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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0367; Directorate Identifier 2012-NM-177-AD; Amendment 39-17546; AD 2013-16-08]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, and Model CL-600-2D24 (Regional Jet Series 900) airplanes. This AD was prompted by a report of corrosion of the components of the main landing gear (MLG) retraction actuator found in service; the corrosion was found at the interface of the rod end and the piston, and at the bracket and related pins. This AD requires inspection of the MLG retraction actuator components; corrective actions if necessary; and, for certain retraction actuators, installation of a new jam nut. We are issuing this AD to prevent disconnection of the MLG retraction actuator, which could result in extension of the MLG without damping, and consequent structural damage and collapse of the MLG during landing.

DATES: This AD is effective September 24, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of September 24, 2013.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

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. The NPRM published in the Federal Register on May 10, 2013 (78 FR 27318). The NPRM proposed to correct an unsafe condition for the specified products.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2011-36R1, dated October 3, 2012, the Mandatory Continuing Airworthiness Information (MCAI), to correct an unsafe condition for the specified products. The MCAI states:

Corrosion of the main landing gear (MLG) retraction actuator components was found in-service, either at the interface of the rod end and the piston or at the bracket and its related pins. This can cause the MLG retraction actuator to disconnect, leading to an MLG extension without damping, and a potential for MLG structural damage and possible collapse during landing.

This [Canadian] AD mandates the inspection and rectification [corrective action] of the MLG retraction actuator components.

This revision is to mandate [, for certain MLG retraction actuators,] the installation of the new retraction actuator jam nut. This revision also corrects the background information and updates Service Bulletin (SB) references.

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 (78 FR 27318, May 10, 2013) or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed.

Costs of Compliance

Based on the service information, we estimate that this AD affects about 391 products of U.S. registry. We also estimate that it takes up to 16 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$1,018 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 this AD on U.S. operators to be up to \$929,798, or up to \$2,378 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this AD.

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 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 this AD, the MCAI, 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 airworthiness directive (AD):



2013-16-08 Bombardier, Inc.: Amendment 39-17546; Docket No. FAA-2013-0367; Directorate Identifier 2012-NM-177-AD.

(a) Effective Date

This AD becomes effective September 24, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to the airplanes specified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.

(1) Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10002 and subsequent.

(2) Bombardier, Inc. Model CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 and subsequent.

(d) Subject

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

(e) Reason

This AD was prompted by a report of corrosion of the components of the main landing gear (MLG) retraction actuator found in service; the corrosion was found at the interface of the rod end and the piston, and at the bracket and related pins. We are issuing this AD to prevent disconnection of the MLG retraction actuator, which could result in extension of the MLG without damping, and consequent structural damage and collapse of the MLG during landing.

(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 of the MLG Retraction Actuator and Corrective Actions

For any airplane with an MLG retraction actuator assembly having any part number and serial number identified in paragraph 1.A., Effectivity, of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012, except airplanes on which modification status "32-64" is marked on the identification plate: At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD, perform a detailed inspection of the retraction actuator assembly for evidence of corrosion and security of the jam nut, as applicable, in accordance with Part A of the Accomplishment Instructions

of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012; and Goodrich Service Bulletin 49600-32-63 R1, dated May 17, 2011. If any corrosion or unsecured jam nut is found, before further flight, replace the retract actuator with a new or serviceable retract actuator; and install the retract actuator in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012. Repeat the inspection at intervals not to exceed 1,200 flight hours or 12 months, whichever occurs first.

(1) For MLG retraction actuator assemblies on which, as of the effective date of this AD, 8,000 or more total flight hours have accumulated since new or since overhaul, or have been in service for more than 4 years since new or since overhaul: Inspect within 1,200 flight hours or 12 months after the effective date of this AD, whichever occurs first.

(2) For MLG retraction actuator assemblies on which, as of the effective date of this AD, less than 8,000 total flight hours have accumulated since new or since overhaul, and have been in service for 4 years or less since new or since overhaul: Inspect before the accumulation of 9,200 total flight hours on the MLG retraction actuator assembly since new or since overhaul or within 5 years in service since new or since overhaul, whichever occurs first.

(h) Inspection of MLG Retraction Actuator Bracket and Related Pins, and Corrective Actions

For any airplane with an MLG dressed shock strut having any part number and serial number identified in paragraph 1.A., Effectivity, of Bombardier Service Bulletin 670BA-32-033, Revision B, dated June 26, 2012: Within 4,400 flight hours or 24 months after the effective date of this AD, whichever occurs first, perform a detailed inspection of the retract actuator bracket assembly, associated pins, and the mating lugs on the outer cylinder for evidence of corrosion, in accordance with Bombardier Service Bulletin 670BA-32-033, Revision B, dated June 26, 2012; and Goodrich Service Bulletin 49000-32-46 R2, dated November 11, 2011. Do all applicable corrective actions before further flight (i.e., replace retract actuator bracket assembly and pins, or outer cylinder lugs, as applicable).

(i) Installation of New Jam Nut

For any airplane with an MLG retraction actuator assembly having any part number and serial number identified in paragraph 1.A., Effectivity, of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012, except airplanes on which modification status "32-64" is marked on the identification plate: Within 20,000 flight hours or 10 years after the effective date of this AD, whichever occurs first, install a new jam nut having part number 49606-5, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012; and Goodrich Service Bulletin 49600-32-64 R3, dated December 15, 2011.

(j) Credit for Previous Actions

(1) This paragraph provides credit for the actions required by paragraphs (g) and (i) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraphs (j)(1)(i), (j)(1)(ii), or (j)(1)(iii) of this AD, which is not incorporated by reference in this AD.

(i) Bombardier Service Bulletin 670BA-32-031, dated March 14, 2011.

(ii) Bombardier Service Bulletin 670BA-32-031, Revision A, dated June 9, 2011.

(iii) Bombardier Service Bulletin 769BA-32-031, Revision B, dated July 29, 2011.

(2) This paragraph provides credit for the actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraph (j)(2)(i) or (j)(2)(ii) of this AD, which is not incorporated by reference in this AD.

(i) Bombardier Service Bulletin 670BA-32-033, dated March 14, 2011.

(ii) Bombardier Service Bulletin 670BA-32-033, Revision A, dated July 29, 2011.

(k) Parts Installation Limitations

(1) As of the effective date of this AD, no person may install on any airplane an MLG retraction actuator assembly having any part number and serial number identified in paragraph 1.A., Effectivity, of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012, unless that retraction actuator assembly has been inspected as specified in paragraph (g) of this AD, and all applicable corrective actions (i.e., replacement of the retract actuator) specified in paragraph (g) of this AD have been done. Repeat the inspection specified in paragraph (g) of this AD thereafter at the intervals specified in paragraph (g) of this AD.

(2) As of the effective date of this AD, no person may install on any airplane an MLG retraction actuator assembly having any part number and serial number identified in paragraph 1.A., Effectivity, of Bombardier Service Bulletin 670BA-32-033, Revision B, dated June 26, 2012, unless that retraction actuator assembly has been inspected and all applicable corrective actions have been done, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-033, Revision B, dated June 26, 2012.

(l) 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.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information Canadian Airworthiness Directive CF-2011-36R1, dated October 3, 2012, for related information, which can be found in the AD docket on the internet at <http://www.regulations.gov>.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the address specified in paragraph (n)(3) 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 the AD specifies otherwise.

(i) Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012.

(ii) Bombardier Service Bulletin 670BA-32-033, Revision B, dated June 26, 2012.

(iii) Goodrich Service Bulletin 49000-32-46 R2, dated November 11, 2011.

(iv) Goodrich Service Bulletin 49600-32-63 R1, dated May 17, 2011.

(v) Goodrich Service Bulletin 49600-32-64 R3, dated December 15, 2011.

(3) For Bombardier service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>.

(4) For Goodrich service information identified in this AD, contact Goodrich Corporation, Landing Gear, 1400 South Service Road, West Oakville L6L 5Y7, Ontario, Canada; telephone 905-825-1568; email jean.breed@goodrich.com; Internet <http://www.goodrich.com/TechPubs>.

(5) 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.

(6) 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 July 31, 2013.

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