

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-289-AD; Amendment 39-14167; AD 2005-13-30]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-100, -200, and -200C Series Airplanes

AGENCY: Federal Aviation Administration, Department of Transportation.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to all Boeing Model 737-100, -200, and -200C series airplanes, that requires repetitive inspections to detect discrepancies of certain fuselage skin panels located just aft of the wheel well, and repair if necessary. The actions specified by this AD are intended to detect and correct fatigue cracking of the skin panels, which could cause rapid decompression of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective August 1, 2005.

The incorporation by reference of a certain publication listed in the regulations is approved by the Director of the Federal Register as of August 1, 2005.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplanes, 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.

FOR FURTHER INFORMATION CONTACT: Suzanne Lucier, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6438; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to all Boeing Model 737-100, -200, and -200C series airplanes was published as a supplemental notice of proposed rulemaking (NPRM) in the Federal Register on April 1, 2005 (70 FR 16761).

Comments

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

Support for the Proposed AD

The commenter supports the proposed AD.

Conclusion

We have carefully reviewed the available data, including the comment that has been submitted, and determined that air safety and the public interest require adopting the AD as proposed.

Interim Action

This is considered to be interim action. The manufacturer has advised that it is developing an improved preventive modification intended to address the identified unsafe condition for unmodified skin areas. After this modification is developed, approved, and available, we may consider additional rulemaking.

Cost Impact

There are about 1,000 airplanes of the affected design in the worldwide fleet. The FAA estimates that 390 airplanes of U.S. registry will be affected by this AD.

The inspection will take about 47 to 88 work hours per airplane (depending on configuration), at an average labor rate of \$65 per work hour. Based on these figures, we estimate the cost of the inspection to be \$3,055 to \$5,720 per airplane, per inspection cycle.

The cost impact figure discussed above is 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.

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 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 adding the following new airworthiness directive:

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).

2005-13-30 Boeing: Amendment 39-14167. Docket 2002-NM-289-AD.

Applicability

All Model 737-100, -200, and -200C series airplanes; certificated in any category.

Compliance

Required as indicated, unless accomplished previously.

To detect and correct fatigue cracking of the skin panels, which could cause rapid decompression of the airplane, accomplish the following:

Repetitive Inspections: Unmodified Skin Areas

(a) For fuselage skin panel areas that have not been modified with stiffening angles: Before the airplane accumulates 16,000 total flight cycles, or within 4,500 flight cycles after the effective date of this AD, whichever occurs later, inspect the unmodified fuselage side skins just aft of the main wheelwell, and perform all follow-on actions, in accordance with Part I of the Accomplishment Instructions of Boeing Service Bulletin 737-53-1065, Revision 2, dated April 19, 2001; except as provided by paragraph (g) of this AD. If no cracking, loose fasteners, disbonding, or damage is found: Repeat the inspection at the time specified in paragraph 1.E., Compliance, of the service bulletin, as applicable, except as provided by paragraph (d) of this AD.

Repetitive Inspections: Modified Skin Areas

(b) For fuselage skin panel areas that have been modified with stiffening angles in accordance with Boeing Service Bulletin 737-53-1065, dated January 4, 1985; Revision 1, dated October 12, 1989; or Revision 2, dated April 19, 2001: Before the airplane accumulates 16,000 total flight cycles, or within 4,500 flight cycles after the effective date of this AD, whichever occurs later, inspect the modified areas as specified in accordance with Part I of Boeing Service Bulletin 737-53-1065, Revision 2, dated April 19, 2001. Repeat the inspection at the time specified in paragraph 1.E., of the service bulletin, as applicable, except as provided by paragraph (d) of this AD. If any cracks, loose fasteners, disbonding, or damage is found: Repair before further flight in accordance with the requirements of paragraph (d) of this AD.

Terminating Action for Inspections of Modified Skin Areas

(c) For fuselage skin panel areas that have been modified with stiffening angles in accordance with Boeing Service Bulletin 737-53-1065, dated January 4, 1985; Revision 1, dated October 12, 1989; or Revision 2, dated April 19, 2001: At the later of the times specified by paragraphs (c)(1) and

(c)(2) of this AD, perform a subsurface eddy current or magneto optical imaging inspection to detect subsurface skin cracks along the edge of the bonded doubler, in accordance with Figure 10 of Boeing Service Bulletin 737-53-1065, Revision 2, dated April 19, 2001; except as provided by paragraph (g) of this AD. If any cracks are found, repair before further flight in accordance with paragraph (d) of this AD. Accomplishment of this inspection and all applicable corrective actions terminates the repetitive inspections required by paragraph (b) of this AD for the modified areas.

(1) Inspect within 24,500, but not fewer than 20,000, flight cycles after the modification of the skin.

(2) Inspect within 4,500 flight cycles after the effective date of this AD.

Repair: Modified and Unmodified Skin Areas

(d) If any cracking is detected during any inspection required by this AD: Do the actions specified by paragraph (d)(1) or (d)(2) of this AD before further flight. Do the actions in accordance with Boeing Service Bulletin 737-53-1065, Revision 2, dated April 19, 2001, except as required by paragraph (e) of this AD.

(1) Do a time-limited repair (including a detailed inspection of the skin in the area of the repair to detect corrosion and doubler disbonding) in accordance with Part III of the Accomplishment Instructions of the service bulletin.

(i) After the time-limited repair has been accomplished: At intervals not to exceed 3,000 flight cycles, perform an external general visual inspection of the repair to detect loose or missing fasteners, in accordance with Part III of the Accomplishment Instructions of the service bulletin, until the actions specified in paragraph (d)(1)(v) of this AD have been accomplished.

(ii) Within 4,500 flight cycles after the time-limited repair has been accomplished: Perform an internal inspection of the repair to detect cracking or doubler disbonding using general visual and high-frequency eddy current methods, in accordance with Figure 11 of the service bulletin, unless the actions specified in paragraph (d)(1)(v) of this AD have been accomplished.

(iii) If any cracking is found during any inspection required by paragraph (d)(1) of this AD: Repair before further flight in accordance with paragraph (e) of this AD. Another approved repair method is in Section 53-30-3, Figure 48, of the Boeing 737 Structural Repair Manual (SRM).

(iv) If any disbonding is found during any inspection required by paragraph (d)(1) of this AD: Repair before further flight in accordance with Part II of the service bulletin.

(v) Within 10,000 flight cycles after accomplishment of the time-limited repair: Make the repair permanent in accordance with Part III of the Accomplishment Instructions of the service bulletin. Permanent repair of an area terminates the repetitive inspections specified in this AD for that repaired area only.

(2) Do a permanent repair (including an inspection using external subsurface eddy current or magneto optical imaging methods to detect cracks at the chem-milled step in each adjacent bay of the fuselage skin, a detailed inspection of the skin in the area of the repair for corrosion and doubler disbonding, and applicable corrective action) of the cracked area, in accordance with Part II of the Accomplishment Instructions of the service bulletin. Another approved repair method is in Section 53-30-3, Figure 48, of the Boeing 737 SRM. Permanent repair of an area terminates the repetitive inspections specified in this AD for that repaired area only.

Exceptions to Service Bulletin Procedures

(e) During any inspection required by this AD, if any discrepancy (including cracking) is detected for which the service bulletin specifies to contact Boeing for appropriation action: Before further flight, repair according to a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or according to data meeting the certification basis of the airplane approved by an Authorized Representative for the Boeing 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.

(f) Although Boeing Service Bulletin 737-53-1065, Revision 2, dated April 19, 2001, recommends that cracks found in Zone 2 be reported to Boeing, this AD does not require such a report.

(g) For airplanes subject to the requirements of paragraphs (a) and (c) of this AD: Inspections are not required in areas that are spanned by an FAA-approved repair that has a minimum of 3 rows of fasteners above and below the chemical-milled step. If an external doubler covers the chemical-milled step, but does not span it by a minimum of 3 rows of fasteners above and below, one method of compliance with the inspection requirement of paragraphs (a) and (c) of this AD is to inspect all chemical-milled steps covered by the repair using internal nondestructive test (NDT) methods in accordance with Part 6, Subject 53-30-20, of the Boeing 737 NDT Manual. Follow-on and corrective actions must be done as specified in this AD.

Alternative Methods of Compliance (AMOCs)

(h)(1) In accordance with 14 CFR 39.19, the Manager, Seattle ACO, FAA, is authorized to approve AMOCs for this AD.

(2) 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 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.

Incorporation by Reference

(i) Unless otherwise specified in this AD, the actions must be done in accordance with Boeing Service Bulletin 737-53-1065, Revision 2, dated April 19, 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. To get copies of this service information, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. To inspect copies of this service information, go to the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or 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.

Effective Date

(j) This amendment becomes effective on August 1, 2005.

Issued in Renton, Washington, on June 14, 2005.

Kevin M. Mullin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05-12503 Filed 6-24-05; 8:45 am]

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