



CIVIL AVIATION AUTHORITY
CZECH REPUBLIC

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AIRWORTHINESS DIRECTIVE

Number: CAA-AD-042/2003

Date of issue: April 28, 2003

BOEING

737-200, -200C, -300, -400, -500

AIRCRAFT - FUSELAGE - NDT CHECK

Applicability: Model 737-200, -200C, -300, -400, and -500 series airplanes, having line numbers 292 through 2552 inclusive, and on which the modification specified in Boeing Service Bulletin (SB) 737-53A1177, Revision 6, dated May 31, 2001, has not been accomplished; certificated in any category.

Effective date: June 12, 2003

Compliance: Required as indicated FAA AD 2003-08-15.

Remarks: The compliance of this AD must be recorded in Aircraft Logbook, where applicable the requirements of this AD must be integrated into Aircraft Technical Documentation. Address inquiries concerning this AD to: Civil Aviation Authority, Airworthiness Division, Ruzyne Airport, 160 08 Prague 6, Czech Republic, tel.: 420 2 33320922, fax: 420 2 20562270.

Ing. Pavel MATOUŠEK
Director of Airworthiness Division
CAA CZ

2003-08-15 Boeing: Amendment 39-13128. Docket 2002-NM-329-AD.

Applicability: Model 737-200, -200C, -300, -400, and -500 series airplanes, having line numbers 292 through 2552 inclusive, and on which the modification specified in Boeing Service Bulletin (SB) 737-53A1177, Revision 6, dated May 31, 2001, has not been accomplished; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (h) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To find and fix cracking of the fuselage lap joints, which could result in sudden decompression of the airplane, accomplish the following:

Note 2: Detailed inspections required by this AD do not replace, but are in addition to the repetitive inspections required by AD 2002-07-08, amendment 39-12702.

One-Time Inspections

(a) With the exception of any area of any lap joints that are specified in this paragraph that have previously been repaired or modified per Boeing SB 737-53A1177, Revision 4, dated September 2, 1999; Revision 5, dated February 15, 2001; and Revision 6, dated May 31, 2001: Perform an internal mid-frequency eddy current (MFEC), a low-frequency eddy current (LFEC), and a detailed inspection for damage or cracking on stringers S-4L and S-4R lap joints between body station (BS) 540 and BS 727; and perform a detailed inspection for damage of the stringer clips at all frame locations at stringers S-4L and S-4R between BS 540 and BS 727 at the applicable time specified in paragraph (a)(1), (a)(2), or (a)(3) of this AD; per the Accomplishment Instructions of Boeing Alert Service Bulletin (ASB) 737-53A1255, dated October 17, 2002. If no damage or cracking is found, no further action is required by this paragraph.

Note 3: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(1) For airplanes that have accumulated less than 45,000 total flight cycles as of the effective date of this AD: Perform the inspections prior to the accumulation of 45,000 total flight cycles or within 90 days after the effective date of this AD, whichever occurs later.

(2) For airplanes that have accumulated 45,000 total flight cycles but not more than 49,999 total flight cycles as of the effective date of this AD: Perform the inspections within 90 days after the effective date of this AD.

(3) For airplanes that have accumulated 50,000 total flight cycles or more as of the effective date of this AD: Perform the inspections within 45 days after the effective date of this AD.

(b) The optional accomplishment of an open-hole non-destructive testing (NDT) inspection per Boeing ASB 737-53A1255, dated October 17, 2002, is acceptable as a method of verification of any cracking of the fastener holes found during the inspections required by paragraph (a) of this AD.

(c) If any damage or cracking is found during the inspections required by paragraph (a), (b), (d), or (e) of this AD that is not "significant," as defined in Boeing ASB 737-53A1255, dated October 17, 2002, repair per paragraph (c)(1) or (c)(2) of this AD, as applicable.

(1) For cracking that is within the limits specified by Boeing SB 737-53A1177, Revision 6, dated May 31, 2001:

Before further flight, repair per the Accomplishment Instructions of Boeing SB 737-53A1177, Revision 6, dated May 31, 2001; and before further flight, replace any damaged stringer clips with a new part, per Boeing ASB 737-53A1255, dated October 17, 2002.

(2) For any cracking that exceeds the limits specified in Boeing SB 737-53A1177, Revision 6, dated May 31, 2001: Before further flight, 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, the approval must specifically reference this AD.

(d) If any damage or cracking is found during the inspections required by paragraphs (a), (b), (d), or (e) of this AD that is "significant," as defined in Boeing ASB 737-53A1255, dated October 17, 2002: Before further flight, accomplish the actions specified by paragraph (d)(1) or (d)(2) of this AD, per the Accomplishment Instructions of the ASB.

(1) With the exception of BS 540 through 727 inclusive: Perform an external sliding probe inspection for damage or cracking, per Figure 2 of Boeing ASB 737-53A1255, dated October 17, 2002, for each model (Model 737-200, -200C, -300, -400, and -500 series airplanes) at the applicable locations specified in the Compliance Section of Boeing SB 737-53A1177, Revision 6, dated May 31, 2001.

(2) With the exception of BS 540 through 727 inclusive: Perform internal MFEC, LFEC, and detailed inspections for damage or cracking, per Figure 1 of Boeing ASB 737-53A1255, dated October 17, 2002, for each model (Model 737-200, -200C, -300, -400, and -500 series airplanes) at the applicable locations specified in the Compliance Section of Boeing SB 737-53A1177, Revision 6, dated May 31, 2001.

(e) If any "significant" cracking, as defined in Boeing ASB 737-53A1255, dated October 17, 2002, is found in any lap joint during the external inspection required by paragraph (d) of this AD: Before further flight, accomplish the actions required by paragraphs (e)(1) and (e)(2) of this AD.

(1) Perform internal MFEC, LFEC, and detailed inspections for cracking of the entire affected section of the lap joint, specified in the Compliance Section and Inspection Zone Figures of Boeing SB 737-53A1177, Revision 6, dated May 31, 2001; per Boeing ASB 737-53A1255, dated October 17, 2002.

(2) Perform a detailed inspection for damage of the stringer clips and replace any damaged stringer clip with a new part, per Boeing ASB 737-53A1255, dated October 17, 2002.

(f) If any cracking, "significant" (as defined in Boeing ASB 737-53A1255, dated October 17, 2002) or otherwise, is found during the inspections required by paragraphs (a), (b), (d), or (e) of this AD: Before further flight, accomplish the actions specified by paragraph (f)(1) or (f)(2) of this AD, as applicable.

(1) For cracking that is within the limits specified in Boeing SB 737-53A1177, Revision 6, dated May 31, 2001: Repair per the Accomplishment Instructions of that ASB; and replace any damaged stringer clips with a new part per Boeing ASB 737-53A1255, dated October 17, 2002.

(2) For any cracking that exceeds the limits specified in Boeing SB 737-53A1177, Revision 6, dated May 31, 2001, 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, the approval must specifically reference this AD.

Reporting Requirements

(g) Submit a report of inspection findings (both positive and negative) to the Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207, as specified in paragraph B.10 of the Accomplishment Instructions of Boeing ASB 737-53A1255, dated October 17, 2002, at the applicable time specified by paragraph (g)(1) or (g)(2) of this AD. Information collection requirements contained in this AD have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*) and have been assigned OMB Control Number 2120-0056.

(1) For airplanes on which the inspection required by paragraph (a) of this AD is accomplished after the effective

date of this AD: Submit the report within 10 days after performing the inspection required by paragraph (a) of this AD.

(2) For airplanes on which the inspection required by paragraph (a) of this AD has been accomplished prior to the effective date of this AD: Submit the report within 10 days after the effective date of this AD.

Alternative Methods of Compliance

(h) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, ACO, FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(i) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(j) Unless otherwise specified by this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 737-53A1255, dated October 17, 2002; and Boeing Service Bulletin 737-53A1177, Revision 6, dated May 31, 2001; as applicable.

(1) This incorporation by reference of Boeing Alert Service Bulletin 737-53A1255, dated October 17, 2002, is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of Boeing Service Bulletin 737-53A1177, Revision 6, dated May 31, 2001, was approved previously by the Director of the Federal Register as of May 17, 2002 (67 FR 17917, April 12, 2002).

(3) Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(k) This amendment becomes effective on May 12, 2003.