

[Federal Register: January 7, 2002 (Volume 67, Number 4)]  
[Rules and Regulations]  
[Page 651-653]  
From the Federal Register Online via GPO Access [wais.access.gpo.gov]  
[DOCID:fr07ja02-3]

---

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2001-NM-124-AD; Amendment 39-12578; AD 2001-26-12]  
RIN 2120-AA64**

### **Airworthiness Directives; Boeing Model 747-100, 747-200, 747-300, and 747SR Series Airplanes Powered by General Electric CF6-45/50 or Pratt & Whitney JT9D-70 Series Engines**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

---

**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD), applicable to certain Boeing Model 747-100, 747-200, 747-300, and 747SR series airplanes powered by General Electric CF6-45/50 or Pratt & Whitney JT9D-70 series engines, that currently requires a detailed visual inspection of the outboard diagonal brace for heat damage and cracking; and follow-on repetitive inspections and corrective actions, if necessary. This amendment requires accomplishment of the previously optional replacement of any existing sealant with heat-resistant sealant as terminating action for the repetitive inspections required by this AD. This amendment is prompted by reports of heat damage to the forward end of the diagonal brace after accomplishment of a previous strut and wing modification. The actions specified by this AD are intended to prevent heat damage to the diagonal brace, which could cause cracking, fracture, and possible loss of the diagonal brace load path and consequent separation of the strut and engine from the airplane.

**DATES:** Effective February 11, 2002.

The incorporation by reference of Boeing Alert Service Bulletin 747-54A2208, dated March 29, 2001, was approved previously by the Director of the Federal Register as of June 27, 2001 (66 FR 31527, June 12, 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 2001-12-05, amendment 39-12260 (66 FR 31527, June 12, 2001), which is applicable to certain Boeing Model 747-100, 747-200, 747-300, and 747SR series airplanes powered by General Electric CF6-45/50 or Pratt & Whitney JT9D-70 series engines, was published in the Federal Register on September 4, 2001 (66 FR 46241). The action proposed to continue to require a detailed visual inspection of the outboard diagonal brace for heat damage and cracking; and follow-on repetitive inspections and corrective actions, if necessary. The action also proposed to require accomplishment of the previously optional terminating replacement of any existing sealant with heat-resistant sealant as terminating action for the repetitive inspections.

## **Comments**

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were submitted in response to the proposal or the FAA's determination of the cost to the public.

## **Change to Final Rule**

Since the issuance of the proposal, the FAA has approved two alternative methods of compliance for AD 2001-12-05. A new paragraph (d)(2) has been added to this final rule to include those approvals.

## **Conclusion**

After careful review of the available data, 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 145 Model 747 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 39 airplanes of U.S. registry will be affected by this AD.

The repetitive inspections that are currently required by AD 2001-12-05 take approximately 1 work hour per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the currently required actions is estimated to be \$2,340 per airplane, per inspection cycle.

The terminating action that is required by this AD action will take approximately 2 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Required parts will cost approximately \$100 per airplane. Based on these figures, the cost impact of the requirements of this AD is estimated to be \$8,580, or \$220 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.

#### **Sec. 39.13 [Amended]**

2. Section 39.13 is amended by removing amendment 39-12260 (66 FR 31527, June 12, 2001), and by adding a new airworthiness directive (AD), amendment 39-12578, 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).

**2001-26-12 Boeing:** Amendment 39-12578. Docket 2001-NM-124-AD. Supersedes AD 2001-12-05, Amendment 39-12260.

*Applicability:* Model 747-100, 747-200, 747-300, and 747SR series airplanes; certificated in any category; powered by General Electric CF6-45/50 series engines, or Pratt & Whitney JT9D-70 series engines.

**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)(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 prevent heat damage to the diagonal brace, which could cause cracking or fracture of the diagonal brace, and possible loss of the diagonal brace load path and consequent separation of the strut and engine from the airplane, accomplish the following:

## **Restatement of Certain Requirements of AD 2000-12-05:**

### *Verification*

(a) Within 90 days after June 27, 2001 (the effective date of AD 2001-12-05, amendment 39-12260), do the actions required by paragraph (a)(1) or (a)(2) of this AD, as applicable.

(1) If an operator's maintenance records verify that, during the accomplishment of AD 95-13-07, amendment 39-9287, the seal backup plates were restored and BMS 5-63 high-temperature sealant was used in that restoration, no further action is required by this AD.

(2) If an operator's maintenance records do not verify that the actions specified in paragraph (a)(1) of this AD were accomplished, do the actions required by paragraph (b) of this AD.

### *Inspections and Corrective Actions*

(b) Within 90 days after June 27, 2001, do the inspections and applicable corrective actions specified by paragraphs (b)(1) and (b)(2) of this AD per the Accomplishment Instructions of Boeing Alert Service Bulletin 747-54A2208, dated March 29, 2001. Thereafter, repeat the inspections at intervals not to exceed 6 months, until accomplishment of paragraph (c) of this AD.

### *Outboard Strut Diagonal Brace*

(1) Do a detailed visual inspection of the forward 20 inches of the outboard strut diagonal brace, including all areas of the forward clevis lugs and brace body, for signs of heat damage or cracks, per Part 1 of the Accomplishment Instructions of the service bulletin.

(i) If no sign of heat damage or cracking is found, repeat the detailed visual inspection at intervals not to exceed 6 months, per the service bulletin, until accomplishment of paragraph (c) of this AD.

(ii) If any primer discoloration is found, before further flight, do a non-destructive test (NDT) inspection of the area to determine if the diagonal brace has heat damage per Part 1 of the Accomplishment Instructions of the service bulletin.

(A) If no heat damage is found during the NDT inspection, and no cracking is found during the detailed visual inspection, repeat the detailed visual inspection specified by paragraph (b)(1) of this AD at intervals not to exceed 6 months.

(B) If any heat damage is found during the NDT inspection, or any cracking is found during the detailed visual inspection, before further flight, do the actions specified in paragraph (c)(2) of this AD. Thereafter, repeat the detailed visual inspection specified by paragraph (b)(1) of this AD at intervals not to exceed 6 months.

### *Firewall Openings of the Strut Aft Bulkhead*

(2) Do a detailed visual inspection of the firewall openings of the strut aft bulkhead to verify installation of seal backup plates and condition of the sealant application per Part 1 of the Accomplishment Instructions of the service bulletin.

(i) If no discrepancy (including damaged or missing seal backup plates, or damaged or missing sealant) is found, repeat the detailed visual inspection specified by paragraph (b)(1) of this AD at intervals not to exceed 6 months.

(ii) If the seal backup plates are not installed, before further flight, install the seal backup plates and apply heat-resistant sealant, BMS 5-63, per Part 2 of the Accomplishment Instructions of the service bulletin. Accomplishment of this action terminates the repetitive inspections required by this AD.

(iii) If the seal backup plates are installed, but the sealant application is damaged or missing, before further flight, remove any existing sealant and apply heat-resistant sealant, BMS 5-63, per Part 3 of the Accomplishment Instructions of the service bulletin. Accomplishment of this action terminates the repetitive inspections required by this AD.

**Note 2:** Because it is difficult to distinguish between BMS 5-95 and BMS 5-63 sealants, removal and replacement of the existing sealant is required to ensure that the correct heat-resistant sealant, BMS 5-63, is used.

### **New Requirements of This AD**

#### *Terminating Action and Corrective Action*

(c) Within 18 months after the effective date of this AD: Do the action specified by paragraph (c)(1), (c)(2), or (c)(3) of this AD, as applicable. Accomplishment of the applicable action constitutes terminating action for the repetitive inspections required by this AD.

(1) Following the inspections required by paragraphs (b)(1) and (b)(2) of this AD, if no cracking or heat damage is found during those inspections, and the seal backup plates are installed, before further flight, remove any existing sealant and apply heat-resistant sealant BMS 5-63, per Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-54A2208, dated March 29, 2001.

(2) If any sign of heat damage or cracking is found during the inspections required by paragraph (b) of this AD, before further flight, do the actions specified by either paragraph (c)(2)(i) or (c)(2)(ii) of this AD.

(i) Replace the diagonal brace per Part 4 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-54A2208, dated March 29, 2001.

(ii) 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 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 Manager's approval letter must specifically reference this AD.

(3) If the seal back-up plates are not installed, before further flight, install the seal backup plates and apply heat-resistant sealant BMS 5-63, per Part 2 of the Accomplishment Instructions of the service bulletin.

### **Alternative Methods of Compliance**

(d) (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 2001-12-05, amendment 39-12260, are approved as alternative methods of compliance with 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**

(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 paragraphs (a) and (c)(2)(ii) of this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 747-54A2208, dated March 29, 2001. The incorporation by reference of Boeing Alert Service Bulletin 747-54A2208, dated March 29, 2001, was approved previously by the Director of the Federal Register as of June 27, 2001 (66 FR 31527, June 12, 2001). 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**

(g) This amendment becomes effective on February 11, 2002.

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

**Ali Bahrami,**

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 02-87 Filed 1-4-02; 8:45 am]

**BILLING CODE 4910-13-U**