



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0726; Directorate Identifier 2012-NM-023-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. Airplanes**

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8-400 series airplanes. This proposed AD was prompted by cases of on-ground failure of the screw cap or end cap of hydraulic accumulators on other airplane models, resulting in high-energy impact damage to adjacent systems and structure. This proposed AD would require inspecting for a part number and replacing the affected parking brake hydraulic accumulator, and relocating the parking brake accumulator, on the subject airplanes. We are proposing this AD to prevent failure of the screw caps and/or end caps of the parking brake hydraulic accumulator, which could result in damage to the airplane's primary structures, with potential adverse effect on the airplane's controllability.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**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, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; e-mail [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.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 Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations 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:** Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7318; fax (516) 794-5531.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0726; Directorate Identifier 2012-NM-023-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on 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 proposed AD.

**Discussion**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2012-04, dated January 13, 2012 (referred to after this as “the MCAI”), to correct an unsafe condition for the

specified products. The MCAI states:

Seven cases of on-ground hydraulic accumulator/screw cap/end cap failure have been experienced on CL-600-2B19 (CRJ) aeroplanes, resulting in loss of the associated hydraulic system and high-energy impact damage to adjacent systems and structure. To date, the lowest number of flight cycles accumulated at the time of failure has been 6991.

Although there have been no failures to date on any DHC-8 aeroplanes, similar accumulators to those installed on the CL-600-2B19, Part Number (P/N) 08-60197-001 (Parking Brake Accumulator), are installed on the aeroplanes listed in the Applicability section of this Airworthiness Directive (AD). It was also found that some of these accumulators may be affected by manufacturing non-conformances.

A detailed analysis of the systems and structure in the potential line of trajectory of a failed screw cap/end cap for the accumulator has been conducted. It has been identified that the worst-case scenarios would be the damage to the aeroplane's primary structures, which could have an adverse effect on the controllability of the aeroplane.

This AD mandates the [inspection for part and serial numbers and] replacement of the affected hydraulic accumulators and the relocation of the parking brake accumulator.

You may obtain further information by examining the MCAI in the AD docket.

### **Relevant Service Information**

Bombardier, Inc. has issued Service Bulletin 84-32-87, Revision B, dated November 22, 2011; and Service Bulletin 84-32-88, dated February 16, 2011. Goodrich has issued Service Bulletin 08 60197 001-32-70 R2, dated February 1, 2011. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

## **FAA's Determination and Requirements of This Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

### **Costs of Compliance**

Based on the service information, we estimate that this proposed AD would affect about 83 products of U.S. registry. We also estimate that it would take about 17 work-hour per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$5,205 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$551,950, or \$6,650 per product.

In addition, we estimate that any necessary follow-on actions would take about 3 work-hours and require parts costing \$4,643, for a cost of \$4,898 per product. We have no way of determining the number of products that may need these 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 Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the 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.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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:

**Bombardier, Inc.:** Docket No. FAA-2012-0726; Directorate Identifier 2012-NM-023-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category, serial numbers 4001 through 4346 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 32: Landing Gear.

**(e) Reason**

This AD was prompted by cases of on-ground hydraulic accumulator/screw cap/end cap failure, resulting in high-energy impact damage to adjacent systems and structure. We are issuing this AD to prevent failure of the screw caps and/or end caps of the hydraulic and parking brake accumulators, which could result in damage to the airplane's primary structures, with potential adverse effect on the airplane's controllability.

**(f) Compliance**

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**(g) Inspect/Replace the Parking Brake Hydraulic Accumulator**

For airplanes having serial numbers 4001 through 4337 inclusive: Within 1,200 flight hours or 6 months after the effective date of this AD, whichever comes first, inspect the parking brake hydraulic accumulator to determine the part number and serial number. Inspect to determine the part number and serial number in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-88, dated February 16, 2011.

- (1) If the part number of the parking brake hydraulic accumulator can be

determined by the inspection required by paragraph (g) of this AD; and is not identified in paragraph 1., Effectivity, of Goodrich Service Bulletin 08 60197 001-32-70 R2, dated February 1, 2011: No further action is required by this paragraph.

(2) If the part number and serial number of the parking brake hydraulic accumulator cannot be determined by the inspection required by paragraph (g) of this AD; or is identified in paragraph 1., Effectivity, of Goodrich Service Bulletin 08 60197 001-32-70 R2, dated February 1, 2011: Before further flight, replace the parking brake hydraulic accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-88, dated February 16, 2011.

**(h) Relocate the Parking Brake Hydraulic Accumulator**

(1) For airplanes having serial numbers 4001 through 4068 inclusive, 4070 through 4214 inclusive, 4214, 4216, 4219 through 4261 inclusive, and 4263 through 4346 inclusive: Within 6,000 flight hours after the effective date of this AD, relocate the parking brake hydraulic accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-87, Revision B, dated November 22, 2011.

(2) Accomplishing the actions specified in paragraph (h)(1) of this AD in accordance with previous revisions of Bombardier Service Bulletin 84-32-87 does not meet the requirements of paragraph (h)(1) of this AD.

**(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York 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 ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(j) Related Information**

Refer to MCAI Canadian Airworthiness Directive CF-2012-04, dated January 13, 2012, and the service information identified in paragraphs (j)(1) through (j)(3) of this AD, for related information.

(1) Bombardier Service Bulletin 84-32-87, Revision B, dated November 22, 2011.

(2) Bombardier Service Bulletin 84-32-88, dated February 16, 2011.

(3) Goodrich Service Bulletin 08 60197 001-32-70 R2, dated February 1, 2011.

Issued in Renton, Washington, on July 20, 2012.

Kalene C. Yanamura,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2012-18588 Filed 08/01/2012 at 8:45 am; Publication Date: 08/02/2012]