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No. CF-86-07R2

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-86-07R2 PRATT & WHITNEY

Applies to Pratt and Whitney (PW) JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R and -17AR turbofan engines installed on, but not limited to Boeing 727, 737, and McDonnell Douglas DC-9 series aircraft. Turbofan engines that have installed low emission combustion chamber assemblies, part number 5001958-02, -022 or 5001959-02, -022 are not affected by this directive.

Compliance is required as indicated unless previously accomplished.

Several instances have been reported of cracked combustion chambers, which have resulted in either outer case burn-through or uncontained case ruptures.

To prevent combustion chamber case rupture, accomplish the following in accordance with the specified parts of PW Alert Service Bulletin (ASB) 5639, Revision 10 dated 7 July 1995:

A. Perform an initial borescope, visual, or radiographic inspection of the combustion chamber liners for cracking or other types of distress in accordance with the inspection procedures of paragraph (1) and (2), and Table 1 or 1A using the hour or cycle limits in the "Engine Condition Monitoring Not Used" column, and the applicable inspection technique of paragraph 2.B. Determine the reinspection interval or engine removal requirements in accordance with paragraph 2.C (3), (4), (5) or (6), whichever is applicable.

Note 1: The hour and cycle limits in the "Engine Condition Monitoring Used" column of Tables 1 and 1A may not be used.

Note 2: Any radiographic inspection technique contained in the PW service bulletin shall be performed by personnel certified to Level II or III of CGSB Standard 48-GP-4 (aircraft structures) or MIL-STD-410 or equivalent.

B. Reinspect combustion chamber liners for cracking or other types of distress in accordance with the inspection procedures of paragraphs 2.C (3) through (7), and the applicable inspection technique of paragraph 2.B, as follows:

1. For liners initially inspected by borescope or visual means, reinspect in accordance with Table 2;
2. For liners initially inspected by radiographic means, reinspect in accordance with Table 3;
3. Determine reinspection interval or engine removal requirements in accordance with paragraph 2.C (3), (4), (5) or (6), whichever is applicable.

C. For liners removed from service in accordance with parts A or B of this airworthiness directive, scrap or repair in accordance with paragraph 2.D of the service bulletin.

D. Combustion chambers which are removed from service prematurely, inspected in accordance with this directive, and that do not require repair, may be returned to service to continue their run to the appropriate initial inspection threshold or the applicable repetitive inspection interval, whichever is greater.

E. Magnesium zirconate heat resistant coating is to be applied in accordance with JT8D Restructured Engine Manual, part number 481762, Chapter 72-41-14, Repair Number 28, or other methods approved by the Director, Airworthiness Branch, Transport Canada, Ottawa. To meet the requirement for magnesium

zirconate in a given combustion chamber category, the coating must have been completely renewed on at least chamber liners 2 through 5 at that repair, rather than locally patched.

PW All Operators Wire JT8D/72-41/PSE:JKS:5-8-23-1, dated 23 August 1985, and Flight Operations Engineering Report RFT5-8-30-1, dated 30 August 1985, contain further information relevant to combustion chamber distress and the symptoms which manifest themselves as a result of excessive combustion chamber cracking and misalignment.

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 revision supersedes Transport Canada Airworthiness Directive CF-86-07R1, which became effective on 1 November 1986; FAA AD 86-09-02R1, which became effective on 8 August 1986; and FAA AD 86-09-02R2, which became effective on 17 November 1995.

This directive becomes effective 31 January 1996.

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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