



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) to ADs.

Number:

CF-2016-23R1

Effective Date:

6 March 2017

ATA:

72

Type Certificate:

A-177

Subject:

Engine - Rear Mount Retaining Bolt Failure

Revision:

Supersedes AD CF-2016-23, issued 28 July 2016.

Applicability:

Bombardier Inc. model BD-700-1A10 and BD-700-1A11 aeroplanes, serial numbers (S/Ns) 9002 through 9785, and 9998.

Compliance:

As indicated below, unless already accomplished.

Background:

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 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 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.

Corrective Actions:

Part I – Inspection of the Engine Rear Mount Assemblies

For aeroplane S/Ns 9002 through 9763, 9765, 9767 through 9770, and 9998, within 500 hours air time or 4 months, whichever occurs first, from the effective date of the original issue of this AD, 8 August 2016, inspect the engine rear mount assemblies and rectify if required, in accordance with the Accomplishment Instructions of the applicable SBs, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, as shown in the table below:

| Aeroplane Model | Bombardier SB | Date |
|------------------------|------------------------------|--------------|
| BD-700-1A10 | 700-71-002, Revision 01 | 30 June 2016 |
| | 700-71-6002, Revision 01 | 30 June 2016 |
| BD-700-1A11 | 700-71-5002, Revision 01 | 30 June 2016 |
| | 700-1A11-71-002, Revision 01 | 30 June 2016 |

Compliance with the original issue of the above Bombardier SBs, prior to the effective date of this AD, also satisfies the requirements of Part I of this AD.

Accomplishment of Part I of this AD is not required following accomplishment of Part II of this AD

Part II – Inspection and Replacement of the Engine Rear Mount Assembly Hardware

For aeroplane S/Ns 9002 through 9785, and 9998, within 1000 hours air time or 12 months, whichever occurs first, from the effective date of this AD, inspect the affected installation and replace the nuts, P/N AS54365 and bolts, P/N AS54020 and AS54002 in the engine rear mount assembly with new nuts and bolts in accordance with Part A and Part B of the Accomplishment Instructions in the applicable SBs, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, as shown in the table below:

| Aeroplane Model | Bombardier SB | Date |
|------------------------|------------------------------|-----------------|
| BD-700-1A10 | 700-71-003, Basic Issue | 5 December 2016 |
| | 700-71-6003, Basic Issue | 5 December 2016 |
| BD-700-1A11 | 700-71-5003, Basic Issue | 5 December 2016 |
| | 700-1A11-71-003, Basic Issue | 5 December 2016 |

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Philip Tang
Acting Chief, Continuing Airworthiness
Issued on 20 February 2017

Contact:

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