## EASA

## **AIRWORTHINESS DIRECTIVE**



## AD No.: 2011-0245

## Date: 21 December 2011

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Type Approval Holder's Name :		Type/Model designation(s) :
TURBOMÉCA		TM 333 series engines
TCDS Number:	EASA.E.030	
Foreign AD:	Not applicable	
Supersedure:	None	
ATA 72	ATA 72 Engine – Module M02 (Gas Generator) Pre-rotation Casing Assembly – Replacement	
Manufacturer(s):	Turboméca S.A.	
Applicability:	TM 333 2M2 turboshaft engines, all serial numbers.	
	These engines are known to Aeronautics Limited "Cheet	o be installed on, but not limited to, Hindustan al" helicopters.
Reason:	Several occurrences of partial or complete debonding of a Teflon ring part of the pre-rotation casing assembly have been reported, discovered during repair of TM 333 2B2 engines (installed on twin-engine helicopters). TM 333 2M2 engines (installed on single-engine helicopters) are equipped with an identical Teflon ring.	
	Complete debonding of the case of deceleration, leadin corrected, can lead to engir oscillations, causing an unc necessitating an emergency	ring can jam the compressor Inlet Guide Vane. In g to low gas generator speeds, this condition, if not he surging, sudden engine power loss and/or power ommanded engine in-flight shutdown and y autorotation landing.
	To address this unsafe cond (TU41) of the pre-rotation control process, to be accomplishe Bulletin (MSB) 333 72 5041	dition, Turboméca have developed a modification asing assembly with an improved ring bonding d in service by implementing Mandatory Service version A.
	For the reasons described a rotation casings by casings prohibits installation of an e been embodied in that engine	above, this AD requires the replacement of the pre- incorporating modification TU41. This AD also ngine or of a pre-rotation casing unless TU41 has ne or in that part.

Effective Date:	04 January 2012	
Required Action(s) and Compliance Time(s):	<ul> <li>Required as indicated, unless accomplished previously:</li> <li>(1) Within 450 flight hours after the effective date of this AD, modify the engine by replacing the pre-rotation casings by casings which incorporate modification TU41 in accordance with the instructions of Turboméca MSB 333 72 5041 version A.</li> <li>(2) From the effective date of this AD, do not install an engine on a helicopter, or a pre-rotation casing in an engine, unless TU41 has been embodied.</li> </ul>	
Ref. Publications:	Turboméca MSB 333 72 5041 version A dated 20 October 2011. The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.	
Remarks :	<ol> <li>If requested and appropriately substantiated, EASA can approve Alternative Methods of compliance for this AD.</li> <li>This AD was posted on 22 November 2011 as PAD 11-123 for consultation until 20 December 2011. No comments were received during the consultation period.</li> <li>Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <u>ADs@easa.europa.eu</u>.</li> <li>For any question concerning the technical content of the requirements in this AD, please contact: <b>Turboméca Operator Support &amp; Sales TM 333</b> 40220 Tarnos, France Telephone: +33 (0)5 59 74 44 95; Fax: +33 (0)5 59 74 45 16, or your usual or nearest Turboméca technical representative, at <u>www.turbomeca-support.com</u>.</li> </ol>	