AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Allison Turbine Engines - 250 Series

AD/AL 250/88 Third-stage Turbine Wheel Seal Joint 13/2005

Applicability: Rolls-Royce Corporation (RRC) (formerly Allison Engine Company, Allison Gas Turbine Division, and Detroit Diesel Allison) models 250-C28, -C28B, and -C28C turboshaft engines fitted with third stage turbine wheel part number (P/N) 6899383.

Note 1: These engines are installed on, but not limited to, Bell Helicopter Textron 206L-1; Eurocopter Deutschland BO 105 LS A-1; and Eurocopter Canada BO 105 LS A-3 helicopters.

Requirement:

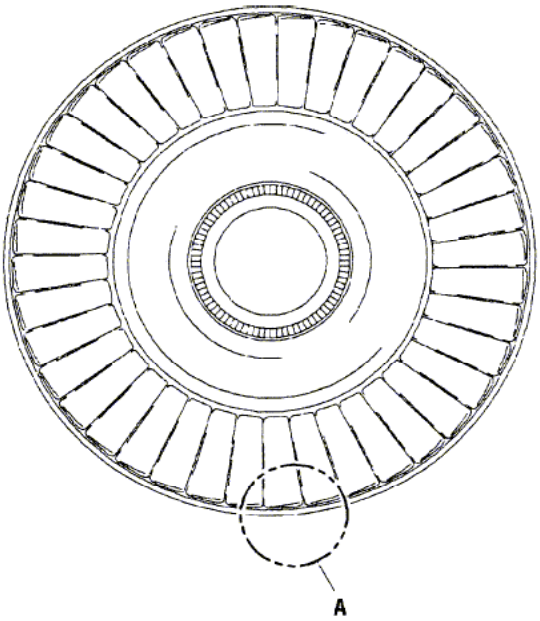
1. Unless previously accomplished in accordance with Rolls Royce RRC Alert Service Bulletin No. CEB-A-72-2205 dated 26 April 2005, remove the third-stage turbine wheel and perform a one-time visual inspection of the seal joint in each passage between airfoils at the hub and shroud. Seal joint evidence must not be present within blade fillet radii. See Figure 1 of this AD for reference.

2. Remove from service any turbine wheel that has seal joint evidence present within the blade fillet radii.

Note 2: FAA AD 2005-20-11 Amdt 39-14305 refers.

Allison Turbine Engines - 250 Series

AD/AL 250/88 (continued)



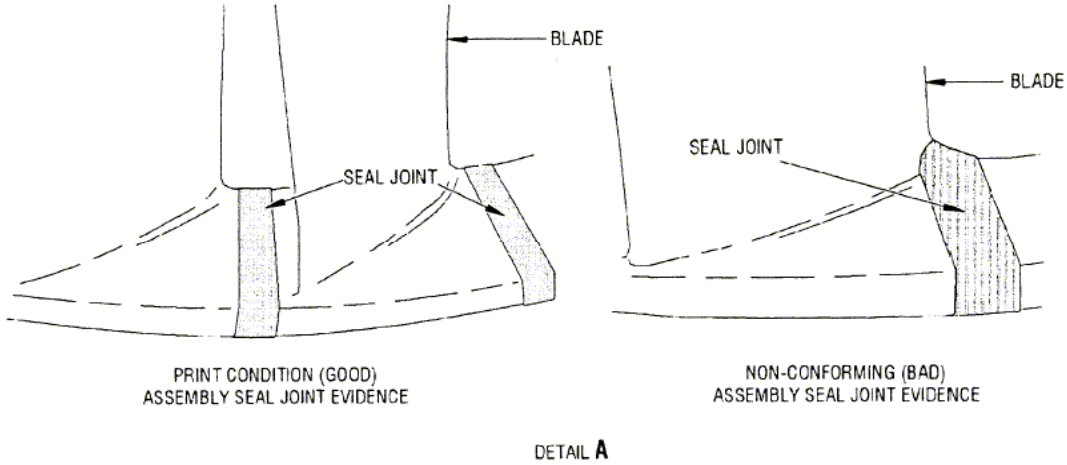


Figure 1.

Compliance:

1. For third-stage turbine wheels, with fewer than 3,000 hours time-since-new (TSN), inspect the next time the third-stage turbine wheel is directly available for removal, at the next turbine overhaul, or by 30 April 2007, whichever occurs sooner.

   For third-stage turbine wheels, with 3,000 hours or more TSN, inspect within 300 hours or by 30 April 2007, whichever occurs sooner.

2. Before further flight after the effective date of this AD.

Allison Turbine Engines - 250 Series

AD/AL 250/88 (continued)

This Airworthiness Directive becomes effective on 22 December 2005.

Background: This AD results from FAA reports of three failed third-stage turbine wheels and from the manufacturer's analysis of those failures. This AD is intended to prevent loss of power and uncommanded engine shutdown due to failure of the third-stage turbine wheel.

James Coyne
Delegate of the Civil Aviation Safety Authority

10 November 2005