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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0947; Directorate Identifier 2008-NM-154-AD; Amendment 39-15670; AD 2008-19-03]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-300, -400, and -500 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Boeing Model 737-300, -400, and -500 series airplanes. This AD requires repetitive external detailed inspections or non-destructive inspections to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2R, between station (STA) 400 and STA 460, and repair if necessary. This AD results from reports of cracks in the fuselage skin common to stringer S-1 and between STA 400 and STA 460. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin panels at the chem-mill steps, which could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane.

DATES: This AD is effective October 16, 2008.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 16, 2008.

We must receive comments on this AD by December 1, 2008.

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, P.O. Box 3707, Seattle, Washington 98124-2207.

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 (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6447; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Discussion

We received three reports of cracks in the fuselage skin common to stringer S-1 and between station (STA) 400 and STA 460. In all three cases, there were cracks in adjacent 10-inch tear strap bays. In one case, there were cracks in four adjacent 10-inch tear strap bays. The cracks measured between 4.0 and 10.5 inches long. The airplanes had accumulated between 42,038 and 57,523 total flight cycles. Analysis indicates that the cracks were caused by fatigue due to high tension stresses and local bending at the edge of the chem-mill pockets of the bonded fuselage skin. Airplanes with 20-inch tear strap bays are also susceptible to cracks at this location. Fatigue cracking of the fuselage skin panels at the chem-mill steps, if not detected and corrected, could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 737-53A1293, dated August 13, 2008. The service bulletin describes procedures for repetitive external detailed inspections or non-destructive inspections (NDI) to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2R between STA 400 and STA 460, and contacting Boeing for repair instructions. The NDI inspections that can be used are medium frequency eddy current, magneto optical imaging, or c-scan. For the initial inspection, the service bulletin specifies a compliance time of before 35,000 total flight cycles, or within 500 flight cycles after the date on the service bulletin, whichever occurs later. For the repetitive inspections, the service bulletin specifies repeat intervals ranging between 1,200 and 4,500 flight cycles, depending on the airplane configuration and the type of inspection previously done.

FAA's Determination and Requirements of This AD

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(se) same type design(s). 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 Alert Service Bulletin 737-53A1293, dated August 13, 2008, specifies contacting the manufacturer for instructions on how to repair a certain condition, but this AD requires repairing that condition in one of the following ways:

- Using a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization whom we have authorized to make those findings.

Interim Action

We consider this AD interim action. If final action is later identified, we might consider further rulemaking then.

FAA's Justification and Determination of the Effective Date

We are issuing this AD to detect and correct fatigue cracking of the fuselage skin panels at the chem-mill steps, which could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane. Because of our requirement to promote safe flight of civil aircraft and thus, the critical need to assure the structural integrity of the fuselage and the short compliance time involved with this action, this AD must be issued immediately.

Because an unsafe condition exists that requires the immediate adoption of this AD, we find that notice and opportunity for prior public comment hereon 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 we did not provide you with notice and an opportunity to provide your comments before it becomes effective. 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-2008-0947; Directorate Identifier 2008-NM-154-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.

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), 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.

You can find our regulatory evaluation and the estimated costs of compliance in the AD Docket.

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 AD:



2008-19-03 Boeing: Amendment 39-15670. Docket No. FAA-2008-0947; Directorate Identifier 2008-NM-154-AD.

Effective Date

(a) This airworthiness directive (AD) is effective October 16, 2008.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Boeing Model 737-300, -400, and -500 series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 737-53A1293, dated August 13, 2008.

Unsafe Condition

(d) This AD results from reports of cracks in the fuselage skin common to stringer S-1 and between station (STA) 400 and STA 460. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin panels at the chem-mill steps, which could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane.

Compliance

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

Repetitive Inspections

(f) At the applicable times specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1293, dated August 13, 2008 (hereafter "the service bulletin"); except where the service bulletin specifies a compliance time after the date on the service bulletin, this AD requires compliance within the specified compliance time after the effective date of this AD: Do repetitive external detailed inspections or non-destructive inspections (NDI) to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2R, between STA 400 and STA 460, by accomplishing the applicable inspections specified in the Accomplishment Instructions of the service bulletin.

Repair

(g) If any crack is found during any inspection required by paragraph (f) of this AD, before further flight, repair the cracked fuselage skin using a method approved in accordance with the procedures specified in paragraph (h) of this AD.

Alternative Methods of Compliance (AMOCs)

(h)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, ATTN: Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6447; fax (425) 917-6590; has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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 an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who 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.

Material Incorporated by Reference

(i) You must use Boeing Alert Service Bulletin 737-53A1293, dated August 13, 2008, 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 this 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, P.O. Box 3707, Seattle, Washington 98124-2207.

(3) You may review copies of the service information incorporated by reference at the FAA, Transport Airplane Directorate, 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.

Issued in Renton, Washington, on September 11, 2008.

Michael Kaszycki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E8-22755 Filed 9-30-08; 8:45 am]