



No.	CF-2001-40	1/2
Issue Date	9 November 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-2001-40

Subject: Bombardier DHC-8 – Autopilot Servo Engagement

Effective: 28 December 2001

Applicability: Bombardier Inc. DHC-8 Aircraft Models 102, 103, 106, 201, 202, 301, 311, 314 and 315, serial numbers 003 through 580.

Compliance: Compliance is required within 12 months after the effective date of this directive.

Background: An investigation of an incident involving higher than normal aileron control forces has determined that screws in the SM-300 autopilot clutch assembly had backed out sufficiently, causing the clutch to mechanically engage the autopilot servo. The screws were able to back out due to the type of screw adhesive used during manufacture of the unit. Both elevator and aileron servos are affected.

Corrective Actions: 1. Determine through a visual inspection of the automatic flight control system, SM-300 servo drive assemblies (P/Ns 7002260-922 and -923), the serial numbers (S/N) of the aileron and elevator servo drives.

Note: **P/N 7002260-922** applies to both the elevator servo drive unit installed in Series 100, 200 and 300 aircraft and to the aileron servo drive unit installed in Series 300 aircraft.

P/N 7002260-923 applies to the aileron servo drive units installed in Series 100 and 200 aircraft.

2. Remove and replace aileron and elevator servo drive assemblies (P/Ns 7002260-922 and -923) that have a serial number with the last four digits in the range from 4826 through 5935 (i.e. xxxx 4826 through xxxx 5935).
3. Replacement servo drive assemblies shall comply with the following:
 - A. If P/N 7002260-922 is removed, replace with servo drive assembly P/N 7002260-722 or with servo drive assembly P/N 7002260-922 that has a serial number with the last four digits being 4825 or lower.
 - B. If P/N 7002260-923 is removed, replace with servo drive assembly P/N 7002260-723 or with servo drive assembly P/N 7002260-923 that has a serial number with the last four digits being 4825 or lower.
4. Bombardier Alert Service Bulletin A8-22-18 dated 06 September 2001, provides approved instructions for replacing the servo drive units.

5. From the effective date of this directive, aileron and elevator servo drive assemblies (P/Ns 7002260-922 and -923) that have a serial number with the last four digits in the range from 4826 through 5935 shall not be installed in any aircraft.

Authorization For Minister of Transport



B. Goyaniuk
Chief, Continuing Airworthiness

Contact: Mr. Ian McLellan, Continuing Airworthiness, Ottawa, telephone (613) 952-4362, facsimile (613) 996-9178 or e-mail mclelli@tc.gc.ca or any Transport Canada Centre.