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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NM-419-AD; Amendment 39-13761; AD 2004-16-05]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to all Boeing Model 747 series airplanes, that requires a one-time inspection to determine whether the outer cylinder of the wing landing gear has certain part numbers, and replacement of the outer cylinder of the wing landing gear with a new, improved, or reworked part if necessary. This amendment also requires removal of the load evening system, if such a system is installed. This action is necessary to prevent fracture of the outer cylinder of the wing landing gear, which could result in collapse of the wing landing gear. This action is intended to address the identified unsafe condition.

DATES: Effective September 14, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of September 14, 2004.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

FOR FURTHER INFORMATION CONTACT: Tamara Anderson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6421; fax (425) 917-6590.

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 all Boeing Model 747 series airplanes was published in the Federal Register on April 29, 2003 (68 FR 22641). That action proposed to require a one-time inspection to determine whether the outer cylinder of the wing landing gear has certain part numbers, and replacement of the outer cylinder of the wing landing gear with a new, improved, or reworked part if necessary. That action also proposed to require removal of the load evening system, if such a system is installed.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. The FAA has duly considered the comments received.

Support for the Proposed AD

One commenter supports the proposed AD.

Request To Allow Records Review In Lieu of Inspection

Several commenters request that we revise paragraph (a) of the proposed AD to allow operators to perform a records review to determine whether a subject part is installed on the airplane. One commenter, the manufacturer, notes that this alternative should be available to operators because the subject part numbers have not been delivered on a new airplane for more than 20 years. Another commenter states that a review of its tracking system shows that the subject part numbers are not in its stock or were deleted when certain airplanes in its fleet were retired from service.

We concur with the commenters' request. If an operator has a tracking system that records the detailed part number for the outer cylinder of the wing landing gear (i.e., not just a higher-level assembly) for the Model 747 airplanes in its fleet, a records review is an acceptable method of complying with paragraph (a) of this AD. We have revised paragraph (a) of this AD accordingly.

Request To Revise Description of Part Marking

One commenter requests that we revise paragraphs (b) and (d) of the proposed AD to acknowledge that Boeing Service Bulletin 747-32-2472, dated November 30, 2000, does not specify changing the part number of the outer cylinder of the wing landing gear. (Paragraph (b) of the proposed AD states that the rework procedures described in the referenced service bulletin include, among other things, changing the part number of the outer cylinder. Paragraph (d) of the proposed AD prohibits installation of the subject part numbers after the effective date of the AD.) The commenter suggests changing the wording of paragraph (b) of the proposed AD to specify marking the outer cylinder to indicate that the referenced service bulletin has been accomplished. The commenter suggests changing the wording of paragraph (d) of the proposed AD to prohibit installation of a part that has not been (inspected, reworked, and) marked to indicate that the referenced service bulletin has been accomplished.

We concur with the commenter's request and have revised paragraphs (b) and (d) of this AD accordingly.

Conclusion

After careful review of the available data, including the comments noted above, we have determined that air safety and the public interest require the adoption of the rule with the changes

previously described. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

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. However, for clarity and consistency in this final rule, we have retained the language of the NPRM regarding that material.

Explanation of Change to Cost Impact Estimate

Since the issuance of the proposed AD, we have reviewed the figures we have used over the past several years to calculate AD costs to operators. To account for various inflationary costs in the airline industry, we find it necessary to increase the labor rate used in these calculations from \$60 per work hour to \$65 per work hour. The cost impact information, below, reflects this increase in the specified hourly labor rate.

Cost Impact

There are approximately 1,106 airplanes of the affected design in the worldwide fleet. We estimate that 256 airplanes of U.S. registry will be affected by this AD. It will take approximately 1 work hour per airplane to accomplish the inspection to determine whether subject part numbers are installed, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of this inspection on U.S. operators is estimated to be \$16,640, or \$65 per airplane.

We estimate that 225 airplanes in the worldwide fleet, and 66 airplanes of U.S. registry, are equipped with the subject outer cylinders that will require further action. It will take approximately 12 work hours per airplane to accomplish the chrome removal and inspections for cracking or heat damage, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of these actions on U.S. operators is estimated to be \$51,480, or \$780 per airplane.

For airplanes subject to removal of the load evening system, it will take approximately 240 work hours per airplane, at an average labor rate of \$65 per work hour. Based on the best data available, we estimate that necessary parts will cost \$2,392. Based on these figures, the cost impact of the removal of the load evening system is estimated to be \$17,992 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:

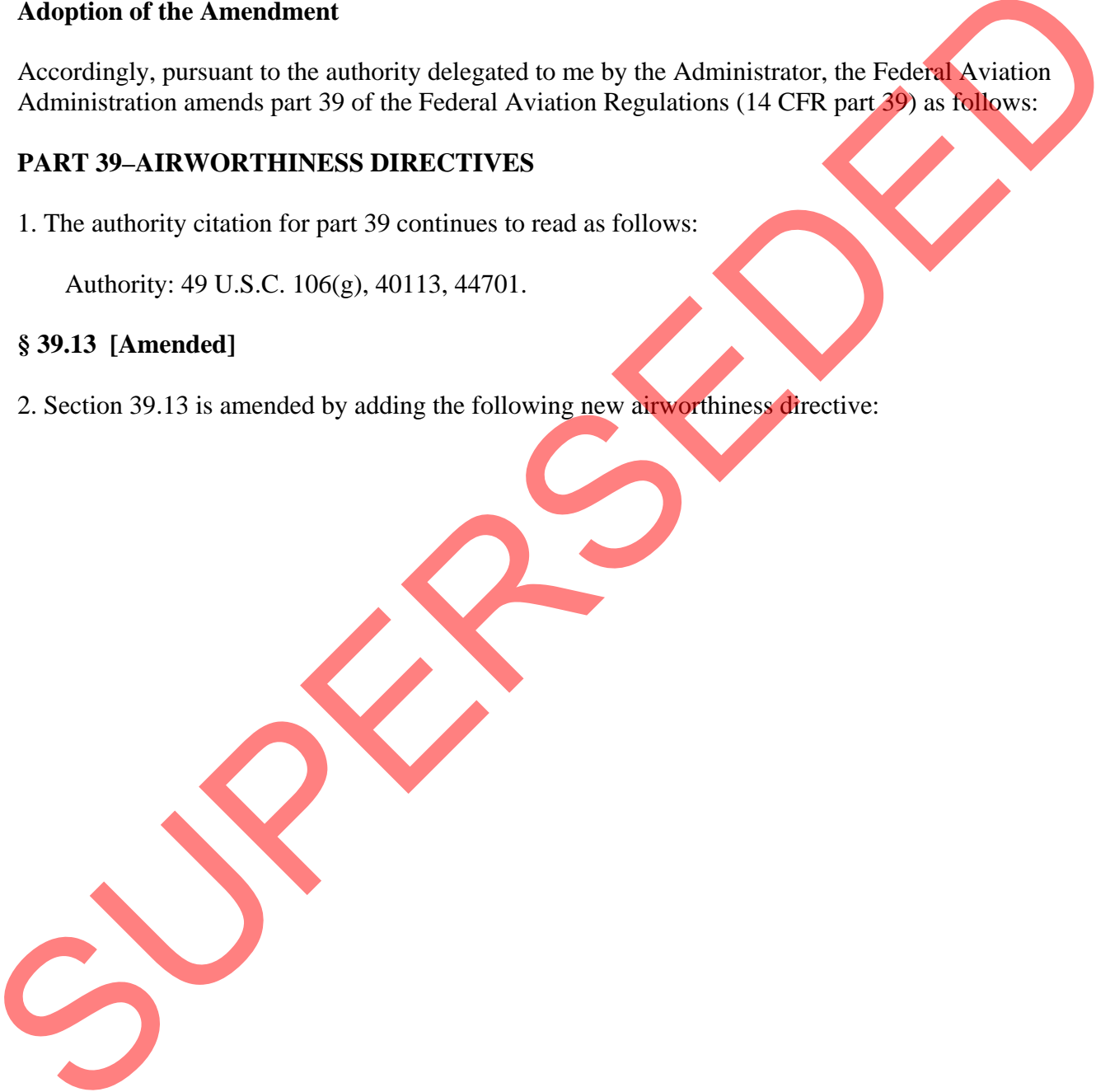
PART 39—AIRWORTHINESS DIRECTIVES

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:



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).

2004-16-05 Boeing: Amendment 39-13761. Docket 2000-NM-419-AD.

Applicability: All Model 747 series airplanes, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

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 fracture of the outer cylinder of the wing landing gear, which could result in collapse of the wing landing gear, accomplish the following:

Inspection To Determine Part Number

(a) Within 36 months after the effective date of this AD, perform a one-time inspection to determine the part number (P/N) of the outer cylinder of the wing landing gear on both sides of the airplane, per the Accomplishment Instructions of Boeing Service Bulletin 747-32-2472, dated November 30, 2000. Instead of inspecting the outer cylinder of the wing landing gear, a review of airplane maintenance records is acceptable if the detailed P/N of the outer cylinder of the wing landing gear (not just a higher-level assembly) can be positively determined from that review.

(1) If no outer cylinder having P/N 65B01212-() (where "()" is any dash number of that part number), 65B01430-3, or 65B01430-4 is found: No further action is required by this paragraph.

(2) If any outer cylinder having P/N 65B01212-() (where "()" is any dash number of that part number), 65B01430-3, or 65B01430-4 is found: Accomplish paragraph (b) of this AD.

Replacement of Outer Cylinder

(b) For any outer cylinder identified in paragraph (a)(2) of this AD: Within 36 months after the effective date of this AD, replace the outer cylinder on the wing landing gear with a new, improved part or a part that has been inspected and reworked per the Accomplishment Instructions of Boeing Service Bulletin 747-32-2472, dated November 30, 2000. The rework procedures described in the service bulletin, if accomplished, include performing a one-time nitral etch inspection of the upper

inner surface of the outer cylinder for chrome plating; removing any chrome plating that is present; performing a one-time magnetic particle inspection for cracking of the outer cylinder; performing a nital etch inspection for heat damage of the outer cylinder; reworking the outer cylinder, as applicable; and marking the outer cylinder to indicate that the service bulletin has been accomplished.

Removal of the Load Evening System

(c) For airplanes listed in Boeing Service Bulletin 747-32-2131, Revision 2, dated March 15, 1974: Before performing the requirements of paragraph (b) of this AD, remove the load evening system installed on the wing landing gear, per the Accomplishment Instructions of the service bulletin.

Parts Installation

(d) As of the effective date of this AD, no person may install, on any airplane, an outer cylinder of the wing landing gear if the outer cylinder has P/N 65B01212-() (where "()" is any dash number of that part number), 65B01430-3, or 65B01430-4, unless the outer cylinder has been inspected, reworked, and marked to indicate that Boeing Service Bulletin 747-32-2472 has been accomplished.

Alternative Methods of Compliance

(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, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

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

Special Flight Permits

(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.

Incorporation by Reference

(g) Unless otherwise specified in this AD, the actions shall be done in accordance with Boeing Service Bulletin 747-32-2472, dated November 30, 2000; and Boeing Service Bulletin 747-32-2131, Revision 2, dated March 15, 1974; as applicable. Boeing Service Bulletin 747-32-2131, Revision 2, contains the following effective pages:

Page number	Revision level shown on page	Date shown on page
1, 3-6, 18, 26, 35	2	March 15, 1974.
21, 22, 25, 27-29, 33, 34, 44, 49, 51, 53-55, 65-67, 77, 79.	1	November 30, 1972.
2, 7-17, 19, 20, 23, 24, 30-32, 36-43, 45-48, 50, 52, 56-64, 68-76, 78, 80, 81.	Original	July 28, 1972.

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 Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:
http://www.archives.gov/federal_register&/code_of_federal_regulations/&ibr_locations.html.

Effective Date

(h) This amendment becomes effective on September 14, 2004.

Issued in Renton, Washington, on July 27, 2004.

Kyle L. Olsen,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-17760 Filed 8-9-04; 8:45 am]

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SUPERSEDED