

**ARRIEL 2****Application : Mandatory****Subject : Compressor module. Installation of a sleeve in the attachment boss of the bleed valve.****Incorporation of the modification TU 54.**

**The technical information contained in this document has been approved by DGAC on 20.09.1999**

**1. Planning information****A. Effectivity****(1) Validity**

- **ARRIEL 2 S1 - 2 B engines.**

**(2) Application****(a) Definition of the application for engines in service**

**Mandatory :** Incorporation of this Service Bulletin is required to eliminate a condition which can affect flight safety. The incorporation required can be immediate or adapted to a scheduled program.

**(b) Conditions of application for engines in service****(b.1) Application in a TURBOMECA approved Repair Center :**

At first return of the engine or of the module M02 to an approved Repair Center whatever the reason for return.

**(b.2) Application at the operator's :**

Upon receipt of the parts sent by TURBOMECA and no later than **31st March 2000** on all the modules M02.

**B. Purpose**

To reduce the vibratory level of the compressor blades by deleting coupling which may occur through the air flow between these blades and the acoustic cavity between the compressor cover and casing. Deleting this coupling is obtained by disturbing the symmetry of this cavity by the insertion of a metal sleeve.

This vibratory level may lead to initiation of cracks on the blades which can lead to rupture of a blade and result in an in-flight power loss and possibly in an uncommanded in-flight shutdown.

**Original issue : 20.09.1999****Update No ... from ...****292 72 2054****Page 1/6****TURBOMECA 40220 Tarnos - FRANCE****Tél. (33) 05 59 64 40 00 - Télex 570 042 - Fax (33) 05 59 64 60 80**

**C. Description** (appendix 1)

This modification consists of inserting a sleeve in the attachment boss of the bleed valve.

**D. Approval**

The technical information contained in this document has been approved under the Design Organization agreement JAA No F.JA.05.  
This Service Bulletin is the subject of an Airworthiness Directive.

**E. Manpower**

**(1) At the operator's**

**(a) Personnel** : 1 mechanic.

**(b) Time required** : 0.5 man hour (removal/installation of the bleed valve and fitting of the sleeve).

**(2) In a TURBOMECA approved Repair Center**

**(a) Personnel** of the approved Repair Center.

**(b) Time** as defined by the Repair Center for the level of this intervention.

**F. Material**

Refer to paragraph 3.

**G. Tooling**

**(1) At the operator's**

• Mechanic's standard tooling.

• Tooling for removal and installation of the bleed valve : refer to the Maintenance Manual, chapter 75-31-00.

**(2) In a TURBOMECA approved Repair Center**

Refer to the ARRIEL 2 Maintenance Manual concerned.

**H. Weight and balance**

Not applicable.

**I. References**

(1) ARRIEL 2 S1 Maintenance Manual.....Ref. X 292 L0 301 2

(2) ARRIEL 2 B Maintenance Manual .....Ref. X 292 M5 450 2

(3) ARRIEL 2 S1 Overhaul Manual .....Ref. X 292 L0 500 2

(4) ARRIEL 2 B Overhaul Manual.....Ref. X 292 M5 500 2

(5) Maintenance Manual of the Helicopter concerned.

**J. Other publications concerned**

(1) ARRIEL 2 S1 Spare Parts Catalogue .....Ref. X 292 L0 700 2

(2) ARRIEL 2 B Spare Parts Catalogue.....Ref. X 292 M5 700 2.

## **2. Instructions to be incorporated**

### **A. Implementation**

This modification can be incorporated with the engine installed in the helicopter.

### **B. Operating instructions**

#### **(1) At the operator's**

(a) **Remove the bleed valve** : refer to the Maintenance Manual, chapter 75-30-01.

(b) **Install the sleeve** at the very bottom of the boss attachment of the bleed valve : refer to appendix 1.

**Note** : The sleeve slot is used to ensure the elasticity required to maintain it in position, but does not require any special positioning.

(c) **Install the bleed valve** : refer to the Maintenance Manual, chapter 75-30-01.

#### **(2) In a TURBOMECA approved Repair Center**

Application on complete engines, modules M02 and M03 assembled together or on separated modules M02.

(a) **Remove the bleed valve** : refer to the Overhaul Manual, chapter 72-00-01.

(b) **Install the sleeve** at the very bottom of the boss attachment of the bleed valve : refer to appendix 1.

**Note** : The sleeve slot is used to ensure the elasticity required to maintain it in position, but does not require any special positioning.

(c) **Install the bleed valve** : refer to the Overhaul Manual, chapter 72-00-01.

### **C. Reconditioning and checks**

#### **(1) At the operator's**

Carry out a ground run check : refer to the Maintenance Manual, task 71-02-13-280-001.

#### **(2) In a TURBOMECA approved Repair Center**

Refer to the ARRIEL 2 Overhaul Manual concerned.

### **D. Identification**

#### **(1) At the operator's**

(a) Record the incorporation of the modification TU 54 in the sections "A" and "E" of the engine log book and on the module M02 log card (FMFE).

(b) Inform TURBOMECA that the modification TU 54 has been incorporated by returning the compliance certificate fully completed (page 6/6 of this Service Bulletin).

#### **(2) In a TURBOMECA approved Repair Center**

(a) Record the incorporation of the modification TU 54 in the sections "A" and "E" of the engine log book (if it is available) and on the module M02 log card (FMFE).

(b) Inform TURBOMECA that the modification TU 54 has been incorporated by returning the compliance certificate fully completed (page 6/6 of this Service Bulletin).

### 3. Material information

#### A. Basic information

The parts required for the incorporation of this Service Bulletin are for 1 engine.

#### B. List of parts

New part number	Key	Qty	Description	Deliv. time	Old part number	Key	Qty
0 292 15 333 0	A	1	Sleeve	*			

\* Delivery times will be given upon request.

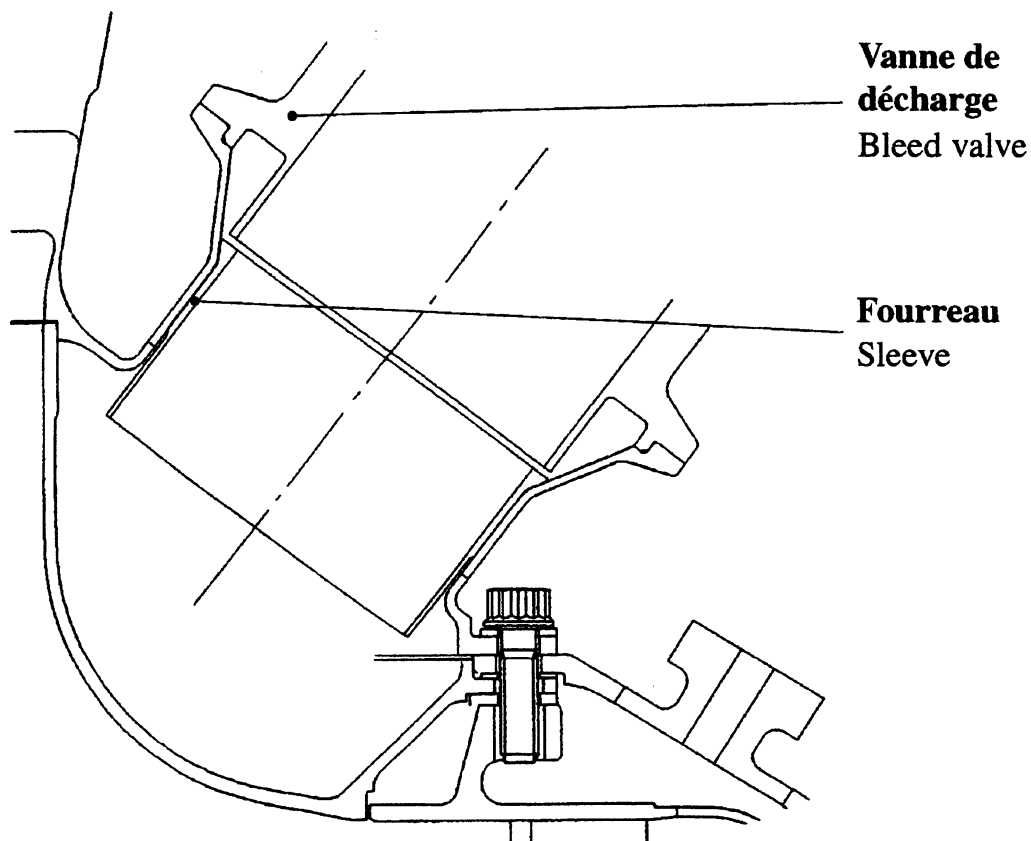
#### *Key*

*A - Part incorporated in the modification.*

#### C. Supply conditions

The sleeves will be supplied by your nearest TURBOMECA subsidiary or :

**Mr. Louis LABOURDET**  
TURBOMECA  
DSO / T / NORIA  
64 511 BORDES Cedex  
FRANCE.  
Fax No (33) (0)5 59 12 51 60.



**Montage du fourreau**  
**Sleeve installation**

**ANNEXE 1**

**Objet : Attestation d'application de la modification TU 54**

**Subject : TU 54 modification compliance certificate.**

**Important / Important notice :**

**Après application de ce Service Bulletin, veuillez compléter la présente attestation et la retourner par courrier à :**

After incorporation of this Service Bulletin, please complete this certificate and mail it to :

**M. Louis LABOURDET**

**TURBOMECA**

**DSO / T / NORIA**

**64 511 BORDES Cedex**

**FRANCE.**

**Fax n° (33) (0)5 59 12 51 60.**

**Information concernant le matériel / Equipment information**

Utilisateur Operator				N° Appareil Aircraft N°	
	N/S - S/N	Réf. - P/N	TSN*	TSO**	Remarques/Remarks
Moteur Engine					
Module M02 modifié Modified module M02					

\*TSN = Time Since New (hours/cycles)  
 Heures/cycles depuis neuf

\*\*TSO = Time Since Overhaul (hours/cycles)  
 Heures/cycles depuis révision générale

**Opération effectuée par :**

Works performed by :

.....

**Je certifie que le moteur identifié ci-dessus est modifié selon les directives du Service Bulletin en objet.**

I certify that the engine has been modified according to the directives given in this Service Bulletin.

**Date**

**Nom / Name**

**Fonction / Job title**

.....

**Signature :**