

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. 2003-NM-06-AD; Amendment 39-13852; AD 2004-22-24]**

**RIN 2120-AA64**

### **Airworthiness Directives; Boeing Model 707 and 720 Series Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD), applicable to all Boeing Model 707 and 720 series airplanes, that currently requires inspections of the upper and lower chords of the wing front and rear spars, repair if necessary, and application of corrosion inhibitor to the inspected areas. This amendment removes the requirements of the existing AD, requires new detailed inspections and new high frequency eddy current (HFEC) inspections for corrosion and cracking, and requires certain related follow-on and investigative actions, if necessary. This amendment also expands the area of inspection to include the dry bay areas. The actions specified by this AD are intended to find and fix corrosion and stress corrosion cracking of the upper and lower chords on the wing front and rear spars, which could result in reduced structural integrity of the wing. This action is intended to address the identified unsafe condition.

**DATES:** Effective December 14, 2004.

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

**ADDRESSES:** The service information referenced in this AD may be obtained from Boeing Commercial Airplanes, PO 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).*

**FOR FURTHER INFORMATION CONTACT:** Candice Gerretsen, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6428; fax (425) 917-6590.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 2001-08-02, amendment 39-12179 (66 FR 20383, April 23, 2001), which is applicable to all Boeing Model 707 and 720 series airplanes, was published in the Federal Register on June 3, 2004 (69 FR 31325). The action proposed to remove the requirements of the existing AD, require new detailed inspections and new high frequency eddy current (HFEC) inspections for corrosion and cracking, and require certain related follow-on and investigative actions, if necessary. The action also proposed to expand the area of inspection to include the dry bay areas.

## **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.

## **Request To Waive the HFEC Inspections**

The commenter requests that the proposed AD be revised to permit a waiver for the HFEC inspections. The commenter states that it has been doing the close visual inspections specified in Boeing Alert Service Bulletin 3240, Revision 4, dated September 6, 2001 (referenced as the appropriate source of service information in the proposed AD), and has not found any evidence of cracks. The commenter also states that doing HFEC inspections, in addition to the close visual inspections, would cause an adverse economic impact on its operations due to additional down-time of the airplane to accommodate HFEC inspections.

The FAA does not agree to "waive" the requirement to perform the HFEC inspections. As explained in the preamble of the proposed AD, we have received a report indicating that, six months after an operator performed the visual inspections specified in Revision 3 of Boeing Service Bulletin 3240 (specified in AD 2001-08-02 as an appropriate source of service information) a 31-inch crack was detected during a routine inspection. We have determined that the detailed "visual" inspections required by the previous AD are not sufficient to ensure that evidence of cracking is detected in a timely manner. Therefore, we find that HFEC inspections are necessary to ensure timely detection of any evidence of cracking. No change has been made to this final rule.

## **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 as proposed.

## **Cost Impact**

There are approximately 230 airplanes of the affected design in the worldwide fleet. The FAA estimates that 42 airplanes of U.S. registry will be affected by this AD.

The new actions in this AD do not include those actions required by AD 2001-08-02. Therefore, cost impact figures for those actions are not necessary nor provided for in this AD.

The new actions required by this AD will take approximately 212 work hours per airplane to accomplish, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of the requirements of this AD on U.S. operators is estimated to be \$578,760, or \$13,780 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the current or proposed requirements of this AD, 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 removing amendment 39-12179 (66 FR 20383, April 23, 2001), and by adding a new airworthiness directive (AD), amendment 39-13852, 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 "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).

**2004-22-24 Boeing:** Amendment 39-13852, Docket 2003-NM-06-AD. Supersedes AD 2001-08-02, Amendment 39-12179.

**Applicability:** All Model 707 and 720 series airplanes, certificated in any category.

**Compliance:** Required as indicated, unless accomplished previously.

To find and fix corrosion and stress corrosion cracking of the upper and lower spar chords on the front and rear spars of the wing, which could result in reduced structural integrity of the wing, accomplish the following:

## **Superseding the Requirements of AD 2001-08-02**

**Note 1:** As of the effective date of this AD, the requirements of AD 2001-08-02, amendment 39-12179, are no longer effective or required.

## **Definition of Service Bulletin**

(a) The term "service bulletin," as used in this AD, means the Accomplishment Instructions of Boeing 707 Alert Service Bulletin A3240, Revision 4, dated September 6, 2001.

## **Detailed Inspection**

(b) Within 30 days after the effective date of this AD, do a detailed inspection of the entire length of the external surfaces of the front and rear wing spar chords and the internal surfaces of the front spar chords in the dry bays of the wings for corrosion, any signs of corrosion (e.g., blistering or signs of fuel leaks), or cracking; per the service bulletin. If no corrosion or cracking is found, before further flight: Except as specified in paragraph (e) of this AD, accomplish any applicable follow-on actions or investigative actions, per the service bulletin.

## **Other Repetitive Inspections**

(c) Within 6 months after the effective date of this AD, perform a detailed inspection and a high frequency eddy current (HFEC) inspection of the entire length of the external surfaces of the front and rear wing spar chords and the internal surfaces of the front spar chords in the dry bays of the wings for any corrosion, signs of corrosion (e.g., blistering or signs of fuel leaks), or cracking; per the service bulletin. If no corrosion or cracking is found, before further flight, accomplish any applicable follow-on or investigative actions specified in the service bulletin and the actions specified in paragraph (e) of this AD. Thereafter, repeat the detailed and HFEC inspections at intervals not to exceed 12 months.

## **Repair of Corrosion**

(d) If any corrosion or signs of corrosion (e.g., blistering or signs of fuel leaks) are found during any inspection required by this AD: Before further flight, repair per paragraph (d)(1) or (d)(2) of this AD, as applicable.

(1) If the corrosion is within the areas and limits specified in the service bulletin: Except as required by paragraph (e) of this AD, repair and accomplish all applicable follow-on and investigative actions, per the service bulletin.

(2) If the corrosion is outside the areas or limits specified in the service bulletin, 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.

## **Application of Corrosion Inhibitor**

(e) Where the service bulletin specifies to apply BMS 3-23 (a corrosion inhibitor) or a Boeing approved equivalent, this AD requires that BMS 3-23 must be used or that any application of an equivalent corrosion inhibitor be 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.

## **Repair of Cracking**

(f) If any cracking is found during any inspection required by this AD, including cracks that have been previously stop-drilled but not permanently repaired: 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. Operators should note that "stop drilling" of cracks as a means to defer repair is not permitted by this AD.

## **Alternative Methods of Compliance**

(g) In accordance with 14 CFR 39.19, the Manager, Seattle ACO, is authorized to approve alternative methods of compliance for this AD.

## **Incorporation by Reference**

(h) Unless otherwise specified in this AD, the actions shall be done in accordance with Boeing 707 Alert Service Bulletin A3240, Revision 4, dated September 6, 2001. 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, PO Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or for information on the availability of this material at the National Archives and Records Administration (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).

**Effective Date**

(i) This amendment becomes effective on December 14, 2004.

Issued in Renton, Washington, on October 26, 2004.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-24627 Filed 11-8-04; 8:45 am]

BILLING CODE 4910-13-P