



No.	CF-2001-44	1/2
Issue Date	3 December 2001	

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to **Canadian Aviation Regulation (CAR) 593**. Pursuant to **CAR 605.84** and the further details of **CAR Standard 625, Appendix H**, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with **CAR 605.84** and the above-referenced **Standard**.

This AD has been issued by the Continuing Airworthiness Division (AARDG), Aircraft Certification Branch, Transport Canada, Ottawa, telephone (613) 952-4357.

Number: CF-2001-44

Subject: Bombardier DHC-8- 400 - Spoiler Lift Dump Valves

Effective: 28 December 2001

Applicability: Bombardier Inc. DHC-8 Models 400, 401 and 402, serial numbers 4005, 4006, 4008 through 4015 and 4018 through 4052.

Compliance: As indicated below, unless already accomplished.

Background: The manufacturer of the spoiler lift dump valves has determined that a venting slot was omitted during the manufacture of a batch lot of solenoid armatures. Although the affected spoiler lift dump valves passed acceptance test procedures and no problems have been observed with in-service aircraft, this defect has the potential to prevent the ground spoilers from deploying.

Corrective Actions:

1. Within 45 days after the effective date of this directive:
 - A. Determine through a visual inspection of the aircraft, the serial number of the four spoiler lift dump valves (Part Number 395800-1005) installed in each aircraft.
 - B. If the serial number of any spoiler lift dump valve is in the range from 5164 through 5264 or from 5267 through 5279 (below referred to as the suspect range), comply with one of the following options before further flight:
 - (i) Replace the suspect spoiler lift dump valve with a spoiler lift dump valve that has a serial number that is outside the suspect range; or,
 - (ii) Replace the suspect spoiler lift dump valve with a spoiler lift dump valve that has had the manufacturing defect corrected in accordance with Bombardier Service Bulletin 84-27-12 dated 07 September 2001 or later revisions approved by the Director, Aircraft Certification, Transport Canada. Valves which have had the defect corrected are identified with a serial number that includes the suffix 'A' (e.g. S/N 5164A); or,
 - (iii) Advise flight crew of **Accelerate-Stop** and **Landing Distance** performance penalty below and incorporate this performance change in the aircraft flight manual (AFM). Incorporation in the AFM may be accomplished by including a copy of this directive in the AFM.

Performance Penalty for Suspect Lift Dump Valves

Accelerate-stop distance

Flap 5°	increase 2%	(Figures 5-5-4 and 5-5-5)
Flap 10°	increase 2%	(Figures 5-5-9 and 5-5-10)
Flap 15°	increase 3%	(Figures 5-5-14 and 5-5-15)

Landing Distance

Flap 10°	increase 3%	(Figures 5-11-1 and 5-11-4)
Flap 15°	increase 5%	(Figures 5-11-2 and 5-11-4)
Flap 35°	increase 11%	(Figures 5-11-3 and 5-11-4)

2. Within 6 months after the effective date of this directive, replace all spoiler lift dump valves that have a serial number in the range from 5164 through 5264 or from 5267 through 5279 that have not yet been replaced in accordance with paragraphs 1.B (i) or (ii) above. Concurrently, remove the amendment to the AFM that was inserted in accordance with paragraph 1.B (iii) of this directive.
3. As of the effective date of this directive, do not install spoiler lift dump valves with a serial number that is in the suspect range any aircraft unless the manufacturing defect has been corrected. These corrected valves are identified with a serial number that includes the suffix 'A' (e.g. S/N 5164A).

Authorization: For Minister of Transport



B. Goyaniuk
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