

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.

AlliedSignal (Lycoming) Turbine Engines - ALF502 and LF507 Series

AD/ALF/21

High Pressure Compressor Discs

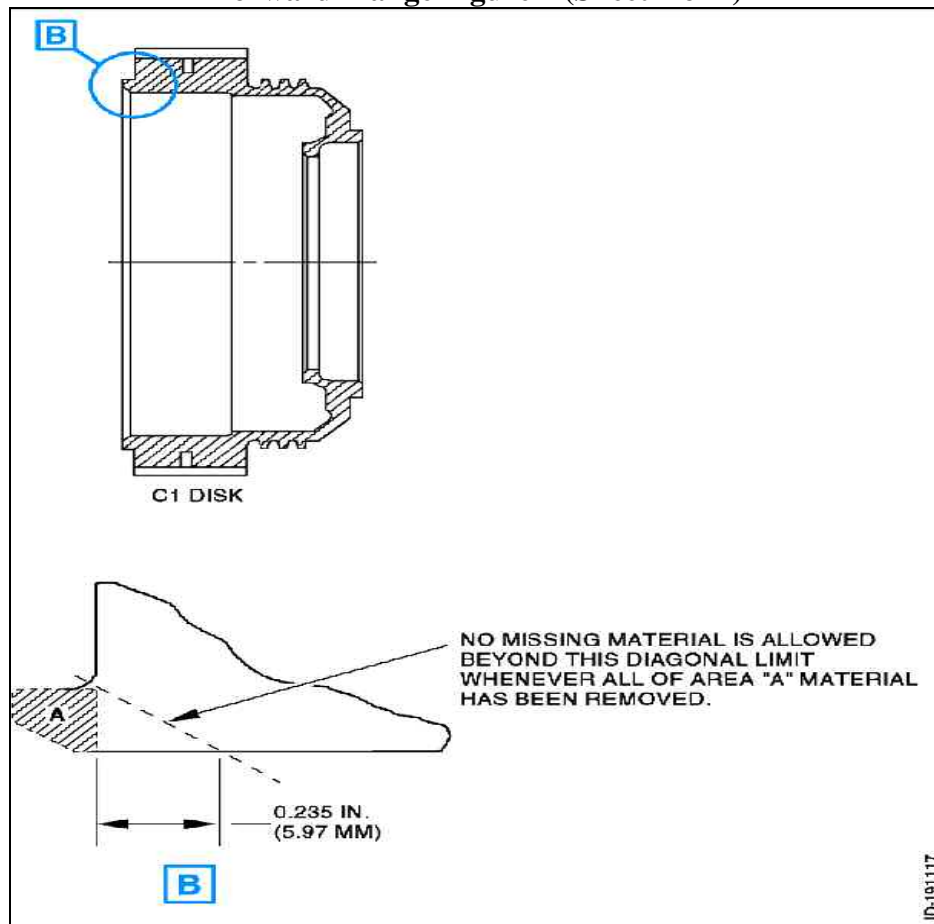
6/2009

Applicability: Honeywell International Inc. ALF502L-2 and ALF502L-2C turbofan engines with high pressure compressor (HPC) first stage discs, part numbers (P/Ns) 2-101-331-03, 2-101-331-04, and 2-101-331-10, installed.

Note 1: These engines are installed on, but not limited to, Bombardier CL-600-1A11 aeroplanes.

Requirement: 1. For discs with 5,000 or more cycles-since-new on the effective date of this AD, perform a dimensional inspection of the HPC first stage disc to determine if excessive disc balance material was removed. See the following Figure 1 for limits.

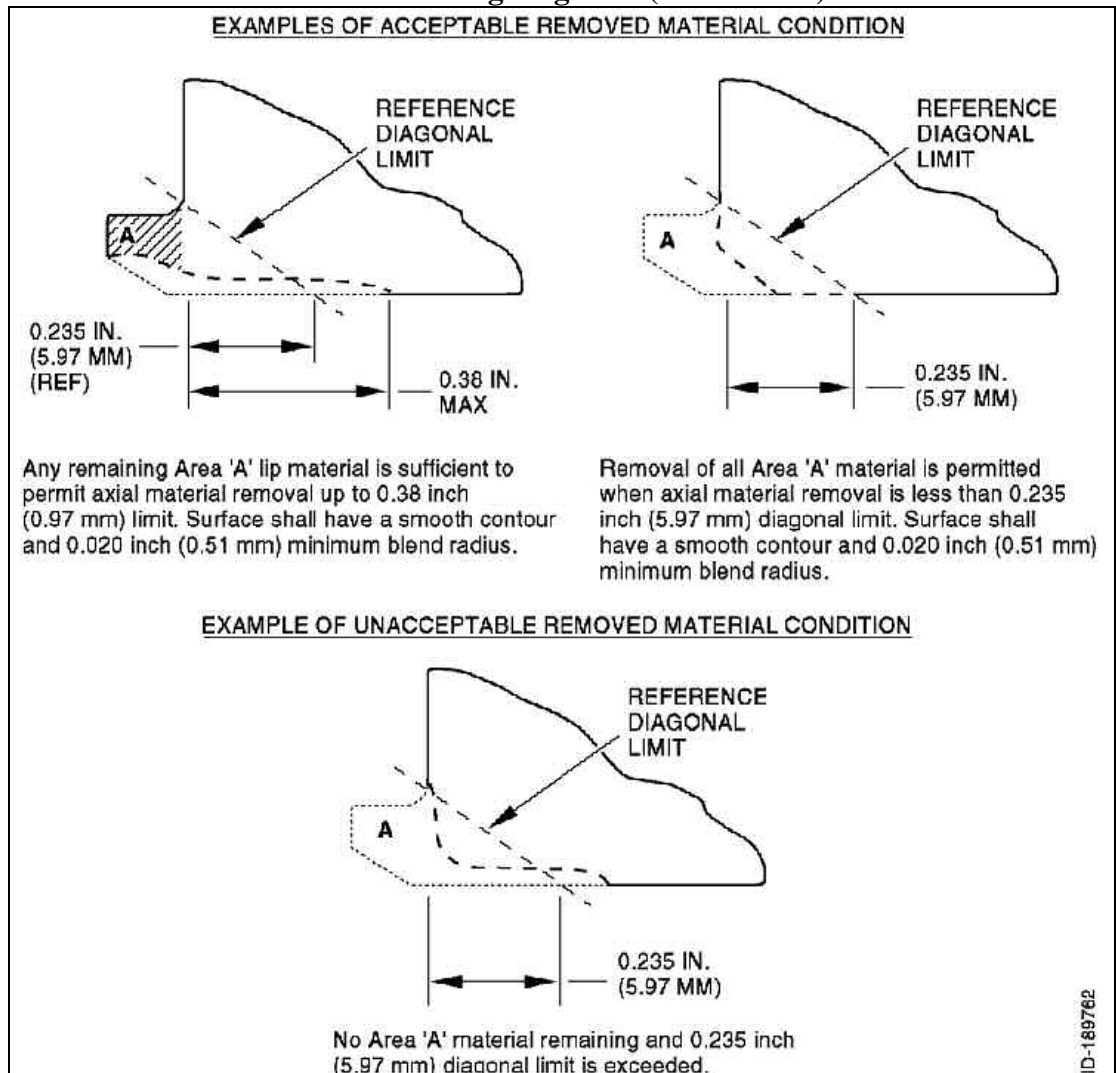
**Limits for Removed Balance Material, Disc
Forward Flange Figure 1 (Sheet 1 of 2)**



AlliedSignal (Lycoming) Turbine Engines - ALF502 and LF507 Series

AD/ALF/21 (continued)

Limits for Removed Balance Material, Disc
Forward Flange Figure 1 (Sheet 2 of 2)



2. Replace the disc if excessive disc balance material was removed. See limits in Figure 1 of this AD.
3. If the removed balance material condition is acceptable, perform a magnetic particle inspection of the disc rim and slots for cracks using a 3 to 7 power magnification glass. The Engine Overhaul Manual, 72-34-11, Inspection/Check, contains information on the magnetic particle inspection procedure.
4. Replace the disc if any cracks are found.

Note 2: FAA AD 2009-08-07 Amdt 39-15880 dated 6 April 2009 refers.

Compliance: At the next shop visit, but not later than 2,500 cycles-in-service after the effective date of this AD, unless the actions have already been done.

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AD/ALF/21 (continued)

This Airworthiness Directive becomes effective on 4 June 2009.

Background: This AD results from reports of discs found with excessive material removed from the balancing locations of the disc. The issuing of this AD is intended to prevent the discs from fracturing before reaching the currently published life limit. A disc fracture could result in an uncontained failure of the disc and damage to the aeroplane.



James Coyne
Delegate of the Civil Aviation Safety Authority

17 April 2009