



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-2023-42

Effective Date:

03 July 2023

ATA:

57

Type Certificate:

A-177

Subject:

Wings – Inboard Flap Seal Plate Lost or Damaged

Applicability:

Bombardier Inc. model BD-700-1A10 and BD-700-1A11 aeroplanes, serial numbers 9861, 9872, 60001 through 60004, 60006 through 60023, 60025 through 60029, 60031, 60033 through 60036, 60038 through 60042, 60044, 60046 through 60048, 60050 through 60055, 60058 through 60060, 60062 through 60067, 60069 through 60071, 60073 through 60086, 60088 through 60101.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been multiple reports in service of missing or damaged inboard flap seal plate assemblies. An investigation revealed a premature fatigue failure mode of the seal plate assembly. Left uncorrected, the flap seal plate may partially or totally detach. Under certain flight conditions, a missing flap seal plate assembly could lead to excessive buffeting and vibration, and consequent damage to the aeroplane.

This AD mandates the inspection of both the left-hand side (LHS) and right-hand side (RHS) inboard flap seal plate assembly attaching angles for cracks, and, subsequently, the replacement of both existing inboard flap seal plate assemblies with structurally more robust redesigned components.

Corrective Actions:

For the purpose of this AD, the following definition applies:

The applicable SB: Bombardier Service Bulletin (SB) 700-27-5509 or SB 700-27-6509, Revision 01, dated May 05, 2023, as applicable, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

- A. Perform a detailed inspection (DET) of the LHS and RHS flap inner seal plate assemblies attaching angles for cracks, in accordance with Section 2.B. (Part A) of the Accomplishment Instructions of the applicable SB. Compliance is required as indicated in Table 1 below.

Table 1 – Compliance Requirements

Accumulated total hours air time as of the effective date of this AD	Compliance from the effective date of this AD (hours air time)
Equal to or less than 750	250
More than 750	100

- B. If cracks are found during the inspection required by Paragraph A of this AD, before further flight:
1. Contact Bombardier for an approved disposition and incorporate that disposition; or
 2. Replace the inboard flap seal plate assemblies as required by Paragraph D of this AD.
- C. After performing the inspection required by Paragraph A of this AD, repeat that inspection at intervals not to exceed 250 hours air time and correct any cracks found as indicated in Paragraph B of this AD.
- D. Within 12 months from the effective date of this AD, replace the inboard flap seal plate assemblies with the redesigned assemblies and inspect flap inboard closing ribs and trailing edges for damage, in accordance with Section 2.C. (Part B) of the Accomplishment Instructions of the applicable SB. Completion of Paragraph D of this AD terminates the inspection requirements of Paragraphs A, B and C of this AD.
- E. This paragraph gives credit for the completion of inspections and replacement of inboard flap seal plate assemblies, indicated in Paragraph A through D of this AD, before the effective date of this AD, in accordance with the Basic Issue of SB 700-27-5509 or SB 700-27-6509, dated 4 October 2022.
- F. For aeroplanes having accumulated less than 30 total hours air time and less than 15 total flight cycles at the time of completing paragraph D of this AD, it is acceptable to substitute the eddy current inspection required by Section 2.C. (Part B) of the Accomplishment Instructions of the applicable SB with a DET of the flap closing rib when conducted in accordance with Reference Instruction Letter (RIL) GX-0603, Revision NC, dated October 17, 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 19 June 2023

Contact:

Christopher Banken, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.