



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

**[Docket No. FAA-2025-0908; Project Identifier MCAI-2025-00035-T; Amendment
39-23105; AD 2025-16-07]**

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-700-1A10 airplanes. This AD was prompted by a report indicating that the clearance between therapeutic flexible oxygen hoses and electrical harnesses may be non-compliant to design requirements, and that positive separation mechanisms and appropriate protective barriers may not have been installed in accordance with the applicable installation standards. This AD requires a detailed inspection of the therapeutic flexible oxygen hose for damage and protection, and the electrical harnesses for damage; a detailed inspection for the clearance between the therapeutic oxygen rigid tube to oxygen hose elbow fitting (also referred to as elbow fitting), if applicable, and the nearest electrical harness, and between the therapeutic flexible oxygen hose and electrical harness; and applicable related investigative and corrective actions. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2025-0908; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For Bombardier material identified in this AD, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email ac.yul@aero.bombardier.com; website bombardier.com.

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at regulations.gov under Docket No. FAA-2025-0908.

FOR FURTHER INFORMATION CONTACT: Brenda L. Buitrago, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7300; email: 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model BD-700-1A10 airplanes. The NPRM was published in the *Federal Register* on May 20, 2025 (90 FR 21437). The NPRM was prompted by AD CF-2025-02, dated January 14, 2025, issued by Transport Canada, which is the aviation authority for Canada (Transport Canada AD CF-2025-02) (also referred to as the MCAI). The MCAI states that Bombardier, Inc., has discovered the clearance between therapeutic flexible oxygen hoses and electrical harnesses may be noncompliant to design requirements, and that the positive separation mechanisms and appropriate protective barriers may not have been installed in accordance with the applicable installation standards. The MCAI also states that instances of hard fouling have been observed on the production line, which could lead to damage to the electrical harness and subsequent latent failure of the firewall hydraulic shutoff valve. This condition could result in the inability to control a powerplant fire in the presence of a hydraulic fluid leak.

In the NPRM, the FAA proposed to require a detailed inspection of the therapeutic flexible oxygen hose for damage and protection, and the electrical harnesses for damage; a detailed inspection for the clearance between the therapeutic oxygen rigid tube to oxygen hose elbow fitting (also referred to as elbow fitting), if applicable, and the nearest electrical harness, and between the therapeutic flexible oxygen hose and electrical harness; and applicable related investigative and corrective actions. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2025-0908.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

These products have been approved by the civil aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, that authority has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed Bombardier Service Bulletin 700-35-016, Bombardier Service Bulletin 700-35-6006, and Bombardier Service Bulletin 700-35-6503, all dated June 12, 2024. This material specifies procedures for accomplishing the following actions near fuselage station (FS) 530 right-hand side (RHS) and FS 650.00 RHS and applicable related investigative and corrective actions, including:

- A detailed inspection to determine the gap between the clocking angle of the therapeutic oxygen rigid tube to oxygen hose elbow fitting, if equipped, and the nearest electrical harness.
- A detailed inspection for damage (i.e., crushing, fraying, or permanent deformation) to the therapeutic flexible oxygen hose, part number (P/N) 38911-5-0250, and to determine if protection (i.e., split convolex shroud, P/N HCTE0437-0-SP or

similar, or spiral wrap, P/N TSW 1/4 or similar) is installed on the therapeutic flexible oxygen hose.

- A detailed inspection of the electrical harnesses surrounding the therapeutic flexible oxygen hose for damage (i.e., damaged wire sheathing or cut or nicked wires).

The applicable corrective actions include the following:

- If the gap between the clocking angle of the therapeutic oxygen rigid tube to oxygen hose elbow fitting and nearest harness is less than 0.5 inch, adjust the elbow fitting to ensure the maximum possible clearance between the fitting and nearest harness.

- If the clearance between the wiring harness and oxygen hose is less than 0.5 inch, install a Teflon cable wrap or Nomex sleeving on the wiring harness.

- Replacing any damaged therapeutic flexible oxygen hose with a new hose.

- Installing a split convolex shroud (P/N HCTE0437-0-SP) on the therapeutic flexible oxygen hose, if the protection is missing.

- Repairing any damaged electrical harnesses surrounding the therapeutic flexible oxygen hose.

The related investigative actions are leak and operational tests of the therapeutic oxygen system if any parts are repaired or replaced.

These documents are distinct since they apply to different airplane configurations.

This material 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.

Costs of Compliance

The FAA estimates that this AD affects 317 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
10 work-hours X \$85 per hour = \$850	\$0	\$850	\$269,450

The FAA has received no definitive data on which to base the cost estimates for the on-condition actions specified in this AD.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

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.

The FAA is 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

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) Will not affect intrastate aviation in Alaska, and

(3) 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 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:

2025-16-07 Bombardier, Inc.: Amendment 39-23105; Docket No. FAA-2025-0908;

Project Identifier MCAI-2025-00035-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model BD-700-1A10 airplanes, certificated in any category, as identified in Bombardier Service Bulletin 700-35-016, dated June 12,

2024; Bombardier Service Bulletin 700-35-6006, dated June 12, 2024; and Bombardier Service Bulletin 700-35-6503, dated June 12, 2024.

(d) Subject

Air Transport Association (ATA) of America Code 35, Oxygen.

(e) Unsafe Condition

This AD was prompted by a report indicating that the clearance between therapeutic flexible oxygen hoses and electrical harnesses may be non-compliant to design requirements, and that positive separation mechanisms and appropriate protective barriers may not have been installed in accordance with the applicable installation standards. The FAA is issuing this AD to prevent damage to the electrical harness for the therapeutic flexible oxygen hose and subsequent latent failure of the firewall hydraulic shutoff valve. The unsafe condition, if not addressed, could result in the inability to control a powerplant fire in the presence of a hydraulic fluid leak.

(f) Compliance

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

(g) Detailed Inspections and Related Investigative and Corrective Actions

Within 10 years after the effective date of this AD, do all the actions specified in paragraphs (g)(1) through (4) of this AD, and do all the applicable related investigative and corrective actions before further flight, in accordance with sections 2.B and 2.C of the Accomplishment Instructions of Bombardier Service Bulletin 700-35-016, Bombardier Service Bulletin 700-35-6006, and Bombardier Service Bulletin 700-35-6503, all dated June 12, 2024, as applicable.

(1) Do a detailed inspection to determine the gap between the clocking angle of the therapeutic oxygen rigid tube to oxygen hose elbow fitting, if equipped, and the nearest electrical harness.

(2) Do a detailed inspection of the therapeutic flexible oxygen hose, part number (P/N) 38911-5-0250, for damage and to determine if protection is installed on the hose.

(3) Do a detailed inspection of the electrical harnesses surrounding the therapeutic flexible oxygen hose for damage.

(4) Do a detailed inspection to determine the clearance between the electrical harnesses and therapeutic flexible oxygen hose.

(h) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation 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 responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (i) of this AD and email to: AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or Transport Canada; or Bombardier, Inc.'s Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(i) Additional Information

For more information about this AD, contact Brenda L. Buitrago, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7300; email: 9-avs-nyaco-cos@faa.gov.

(j) Material Incorporated by Reference

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

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

(i) Bombardier Service Bulletin 700-35-016, dated June 12, 2024.

(ii) Bombardier Service Bulletin 700-35-6006, dated June 12, 2024.

(iii) Bombardier Service Bulletin 700-35-6503, dated June 12, 2024.

(3) For Bombardier material identified in this AD, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email ac.yul@aero.bombardier.com; website bombardier.com.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on August 1, 2025.

Steven W. Thompson,
Acting Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2025-15481 Filed: 8/13/2025 8:45 am; Publication Date: 8/14/2025]