



AIRWORTHINESS DIRECTIVE

This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) with ADs.

Number:

CF-2020-26

Effective Date:

18 August 2020

ATA:

27

Type Certificate:

A-234

Subject:

Flight Controls – Multi-Function Spoiler (MFS) Failure to deploy

Applicability:

Bombardier Inc. model BD-100-1A10 aeroplanes, serial numbers 20003 through 20457 and 20501 through 22999.

Compliance:

As indicated below, unless already accomplished.

Background:

During a production flight test, the inboard MFS surfaces failed to deploy. This resulted in the degradation of the proportional lift dumping (PLD) function. Detailed inspection of the MFS power control unit (PCU) showed that the piston seal was not in accordance with the production configuration. If not corrected, degraded PLD function in combination with sudden cabin depressurization at high altitude could result in structural damage and injury to passengers, since the degradation of PLD will hinder the aircraft from carrying out an emergency descent in time to avoid structural damage/injury.

This AD mandates the removal and replacement of affected MFS PCUs.

Corrective Actions:

For the purpose of this AD, an affected MFS PCU is a MFS PCU that has a serial number 0001 through 1410 that is NOT listed within the Accomplishment Instructions Paragraph 2B, PART A – Visual Check of the MFS PCU Serial Numbers, paragraph (1), of the applicable service bulletin (SB) listed in Table 1 of this AD, and, that does NOT have the suffix –A following the serial number.

Part I – Inspection

Within 12 months from the effective date of this AD, inspect each of the 4 MFS PCUs installed on the aeroplane for the presence of affected MFS PCUs in accordance with the Accomplishment Instructions, Paragraph 2B, PART A – Visual Check of the MFS PCU Serial Numbers, of the applicable SB listed in Table 1 below.

If there is no affected MFS PCU installed on the aeroplane, no further action is required.

If an affected MFS PCU is installed on the aeroplane, proceed to Part II of this AD.

The intent of Part I of this AD can also be satisfied through a verification of the aeroplane maintenance records.

Inspection accomplished in accordance with Paragraph 2B, PART A – Visual Check of the MFS PCU Serial Numbers of SB 100-27-17 Revision Basic, Revision 01 and Revision 02 **does not** meet the requirements of Part I of this AD.

Table 1

Aeroplane Serial Number	Applicable SB
20003 through 20457	100-27-17 Revision 03, dated 19 June 2020, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
20501 through 22999	350-27-010 Basic Issue, dated 19 June 2020, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Part II – Replacement of Affected MFS PCU

Within 12 months from the effective date of this AD, replace the affected MFS PCU in accordance with the Accomplishment Instructions of Paragraph 2C (PART B), 2D (PART C), 2E (PART D), or 2F (PART E), as required, of the applicable SB listed in Table 1 above.

Part III – Installation Prohibition of Affected Part

As of the effective date of this AD, affected MFS PCUs, as defined above, are not eligible for installation on BD-100-1A10 aeroplanes.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Craig McAllister
Acting Chief, Continuing Airworthiness
Issued on 4 August 2020

Contact:

Philip Lynch, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.