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No. CF-95-15

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.

CF-95-15 DE HAVILLAND

Applies to de Havilland Inc. DHC-8 aircraft, all models, serial numbers 003 through 403, and any DHC-8 aircraft with drag strut serial number DEC 001/83 through DCL 432/94 installed.

Compliance is required as indicated, unless already accomplished.

The pivot tube (P/N 8225-3) in the nose landing gear drag strut has cracked or completely failed on several aircraft. In one case the nose gear did not extend, causing damage to the aircraft during the subsequent landing. The failures have been attributed to fatigue. As a result of these failures, the safe life of the pivot tube (P/N 8225-3) has been re-evaluated and reduced to 13,400 flights. Until such time as additional pivot tubes or an improved design can be made available, the pivot tubes may remain in service beyond this life limit, provided that the additional inspections detailed in this directive are carried out.

To prevent further failures of the pivot tube, accomplish the following:

- (a) Inspect the nose landing gear pivot tube P/N 8225-3, using eddy-current inspection techniques in accordance with Bombardier Inc. de Havilland Dash 8 Service Bulletin (SB) 8-32-131, dated 8 September 1995 or later revisions approved by the Director, Airworthiness Branch, Transport Canada, Ottawa. The initial inspection shall be performed according to the following schedule:
 - (i) For aircraft with pivot tubes having 12,650 flights or less - at or before 13,400 flights;
 - (ii) For aircraft with pivot tubes having between 12,651 and 20,000 flights - within the next 750 flights; and
 - (iii) For aircraft with pivot tubes having 20,001 flights or greater - within the next 500 flights.

Note: These inspections shall be performed by personnel certified to Level II or III of CGSB Standard 48-GP-13M or MIL-STD-410 or equivalent.

- (b) If no cracking is found, repeat the inspections of section (a) above at intervals not greater than 2,000 flights.

- (c) If cracked pivot tubes are found:

Pivot tubes with cracks small enough to be completely removed by re-work may be repaired using Messier-Dowty Repair Scheme CRS84-90 (reference SB 8-32-131, part 2.D). If cracks are completely removed by re-work, as verified by inspection, the pivot tube may be returned to service. Inspect re-worked pivot tubes at intervals not greater than 1,000 flights.

- (ii) Pivot tubes which are found to be extensively cracked, or if cracks remain after re-work as described in paragraph (c)(i) above, are to be replaced with a serviceable part before further flight. Report the existence of such cracks to de Havilland Inc. in accordance with the above-noted SB 8-32-131.

- (d) No later than 4 August 1997 replace all pivot tubes P/N 8225-3, which have exceeded 13,400 flights, by incorporating de Havilland Modification 8/2266 (strengthened pivot tube P/N 8225-5).

Incorporation of de Havilland Modification 8/2266 provides terminating action for the inspection requirements of this directive.



Documents

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Alternative means of compliance with the requirements of this directive may be used only if approved by the Director, Airworthiness Branch, Transport Canada, Ottawa. Any application should be made to the appropriate regional office.

This directive becomes effective 29 September 1995.

Pursuant to CAR 202.51 the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address. To request a change of address, contact the Civil Aviation Communications Centre (AARC) at Place de Ville, Ottawa, Ontario K1A 0N8, or 1-800-305-2059, or <http://www.tc.gc.ca/civilaviation/communications/centre/address.asp>.

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