DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0100; Product Identifier 2020-NM-016-AD; Amendment 39-19845; AD 2020-03-21]

RIN 2120-AA64

Airworthiness Directives: Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. This AD was prompted by reports that main landing gear (MLG) trailing arm assemblies were found with compromised paint finish and corrosion on the axle bore inner diameters due to improper removal of contaminants during manufacturing. This AD requires a one-time inspection to determine if an affected MLG trailing arm assembly is installed, repetitive detailed inspections of the inner diameter of the affected MLG trailing arm assembly axle bore for surface finish discrepancies, corrective actions if necessary, and eventual replacement of primer and paint and application of corrosion preventive compound on the inner diameter of all affected MLG trailing arm assembly axle bores, which terminates the repetitive inspections. The FAA is issuing this AD to address the unsafe condition on these products.
DATES: This AD becomes effective [INSERT DATE 15 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 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this 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 https://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, 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. You may view this referenced 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. It is also available on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0100.

**Examining the AD Docket**

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0100; 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 regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Darren Gassetto, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7323; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2019-33R1, dated January 23, 2020 (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

This AD was prompted by reports that MLG trailing arm assemblies were found with compromised paint finish and corrosion on the axle bore inner diameters due to improper removal of contaminants during manufacturing. The FAA is issuing this AD to address possible corrosion on the inner diameter of the MLG trailing arm assembly bore, which, if not detected and corrected, could lead to MLG collapse. See the MCAI for additional background information.

**Related Service Information under 1 CFR Part 51**

Bombardier has issued the following service information.


This service information describes procedures for a one-time inspection to determine if an affected MLG trailing arm assembly is installed, repetitive detailed inspections of the inner diameter of the affected MLG trailing arm assembly axle bore for surface finish discrepancies, corrective actions if necessary, and eventual replacement of
primer and paint and application of corrosion preventive compound on the inner diameter of all affected MLG trailing arm assembly axle bores, which terminates the repetitive inspections. Surface finish discrepancies include corrosion, paint that is bubbling, loose, flaking, cracked, damaged or missing, or primer or metallic-ceramic coating that is visible. Corrective actions include repair or replacement of the MLG trailing arm assembly. These documents are distinct since they apply to different airplane models and configurations. 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**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to a bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this AD because the agency evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

**Requirements of this AD**

This AD requires accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between this AD and the MCAI or Service Information.” This AD also requires sending the inspection results to Bombardier.
Differences Between this AD and the MCAI or Service Information

The MCAI specifies to accomplish the one-time inspection to determine if an affected MLG trailing arm assembly is installed within 3 months from November 27, 2019 (the release date of Revision 01 of the applicable service information specified in the Related Service Information under 1 CFR Part 51 paragraph of this AD). The FAA has determined that a compliance time of within 30 days after the effective date of this AD is acceptable to address the unsafe condition.

Explanation of Compliance Time

Most ADs adopt a compliance time relative to the AD’s effective date. In this case, however, the FAA is using a fixed compliance date in this AD. The MCAI requires operators to accomplish a detailed inspection of the surface finish of affected MLG trailing arm assemblies at a specified time (which varies according to serial number, with the earliest date being 5/12/2020). That compliance time is necessary to address the unsafe condition and is based on risk analysis requirements, including reports of compromised paint finish and corrosion on the axle bore inner diameters. To support this risk analysis and to provide for coordinated implementation of TCCA’s regulations in paragraph (i) of this AD, the FAA is using the same compliance dates in this AD.

FAA’s Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because the affected trailing arm assemblies have the potential for
improper adhesion between the anti-corrosion layers, which could lead to corrosion on
the inner diameter of the MLG trailing arm assembly axle bore and possibly lead to MLG
collapse. Therefore, the FAA finds good cause that notice and opportunity for prior
public comment are impracticable. In addition, for the reasons stated above, the FAA
finds that good cause exists for making this amendment effective in less than 30 days.

**Regulatory Flexibility Act (RFA)**

The requirements of the RFA do not apply when an agency finds good cause
pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the
FAA has determined that it has good cause to adopt this rule without notice and
comment, RFA analysis is not required.

**Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and the
FAA did not precede it by notice and opportunity for public comment. The FAA invites
you to send any written relevant data, views, or arguments about this AD. Send your
comments to an address listed under the ADDRESSES section. Include “Docket No.
FAA-2020-0100; Product Identifier 2020-NM-016-AD” at the beginning of your
comments. The FAA specifically invites comments on the overall regulatory, economic,
environmental, and energy aspects of this AD. The FAA will consider all comments
received by the closing date and may amend this AD based on those comments.

The FAA will post all comments received, without change, to
https://www.regulations.gov, including any personal information you provide. The FAA
will also post a report summarizing each substantive verbal contact received about this
AD.

**Costs of Compliance**

The FAA estimates that this AD affects 49 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

**Estimated costs for required actions**

<table>
<thead>
<tr>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 33 work-hours X $85 per hour = Up to $2,805</td>
<td>Up to $200,000</td>
<td>Up to $202,805</td>
<td>Up to $9,937,445</td>
</tr>
</tbody>
</table>

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

**Estimated costs of on-condition actions**

<table>
<thead>
<tr>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 20 work-hours X $85 per hour = Up to $1,700</td>
<td>Up to $200,000</td>
<td>Up to $201,700</td>
</tr>
</tbody>
</table>

*Table does not include estimated costs for reporting.*

We estimate that it takes about 1 work-hour per product to comply with the on-condition reporting requirement in this AD. The average labor rate is $85 per hour. Based on these figures, we estimate the cost of reporting the inspection results on U.S. operators to be $85 per product.

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The
FAA does not control warranty coverage for affected individuals. As a result, the FAA has included all known costs in the cost estimate.

**Paperwork Reduction Act**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

**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**

The FAA has 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, and

(2) Will not affect intrastate aviation in Alaska.

**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):

**2020-03-21 Bombardier, Inc.:** Amendment 39-19845; Docket No. FAA-2020-0100; Product Identifier 2020-NM-016-AD.

(a) **Effective Date**

This AD becomes effective [INSERT DATE 15 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 and BD-700-1A11 airplanes, certificated in any category, serial numbers 9001 through 9879 inclusive and 9998 and serial numbers 60001 and subsequent.

(d) **Subject**

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

(e) **Reason**

This AD was prompted by reports that main landing gear (MLG) trailing arm assemblies were found with compromised paint finish and corrosion on the axle bore inner diameters due to improper removal of contaminants during manufacturing. The FAA is issuing this AD to address possible corrosion on the inner diameter of the MLG
trailing arm assembly axle bore, which, if not detected and corrected, could lead to MLG collapse.

(f) Compliance

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

(g) Definition

For the purposes of this AD, an affected MLG trailing arm assembly is a MLG trailing arm assembly with part number 21410-107 and a serial number listed in Appendix 4, Table 1 of the applicable Bombardier service information specified in figure 1 to paragraphs (g) through (k) and (m) of this AD.

Figure 1 to paragraphs (g) through (k) and (m) – Applicable Bombardier Service Information

<table>
<thead>
<tr>
<th>Airplane Model</th>
<th>Bombardier Service Bulletin</th>
</tr>
</thead>
</table>

(h) Inspection to Determine Affected MLG Trailing Arm Assembly

For airplanes having serial numbers 9001 through 9879 inclusive and 9998:

Within 30 days after the effective date of this AD: Inspect the right hand and left hand MLG trailing arm assemblies to determine if an affected MLG trailing arm assembly is
installed, in accordance with Part A of the Accomplishment Instructions of the applicable service information specified in figure 1 to paragraphs (g) through (k) and (m) of this AD. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number and serial number of the MLG trailing arm assembly can be conclusively determined from that review.

(i) Initial Inspection of the MLG Trailing Arm Assembly Surface Finish

If, during the inspection or review required by paragraph (h) of this AD, it is determined that an affected MLG trailing arm assembly is installed: Before the applicable “1st Inspection Due by Date (MM/DD/YY)” listed for each affected MLG trailing arm assembly serial number in Appendix 4, Table 1 of the applicable Bombardier service information specified in figure 1 to paragraphs (g) through (k) and (m) of this AD, for each affected MLG trailing arm assembly, do a detailed inspection for surface finish discrepancies on the inner diameter of the affected MLG trailing arm assembly axle bore, and, before further flight, do all corrective actions as applicable, in accordance with Part B of the Accomplishment Instructions of the applicable service information specified in figure 1 to paragraphs (g) through (k) and (m) of this AD. For airplanes on which the actions required by paragraph (k) of this AD are done on all affected MLG trailing arm assemblies, no action is required by this paragraph.

(j) Repeat Inspection

For any affected MLG trailing arm assembly on which the inspection required by paragraph (i) of this AD has been accomplished: Within 33 months from the completion of the initial inspection as required by paragraph (i) of this AD, do a detailed inspection
of the affected MLG trailing arm assembly for surface finish discrepancies on the inner diameter of the affected MLG trailing arm assembly axle bore, and, before further flight, do all corrective actions as applicable, in accordance with Part C, and Part B as applicable, of the Accomplishment Instructions of the applicable service information specified in figure 1 to paragraphs (g) through (k) and (m) of this AD. For airplanes on which the actions required by paragraph (k) of this AD are done on all affected MLG trailing arm assemblies, no action is required by this paragraph.

(k) Terminating Action

For airplanes having serial numbers 9001 through 9879 inclusive and 9998:

Within 120 months of each affected MLG trailing arm assembly entry into service, or within 5 days after the effective date of this AD, whichever occurs later, replace the primer and paint and apply the corrosion preventive compound on the inner diameter of the axle bore on all affected MLG trailing arm assemblies, in accordance with Part D of the Accomplishment Instructions of the applicable service information specified in figure 1 to paragraphs (g) through (k) and (m) of this AD. This constitutes terminating action for the requirements of paragraphs (i) and (j) of this AD.
(l) Parts Installation Limitation

For all airplanes: As of the effective date of this AD, no person may install an affected MLG trailing arm assembly as a replacement part on any airplane, unless that affected MLG trailing arm assembly is marked “SB700-32-041ABC” on the MLG trailing arm assembly modification plate and near the part number.

(m) Reporting Requirement

At the applicable time specified in paragraph (m)(1) or (2) of this AD, submit a report of positive findings of the inspections required by paragraphs (i) and (j) of this AD. Submit the report to Bombardier in accordance with the applicable service information specified in figure 1 to paragraphs (g) through (k) and (m) of this AD. If operators have reported findings as part of obtaining any corrective actions approved by Bombardier, Inc.’s TCCA Design Approval Organization (DAO), they are not required to report those findings as specified in this paragraph.

(1) If the inspection was done on or after the effective date of this AD: Submit the report within 10 days after the inspection.

(2) If the inspection was done before the effective date of this AD: Submit the report within 10 days after the effective date of this AD. (n) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (h) through (k), if those actions were performed before the effective date of this AD using the applicable service information specified in figure 2 to paragraph (n) of this AD.
Figure 2 to paragraph (n) – Applicable Bombardier Service Information for Credit

<table>
<thead>
<tr>
<th>Airplane Model</th>
<th>Bombardier Service Bulletin</th>
</tr>
</thead>
<tbody>
<tr>
<td>BD-700-1A10</td>
<td>Bombardier Service Bulletin 700-32-039, dated May 3, 2019</td>
</tr>
<tr>
<td>BD-700-1A10</td>
<td>Bombardier Service Bulletin 700-32-6016, dated May 3, 2019</td>
</tr>
<tr>
<td>BD-700-1A11</td>
<td>Bombardier Service Bulletin 700-1A11-32-026, dated May 3, 2019</td>
</tr>
<tr>
<td>BD-700-1A11</td>
<td>Bombardier Service Bulletin 700-32-5016, dated May 3, 2019</td>
</tr>
</tbody>
</table>

(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 instructions from a manufacturer, the instructions 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.

(3) **Reporting Requirements:** A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory as required by this AD; the nature and extent of confidentiality to be provided, if any. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

**(p) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2019-33R1, dated January 23, 2020, for related information. This MCAI may be
found in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0100.

(2) For more information about this AD, contact Darren Gassetto, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7323; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (q)(3) and (4) of this AD.

(q) 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 this AD specifies otherwise.

   (i) Bombardier Service Bulletin 700-1A11-32-026, Revision 01, dated November 27, 2019.


(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; Internet http://www.bombardier.com.

(4) 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.

(5) 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, email fedreg.legal@nara.gov, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on February 14, 2020.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.