
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 39.1 (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 (Allison) Turbine Engines - AE 3007 Series

AD/AE 3007/3**High Pressure Turbine Wheel****10/2004**

Applicability: Rolls-Royce Corporation (formerly Allison Engine Company) models AE3007A and AE 3007C turbofan engines with 2nd stage HPT wheels with SN's prior to MM183060.

Requirement:

1. Unless previously accomplished perform a one-time acid etch inspection to the 2nd stage high pressure turbine wheel in accordance with the Accomplishment Instructions contained in the following Rolls-Royce Alert Service Bulletins listed in Table 1 of this Directive.

Table 1.

AE models	Rolls-Royce service bulletin
AE 3007A	AE 3007A-A-72-179, Revision 2, dated October 17, 2000 or Revision 3, dated June 19, 2001.
AE 3007C	AE 3007C-A-72-153, Revision 2, dated October 17, 2000 or Revision 3, dated June 19, 2001.

2. If damage is discovered, replace the turbine wheel with a serviceable part.
3. Do not install any 2nd-stage gas-generator turbine wheel listed in Table 2 of this Directive, unless it has been inspected as specified in Requirement 1 of this Directive.

Note: FAA AD 2001-17-31 Amdt 39-12423 refers.

Compliance: For Requirement 1: As detailed in Table 2 of this Directive.

Models	With turbine wheel	Mandatory
All AE 3007A, and AE 3007C	23063462, 23065892, 23069116 with S/N MM183060 and before.	At next shop visit.
All AE 3007A, and AE 3007C	23069592 with S/N MM183060 and before.	At next exposure but not to exceed 12,800 CSN.

Rolls Royce (Allison) Turbine Engines - AE 3007 Series

AD/AE 3007/3 (continued)

For Requirement 2: Before further flight.

For Requirement 3: From the effective date of this Directive.

This Airworthiness Directive becomes effective on 30 September 2004.

Background: This Directive is prompted by a report of a 2nd stage HPT wheel that was returned from the field with cracks in the aft bore face. The actions specified by this Directive are intended to detect and prevent early development of cracks due to low cycle fatigue of the 2nd stage HPT wheel in the aft bore face that can lead to wheel failure, power loss, and possible damage to the aeroplane.

This Directive was previously issued as AD/AE3007/1 however that Directive number was previously issued to another Directive. This Directive has been re-issued with a new number with no changes to the content.



Bernard Malcolm Hole
Delegate of the Civil Aviation Safety Authority

30 July 2004