

**14 CFR Part 39****[Docket No. 95-NM-221-AD; Amendment 39-9756; AD 96-19-09]****RIN 2120-AA64****Airworthiness Directives; McDonnell Douglas Model DC-9-80 Series Airplanes and Model MD-88 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-9-80 series airplanes and Model MD-88 airplanes, that requires a one-time inspection to detect cracking of the main landing gear (MLG) pistons, and repair or replacement of the pistons with new or serviceable parts, if necessary. This amendment is prompted by reports of failure of the MLG pistons that occurred during towing of the airplanes. The actions specified by this AD are intended to prevent fatigue cracking of the MLG pistons, which could result in failure of the pistons and subsequent damage to the airplane structure or injury to airplane occupants.

**DATES:** Effective October 21, 1996.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 21, 1996.

**ADDRESSES:** The service information referenced in this AD may be obtained from McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Department 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, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, 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:** Brent Bandle, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712; telephone (310) 627-5237; fax (310) 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-9-80 series airplanes and Model MD-88 airplanes was published in the Federal Register on April 15, 1996 (61 FR 16413). That action proposed to require a one-time dye penetrant and magnetic particle inspection to detect cracking of the main landing gear (MLG) pistons, and repair or replacement of the pistons with new or serviceable parts, if necessary.

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 the Proposal**

One commenter supports the proposed rule.

**Request to Review Availability of Spare Parts**

Several commenters request that, prior to the issuance of a final rule, the FAA consider the availability of spare MLG pistons. The commenters are concerned that ample replacement parts may not be available to the fleet in a timely manner.

The FAA has contacted the McDonnell Douglas Corporation, who advises that it has anticipated the need for additional spares and is addressing that issue with the gear manufacturer. Additionally, the FAA has approved procedures for removal of cracks from MLG pistons. Cracked pistons have been found on several aircraft so far, and the approved repairs (rather than replacement) have been applicable to most of those pistons.

**Request to Extend Compliance Time for Inspection**

Two commenters request that the proposed compliance time be extended. One commenter indicates that the proposed compliance time of 12 months or 1,500 landings (whichever occurs first) is not acceptable due to a lack of spare parts. The commenter suggests that a compliance time of 18 months or 3,000 landings (whichever occurs first) will provide an acceptable level of safety.

The FAA does not concur with the commenters' request. In developing an appropriate compliance time for this AD, the FAA considered not only the safety implications, but parts availability and normal maintenance schedules for timely accomplishment of the inspection of the affected fleet. In consideration of these factors, the FAA determined that the compliance time, as proposed, represents an appropriate interval in which the inspection can be

accomplished in a timely manner within the fleet and an adequate level of safety can still be maintained. Additionally, as discussed above, parts availability should not pose a problem for affected operators. However, the provisions of paragraph (f) of this AD afford operators the opportunity to request an adjustment of the compliance time, provided that adequate justification is presented to support such a request.

**Request to Revise Applicability of the Rule**

One commenter requests that the FAA revise the applicability of the proposed AD to exempt from the AD requirements all Model MD-88 airplanes that have an improved or reworked/reidentified MLG piston.

The FAA concurs with the commenter's request. The FAA finds that the only Model MD-88 airplanes that are subject to the addressed unsafe condition are those airplanes equipped with MLG pistons having part numbers 5935347-1 through 5935347-509, inclusive. The FAA has revised the applicability of the final rule accordingly.

**Request to Cite Additional Service Information**

One commenter requests that the FAA revise the proposal to cite the original issue of McDonnell Douglas Service Bulletin MD80-32-277 as an additional source of service information for accomplishment of the proposed inspection.

The FAA concurs. The FAA has determined that the original issue of the service bulletin contains the same inspection criteria outlined in Revision 1 of the service bulletin, which was referenced in the proposal as the appropriate source for service information. The FAA considers accomplishment of the inspection in accordance with the original issue of the service bulletin to be acceptable for compliance with this AD. Paragraph (a) of the final rule has been revised accordingly.

**Request to Revise Work Hour Estimate**

One commenter considers that the cost estimate presented in the preamble to the proposal was too low. The commenter indicates that the cost estimate should be revised to specify that the proposed inspection necessitates 8 work hours to accomplish.

The FAA does not concur that the number of work hours required is higher than approximated previously. The airplane manufacturer advises that it

has worked extensively with operators of the affected airplanes to determine the length of time necessary for accomplishment of the required inspection. Several airplanes have already been inspected, and 2 work hours, as specified in the proposal, has been shown to be a reasonable estimate for accomplishment of the inspection.

#### 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 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 1,119 Model DC-9-80 series airplanes and Model MD-88 airplanes of the affected design in the worldwide fleet. The FAA estimates that 609 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 actions, 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 \$73,080, or \$120 per airplane.

The cost impact figure discussed above is 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.

#### Regulatory Impact

The regulations adopted herein will not have substantial direct effects 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, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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:

96-19-09 McDonnell Douglas: Amendment 39-9756. Docket 95-NM-221-AD.

*Applicability:* Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) series airplanes; and Model MD-88 airplanes equipped with main landing gear (MLG) pistons having part numbers 5935347-1 through 5935347-509 inclusive; as listed in McDonnell Douglas Service Bulletin MD80-32-277, Revision 01, dated February 23, 1996; 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 (e) 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 fatigue cracking of the main landing gear (MLG) pistons, which could result in failure of the pistons and subsequent damage to the airplane structure or injury to airplane occupants, accomplish the following:

(a) Perform a one-time dye penetrant and magnetic particle inspection to detect cracking of the MLG pistons, in accordance with McDonnell Douglas Service Bulletin MD80-32-277, dated October 4, 1995, or Revision 01, dated February 23, 1996, at the

later of the times specified in paragraphs (a)(1) and (a)(2) of this AD.

(1) Prior to the accumulation of 4,000 total landings on the MLG piston.

(2) Within 1,500 landings or 12 months after the effective date of this AD, whichever occurs first.

(b) If no cracking is found, no further action is required by this AD.

(c) If any cracking is found that is within the limits specified in McDonnell Douglas Service Bulletin MD80-32-277, Revision 01, dated February 23, 1996, prior to further flight, repair in accordance with the service bulletin.

(d) If any cracking is found that is outside the limits specified in McDonnell Douglas Service Bulletin MD80-32-277, Revision 01, dated February 23, 1996, prior to further flight, replace the MLG piston with a new or serviceable part in accordance with the service bulletin.

(e) 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.

(f) 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.

(g) The actions shall be done in accordance with McDonnell Douglas Service Bulletin MD80-32-277, dated October 4, 1995; or McDonnell Douglas Service Bulletin MD80-32-277, Revision 01, dated February 23, 1996. 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 McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Department C1-L51 (2-60). 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, Transport Airplane Directorate, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(h) This amendment becomes effective on October 21, 1996.

Issued in Renton, Washington, on September 5, 1996.

James V. Devany,

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*  
[FR Doc. 96-23243 Filed 9-13-96; 8:45 am]

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