

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2010-1280; Directorate Identifier 2010-NM-270-AD; Amendment 39-16572; AD 2011-01-15]

RIN 2120-AA64

#### Airworthiness Directives; The Boeing Company Model 757-200, -200CB, and -300 Series Airplanes

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for the products listed above. This AD requires repetitive inspections for cracking of the fuselage skin of the crown skin panel along the chem-milled step at stringers S-4 left and S-4 right, from stations (STA) 297 through 439, and repair if necessary. This AD also includes terminating action for the repetitive inspections of the repaired areas only. This AD was prompted by reports of cracking in the fuselage skin of the crown skin panel. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin of the crown skin panel, which could result in pressure venting and consequent rapid decompression of the airplane.

**DATES:** This AD is effective January 25, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of January 25, 2011.

We must receive comments on this AD by February 24, 2011.

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

## Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6440; fax (425) 917-6590; e-mail: [nancy.marsh@faa.gov](mailto:nancy.marsh@faa.gov).

## SUPPLEMENTARY INFORMATION:

### Discussion

We have received reports of cracking in the fuselage skin of the crown skin panel. On one airplane, the crack was 10.75 inches long, midway between stations (STA) 420 and 439, just above the lap joint at stringer 4L (left) of the chem-milled step. The airplane had accumulated 24,631 total flight cycles. On another airplane, there was an opening from a crack in the fuselage above and aft of the passenger entry doorway. One edge of the opening ran approximately 18 inches in the forward-to-aft direction; the other edge ran approximately 12 inches along the chem-milled pocket edge above stringer 4L. Additionally, a 1.3-inch crack was found in the skin forward of the opening in the adjacent skin bay also in the chem-milled step above stringer 4L. The airplane had accumulated 22,450 total flight cycles. The subject cracking is attributed to fatigue. Such cracking could initiate at multiple locations on the interior surface along the chem-milled step edges above the stringer 4L or 4R (right) lap splices of the skin. This condition, if not corrected, could result in pressure venting and consequent rapid decompression of the airplane.

### Relevant Service Information

We reviewed Boeing Special Attention Service Bulletin 757-53-0097, dated November 22, 2010. The service information describes procedures for repetitive inspections for cracking of the fuselage skin of the crown skin panel along the chem-milled step at stringers S-4L and S-4R, from STA 297 through 439, as specified in the options below. If any crack is found, the service bulletin recommends contacting Boeing for damage removal and repair instructions.

- Option A Inspection: An external detailed inspection of the STA 297 through 439 crown skin panel at stringers S-4L and S-4R lap joints.
- Option B Inspection: An external sliding probe eddy current inspection of the STA 297 through 439 crown skin panel at stringers S-4L and S-4R lap joints.
- Option C Inspection: An external spot probe medium frequency eddy current inspection of the STA 297 through 439 crown skin panel at stringers S-4L and S-4R lap joints.

The compliance time for all of the initial inspections is before the accumulation of 15,000 total flight cycles, or within 30 days after the original issue date of the service bulletin, whichever occurs later. The repetitive interval is specified below.

- Option A: At intervals not to exceed 30 flight cycles.
- Option B: At intervals not to exceed 300 flight cycles.
- Option C: At intervals not to exceed 200 flight cycles.

The initial external detailed inspection specified in Option A, if done, is repeated until either the Option B or Option C inspection is accomplished within 90 days after the original date of the service bulletin, and thereafter, either the Option B or Option C inspection is repeated. Accomplishing the Option B or Option C inspection would eliminate the need for the Option A inspection.

A detailed external inspection may be applied no more than once for each repeat interval of 300 flight cycles to extend the Option B repeat inspection up to 330 flight cycles, and for each repeat interval of 200 flight cycles to extend the Option C inspection up to 230 flight cycles—not to exceed 30 flight cycles after accomplishing the inspection.

Boeing Special Attention Service Bulletin 757-53-0097, dated November 22, 2010, also includes certain exceptions to the inspection of the edge of the chem-milled pocket under an existing external repair doubler.

### **FAA's Determination**

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **AD Requirements**

This AD requires accomplishing the actions specified in the service information described previously, except as discussed under "Difference Between the AD and the Service Information."

### **Difference Between the AD and the Service Information**

Boeing Special Attention Service Bulletin 757-53-0097, dated November 22, 2010, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

### **Interim Action**

We consider this AD interim action. An investigation is ongoing and no terminating action has been developed yet.

### **FAA's Justification and Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because fatigue cracking of the fuselage skin of the crown skin panel could result in pressure venting and consequent rapid decompression of the airplane. Therefore, we find that notice and opportunity for prior public comment are impracticable and that good cause exists for making this amendment effective in less than 30 days.

## Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA- 2010-1280; Directorate Identifier 2010-NM-270-AD;" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

## Costs of Compliance

We estimate that this AD affects 683 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

### Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	1 work-hour X \$85 per hour = \$85 per inspection cycle	None	\$85 per inspection cycle	\$58,055 per inspection cycle

We have received no definitive data that would enable us to provide a cost estimate for the on-condition actions specified in this AD.

## 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

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),

- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

#### **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 adding the following new airworthiness directive (AD):



**2011-01-15 The Boeing Company:** Amendment 39-16572; Docket No. FAA-2010-1280; Directorate Identifier 2010-NM-270-AD.

**Effective Date**

- (a) This AD is effective January 25, 2011.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to The Boeing Company Model 757-200, -200CB, and -300 series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 757-53-0097, dated November 22, 2010.

**Subject**

(d) Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53: Fuselage.

**Unsafe Condition**

(e) This AD was prompted by reports of cracking in the fuselage skin of the crown skin panel. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin, which could result in pressure venting and consequent rapid decompression of the airplane.

**Compliance**

- (f) Comply with this AD within the compliance times specified, unless already done.

**Repetitive Inspections/Repair**

(g) At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 757-53-0097, dated November 22, 2010, except as required by paragraph (i) of this AD: Do an external detailed, sliding probe eddy current, or spot-probe-medium-frequency eddy current inspection for cracking of the fuselage skin of the crown skin panel along the chem-milled step at stringers S-4L (left) and S-4R (right), stations (STA) 297 through 439, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-53-0097, dated November 22, 2010. Repeat the applicable inspection thereafter at the interval specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 757-53-0097, dated November 22, 2010.



## Repair

(h) If any crack is found during any inspection required by paragraph (g) of this AD: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD. Doing the repair ends the repetitive inspections for the repaired area only.

## Exception to Service Bulletin Specification

(i) Where Boeing Special Attention Service Bulletin 757-53-0097, dated November 22, 2010, specifies a compliance time after the date on that service bulletin, this AD requires compliance within the specified compliance time after the effective date of this AD.

## Alternative Methods of Compliance (AMOCs)

(j)(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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your Principal Maintenance Inspector or Principal Avionics Inspector, as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane and the approval must specifically refer to this AD.

## Related Information

(k) For more information about this AD, contact Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6440; fax (425) 917-6590; e-mail: nancy.marsh@faa.gov.

## Material Incorporated by Reference

(l) You must use Boeing Special Attention Service Bulletin 757-53-0097, dated November 22, 2010, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of the service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, 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).

Issued in Renton, Washington, on December 28, 2010.  
Jeffrey E. Duven,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.

SUPERSEDED