

# AIRWORTHINESS DIRECTIVE

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*Inspection and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive.*

Translation of 'Consigne de Navigabilité' ref. : 2001-235(A)  
In case of any difficulty, reference should be made to the French original issue.

## TURBOMECA

### ARTOUSTE III turboshaft engines

Check for absence of smoke - Turbine shaft labyrinth inspection (ATA 72)

#### 1. APPLICABILITY

This Airworthiness Directive refers to ARTOUSTE III B, B1, D turboshaft engines.

#### 2. REASONS

The analysis carried out after an engine shut-down brought to light that cracks may develop on the rear face of the injection wheel, thus allowing the passage of fuel into the cylinder of the turbine shaft during operation. This was presumed to be the cause of an in-flight shut-down and the AD 98-432 (A) dated November 04, 1998 has been published to enable the detection of such cracks.

The analysis of a second in-flight shut-down showed that these engine shut-downs were in fact caused by the deterioration of a labyrinth which led to heating the turbine shaft material, then to degrading its characteristics.

Moreover, the use of the injection wheel was limited to 3000 h / 6000 cycles in the overhaul manual, in order to minimise the risk of engine operation disturbance following the crack propagation in the injection wheel.

#### 3. MANDATORY ACTIONS AND COMPLIANCE

The test for the absence of smoke emissions at engine shut-down, and the removal of engines in the conditions defined in the Service Bulletin No. 218 72 0099 Rev. 1 (and further approved revision) are rendered mandatory from the effective date of this Airworthiness Directive.

The periodic inspection of the turbine shaft labyrinth according to the instructions in the Alert Service Bulletin No. A 218 72 0100 Rev. 1 (and further approved revision) are rendered mandatory from the effective date of this Airworthiness Directive.

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REF.: SB TM 218 72 0099 Rev. 1 (and further approved revision).  
SB TM 218 72 0100 Rev. 1 (and further approved revision).

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This Airworthiness Directive replaces AD 98-432(A) which is cancelled by its Revision 1.

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**EFFECTIVE DATE : JUNE 23, 2001**

**SUPERSEDED**