 Direction générale de l'aviation civile France GSAC publication	AIRWORTHINESS DIRECTIVE No F-2004-177 R1	Distribution: A	Issue date: November 24, 2004	Page : 1/2
	This Airworthiness Directive is published by the DGAC on behalf of EASA, Airworthiness Authority of the State of Design for the affected product, part or appliance.		<i>Translation of « Consigne de Navigabilité » of same number. In case of difficulty, reference should be made to the French issue.</i>	
No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive, unless otherwise agreed with the Authority of the State of Registry.				
Corresponding foreign Airworthiness Directive(s): Not applicable		Airworthiness Directive(s) replaced: F-2004-177 original issue		
Person in charge of airworthiness: MICROTURBO		Type(s): Auxiliary Power Unit (APU) Saphir 20, model 095		
Type certificate(s) No. None TCDS No None				
ATA chapter: 49	Subject: Limitation of cycle number or starting			

1. **EFFECTIVITY:**

The present Airworthiness Directive (AD) is applicable to Auxiliary Power Unit (APU) Saphir 20, model 095.

These APUs are installed on Super Puma 332 L2 helicopters.

2. **REASONS**

A case of rupture of female quill shaft (ref: 095-40-193-01), which links the accessory gearbox to the gas generator, was discovered in service.

The rupture of the female quill shaft could leads to an over speed of the generator followed by an uncontained burst.

This AD allows risk reduction, pending determination of root causes of the failure of female quill shaft and determination of final solutions.

Revision 1 of this AD aims at reducing its applicability to Super Puma 332 L2 helicopters.


3. **MANDATORY ACTIONS AND COMPLIANCE TIMES:**

The following actions are made mandatory from the effective date of this AD:

Introduction of a life limit equal to 460 cycles on the female quill shaft ref: 095-40-193-01 (1 cycle = 1 start).

Note: all Saphir 20, model 095 APUs are currently equipped with this female quill shaft.

By consequence, female quill shafts ref: 095-40-193-01 having accumulated 460 cycles or more are no longer authorised to remain in service.

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4. REFERENCE PUBLICATION:

MICROTURBO Alert Service Bulletin 095-49A-10, original issue.

5. EFFECTIVE DATES:

Original issue : Upon receipt from November 24, 2004

Revision 1 : December 04, 2004.

6. REMARK:

For questions concerning the technical contents of this AD's requirements, contact:

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7. APPROVAL:

This AD Revision is approved under EASA reference No 2004-11120 dated November 17, 2004.