



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0712; Directorate Identifier 2017-NM-014-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 supersede Airworthiness Directive (AD) 2016-13-14, for certain Bombardier, Inc., Model DHC-8-400 series airplanes. AD 2016-13-14 requires an inspection to determine if certain left and right main landing gear (MLG) retract actuator rod ends are installed and repetitive liquid penetrant inspections (LPIs) of affected left and right MLG retract actuator rod ends, and corrective actions if necessary. Since we issued AD 2016-13-14, we have determined that replacement of the left and right MLG is necessary to address the unsafe condition. This proposed AD would retain the actions specified in AD 2016-13-14 and add a replacement of the left and right MLG retract actuator rod ends. We are proposing this AD to address the unsafe condition on these products.

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, using the procedures found in 14 CFR 11.43 and 11.45, 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: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, 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.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0712; 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 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: Aziz Ahmed, 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: 516-228-7329; fax: 516-794-5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0712; Directorate Identifier 2017-NM-014-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

On June 22, 2016, we issued AD 2016-13-14, Amendment 39-18579 (81 FR 43481, July 5, 2016) (“AD 2016-13-14”), for certain Bombardier, Inc., Model

DHC-8-400 series airplanes. AD 2016-13-14 was prompted by a report of a cracked MLG retract actuator rod end. AD 2016-13-14 requires an inspection to determine if certain left and right MLG retract actuator rod ends are installed and repetitive LPIs of affected left and right MLG retract actuator rod ends, and corrective actions if necessary. AD 2016-13-14 also provides optional terminating action for the inspections. We issued AD 2016-13-14 to detect and correct fatigue cracking of the left and right MLG retract actuator rod ends, which could lead to left or right MLG collapse.

The preamble to AD 2016-13-14 explains that we consider the requirements “interim action” and were considering further rulemaking. We now have determined that further rulemaking is indeed necessary, and this proposed AD follows from that determination.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2016-16R1, dated June 27, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model DHC-8-400 series airplanes. The MCAI states:

There has been a single reported case of a cracked MLG retract actuator rod end in service. A supplier disclosure letter and subsequent Bombardier analysis indicate that the MLG retract actuator rod end P/N [part number] P3A2750 and P3A2750-1 may develop fatigue cracking. This condition, if not corrected, could lead to left hand (LH) or right hand (RH) MLG collapse.

This [Canadian] AD mandates the inspection [to determine if certain left and right main landing gear MLG retract actuator rod ends are installed, repetitive LPIs of affected left and right MLG retract actuator rod ends, and corrective actions if necessary], and replacement of the LH and RH

MLG retract actuator rod ends P/N P3A2750 and P3A2750-1 [which is terminating action for the repetitive LPis].

This [Canadian] AD was revised to clarify paragraph B. and C. [of this Canadian AD], which specifies when the Liquid Penetrant Inspections (LPI) should begin.

Corrective actions includes replacing cracked MLG retract actuator rod ends. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0712.

Related Service Information under 1 CFR part 51

Bombardier, Inc. has issued Bombardier Service Bulletin 84-32-142, dated May 4, 2016. This service information describes procedures for an inspection to determine if certain left and right MLG retract actuator rod ends are installed, repetitive LPis of the left and right MLG retract actuator rod ends, and replacement of left and right MLG retract actuator rod ends. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

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

We estimate that this proposed AD affects 52 airplanes of U.S. registry.

The actions required by AD 2016-13-14, and retained in this proposed AD takes about 1 work-hour per product, at an average labor rate of \$85 per work-hour. Based on these figures, the estimated cost of the inspection that is required by AD 2016-13-14 is \$85 per product.

We also estimate that it would take about 3 work-hours 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 \$2,019 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$118,248, or \$2,274 per product.

In addition, we estimate that any necessary follow-on actions will take about 3 work-hours and require parts costing \$2,019, for a cost of \$2,274 per product. We have no way of determining the number of aircraft that might need these actions.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

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.

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 removing Airworthiness Directive (AD) 2016-13-14, Amendment 39-18579 (81 FR 43481, July 5, 2016), and adding the following new AD:

Bombardier, Inc.: Docket No. FAA-2017-0712; Directorate Identifier 2017-NM-014-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

This AD replaces AD 2016-13-14, Amendment 39-18579 (81 FR 43481, July 5, 2016) (“AD 2016-13-14”).

(c) Applicability

This AD applies to Bombardier, Inc., Model DHC-8-400, -401 and -402 airplanes, certificated in any category, serial numbers 4001, and 4003 through 4325 inclusive.

(d) Subject

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

(e) Reason

This AD was prompted by a report of a cracked main landing gear (MLG) retract actuator rod end. We are issuing this AD to detect and correct fatigue cracking of the left and right MLG retract actuator rod ends, which could lead to left or right MLG collapse.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Part Number Inspection, With No Changes

This paragraph restates the requirements of paragraph (g) of AD 2016-13-14, with no changes. Within 100 flight cycles after July 20, 2016 (the effective date of AD 2016-13-14), inspect the left and right MLG retract actuator rod ends to determine if part number (P/N) P3A2750 or P3A2750-1 is installed. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number can be conclusively determined from that review.

(h) Retained Repetitive Liquid Penetrant Inspections (LPIs), With No Changes

This paragraph restates the requirements of paragraph (h) of AD 2016-13-14, with no changes. For each left or right MLG retract actuator rod end having P/N P3A2750 or P3A2750-1: At the applicable time specified in paragraph (h)(1) or (h)(2) of this AD, do

an LPI to detect cracks of the MLG retract actuator rod end, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-142, dated May 4, 2016, except as required by paragraph (k) of this AD. Thereafter, repeat the LPI at intervals not to exceed 600 flight cycles.

(1) If the MLG retract actuator rod end has accumulated more than 6,000 flight cycles as of July 20, 2016 (the effective date of AD 2016-13-14): Inspect within 100 flight cycles after July 20, 2016.

(2) If the MLG retract actuator rod end has accumulated 6,000 flight cycles or fewer as of July 20, 2016 (the effective date of AD 2016-13-14): Inspect within 600 flight cycles after July 20, 2016.

(i) Retained Corrective Action, With No Changes

This paragraph restates the requirements of paragraph (i) of AD 2016-13-14, with no changes. If any crack is found during any inspection required by paragraph (h) of this AD, before further flight replace the cracked MLG retract actuator rod end, P/N P3A2750 or P3A2750-1, with a MLG retract actuator rod end, P/N P3A6460 in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-142, dated May 4, 2016, except as required by paragraph (k) of this AD.

(j) Retained Optional Replacement, With No Changes

This paragraph restates the optional replacement specified in paragraph (j) of AD 2016-13-14, with no changes. Replacement of the left and right side MLG retract actuator rod ends, P/N P3A2750 or P3A2750-1, with left and right MLG retract actuator rod ends, P/N P3A6460, in accordance with the Accomplishment Instructions of Bombardier

Service Bulletin 84-32-142, dated May 4, 2016, except as required by paragraph (k) of this AD, constitutes terminating action for the actions required by paragraphs (g) and (h) of this AD for that airplane.

(k) Retained Exception, With No Changes

This paragraph restates the requirements of paragraph (k) of AD 2016-13-14, with no changes. If it is not possible to complete all the instructions in Bombardier Service Bulletin 84-32-142, dated May 4, 2016, because of the configuration of the airplane: Before further flight, repair using a method approved by the Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO).

(l) Retained Parts Installation Prohibition, With No Changes

This paragraph restates the requirements of paragraph (l) of AD 2016-13-14, with no changes. As of July 20, 2016 (the effective date of AD 2016-13-14), no person may install a left or right MLG retract actuator rod end, P/N P3A2750 or P3A2750-1, on any airplane.

(m) New Requirement of this AD: Replacement

Within 1,800 flight cycles after accomplishing the initial inspection required by paragraph (g) of this AD, replace the left and right side MLG retract actuator rod ends, P/N P3A2750 or P3A2750-1, with left and right MLG retract actuator rod ends, P/N P3A6460, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-142, dated May 4, 2016, except as required by paragraph (k) of

this AD. Accomplishing this replacement terminates the requirements of paragraphs (g) and (h) of this AD for that airplane.

(n) 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 manager of 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.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

(o) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2016-16R1, dated June 27, 2016, for related information. This MCAI may be

found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0712.

(2) For more information about this AD, contact Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7329; fax: 516-794-5531.

(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>. 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.

Issued in Renton, Washington, on July 19, 2017.

Victor Wicklund,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2017-15806 Filed: 7/27/2017 8:45 am; Publication Date: 7/28/2017]