



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0548; Product Identifier 2017-NM-184-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-8-400 series airplanes. This proposed AD was prompted by a report of broken P-clamps on the pressure relief line and the motive flow line in the left and right fuel tanks, and fouling conditions between the motive flow line and the collector tank partition wall in both fuel tanks. This proposed AD would require, depending on airplane configuration: increasing the hole size in the collector tank partition wall, inspecting the motive flow line for damage, and replacing the associated grommet and motive flow line; replacing the affected single nut plate brackets and standoffs at the affected stations on the motive flow line and pressure relief line; and inspecting the motive flow line and vent line at certain wing stations, and inspecting the fuel tubes, to verify that an appropriate clearance has been maintained between the fuel tubes and their support brackets, and applicable corrective actions. 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 service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

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-2018-0548; 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 NPRM, 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: Joseph Catanzaro, Aerospace Engineer, Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; 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-2018-0548; Product Identifier 2017-NM-184-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM 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 NPRM.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2017-05R1, dated September 20, 2017 (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:

Some operators have reported broken P-clamps on the pressure relief line and the motive flow line in the left and right fuel tanks. Fouling conditions were also reported to exist between the motive flow line and the collector tank partition wall in both fuel tanks. These issues affect the integrity of the electrical bonding paths throughout the fuel lines, which in turn may lead to lightning strike induced fuel tank ignition.

The initial issue of this [Canadian] AD mandated design changes that mitigate the risk of lightning strike induced fuel tank ignition.

Since the initial issue of this [Canadian] AD, Transport Canada has become aware that Bombardier (BA) Service Bulletin (SB) 84-28-19 Revision A, dated 4 November 2016, and the initial issue of BA SB 84-28-19, dated 16 August 2016, do not instruct operators to support the motive flow line and vent line at wing stations -371.019 and 371.019 in the left-hand and right-hand fuel tanks, respectively, and do not instruct operators to maintain appropriate clearance between the fuel tubes and their support brackets at wing stations -371.019 and -209.019 in the left-hand fuel tank and wing stations 371.019 and 209.019 in the right-hand fuel tank. Revision 1 of this [Canadian] AD introduces Part III, which requires operators to inspect and correct the fuel tube installation on affected aeroplanes, as required, to maintain fuel tube support and clearance between the fuel tubes and their support brackets. Revision 1 of this [Canadian] AD also updates SB references.

Required actions include, depending on airplane configuration, increasing the hole size in the collector tank partition wall, inspecting the motive flow line for damage, and replacing the associated grommet and motive flow line; replacing the affected single nut plate brackets and standoffs at the affected stations on the motive flow line and pressure relief line; and inspecting the motive flow line and vent line at certain wing stations, and inspecting the fuel tubes, to verify that an appropriate clearance has been maintained between the fuel tubes and their support brackets, and applicable corrective actions. Corrective actions include reworking the replaced parts. 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-2018-0548.

Related Service Information under 1 CFR part 51

Bombardier has issued Service Bulletin 84-28-18, Revision B, dated April 20, 2017. This service information describes procedures to increase the hole size in the collector tank partition wall, inspect the motive flow line for damage, and replace the associated grommet and motive flow line.

Bombardier has also issued Service Bulletin 84-28-19, Revision C, dated September 1, 2017. This service information describes procedures to replace the affected single nut plate brackets and standoffs at the affected stations on the motive flow line and pressure relief line, inspect the motive flow line and vent line at certain wing stations, and inspect the fuel tubes to verify that an appropriate clearance has been maintained between the fuel tubes and their support brackets, and applicable corrective actions.

The 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.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections and modifications	Up to 21 work-hours X \$85 per hour = \$1,785	Up to \$6,152	\$7,937	Up to \$412,724

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.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

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 adding the following new airworthiness directive (AD):

Bombardier, Inc.: Docket No. FAA-2018-0548; Product Identifier 2017-NM-184-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-8-400, -401, and -402 airplanes, certificated in any category, having serial numbers 4001, and 4003 through 4533 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Reason

This AD was prompted by a report of broken P-clamps on the pressure relief line and the motive flow line in the left and right fuel tanks, and fouling conditions between the motive flow line and the collector tank partition wall in both fuel tanks. We are issuing this AD to address fouling or chafing conditions that affect the integrity of the electrical bonding paths throughout the fuel lines, which could lead to lightning strike induced fuel tank ignition.

(f) Compliance

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

(g) Modification of Hole Size on Collector Tank Partition Wall for Certain Airplanes

For airplanes having serial numbers (S/Ns) 4001, and 4003 through 4525 inclusive: Within 6,000 flight hours or 36 months, whichever occurs first, from the effective date of this AD, increase the hole size in the collector tank partition wall, do a detailed inspection of the motive flow line for damage, including chafing, and replace the associated grommet and motive flow line, as applicable, before further flight in

accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-28-18, Revision B, dated April 20, 2017.

(h) Introduction of Revised P-Clamp Installation at Affected Left and Right Wing Stations on the Motive Flow Line and Pressure Relief Line for Certain Airplanes

For airplanes, having S/Ns 4001, and 4003 through 4533 inclusive, on which Bombardier Service Bulletin 84-28-19, dated August 16, 2016; or Bombardier Service Bulletin 84-28-19, Revision A, dated November 4, 2016; has not been incorporated: Within 6,000 flight hours or 36 months, whichever occurs first, from the effective date of this AD, replace the affected single nut plate brackets and standoffs at the affected left and right wing stations on the motive flow line and pressure relief line, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-28-19, Revision C, dated September 1, 2017. Where Bombardier Service Bulletin 84-28-19, Revision C, dated September 1, 2017, specifies to contact Bombardier for appropriate action: Before further flight, accomplish corrective actions in accordance with the procedures specified in paragraph (k)(2) of this AD.

(i) Inspection of Motive Flow Line and Vent Line at Wing Stations -371.019 and 371.019 in the Fuel Tanks, and Inspection of Fuel Tubes

For airplanes, having S/Ns 4001, and 4003 through 4533 inclusive, on which Bombardier Service Bulletin 84-28-19, dated August 16, 2016; or Bombardier Service Bulletin 84-28-19, Revision A, dated November 4, 2016; have been incorporated: Within 6,000 flight hours or 36 months, whichever occurs first, from the effective date of this AD, inspect the motive flow line and vent line at wing stations -371.019 and 371.019 in the left-hand and right-hand fuel tanks, respectively, to ensure that these fuel tubes are adequately supported, inspect the fuel tubes to verify that an appropriate clearance has

been maintained between the fuel tubes and their support brackets, and before further flight do all applicable corrective actions, in accordance with Section 3.A., Section 3.B.(13), and Section 3.C. of Bombardier Service Bulletin 84-28-19, Revision C, dated September 1, 2017. Where Bombardier Service Bulletin 84-28-19, Revision C, dated September 1, 2017, specifies to contact Bombardier for appropriate action: Before further flight, accomplish corrective actions in accordance with the procedures specified in paragraph (k)(2) of this AD.

(j) Credit for Previous Actions

(1) This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-28-18, dated April 20, 2016; or Bombardier Service Bulletin 84-28-18, Revision A, dated November 14, 2016.

(2) This paragraph provides credit for actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-28-19 Revision B, dated July 28, 2017.

(3) 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 Section 3.A., Section 3.B.(13), and Section 3.C. of Bombardier Service Bulletin 84-28-19, Revision B, dated July 28, 2017.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO Branch, 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 certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 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 Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(I) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2017-05R1, dated September 20, 2017, 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-2018-0548.

(2) For more information about this AD, contact Joseph Catanzaro, Aerospace Engineer, Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue,

Suite 410, Westbury, NY 11590; telephone 516-228-7300; 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 Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on June 12, 2018.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.
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