

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [65 FR 7719 2/16/2000]

[Docket No. 99-NM-210-AD; Amendment 39-11567; AD 2000-03-08]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model MD-90-30 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 MD-90-30 series airplanes, that requires repetitive fluorescent penetrant and magnetic particle inspections to detect fatigue cracking of the main landing gear (MLG) piston, and repair, if necessary. This amendment is prompted by reports of MLG failures during towing of in-service airplanes due to fatigue cracks. The actions specified by this AD are intended to detect and correct fatigue cracking of MLG pistons, which could result in failure of the pistons, and consequent damage to the airplane structure and injury to flight crew, passengers, or ground personnel.

DATES: Effective March 22, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 22, 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: Carl Fountain, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5222; 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 MD-90-30 series airplanes was published in the **Federal Register** on October 27, 1999 (64 FR 57790). That action proposed to require repetitive fluorescent penetrant and magnetic particle inspections to detect fatigue cracking of the main landing gear (MLG) piston, and repair, if necessary.

Comments

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

The commenter supports the proposed rule.

Conclusion

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Interim Action

This is considered to be interim action. The manufacturer has advised that it currently is developing a modification that will positively address the unsafe condition addressed by this AD. Once this modification is developed, approved, and available, the FAA may consider additional rulemaking.

Cost Impact

There are approximately 19 airplanes of the affected design in the worldwide fleet. The FAA estimates that 15 airplanes of U.S. registry will be affected by this AD, that it will take approximately 2 work hours per airplane to accomplish the required inspections, and that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$1,800, or \$120 per airplane, per inspection cycle.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

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:



AIRWORTHINESS DIRECTIVE

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

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

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).

2000-03-08 MCDONNELL DOUGLAS: Amendment 39-11567. Docket 99-NM-210-AD.

Applicability: Model MD-90-30 airplanes, as listed in McDonnell Douglas Service Bulletin MD90-32-012, Revision 01, dated June 2, 1998; 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 detect and correct fatigue cracking of main landing gear (MLG) pistons, which could result in failure of the pistons, and consequent damage to the airplane structure and injury to flight crew, passengers, or ground personnel, accomplish the following:

Inspection of MLG Piston Part Number 5935347-509

(a) For MLG pistons, part number (P/N) 5935347-509: Perform fluorescent penetrant and magnetic particle inspections to detect fatigue cracking of the MLG pistons, in accordance with McDonnell Douglas Service Bulletin MD90-32-012, dated May 19, 1997; or Revision 01, dated June 2, 1998, at the later of the times specified in paragraphs (a)(1) and (a)(2) of this AD. Repeat the inspections thereafter at intervals not to exceed 2,500 landings.

- (1) Prior to the accumulation of 4,000 landings; or
- (2) Within 2,500 landings or 12 months after the effective date of this AD whichever occurs first.

Inspection of MLG Piston Part Numbers 5935347-511 and -513

(b) For MLG pistons P/N's 5935347-511 and -513: Within 5,000 landings after the effective date of this AD, perform fluorescent penetrant and magnetic particle inspections to detect fatigue cracking of the MLG pistons, in accordance with McDonnell Douglas Service Bulletin MD90-32-012, dated May 19, 1997; or Revision 01, dated June 2, 1998. Repeat the inspections thereafter at intervals not to exceed 5,000 landings.

Repair

(c) If any crack is found during any inspection required by this AD: Repair in accordance with a method approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

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 ACO. 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) Except as provided by paragraph (c) of this AD, the actions shall be done in accordance with McDonnell Douglas Service Bulletin MD90-32-012, dated May 19, 1997; or McDonnell Douglas Service Bulletin MD90-32-012, Revision 01, dated June 2, 1998. 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 March 22, 2000.

FOR FURTHER INFORMATION CONTACT:

Carl Fountain, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5222; fax (562) 627-5210.

Issued in Renton, Washington, on February 8, 2000.

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