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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0689; Directorate Identifier 2012-NM-225-AD; Amendment 39-17791; AD 2014-05-18]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc.

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Bombardier, Inc. Model DHC-8-400 series airplanes. This AD was prompted by a report that a batch of main landing gear (MLG) door actuators with a certain part number having certain serial numbers could be assembled with the scraper installed backward. This AD requires repetitive functional checks of the MLG alternate extension system (AES) and eventual replacement of certain MLG door actuators with actuators that have either been reworked or do not have certain serial numbers. We are issuing this AD to prevent incorrectly installed scrapers, which could hinder the operation of the MLG AES, and result in failure of the MLG AES on one side, and consequent unsafe asymmetrical landing configuration.

DATES: This AD becomes effective April 22, 2014.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of April 22, 2014.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2013-0689>; 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 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>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425 227-1221.

FOR FURTHER INFORMATION CONTACT: Luke Walker, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7363; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Bombardier, Inc. Model DHC-8-400 series airplanes. The NPRM published in the Federal Register on August 13, 2013 (78 FR 49240). The NPRM was prompted by a report that a batch of main landing gear (MLG) door actuators with a certain part number having certain serial numbers could be assembled with the scraper installed backward. The NPRM proposed to require repetitive functional checks of the MLG alternate extension system (AES) and eventual replacement of certain MLG door actuators with actuators that have either been reworked or do not have certain serial numbers. We are issuing this AD to prevent incorrectly installed scrapers, which could hinder the operation of the MLG AES, and result in failure of the MLG AES on one side, and consequent unsafe asymmetrical landing configuration.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2012-28R1, dated November 26, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

It was discovered that a batch of [main landing gear] MLG door actuators, [part number] P/N 46830-7, may be assembled with the scraper installed backwards. This condition, if not corrected, could result in increased actuator friction, which could hinder operation of the MLG alternate extension system (AES). In the case of a failure of the primary MLG extension system, the failure of the MLG AES on one side will lead to an unsafe asymmetrical landing configuration.

This [Canadian] AD mandates the repetitive functional check of the AES until replacement of the affected MLG door actuators.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-0689-0003>.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (78 FR 49240, August 13, 2013) and the FAA's response to each comment.

Request To Correct Typographical Error

Horizon Air noted that the part number of the MLG door actuator was incorrect in paragraphs (i) and (k) of the NPRM (78 FR 49240, August 13, 2013). The correct part number is 46830-7 but is specified as 16830-7 in paragraphs (i) and (k) of the NPRM.

We agree there was an error regarding the part number of the MLG door actuator in paragraphs (i) and (k) of the NPRM (78 FR 49240, August 13, 2013) and have corrected the part number in paragraphs (i) and (k) of this final rule.

Request To Clarify Which MLG Actuators Require a Functional Check

Horizon Air stated that paragraph (h) of the NPRM (78 FR 49240, August 13, 2013) does not clearly define the conditions that require a functional check of the MLG AES. Horizon Air commented that the wording of paragraph (h) of the NPRM implied that all MLG door actuators having part number (P/N) 46830-7 must have a functional check accomplished, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012. Horizon Air noted that airplanes having MLG actuators that are clearly outside of the affected group do not need a MLG AES functional check. The commenter recommended that the airplanes subject to the functional check of paragraph (h) of the NPRM be changed to those with ". . . any MLG door actuator having P/N 46830-7 and a serial number included in paragraph 1.A., 'Effectivity,' of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012, or the P/N is unable to be determined."

We agree with the commenter and have revised paragraph (h) of this final rule to clarify that only MLG door actuators having P/N 46830-7 and a serial number included in paragraph 1.A. "Effectivity," of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012, or a part number that cannot be determined, require a functional check.

Request To Require Only Certain Section of the Service Information

One commenter, Mattson, requested that the language in the NPRM (78 FR 49240, August 13, 2013) be changed from mandating that the required actions be accomplished in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012, to specifically stating that the required actions be accomplished in accordance with Section B, "Procedures," of the Accomplishment Instructions. The commenter stated that only the actions in Section B of the service information address the unsafe condition, and the FAA should not dictate the working environment for implementing the correction to the unsafe condition. The commenter asserted that requiring operators to follow the procedures in Section A, "Job Setup," and Section C, "Closeout," of the Accomplishment Instructions of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012, forces them to have the airplane in a specific condition and keep it in that condition while performing the corrective action. Furthermore, if an operator wanted to deviate from an action specified in Section A or Section C of the service information, it would have to request an alternative method of compliance (AMOC), which would increase the cost of compliance with the proposed AD.

We agree to clarify the required actions. Paragraphs (h) and (i) of the NPRM (78 FR 49240, August 13, 2013) do not require the actions in paragraphs 3.A., "Job Set-Up," and 3.C., "Close Out," of the Accomplishment Instructions of Bombardier Service Bulletin 84-2-108, Revision A, dated October 1, 2012. The actions required by paragraphs (h) and (i) of the NPRM must be done in accordance with Part A, "Inspection," and Part B, "Actuator Replacement," of paragraph 3.B., "Procedure," of the Accomplishment Instructions of Bombardier Service Bulletin 84-2-108, Revision A, dated October 1, 2012. For clarity, we have revised paragraphs (h) and (i) of this final rule to include the reference to paragraph 3.B., "Procedure," of the Accomplishment Instructions of the service information.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (78 FR 49240, August 13, 2013) for correcting the unsafe condition; and

- Do not add any additional burden upon the public than was already proposed in the NPRM (78 FR 49240, August 13, 2013).

Costs of Compliance

We estimate that this AD affects 2 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Records check, functional check, replacement of actuators	17 work-hours × \$85 per hour = \$1,445	\$128	\$1,573	\$3,146

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.

Examining the AD Docket

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-0689-0003>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this 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.

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:



2014-05-18 Bombardier, Inc.: Amendment 39-17791. Docket No. FAA-2013-0689; Directorate Identifier 2012-NM-225-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective April 22, 2014.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category.

(d) Subject

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

(e) Reason

This AD was prompted by a report that a batch of main landing gear (MLG) door actuators with a certain part number having certain serial numbers could be assembled with the scraper installed backward. We are issuing this AD to prevent incorrectly installed scrapers, which could hinder the operation of the MLG alternate extension system (AES), and result in failure of the MLG AES on one side, and consequent unsafe asymmetrical landing configuration.

(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 to Determine Part Number of MLG Door Actuators

Within 50 flight hours after the effective date of this AD, inspect the MLG door actuators to determine whether part number (P/N) 46830-7 is installed. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the MLG door actuator can be conclusively determined from that review.

(h) Functional Check of the MLG AES

If, during the inspection to determine the part number of the MLG actuators as required by paragraph (g) of this AD, any MLG door actuator having P/N 46830-7 and a serial number included in paragraph 1.A. "Effectivity," of Bombardier Service Bulletin 84-32-108, Revision A, dated

October 1, 2012, is found; or if the part number is unable to be determined: At the applicable time specified in paragraph (h)(1) or (h)(2) of this AD, do a functional check of the MLG AES, in accordance with Part A of paragraph 3.B. "Procedure," of the Accomplishment Instructions of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012. Repeat the functional check thereafter at intervals not to exceed 50 flight cycles until the actions required by paragraph (i) of this AD are done. If the force applied during the functional check exceeds 67 pound-force (lbf), before further flight, replace the affected actuator, in accordance with Part B of paragraph 3.B. "Procedure," of the Accomplishment Instructions of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012.

(1) For airplanes with MLG door actuators that have accumulated more than 950 total flight hours as of the effective date of this AD: Within 50 flight hours after the effective date of this AD.

(2) For airplanes with MLG door actuators that have accumulated 950 total flight hours or less as of the effective date of this AD: Within 1,000 flight hours after the effective date of this AD.

(i) Terminating Action for Repetitive Functional Checks

At the earlier of the times specified in paragraphs (i)(1) and (i)(2) of this AD: Replace all MLG door actuators having P/N 46830-7 and a serial number included in paragraph 1.A. "Effectivity," of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012, with MLG door actuators reworked in accordance with Part B of paragraph 3.B. "Procedure," of the Accomplishment Instructions of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012, or with a MLG door actuator having P/N 46830-7 and a serial number that is not included in section 1.A. "Effectivity," of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012. Installation of a MLG door actuator having P/N 46830-7 with "Mod Status 32-106" on the identification plate is acceptable for compliance with the requirements of this paragraph.

(1) Prior to the accumulation of 3,000 total flight hours on any MLG door actuator, or within 50 flight hours after the effective date of this AD, whichever occurs later.

(2) Within 12 months or 2,000 flight hours after the effective date of this AD, whichever occurs first.

(j) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (i) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-32-108, dated September 6, 2012, which is not incorporated by reference in this AD.

(k) Parts Installation Limitation

As of the effective date of this AD, no person may install a MLG door actuator having P/N 46830-7, with a serial number identified in paragraph 1.A. "Effectivity," of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012, unless "Mod Status 32-106" is on the identification plate.

(l) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York 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, NY 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.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2012-28R1, dated November 26, 2012, for related information. The MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-0689-0003>.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (n)(3) and (n)(4) of this AD.

(n) Material Incorporated by Reference

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

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

(i) Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012.

(ii) Reserved.

(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 view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 19, 2014.

Jeffrey E. Duven,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.