

[Federal Register: May 19, 2005 (Volume 70, Number 96)]  
[Rules and Regulations]  
[Page 28800-28803]  
From the Federal Register Online via GPO Access [wais.access.gpo.gov]  
[DOCID:fr19my05-8]

---

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2004-19796; Directorate Identifier 2004-NM-61-AD; Amendment 39-14095; AD 2005-10-18]

RIN 2120-AA64

**Airworthiness Directives; Boeing Model 747-100, -100B, -100B SUD, -200B, -200C, -300, -400, and -400D Series Airplanes; and Model 747SR Series Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

---

**SUMMARY:** The FAA is superseding an existing airworthiness directive (AD), which applies to certain Boeing Model 747 series airplanes. That AD currently requires a one-time inspection to determine the material type of the stop support fittings of the main entry doors (MEDs). That AD also currently requires repetitive detailed inspections to detect cracks of certain stop support fittings of the MEDs, and replacement of any cracked stop support fitting with a certain new stop support fitting. This new AD adds new inspections, and replacement if necessary, of the stop support fittings of MED 3, and adds airplanes to the applicability. This AD is prompted by reports of MED 3 having certain stop support fittings that are susceptible to stress corrosion cracking. We are issuing this AD to detect and correct stress corrosion cracking of the stop support fittings of the MEDs, which could result in damage to the adjacent forward edge frame of the door and consequent loss of a MED and rapid decompression of the airplane.

**DATES:** This AD becomes effective June 23, 2005.

The incorporation by reference of Boeing Service Bulletin 747-53-2358, Revision 1, dated April 19, 2001; and Boeing Special Attention Service Bulletin 747-53-2485, dated January 8, 2004; as listed in the AD, is approved by the Director of the Federal Register as of June 23, 2005.

On January 25, 1999 (63 FR 70316, December 21, 1998), the Director of the Federal Register approved the incorporation by reference of Boeing Service Bulletin 747-53-2358, dated August 26, 1993.

**ADDRESSES:** For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

*Docket:* The AD docket contains the proposed AD, comments, and any final disposition. You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal

holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the U.S. Department of Transportation, 400 Seventh Street, SW., room PL-401, Washington, DC. This docket number is FAA-2004-19796; the directorate identifier for this docket is 2004-NM-61-AD.

**FOR FURTHER INFORMATION CONTACT:** Ivan Li, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6437; fax (425) 917-6590.

**SUPPLEMENTARY INFORMATION:** The FAA proposed to amend part 39 of the Federal Aviation Regulations (14 CFR Part 39) with an AD to supersede AD 98-26-13, amendment 39-10954 (63 FR 70316, December 21, 1998). The existing AD applies to certain Boeing Model 747 series airplanes. The proposed AD was published in the Federal Register on December 3, 2004 (69 FR 70204), to continue to require a one-time inspection to determine the material type of the stop support fittings of the main entry doors (MEDs), repetitive detailed inspections to detect cracks of certain stop support fittings of the MEDs, and replacement of any cracked stop support fitting with a certain new stop support fitting. The proposed AD also adds new inspections, and replacement if necessary, of the stop support fittings of MED 3, and adds airplanes to the applicability.

## **Comments**

We provided the public the opportunity to participate in the development of this AD. We have considered the comments that have been submitted on the proposed AD.

## **Concur With the Proposed AD**

One commenter concurs with the proposed AD and has no additional comments.

## **Request To Add Provision to State Operators Are Not in Violation of Proposed AD**

One commenter requests that a provision be added to the proposed AD to state that operators "are not in violation of paragraphs (f) and (g)" of the proposed AD if it is determined that some of the fittings replaced in accordance with paragraphs (f) and (g) were made of the incorrect material. The commenter states that paragraphs (f) and (g) of the proposed AD specify that fittings be replaced with fittings made of the correct material. The commenter also states that paragraph (h) of the proposed AD specifies that replaced fittings be inspected to determine if the fittings are made of the correct material. Therefore, if an operator accomplishes the inspection specified in paragraph (h) of the proposed AD and finds fittings made of the incorrect material, then the operator would be in violation of the paragraphs (f) and (g) of the proposed AD.

We agree that an operator is not in violation of paragraphs (f), (g), and (l) of the final rule if fittings were replaced in good faith with fittings supplied by Boeing that are determined to be made of the incorrect material during the inspection required by paragraph (h) of the final rule. As stated in the preamble of the proposed AD, "the new stop support fittings supplied by Boeing as the replacement fitting for MED 3 may not have been made from the correct material type." Thus, operators may have unknowingly installed replacement fittings made of the incorrect material and should not be penalized if the inspection required by paragraph (h) of the final rule determines there are fittings made of the incorrect material. However, operators must then do the applicable inspections/replacement required by paragraph (k) of the final rule. We have not changed the final rule in this regard.

## **Request To Remove Requirement to Remove Foam and Inspect/Drill Drain Hole**

One commenter requests that the actions specified in Boeing Special Attention Service Bulletin 747-53-2485 (cited in the proposed AD as the appropriate source of service information for accomplishing the proposed inspections) to remove foam and inspect/drill drain holes be removed from the requirements of the proposed AD. The commenter states it has established that the foam need not be removed to do the conductivity test. The commenter also states that "this has been acknowledged in the Boeing telex SR 1-48729376/Message No 1-TETPP."

We agree that removal of the foam and inspecting/drilling drain holes should not be required. Paragraphs (h) and (i) of the proposed AD specify only that an inspection to determine material type of the stop support fittings be done in accordance with Boeing Special Attention Service Bulletin 747-53-2485 and paragraph (k) of the proposed AD specifies that an inspection for cracks of the stop support fittings be done in accordance with the service bulletin. Removing foam and inspecting/drilling drain holes are not a part of these inspections and are not part of the corrective action needed to address the identified unsafe condition (stress corrosion cracking of the stop support fittings of the main entry doors). Because removing foam and inspecting/drilling drain holes are described in the Accomplishment Instructions of the service bulletin, we have added Note 2 to the final rule for clarification that these actions are not required when doing any inspection required by paragraphs (h), (i), and (k) of the final rule.

## **Request for Credit for Inspection**

One commenter has no technical objections to the proposed AD. However, the commenter requests that if a stop support fitting was replaced before the effective date of the proposed AD and a conductivity test per Boeing 747 Nondestructive Test Manual D6 7170, Part 6, Chapter 51-00-00, Figure 20, was done during the replacement, then the one-time high frequency eddy current (HFEC) inspection specified in paragraph (h)(1) of the proposed AD need not be required.

We agree that, for any stop support fitting replaced before the effective date of the final rule on which a conductivity test per Boeing 747 Nondestructive Test Manual D6-7170, Part 6, Chapter 51-00-00, Figure 20, has been done, then the one-time HFEC inspection specified in paragraph (h)(1) of the final rule does not need to be done. The conductivity test per Boeing 747 Nondestructive Test Manual D6-7170, Part 6, Chapter 51-00-00, Figure 20, is the HFEC inspection specified in the final rule. The final rule specifies that the HFEC be done in accordance with Boeing Special Attention Service Bulletin 747-53-2485, and the service bulletin refers to Boeing 747 Nondestructive Test Manual D6-7170, Part 6, Chapter 51-00-00, Figure 20. Paragraph (e) of the final rule gives credit for actions done before the effective date of the final rule. We have not changed the final rule in this regard.

## **Request To Revise One-Time HFEC Inspection**

One commenter requests that the one-time HFEC inspection specified in paragraph (h)(1) of the proposed AD be revised to be applicable only to fittings that were replaced before the effective date of AD 98-26-13. The commenter notes that paragraph (c) of AD 98-26-13 mandates that no person shall install a stop fitting made from either 7079-T651 or 7075-T651 material on any airplane as of January 25, 1999 (the effective date of AD 98-26-13). The commenter concludes that all stop support fittings installed after the effective date of AD 98-26-13 are required to be made from 7075-T73 or 7050-T451 aluminum.

We disagree with the request to revise the one-time HFEC inspection. As stated in the preamble of the proposed AD, "the new stop support fittings supplied by Boeing as the replacement fitting for MED 3 may not have been made from the correct material type." Therefore, operators complying with AD 98-26-13 could have unknowingly installed support fittings supplied by Boeing that were

made of the incorrect material (7079-T651 or 7075-T651 material). Because of this possibility, the final rule requires a one-time HFEC inspection of any stop support fittings that were replaced before the effective date of the final rule. We have not changed the final rule in this regard.

## Conclusion

We have carefully reviewed the available data, including the comments that have been submitted, and determined that air safety and the public interest require adopting the AD with the change described previously. We have determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

## Costs of Compliance

There are about 814 airplanes of the affected design in the worldwide fleet. There are about 119 airplanes of U.S. registry that will be affected by this AD. The following table provides the estimated costs for U.S. operators to comply with this AD.

<b>ESTIMATED COSTS</b>				
<b>Action</b>	<b>Work hours</b>	<b>Average labor rate per hour</b>	<b>Parts</b>	<b>Cost per door</b>
HFEC Inspection (required by AD 98–26–13)	1	\$65	(1)	\$65
Detailed Inspection as applicable (required by AD 98–26–13)	2	65	(1)	130
Optional Terminating Action (specified in AD 98-26-13)	124	65	\$13,000	21,060
Detailed Inspection and HFEC Inspection as applicable (new action)	3	65	(1)	195
Replacement as applicable (new action)	120	65	17,724	25,524

<sup>1</sup> None.

## Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

(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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD. See the ADDRESSES section for a location to examine the regulatory evaluation.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by removing amendment 39-10954 (63 FR 70316, December 21, 1998), and by adding the following new airworthiness directive (AD):

# 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).

**2005-10-18 Boeing:** Amendment 39-14095. Docket No. FAA-2004-19796; Directorate Identifier 2004-NM-61-AD.

## Effective Date

- (a) This AD becomes effective June 23, 2005.

## Affected ADs

- (b) This AD supersedes AD 98-26-13, amendment 39-10954.

## Applicability

- (c) This AD applies to Boeing Model 747-100, -100B, -100B SUD, -200B, -200C, -300, -400, and -400D series airplanes; and Model 747SR series airplanes; having line numbers 1 through 1301 inclusive; certificated in any category.

## Unsafe Condition

- (d) This AD was prompted by reports of main entry door (MED) 3 having certain stop support fittings that are susceptible to stress corrosion cracking. We are issuing this AD to detect and correct stress corrosion cracking of the stop support fittings of the MEDs, which could result in damage to the adjacent forward edge frame of the door and consequent loss of a MED and rapid decompression of the airplane.

## Compliance

- (e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

## Requirements of AD 98-26-13

## Inspections and Corrective Action

- (f) For Model 747-100, -100B, -100B SUD, -200, -200B, -200C, -300, -400, and 747SR series airplanes having line numbers 1 through 830 inclusive: Within 18 months after January 25, 1999 (the effective date of AD 98-26-13, amendment 39-10954), perform a high frequency eddy current (HFEC) inspection to determine the material type of the stop support fittings of the MEDs, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-53-2358, dated

August 26, 1993; or Boeing Service Bulletin 747-53-2358, Revision 1, dated April 19, 2001. Perform the inspection only at those locations where the material type of the stop support fittings is unknown, as specified in Figure 3, Table 1, of either service bulletin. As of the effective date of this AD, do the actions in accordance with Boeing Service Bulletin 747-53-2358, Revision 1, dated April 19, 2001.

(1) If the fitting is made from 7075-T73 or 7050-T7451 material, no further action is required by this AD for that fitting; however, the requirements of paragraph (1) of this AD still apply.

(2) If the fitting is not made from 7075-T73 or 7050-T7451 material, before further flight, perform a detailed inspection to detect cracks of the stop support fitting of the MEDs, in accordance with the applicable service bulletin.

**Note 1:** For the purposes of this AD, a detailed inspection is "an intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors magnifying lenses, etc. may be necessary. Surface cleaning and elaborate procedures may be required."

(i) If no crack is detected, repeat the detailed inspection thereafter at intervals not to exceed 36 months or 2,000 flight cycles, whichever occurs first.

(ii) If any crack is detected, before further flight, replace the fitting with a stop support fitting made from 7075-T73 or 7050-T7451 material, in accordance with the applicable service bulletin.

(g) For Model 747-100, -100B, -100B SUD, -200, -200B, -200C, -300, -400, and 747SR series airplanes having line numbers 1 through 830 inclusive: Replacement of the stop support fitting of the MEDs with a stop support fitting made from 7075-T73 material, in accordance with Boeing Service Bulletin 747-53-2358, dated August 26, 1993; or replacement with a stop support fitting made from 7075-T73 or 7050-T7451 material, in accordance with Boeing Service Bulletin 747-53-2358, Revision 1, dated April 19, 2001; constitutes terminating action for the repetitive inspection requirements of paragraph (f) of this AD for the replaced fitting. As of the effective date of this AD, only Boeing Service Bulletin 747-53-2358, Revision 1, dated April 19, 2001, may be used.

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

Note 2: Operators are not required to remove foam and inspect/drill drain holes as specified in Paragraph 3.B.1.e. and the Notes of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2485, dated January 8, 2004, when doing any inspection required by paragraphs (h), (i), and (k) of this AD.

### **Inspection for Material Type**

(h) For Model 747-100, -100B, -100B SUD, -200B, -200C, -300, -400, and -400D series airplanes, and Model 747SR series airplanes, having line numbers 1 through 830 inclusive on which the actions specified in the Accomplishment Instructions of Boeing Service Bulletin 747-53-2358, dated August 26, 1993; or Boeing Service Bulletin 747-53-2358, Revision 1, dated April 19, 2001; have been done: Do the inspection specified in paragraph (h)(1) or (h)(2) of this AD, as applicable, at the time specified.

(1) Except as provided by paragraph (h)(2) of this AD, if any stop support fitting, 2L through 6L and 2R through 6R, of MED 3, was replaced before the effective date of this AD: Perform a one-time HFEC inspection to determine the material type of the stop support fittings of MED 3 that were replaced, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2485, dated January 8, 2004, at the later of the times specified in paragraphs (h)(1)(i) and (h)(1)(ii) of this AD.

(i) Within 72 months after the stop support fitting of MED 3 was replaced.

(ii) Within 18 months after the effective date of this AD.

(2) If any stop support fitting, 2L through 6L and 2R through 6R, of MED 3, cannot be determined conclusively by reviewing airplane maintenance records that the fitting was not replaced, within 18 months after the effective date of this AD, perform a one-time HFEC inspection to determine the material type of the stop support fitting, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2485, dated January 8, 2004.

(i) For airplanes having line numbers 831 through 1301 inclusive: At the later of the times specified in paragraphs (i)(1) and (i)(2) of this AD, perform a one-time HFEC inspection to determine the material type of the stop support fittings of MED 3 in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2485, dated January 8, 2004.

(1) Before 72 months since the date of issuance of the original Airworthiness Certificate or the date of issuance of the original Export Certificate of Airworthiness.

(2) Within 18 months after the effective date of this AD.

### **No Further Action**

(j) If, during any HFEC inspection required by paragraph (h) or (i) of this AD, any fitting is found to be made of 7075-T73 or 7050-T7451 material, no further action is required by this AD for that fitting; however, paragraph (l) of this AD still applies.

### **Initial and Repetitive Inspections for Cracking and Corrective Action**

(k) If, during any HFEC inspection required by paragraph (h) or (i) of this AD, any fitting is found not to be made of 7075-T73 or 7050-T7451 material, before further flight, perform a detailed inspection for cracks of the fitting in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2485, dated January 8, 2004.

(1) If no crack is detected, repeat the detailed inspection specified in paragraph (k) of this AD thereafter at intervals not to exceed 36 months or 2,000 flight cycles, whichever comes first. Doing the replacement specified in paragraph (k)(2) of this AD ends the repetitive inspections for the replaced fitting.

(2) If any crack is detected, before further flight, replace the fitting with a fitting made of 7075-T73 or 7050-T7451 material in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2485, dated January 8, 2004. No further action is required by this AD for that fitting; however, paragraph (l) of this AD still applies.

### **Parts Installation**

(l) As of the date specified in paragraph (l)(1) or (l)(2) of this AD, as applicable, no person shall install on any airplane a stop support fitting of the MEDs made from either 7079-T651 or 7075-T651 material.

(1) For airplanes having line numbers 1 through 830 inclusive: As of January 25, 1999.

(2) For airplanes having line numbers 831 through 1301 inclusive: As of the effective date of this AD.

## Alternative Methods of Compliance (AMOCs)

(m)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

(2) AMOCs, approved previously per AD 98-26-13, amendment 39-10954, are approved as AMOCs with paragraph (f) or (g) of this AD, as applicable. However, any stop support fitting, 2L through 6L and 2R through 6R, of MED 3 that was replaced is still required to be inspected as required in paragraph (h) of this AD.

## Material Incorporated by Reference

(n) You must use the service information that is specified in Table 1 of this AD to perform the actions that are required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approves the incorporation by reference of Boeing Service Bulletin 747-53-2358, Revision 1, dated April 19, 2001; and Boeing Special Attention Service Bulletin 747-53-2485, dated January 8, 2004; in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of Boeing Service Bulletin 747-53-2358, dated August 26, 1993, as of January 25, 1999 (63 FR 70316, December 21, 1998).

(3) To get copies of the service information, go to Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. To view the AD docket, go to the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, Nassif Building, Washington, DC. To review copies of the service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

**TABLE 1.—MATERIAL INCORPORATED BY REFERENCE**

<b>Service bulletin</b>	<b>Revision level</b>	<b>Date</b>
Boeing Service Bulletin 747–53–2358	Original	August 26, 1993.
Boeing Service Bulletin 747–53–2358	1	April 19, 2001.
Boeing Special Attention Service Bulletin 747–53–2485	Original	January 8, 2004.

Issued in Renton, Washington, on May 9, 2005.

Jeffrey E. Duven,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05-9876 Filed 5-18-05; 8:45 am]

BILLING CODE 4910-13-P