



CIVIL AVIATION AUTHORITY  
CZECH REPUBLIC  
Airworthiness Division

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## AIRWORTHINESS DIRECTIVE

**Number: CAA-AD-049/2003**

Date of issue: June 04, 2003

**BOEING**

727, 737-100, -200, -200C

### AIRCRAFT - HYDRAULIC SYSTEMS "A", "B" - HYDRAULIC ACUMULATORS - INSPECTION

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**Applicability:**

Model 727 series airplanes, line numbers (L/N) 1 through 1832 inclusive; and Model 737-100, -200, and -200C series airplanes, L/N 1 through 1033 inclusive; certificated in any category.

**Effective date:** July 10, 2003

**Compliance:** Required as indicated FAA AD 2003-11-03.

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*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, Ruzyně Airport, 160 08 Prague 6, Czech Republic, tel.: 420 2 33320922, fax: 420 2 20562270.*

**Ing. Pavel MATOUŠEK**  
**Director**

**2003-11-03 Boeing:** Amendment 39-13162. Docket 2002-NM-19-AD.

*Applicability:* Model 727 series airplanes, line numbers (L/N) 1 through 1832 inclusive; and Model 737-100, -200, and -200C series airplanes, L/N 1 through 1033 inclusive; certificated in any category.

**Note 1:** This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been 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 (j) 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 prevent high-velocity separation of a barrel, piston, or end cap from a hydraulic accumulator, which could result in injury to personnel in the accumulator area; loss of cabin pressurization; loss of affected hydraulic systems; or damage to plumbing, electrical installations, or structural members; accomplish the following:

**Inspection/Corrective Action: Service Bulletin 727-29-0064**

(a) For airplanes listed in Boeing Special Attention Service Bulletin 727-29-0064, Revision 1, dated May 3, 2001: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, do a one-time inspection to determine the part numbers (P/Ns) of hydraulic accumulators in hydraulic systems "A" and "B," per the Accomplishment Instructions of the service bulletin.

(1) If no hydraulic accumulator with Parker P/N 1356-603303 is installed: No further action is required by this paragraph.

(2) If any hydraulic accumulator with Parker P/N 1356-603303 is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace the subject hydraulic accumulator with a new or modified accumulator, per the service bulletin.

**Note 2:** Boeing Special Attention Service Bulletin 727-29-0064, Revision 1, refers to Parker Service Bulletin 1356-603303-29-60, dated January 9, 2001, as the appropriate source of service information for modification of the hydraulic accumulators that are subject to replacement per Service Bulletin 727-29-0064, Revision 1.

**Inspection/Corrective Action: Service Bulletin 727-32-0410**

(b) For airplanes listed in Boeing Special Attention Service Bulletin 727-32-0410, Revision 2, dated January 24, 2002: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, do a one-time inspection to determine the P/N of the hydraulic accumulator in the landing gear brake system, per the service bulletin.

(1) If no hydraulic accumulator with P/N 1356-603399, 3780078-104, BACA11E4S, BACA11E4SA, 60857-4-1, or BACA11E4 (vendor P/N 2660472-4 or 2660472M4) is installed: No further action is required by this paragraph.

(2) If any hydraulic accumulator with P/N 1356-603399 or BACA11E4 (vendor P/N 2660472-4 or 2660472M4) is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace existing accumulator clamps and mounting hardware with new, stronger accumulator clamps and mounting hardware, and replace the subject hydraulic accumulator with a new or modified accumulator, per the service bulletin.

(3) If any hydraulic accumulator with P/N 3780078-104, BACA11E4SA, or 60857-4-1 is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace existing accumulator clamps and mounting hardware with new, stronger accumulator clamps and mounting hardware, per the service bulletin.

**Note 3:** Boeing Special Attention Service Bulletin 727-32-0410, Revision 2, refers to Parker Service Bulletins 1356-603399-29-61 and 2660472-29-63, both dated December 12, 2000, as the appropriate sources of service information for modification of the hydraulic accumulators that are subject to replacement per Service Bulletin 727-32-0410,

Revision 2.

**Inspection/Corrective Action: Service Bulletin 727-52-0148**

(c) For airplanes listed in Boeing Special Attention Service Bulletin 727-52-0148, Revision 2, dated January 24, 2002: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, do a one-time inspection to determine the P/N of the hydraulic accumulator in the aft airstairs, per the service bulletin.

(1) If no hydraulic accumulator with P/N 1356-603399, 3780078-104, BACA11E4S, BACA11E4SA, 60857-4-1, or BACA11E4 (vendor P/N 2660472-4 or 2660472M4) is installed: No further action is required by this paragraph.

(2) If any hydraulic accumulator with P/N 1356-603399 or BACA11E4 (vendor P/N 2660472-4 or 2660472M4) is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace existing accumulator clamps and mounting hardware with new, stronger accumulator clamps and mounting hardware, and replace the subject hydraulic accumulator with a new or modified accumulator, per the service bulletin.

(3) If any hydraulic accumulator with P/N 3780078-104, BACA11E4SA, or 60857-4-1 is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace existing accumulator clamps and mounting hardware with new, stronger accumulator clamps and mounting hardware, per the service bulletin.

**Note 4:** Boeing Special Attention Service Bulletin 727-52-0148, Revision 2, refers to Parker Service Bulletins 1356-603399-29-61 and 2660472-29-63, both dated December 12, 2000, as the appropriate sources of service information for modification of the hydraulic accumulators that are subject to replacement per Service Bulletin 727-52-0148, Revision 2.

**Inspection/Corrective Action: Service Bulletin 737-32-1334**

(d) For airplanes listed in Boeing Special Attention Service Bulletin 737-32-1334, Revision 1, dated March 1, 2001: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, do a one-time inspection to determine the P/Ns of the hydraulic accumulators in the landing gear brake system, per the service bulletin.

(1) If no hydraulic accumulator with P/N BACA11E2 (vendor P/N 2660472-2 or 2660472M2) is installed: No further action is required by this paragraph.

(2) If any hydraulic accumulator with P/N BACA11E2 (vendor P/N 2660472-2 or 2660472M2) is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace the subject hydraulic accumulator with a new or modified accumulator, per the service bulletin.

**Note 5:** Boeing Special Attention Service Bulletin 737-32-1334, Revision 1, refers to Parker Service Bulletin 2660472-29-63, dated December 12, 2000, as the appropriate source of service information for modification of the hydraulic accumulators that are subject to replacement per Service Bulletin 737-32-1334, Revision 1.

**Inspection/Corrective Action: Service Bulletin 737-78-1068**

(e) For airplanes listed in Boeing Special Attention Service Bulletin 737-78-1068, Revision 1, dated March 1, 2001: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, do a one-time inspection to determine the P/Ns of the hydraulic accumulators in the thrust reverser actuation system, per the service bulletin.

(1) If no hydraulic accumulator with P/N BACA11E2 (vendor P/N 2660472-2 or 2660472M2) is installed: No further action is required by this paragraph.

(2) If any hydraulic accumulator with P/N BACA11E2 (vendor P/N 2660472-2 or 2660472M2) is installed: Within 18 months or 6,000 flight hours after the effective date of this AD, whichever is first, replace the subject hydraulic accumulator with a new or modified accumulator, per the service bulletin.

**Note 6:** Boeing Special Attention Service Bulletin 737-78-1068, Revision 1, refers to Parker Service Bulletin 2660472-29-63, dated December 12, 2000, as the appropriate source of service information for modification of the hydraulic accumulators that are subject to replacement per Service Bulletin 737-78-1068, Revision 1.

### **Inspections Accomplished per Previous Issues of Service Bulletins**

(f) Inspections and replacements accomplished before the effective date of this AD per Boeing Special Attention Service Bulletin 727-29-0064, dated June 8, 2000, are considered acceptable for compliance with the corresponding action required by paragraph (a) of this AD.

(g) Inspections and replacements accomplished before the effective date of this AD per Boeing Special Attention Service Bulletin 737-32-1334, dated May 11, 2000, are considered acceptable for compliance with the corresponding actions required by paragraph (d) of this AD.

(h) Inspections and replacements accomplished before the effective date of this AD per Boeing Special Attention Service Bulletin 737-78-1068, dated June 8, 2000, are considered acceptable for compliance with the corresponding action required by paragraph (e) of this AD.

### **Part Installation**

(i) As of the effective date of this AD, no one may install a hydraulic accumulator with a P/N listed in paragraph (a)(2), (b)(2), (c)(2), (d)(2), or (e)(2) of this AD on any airplane.

### **Alternative Methods of Compliance**

(j) 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, Seattle Aircraft Certification Office (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 7:** 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**

(k) 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**

(l) Unless provided otherwise in this AD, the actions shall be done in accordance with Boeing Special Attention Service Bulletin 727-29-0064, Revision 1, dated May 3, 2001; Boeing Special Attention Service Bulletin 727-32-0410, Revision 2, dated January 24, 2002; Boeing Special Attention Service Bulletin 727-52-0148, Revision 2, dated January 24, 2002; Boeing Special Attention Service Bulletin 737-32-1334, Revision 1, dated March 1, 2001; and Boeing Special Attention Service Bulletin 737-78-1068, Revision 1, dated March 1, 2001; as applicable. 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 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** (m) This amendment becomes effective on July 3, 2003.