



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0775; Product Identifier 2017-NM-048-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) 2016-25-18, for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes.

AD 2016-25-18 requires an inspection for discrepancies of the attachment points of the links between the engine rear mount assemblies, and corrective actions if necessary.

Since we issued AD 2016-25-18, we have determined that replacement of certain nuts and bolts in the engine rear mount assemblies is necessary. This proposed AD would require an inspection of certain attachment points, corrective action if necessary, and replacement of certain bolts and nuts in the engine rear mount assemblies. This proposed AD also adds airplanes to the applicability. 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., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 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-2017-0775; 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, Airframe Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 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-2017-0775; Product Identifier 2017-NM-048-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 December 2, 2016, we issued AD 2016-25-18, Amendment 39-18744 (81 FR 90961, December 16, 2016) (“AD 2016-25-18”), for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. AD 2016-25-18 was prompted by a

report indicating that during maintenance, an engine mount pin was found backed out of the rear mount link, and the associated retaining bolt was also found fractured. AD 2016-25-18 requires an inspection for discrepancies of the attachment points of the links between the engine rear mount assemblies, and corrective actions if necessary. We issued AD 2016-25-18 to detect and correct broken engine attachment hardware, which could result in separation of an engine from the airplane.

Since we issued AD 2016-25-18, we have determined that replacement of certain nuts and bolts in the engine rear mount assemblies is necessary.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2016-23R1, dated February 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 BD-700-1A10 and BD-700-1A11 airplanes. The MCAI states:

Bombardier reported that during maintenance of a BD-700 aeroplane, the engine mount pin, part number (P/N) BRR15838, was found backed out of the rear mount link. The retaining bolt, P/N AS54020, which passes through the engine mount pin was also found fractured at the groove which holds the locking spring. An investigation revealed the most probable root cause of failure to be a single axial tension static overload, with no evidence of fatigue contributing to the failure.

The above condition if not detected, may result in the loss of engine attachment to the airframe.

As an interim corrective action, Bombardier issued Service Bulletins (SBs) 700-71-002, 700-71-6002, 700-71-5002, and 700-1A11-71-002 to inspect the attachment points of the links between the engine rear mount assemblies, and install replacement hardware if required.

The original version of this [Canadian] AD was issued to mandate incorporation of the above Bombardier SBs to inspect and maintain integrity of the affected engine rear mount assembly.

Revision 1 of this [Canadian] AD is issued to mandate incorporation of the Bombardier SBs 700-71-003, 700-71-6003, 700-71-5003, and 700-1A11-71-003 to replace the existing bolts and self-locking nuts with new bolts and nuts, as a final corrective action.

The MCAI also adds airplanes having serial numbers 9764, 9766, and 9771 through 9785 inclusive to the applicability. Those airplanes are also affected by the identified unsafe condition. 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-2017-0775.

#### **Related Service Information under 1 CFR part 51**

Bombardier has issued the following service information.

- Bombardier Service Bulletin 700-71-002, Revision 01, dated June 30, 2016.
- Bombardier Service Bulletin 700-71-5002, Revision 01, dated June 30, 2016.
- Bombardier Service Bulletin 700-71-6002, Revision 01, dated June 30, 2016.
- Bombardier Service Bulletin 700-1A11-71-002, Revision 01, dated June 30, 2016.

This service information describes procedures for an inspection for discrepancies of the attachment points of the links between the engine rear mount assemblies and

corrective actions. These documents are distinct since they apply to different airplane models and serial numbers.

Bombardier has also issued the following service information. The service information describes procedures for nut and bolt replacement. These documents are distinct since they apply to different airplane models and serial numbers.

- Bombardier Service Bulletin 700-71-003, dated December 5, 2016.
- Bombardier Service Bulletin 700-71-5003, dated December 5, 2016.
- Bombardier Service Bulletin 700-71-6003, dated December 5, 2016.
- Bombardier Service Bulletin 700-1A11-71-003, dated December 5, 2016.

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 97 airplanes of U.S. registry.

The actions required by AD 2016-25-18, and retained in this proposed AD take 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 actions that are required by AD 2016-25-18 is \$85 per product.

The retained on-condition costs in this proposed AD take about 2 work-hours per product, at an average labor rate of \$85 per work-hour. Required parts cost about \$730 per product. Based on these figures, the estimated cost of the on-condition actions that are required by AD 2016-25-18 is \$900 per product.

We have received no definitive data that would enable us to provide cost estimates for other retained on-condition actions specified in AD 2016-25-18.

We also estimate that it would take about 4 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 up to \$14,940 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be up to \$1,482,160, or up to \$15,280 per product.

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

According to the manufacturer, some of the costs of this proposed 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 available 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.

This 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 removing Airworthiness Directive (AD) 2016-25-18, Amendment 39-18744 (81 FR 90961, December 16, 2016), and adding the following new AD:

**Bombardier, Inc.:** Docket No. FAA-2017-0775; Product Identifier 2017-NM-048-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 2016-25-18, Amendment 39-18744 (81 FR 90961, December 16, 2016) (“AD 2016-25-18”).

**(c) Applicability**

This AD applies to Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, serial numbers (S/Ns) 9002 through 9785 inclusive, and 9998.

**(d) Subject**

Air Transport Association (ATA) of America Code 72, Engine.

**(e) Reason**

This AD was prompted by a report indicating that during maintenance, an engine mount pin was found backed out of the rear mount link, and the associated retaining bolt was also found fractured at the groove that holds the locking spring. We are issuing this AD to detect and correct broken engine attachment hardware, which could result in separation of an engine from the airplane.

**(f) Compliance**

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

**(g) Retained Inspection, with No Changes**

This paragraph restates the requirements of paragraph (g) of AD 2016-25-18, with no changes. For airplanes having S/Ns 9002 through 9763 inclusive, 9765, 9767 through 9770 inclusive, and 9998: Within 500 flight hours or 4 months, whichever occurs first after January 3, 2017 (the effective date of AD 2016-25-18), do an inspection for discrepancies of the engine rear mount assemblies (including missing or broken bolts, missing nuts, incorrect torque values, and an incorrect gap between the bushing and washer); in accordance with Part A of the Accomplishment Instructions of the applicable service information specified in paragraphs (g)(1) through (g)(4) of this AD.

Accomplishing the actions required by paragraphs (j) and (k) of this AD terminates the requirements of this paragraph.

(1) Bombardier Service Bulletin 700-71-002, Revision 01, dated June 30, 2016 (for Bombardier Model BD-700-1A10 airplanes).

(2) Bombardier Service Bulletin 700-71-6002, Revision 01, dated June 30, 2016 (for Bombardier Model BD-700-1A10 airplanes).

(3) Bombardier Service Bulletin 700-71-5002, Revision 01, dated June 30, 2016 (for Bombardier Model BD-700-1A11 airplanes).

(4) Bombardier Service Bulletin 700-1A11-71-002, Revision 01, dated June 30, 2016 (for Bombardier Model BD-700-1A11 airplanes).

**(h) Retained Corrective Action for Paragraph (g) of this AD, with No Changes**

This paragraph restates the requirements of paragraph (h) of AD 2016-25-18, with no changes. If any discrepancy is detected during the inspection required by paragraph (g) of this AD, before further flight, replace missing parts and correct noncompliant gaps and bolt torque, as specified in the Accomplishment Instructions of the applicable service information specified in paragraphs (g)(1) through (g)(4) of this AD, except as required by paragraph (i) of this AD. Accomplishing the actions required by paragraphs (j) and (k) of this AD terminates the requirements of this paragraph.

**(i) Retained Exception to Service Information Specifications, with No Changes**

This paragraph restates the requirements of paragraph (i) of AD 2016-25-18, with no changes. Where the applicable Bombardier service bulletin specified in paragraphs (g)(1) through (g)(4) of this AD provides no instructions for corrective actions, or specifies to contact Bombardier for appropriate action, accomplish corrective actions in accordance with the procedures specified in paragraph (o)(2) of this AD.

**(j) New Requirement of this AD: Gap Measurement**

Within 1,000 flight hours or 12 months, whichever occurs first after the effective date of this AD: Measure the gaps between the applicable shouldered bushing fitted on the mount beam and the washer; and between the applicable engine ring lug and the head of the mount pin to determine if the gaps are within acceptable limits; in accordance with Part A of the Accomplishment Instructions of the applicable service information specified in paragraphs (j)(1) through (j)(4) of this AD. Accomplishing the actions required by paragraphs (j) and (k) of this AD terminates the requirements of paragraphs (g) and (h) of this AD.

(1) Bombardier Service Bulletin 700-71-003, dated December 5, 2016 (for Bombardier Model BD-700-1A10 airplanes).

(2) Bombardier Service Bulletin 700-71-6003, dated December 5, 2016 (for Bombardier Model BD-700-1A10 airplanes).

(3) Bombardier Service Bulletin 700-71-5003, dated December 5, 2016 (for Bombardier Model BD-700-1A11 airplanes).

(4) Bombardier Service Bulletin 700-1A11-71-003, dated December 5, 2016 (for Bombardier Model BD-700-1A11 airplanes).

**(k) New Requirement of this AD: Nut and Bolt Replacement, and Gap Measurement**

Within 1,000 flight hours or 12 months, whichever occurs first after the effective date of this AD: Replace the nuts having part number (P/N) AS54365 and the bolts having P/N AS54020 and AS54002 in the engine rear mount assembly with new nuts and new bolts; and do the gap measurement to determine if the gap is within acceptable

limits; in accordance with Part B of the Accomplishment Instructions the applicable service information specified in paragraphs (j)(1) through (j)(4) of this AD.

**(l) New Requirement of this AD: Corrective Action**

If any gap is detected, during any measurement required by paragraph (j) or (k) of this AD, that is not within the applicable limits specified in the service information specified in paragraphs (j)(1) through (j)(4) of this AD, before further flight repair 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).

**(m) No Reporting Required**

Although the service information identified in paragraphs (j)(1) through (j)(4) of this AD specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(n) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g) and (h) of this AD, if those actions were performed before January 3, 2017 (the effective date of AD 2016-25-18), in accordance with the Accomplishment Instructions of the applicable service information specified in paragraphs (n)(1) through (n)(4) of this AD.

(1) Bombardier Service Bulletin 700-71-002, dated May 31, 2016.

(2) Bombardier Service Bulletin 700-71-6002, dated May 31, 2016.

(3) Bombardier Service Bulletin 700-71-5002, dated May 31, 2016.

(4) Bombardier Service Bulletin 700-1A11-71-002, dated May 31, 2016.

**(o) 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 TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

**(p) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive 2016-23R1, dated February 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-2017-0775.

(2) For more information about this AD, contact Aziz Ahmed, Airframe Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 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., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this service information at the FAA, Transport Standards Branch, 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 August 2, 2017.

Jeffrey E. Duven,  
Director,  
System Oversight Division,  
Aircraft Certification Service.

[FR Doc. 2017-16777 Filed: 8/14/2017 8:45 am; Publication Date: 8/15/2017]