
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/DART/28 and issues the following AD under subregulation 39.1 (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.

Rolls Royce Turbine Engines - Dart Series**AD/DART/28
Amdt 1****HP Turbine Blades - Inspection and Rework****10/2003
DM**

Applicability: Rolls Royce Dart 500 series engines as detailed in Rolls Royce Service Bulletin Da72-543 dated 11 July 2003.

- Requirement:**
1. For engines **NOT** reworked to repair scheme DRS611 standards in accordance with the original issue of this Directive, carry out the requirements of Rolls Royce Service Bulletin Da72-530 dated May 1998.
 2. For engines reworked to repair scheme DRS611 standards in accordance with Rolls Royce Service Bulletin Da72-530 dated May 1998:
 - (a) Inspect the HP turbine blade platforms and shrouds in accordance with the applicable Rolls Royce Dart Overhaul Manual; and
 - (b) Carry out repeat inspections of the HP turbine blade platforms and shrouds in accordance with applicable Rolls Royce Dart Overhaul Manual.

Note 1: For further information, including references and accomplishment instructions, Rolls Royce Service Bulletin Da72-543 dated 11 July 2003 refers.

3. If excessive gaps between blade shrouds and platforms are found in compliance with Requirement 2(a) or (b), the engine may not be returned to service unless reworked in accordance with applicable Rolls Royce Dart Overhaul Manual.

Note 2: German LBA AD 2003-217 dated 7 August 2003 refers.

Compliance: For Requirement 1: Before further flight.

For Requirement 2(a):

- Prior to exceeding 7400 flight hours since the last inspection of the blades in accordance with the Overhaul Manual; or
- Prior to exceeding 7400 flight hours since new blades were installed; or
- Prior to exceeding 1500 flight hours from the effective date of this Directive which ever comes later.

Rolls Royce Turbine Engines - Dart Series

AD/DART/28 Amdt 1 (continued)

For Requirement 2(b): At intervals not exceeding 7400 flight hours.

For Requirement 3: Before further flight.

This Amendment becomes effective on 27 August 2003.

Background: The original issue of this Directive required a one time inspection and rework of all HP turbine blades was after an investigation found that a number of HP turbine disc rim failures since 1972, resulting in HP turbine disc release, was due to high stress levels in the HP turbine disc bucket groove due to blade vibration. This blade vibration can occur as a result of excessive gaps between blade shrouds and platforms. This amendment re-writes the requirements, in consideration of the German LBA AD, by introducing an initial inspection followed by repeat inspections in order to prevent further uncontained disc rim failures.

The original issue of this Airworthiness Directive became effective on 10 September 1998.



Jim Coyne
Delegate of the Civil Aviation Safety Authority

22 August 2003