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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0271; Directorate Identifier 2011-NM-196-AD; Amendment 39-17118; AD 2012-14-04]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8-100, DHC-8-200, and DHC-8-300 series airplanes. This AD was prompted by reports of hydraulic accumulator screw cap or end cap failure. This AD requires replacing the affected parking brake accumulator. 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.

DATES: This AD becomes effective August 27, 2012.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of August 27, 2012.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

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:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on March 21, 2012 (77 FR 16488). That NPRM proposed 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.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (77 FR 16488, March 21, 2012) or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed—except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (77 FR 16488, March 21, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 16488, March 21, 2012).

Costs of Compliance

We estimate that this AD will affect about 129 products of U.S. registry. We also estimate that it will take about 2 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the 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 AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

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 AD and placed it in the AD docket.

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 the NPRM (77 FR 16488, March 21, 2012), 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.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

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



2012-14-04 Bombardier, Inc.: Amendment 39-17118. Docket No. FAA-2012-0271; Directorate Identifier 2011-NM-196-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective August 27, 2012.

(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 occurs 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 occurs 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 Prohibition

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.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise.

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

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

(3) For service information identified in this 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; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>.

(4) You may review copies of the 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.

(5) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on June 28, 2012.

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