitutes terminating action for the repetitive inspection requirements.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Support for Proposed AD

One commenter supports the proposed AD.

Request to Revise Compliance Time

One commenter requests that the threshold of both the initial and repetitive inspections of the flap hinge bolts be provided in terms of landings rather than calendar days. The commenter did not offer a reason for its request. The FAA does not concur. We assume that specifying the compliance time in flight hours or landings would fit more easily into a maintenance program. We have determined that the cause of the identified unsafe condition is stress corrosion cracking of the attachment bolts. Stress corrosion cracking is dependent upon calendar time not on flight hours or landings accumulated on an airplane. Therefore, no change to the final rule is necessary.

Explanation of Change to the Applicability of the Proposed AD

On May 9, 2000 (i.e., after issuance of the NPRM), the FAA issued a Type Certificate (TC) for McDonnell Douglas Model MD-10-10F and MD-10-30F series airplanes. Model MD-10 series airplanes are Model DC-10 series airplanes that have been modified with an Advanced cockpit. The H-11 attaching bolts on the inboard and outboard support on the inboard and outboard flap assembly installed on Model MD-10-10F and MD-10-30F series airplanes (before or after the modifications necessary to meet the type design of a Model MD-10 series airplane) are identical to those on the affected Model DC-10-10, -15, -30, and -40 series airplanes, and KC-10A (military) airplanes. Therefore, all of these airplanes may be subject to the same unsafe condition. In addition, the manufacturer's fuselage number and factory serial number are not changed during the conversion from a Model DC-10 to Model MD-10. We find that Model MD-10-10F and MD-10-30F series airplanes were not specifically identified by model in the applicability of the NPRM; however, they were identified by manufacturer's fuselage numbers in McDonnell Douglas Alert Service Bulletin DC10-57A143, dated December 20, 1999 (which was referenced in the applicability statement of the AD for determining the specific affected airplanes). Therefore, we have revised the applicability throughout the final rule to include Model MD-10-10F and MD-10-30F series airplanes.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 412 airplanes of the affected design in the worldwide fleet. The FAA estimates that 244 airplanes of U.S. registry will be affected by this AD.

It will take between 2 and 8 work hours per airplane to accomplish the required inspection/torque verification, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the inspection/torque verification required by this AD on U.S. operators is estimated to be between \$29,280 and \$117,120, or between \$120 and \$480 per airplane, per inspection cycle.

It will take approximately 288 work hours per airplane to accomplish the required bolt replacement, at an average labor rate of \$60 per work hour. Required parts will cost approximately \$2,987 per airplane. Based on these figures, the cost impact of the replacement required by this AD on U.S. operators is estimated to be \$4,945,148, or \$20,267 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

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.

For the reasons discussed above, I certify that this action (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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it 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:

SUPERSEDED

AIRWORTHINESS DIRECTIVE

REGULATORY SUPPORT DIVISION
P.O. BOX 26460
OKLAHOMA CITY, OKLAHOMA 73125-0460



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

AD's are posted on the internet at <http://av-info.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).

2000-16-10 MCDONNELL DOUGLAS: Amendment 39-11866. Docket 2000-NM-50-AD.

Applicability: Model DC-10-10, -15, -30, -30F (KC-10A military), and -40 series airplanes; and Model MD-10-10F and MD-10-30F series airplanes; as listed in McDonnell Douglas Alert Service Bulletin DC10-57A143, dated December 20, 1999; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent in-flight loss of inboard and outboard flap assemblies due to failure of H-11 attaching bolts, which could result in reduced controllability of the airplane, accomplish the following:

Inspection and Corrective Actions

(a) Within 2 months after the effective date of this AD, perform an ultrasonic inspection of the attaching bolts on the inboard and outboard support on the inboard and outboard flap assembly to detect failed bolts, or verify the torque of the attaching bolts on the inboard support on the outboard flap, in accordance with McDonnell Douglas Alert Service Bulletin DC10-57A143, dated December 20, 1999.

(1) If no failed bolt is found, repeat the ultrasonic inspection thereafter at intervals not to exceed 6 months.

(2) If any failed bolt is found, prior to further flight, replace the bolt and associated parts with a new Inconel bolt and new associated parts in accordance with the service bulletin, except as provided by paragraphs (a)(2)(i) and (a)(2)(ii) of this AD. Accomplishment of the replacement constitutes terminating action for the repetitive inspection requirements of paragraph (a)(1) of this AD for that bolt.

(i) If an Inconel bolt is not available for accomplishment of the replacement, replacement with a new H-11 steel bolt is acceptable provided that operators repeat the ultrasonic inspection thereafter at intervals not to exceed 6 months until the requirements of paragraph (b) of this AD are accomplished.

(ii) If a PLI washer is not available for accomplishment of the Inconel replacement, a new Inconel bolt can be temporarily installed without a new PLI washer provided that the bolt is torqued to the applicable value specified in the service bulletin. Within 6,000 flight hours after an Inconel bolt is torqued, replace the PLI washer with a new washer in accordance with the service bulletin.

Bolt Replacement

(b) Within 2 years after accomplishing the initial inspection required by paragraph (a) of this AD, accomplish the action specified in paragraph (a)(2) of this AD for all H-11 bolts. Accomplishment of the replacement of all H-11 bolts with Inconel bolts constitutes terminating action for the requirements of this AD.

Spares

(c) As of 2 years after the effective date of this AD, no person shall install, on any airplane, an H-11 steel bolt, part number 71658-8-44, 71658-7-44, 71658-7-54, 71658-7-56, 71658-7-29, 71658-9-31, 71658-9-34, 71658-9-38, 71658-9-41, 71658-10-41, 71658-7-26, 71658-7-27, or 71658-8-29, on the inboard or outboard flap assembly.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) The actions shall be done in accordance with McDonnell Douglas Alert Service Bulletin DC10-57A143, dated December 20, 1999. 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: Technical Publications Business Administration, Dept. C1-L51 (2-60). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, 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.

(g) This amendment becomes effective on September 25, 2000.

FOR FURTHER INFORMATION CONTACT: Ron Atmur, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5224; fax (562) 627-5210.

Issued in Renton, Washington, on August 10, 2000.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.