

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

**[Docket No. 2000-NM-294-AD; Amendment 39-12416; AD 2001-17-25]
RIN 2120-AA64**

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Boeing Model 747 series airplanes, that currently requires inspection of the aft trunnion of the wing landing gear for cracks and corrosion, and corrective action, if necessary. This amendment requires new repetitive inspections for cracks or corrosion of the aft trunnion outer cylinders of the wing landing gear, follow-on actions, and repetitive overhaul of the wing landing gear. The new actions also apply to airplanes not included in the applicability of the existing AD. The actions specified by this AD are intended to find and fix cracking or corrosion of the aft trunnion of the wing landing gear, which could result in collapse of the wing landing gear and consequent reduced controllability of the airplane.

DATES: Effective October 3, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 3, 2001.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, 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 Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

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) 227-2771; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 90-06-18 R1, amendment 39-6706 (55 FR 33650, August 17, 1990), which is applicable to certain Boeing Model 747 series airplanes, was published in the **Federal Register** on April 25, 2001 (66 FR 20763). The action proposed to continue to require inspection of the aft trunnion of the wing landing gear for cracks and corrosion, and corrective action, if necessary. The action also proposed to require new repetitive inspections for cracks or corrosion of the aft trunnion outer cylinders of the wing landing gear, follow-on actions, and repetitive overhaul of the wing landing gear. The new proposed actions would also apply to airplanes not included in the applicability of the existing AD.

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.

Clarify Requirements of Paragraph (c) for New Production Airplanes

One commenter states that paragraph (c) of the proposed rule does not give credit for new-production airplanes and asks that the FAA clarify requirements for such new airplanes.

We infer that the commenter is concerned about the compliance time for the actions required by paragraph (c) of this AD, and we concur that we need to revise the compliance time to accommodate new airplanes. As paragraph (c) is written in the proposed rule, new airplanes delivered after 180 days after the effective date of this AD may be grounded until the actions required by paragraph (c) of this AD are done. Therefore, we have revised the compliance time of paragraph (c) of this AD to 180 days since the airplane's date of manufacture, or 180 days after the effective date of this AD, whichever occurs later. We find that this compliance time will allow adequate time for new airplanes to continue to operate before complying with paragraph (c) of this AD without compromising safety.

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 with the change previously described. The FAA has determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 1,132 Model 747 series airplanes of the affected design in the worldwide fleet.

In AD 90-06-18 R1, the FAA estimated that the actions in that AD would affect 163 airplanes of U.S. registry. The actions that are currently required by AD 90-06-18 R1 take approximately 45 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the FAA estimates the cost impact of the currently required actions on U.S. operators to be \$440,100, or \$2,700 per airplane, per inspection cycle.

The FAA estimates that this new AD will affect 233 airplanes of U.S. registry. The new inspections required by this AD will take approximately 8 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the FAA estimates the cost impact of these required inspections on U.S. operators to be \$111,840, or \$480 per airplane, per inspection cycle.

The new overhaul required by this AD action will take approximately 320 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the FAA estimates the cost impact of the required overhaul on U.S. operators to be \$4,473,600, or \$19,200 per airplane, per overhaul.

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.

Sec. 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39-6706 (55 FR 33650, August 17, 1990), and by adding a new airworthiness directive (AD), amendment 39-12416, to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



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

We post ADs on the internet at "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).

2001-17-25 Boeing: Amendment 39-12416. Docket 2000-NM-294-AD. Supersedes AD 90-06-18 R1, Amendment 39-6706.

Applicability: All Model 747 series airplanes, 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)(1) 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 find and fix cracking or corrosion of the aft trunnion of the wing landing gear, which could result in collapse of the wing landing gear and consequent reduced controllability of the airplane, accomplish the following:

Restatement of Requirements of AD 90-06-18 R1

Repetitive Inspections and Corrective Actions (Certain Airplanes)

(a) For airplanes listed in Groups 1, 2, and 3 in Boeing Service Bulletin 747-32-2190, Revision 4, dated October 26, 1989, inspect as follows:

(1) Within the next 120 days after August 17, 1990 (the effective date of AD 90-06-18 R1, amendment 39-6706), perform a visual inspection, or a visual-plus-eddy-current inspection, of the wing landing gear at the trunnion, for cracks and corrosion, in accordance with Boeing Service Bulletin 747-32-2190, Revision 4, dated October 26, 1989.

(2) If no cracks or corrosion are found, repeat the inspection described in paragraph (a)(1) of this AD at intervals not to exceed 6 months if the visual inspection option was selected for the previous inspection, or at intervals not to exceed 18 months if the visual-plus-eddy-current inspection option was selected for the previous inspection. Doing paragraph (b), (c), or (d) of this AD ends the repetitive inspections required by this paragraph.

(3) Except as provided by paragraph (a)(4) of this AD, if cracks or corrosion are found, prior to further flight, remove and rework or replace cracked/corroded parts in accordance with Boeing Service Bulletin 747-32-2190, Revision 4, dated October 26, 1989.

(4) If only corrosion is found, as an alternative to paragraph (a)(3) of this AD, accomplish the terminating action described in Boeing Service Bulletin 747-32-2190, Revision 4, dated October 26,

1989, within 12 months after detection of corrosion, but no later than 36 months after August 17, 1990; and high frequency eddy current inspect the wing landing gear trunnion at intervals not to exceed 6 months, until the terminating action is accomplished. Doing paragraph (b), (c), or (d) of this AD ends the repetitive inspections required by this paragraph.

Optional Terminating Action for Requirements of Paragraph (a)

(b) For airplanes listed in Groups 1, 2, and 3 in Boeing Service Bulletin 747-32-2190, Revision 4, dated October 26, 1989: Modification in accordance with Boeing Service Bulletin 747-32-2190, Revision 4, dated October 26, 1989, constitutes terminating action for the reinspection requirements of paragraph (a) of this AD.

New Requirements of This AD

Repetitive Detailed Visual Inspections and Follow-On Actions (All Airplanes)

(c) Within 180 days since the airplane's date of delivery or 180 days after the effective date of this AD, whichever occurs later, do a detailed visual inspection using a borescope to find cracking and corrosion of the aft trunnion outer cylinders of the wing landing gear. Do the inspection per Figure 2 of Boeing Alert Service Bulletin 747-32A2465, Revision 1, dated July 20, 2000. The detailed visual inspection is contained in Part 1 of the service bulletin. Thereafter, repeat the inspection at intervals not to exceed 6 months.

(1) If no corrosion or cracking is found during any inspection per paragraph (c) of this AD, before further flight, apply corrosion preventative compound, per the service bulletin. Repeat the application of corrosion preventative compound after each inspection per paragraph (c) of this AD.

(2) If any corrosion or cracking is found during any inspection per paragraph (c) of this AD, before further flight, repair per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative (DER) who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD.

Note 2: For the purposes of this AD, a detailed visual inspection is defined as: ``An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."`

Overhaul (All Airplanes)

(d) At the applicable compliance time stated in paragraph (d)(1) or (d)(2) of this AD, and thereafter at intervals not to exceed 10 years, overhaul the wing landing gear per Flag Note 2 of Figure 1 of Boeing Alert Service Bulletin 747-32A2465, Revision 1, dated July 20, 2000. If any cracking or corrosion outside the overhaul limits is found during this overhaul, before further flight, repair per a method approved by the Manager, Seattle ACO; or per data meeting the type certification basis of the airplane approved by a Boeing Company DER who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD. For affected airplanes, doing this overhaul ends the repetitive inspections required by paragraph (a) of this AD.

(1) For Group 1 airplanes listed in Boeing Alert Service Bulletin 747-32A2465, Revision 1, on which the wing landing gear has NOT been modified per Flag Note 1 of Figure 1 of the service

bulletin: Overhaul the wing landing gear within 48 months after the effective date of this AD.

(2) For Group 1 airplanes listed in Boeing Alert Service Bulletin 747-32A2465, Revision 1, on which the wing landing gear HAS been modified per Flag Note 1 of Figure 1 of the service bulletin; OR for Groups 2 and 3 airplanes listed in Boeing Alert Service Bulletin 747-32A2465, Revision 1: Overhaul the wing landing gear within 10 years since delivery of the airplane or last overhaul, or within 180 days after the effective date of this AD, whichever comes later.

Alternative Methods of Compliance

(e)(1) 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 ACO. 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.

(2) Alternative methods of compliance, approved previously in accordance with AD 90-06-18 R1, amendment 39-6706, are approved as alternative methods of compliance for paragraphs (a) and (b) of this AD.

Note 3: 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) Except as provided by paragraphs (c)(2) and (d) of this AD, the actions shall be done in accordance with Boeing Service Bulletin 747-32-2190, Revision 4, dated October 26, 1989; and Boeing Alert Service Bulletin 747-32A2465, Revision 1, dated July 20, 2000; as applicable. 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 Airplane Group, 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 Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(h) This amendment becomes effective on October 3, 2001.

Issued in Renton, Washington, on August 20, 2001.

Vi L. Lipski,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 01-21492 Filed 8-28-01; 8:45 am]

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