



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0271; Directorate Identifier 2011-NM-196-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-8-100, DHC-8-200, and DHC-8-300 series airplanes. This proposed AD was prompted by reports of hydraulic accumulator screw cap or end cap failure. This proposed AD would require replacing the affected parking brake accumulator. We are proposing this AD to prevent failure of the parking brake accumulator screw caps or end caps, which could result in loss of the number 2 hydraulic system and damage to airplane structures, and could potentially have an adverse effect on the controllability of the airplane.

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; 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-2012-0271; Directorate Identifier 2011-NM-196-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-2011-29, dated August 2, 2011 (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 or 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 Numbers (P/N)0860162001 and 0860162002 (Parking Brake Accumulator), are installed on the aeroplanes listed in the Applicability section of this [TCCA] directive.

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 identified that the worst-case scenarios would be the loss of number 2 hydraulic system, and damage to aeroplane structures.

This [TCCA] directive gives instructions to determine the part number and serial number of the existing parking brake accumulator, and where applicable, replace the accumulator.

Failure of the parking brake accumulator screw caps and/or end caps could result in loss of the number 2 hydraulic system, and damage to airplane structures, and could potentially have an adverse effect on the controllability of the airplane. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Bombardier, Inc. has issued Service Bulletin 8-32-170, dated February 25, 2011; and Service Bulletin 8-32-172, dated March 15, 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 129 products of U.S. registry. We also estimate that it would take about 2 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$21,930, or \$170 per product.

In addition, we estimate that any necessary follow-on actions would take about 3 work-hours and require parts costing \$1,625, for a cost of \$1,880 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-2012-0271; Directorate Identifier 2011-NM-196-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-8-101, -102, -103, -106, -201, -202, -301, -311 and, -315 airplanes, certificated in any category, serial numbers 003 and subsequent.

(d) Subject

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

(e) Reason

This AD was prompted by reports of hydraulic accumulator screw cap or end cap failure. We are issuing this AD to prevent failure of the parking brake accumulator screw caps or end caps, which could result in loss of the number 2 hydraulic system and damage to airplane structures, and could potentially have an adverse effect on the controllability of the airplane.

(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) Inspection and Replacement

Within 2,000 flight hours or 12 months after the effective date of this AD, whichever comes first: Inspect to determine the part number (P/N) and serial number of the parking brake hydraulic accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-32-170, dated February 25, 2011. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number and serial number of the parking brake hydraulic accumulator can be conclusively determined from that review.

(1) For accumulators not having P/N 0860162001 or 0860162002: No further action is required by this paragraph.

(2) For accumulators having P/N 0860162001 or 0860162002: Before further flight, do the applicable actions specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD.

(i) If the serial number is listed in the table in paragraph 3.B.(2) of Bombardier

Service Bulletin 8-32-170, dated February 25, 2011: No further action is required by this paragraph.

(ii) If the serial number is not listed in the table in paragraph 3.B.(2) of Bombardier Service Bulletin 8-32-170, dated February 25, 2011: Within 2,000 flight hours or 12 months after the effective date of this AD, whichever comes first, replace the accumulator with a new non-suspect accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-32-172, dated March 15, 2011.

(h) Parts Installation

As of the effective date of this AD, no person may install a parking brake accumulator, P/N 0860162001 or 0860162002 with a serial number that is not listed in the table in paragraph 3.B.(2) of Bombardier Service Bulletin 8-32-170, dated February 25, 2011, on any airplane.

(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), ANE-170, 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-2011-29, dated August 2, 2011; and the service information identified in paragraphs (j)(1) and (j)(2) of this AD; for related information.

(1) Bombardier Service Bulletin 8-32-170, dated February 25, 2011.

(2) Bombardier Service Bulletin 8-32-172, dated March 15, 2011.

Issued in Renton, Washington, on March 9, 2012.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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