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No. CF-89-14R1

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-89-14R1 PRATT & WHITNEY CANADA

Applies to all Pratt & Whitney Canada (P&WC) PW100 series engines as installed in, but not necessarily restricted to, the ATP, ATR-42, ATR-72, DHC-8 Series 100 and 300, EMB-120 and Fokker 50 aircraft.

Compliance is required as indicated, unless already accomplished:

- A. For PW115/118/120/120A/121 engines installed in ATR-42, DHC-8 Series 100 and EMB-120 aircraft, at the next "shop visit" or before 31 December 1992, whichever occurs first;
- B. For PW118A/123/124B/125B/126 engines installed in ATP, ATR-72, DHC-8 Series 300, EMB-120 and Fokker 50 aircraft, at the next "shop visit" or before 31 December 1991, whichever occurs first.

NOTE: For the purpose of this directive, any time the engine is disassembled such that access to the affected parts is afforded, is considered a "shop visit".

Instances of temporary high pressure rotor (HPR) seizure due to uneven cooling after shut-down have been experienced. This could result in an inability to restart the engine in flight until the HPR has cooled down sufficiently to rotate freely.

To improve the in-flight restart capability of the engine, accomplish the following:

- 1. For all engines:
 - a) Modify the high pressure turbine front cover in accordance with P&WC Service Bulletin (SB) No. 20417, dated 17 May 1989 or later revisions approved by the Director, Airworthiness Branch, Transport Canada, Ottawa; and
 - b) Modify the low pressure stator vane in accordance with P&WC SB No. 20456, dated 21 June 1989 or later revisions approved by the Director, Airworthiness Branch, Transport Canada, Ottawa.
- 2. For those engines incorporating the triple segmented high pressure vanes (in addition to accomplishing Part 1 above):
 - a) Modify the cooling air nozzle housing assembly in accordance with P&WC SB No. 20341 dated 30 March 1989 or later revisions, as approved by the Director, Airworthiness Branch, Transport Canada, Ottawa; and
 - b) Modify the high pressure vane segments in accordance with P&WC SB No. 20419 dated 19 May 1989 or later revisions approved by the Director, Airworthiness Branch, Transport Canada, Ottawa.

NOTES

- 1. Compliance with P&WC SB No. 20436 dated 6 March 1990 or later revisions, as approved by the Director, Airworthiness Branch, Transport Canada, Ottawa is an alternative means of compliance with the requirements of P&WC SB No. 20341.
- 2. Compliance with P&WC SB No. 20742R1 dated 28 May 1990 or P&WC SB No. 20886 dated 25 June 1990 or their later revisions, as approved by the Director, Airworthiness Branch, Transport

Canada, Ottawa is an alternative means of compliance with the requirements of P&WC SB No. 20419.

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 supersedes Airworthiness Directive CF-89-14 issued 23 October 1989.

This directive becomes effective 5 November 1990.

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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