

# 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. : 2002-127(A)  
In case of any difficulty, reference should be made to the French original issue.

## TURBOMECA

### ARRIEL 2 turboshaft engines

Centrifugal impeller (ATA 72)

#### 1. APPLICABILITY:

This Airworthiness Directive refers to all ARRIEL 2 turboshaft engines.

#### 2. REASONS:

Several events of contained centrifugal impeller blade rupture were observed in service. These events resulted in power losses but could lead to a non commanded in-flight shut down. Investigations showed an acoustic excitation of the blades to be the cause of the events. The TU 54 modification for Arriel 2S1, 2B by TURBOMECA Service Bulletin No. 292 72 2054 suppresses this excitation.

Further more, operation experience showed the necessity to bond the sleeve in the bleed valve boss.

#### 3. MANDATORY ACTIONS AND COMPLIANCE:

3.1. The installation of a sleeve in the bleed valve boss, as described in TURBOMECA Service Bulletin No. 292 72 2054, is rendered mandatory on Arriel 2S1, 2B (unless already achieved).

3.2. For any Arriel turboshaft engine variant, on which TU54 modification is embodied, the bonding of the sleeve in the bleed valve boss, as described in TURBOMECA Service Bulletin No. A 292 72 2070 Rev 1 (modification TU 70A), is made mandatory (unless already achieved).

3.3. The actions described in above paragraphs 3.1. and 3.2. must be performed before May 31, 2002.

REF.: Service Bulletin TURBOMECA No. 292 72 2054  
Service Bulletin TURBOMECA No. A 292 72 2070 Rev. 1  
Modifications TU 70A, TU 54.

This Airworthiness Directive replaces AD 1999-392(A) which is cancelled.

**EFFECTIVE DATE : MARCH 16, 2002**