


EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No : 2007-0044</p> <p>Date: 21 February 2007</p>
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.	
Type Approval Holder's Name : TURBOMECA	Type/Model designation(s) : ARRIEL 2B Turboshaft engines
TCDS Number: EASA.E.001	
Foreign AD: Not applicable	
Supersedure: DGAC France AD F-2005-188 (EASA Approval Number 2005-6408)	
ATA 73	Engine Fuel and Control - Hydromechanical Metering Unit (HMU) - Visual Inspection of the Drive-Link Splines
Manufacturer(s):	TURBOMECA
Applicability:	Arriel 2B, 2B1 and 2B1A turbo-shaft engines. These engines are known to be installed on, but not limited to, the following helicopters: Eurocopter AS 350 B3 and EC 130 B4 helicopters.
Reason:	<p>The deterioration of the splines on the HP/LP pump assembly drive shaft may eventually interrupt fuel supply and cause uncommanded in-flight engine shutdown. The result may be an emergency autorotation landing or, at worst, an accident.</p> <p>Two cases of in-flight shutdown resulting from splines deterioration have been reported for the ARRIUS 2B1 engine, which has the same HP/LP pump drive design as the ARRIEL 2. These cases prompted us to require the inspection at 500 hours and each time the HMU is removed/installed.</p> <p>This AD modifies the content of the previous DGAC France AD F-2005-188 (EASA Approval Number 2005-6408) in adding a one time inspection within 30 operating hours from effective date of this AD as</p>

	<p>well as HMU re-installation according to a maintenance task modified to avoid this kind of wrong assembly. This has been set up following a one case of improper clipping of the coupling shaft onto the drive gear shaft, which resulted in an uncommanded in-flight engine shutdown (on a twin engine rotorcraft). This precaution measures has been taken only on engine powering single engine rotorcraft.</p>
Effective Date:	08 March 2007
Compliance:	<ol style="list-style-type: none"> 1. Visual inspection of HP pump drive gear shaft splines and coupling shaft assembly splines must be performed within 30 operating hours from effective date of this AD and not later than February 28th 2007 (even if an inspection has already been performed in accordance with DGAC France AD F-2005-188 (EASA Approval Number 2005-6408). This inspection is not required for new engines equipped with their initial HMU, delivered by TURBOMECA, and whose HMU has not been removed since delivery. 2. In addition, further to this inspection: <ul style="list-style-type: none"> • If the Hydromechanical Metering Unit (HMU) has logged more than 500 operating hours since new or since repair/overhaul inspect each time the HMU is removed/installed. • If the HMU has logged less than 500 operating hours since new or since repair/overhaul, perform the inspection as soon as the HP/LP pumps assembly has reached 500 operating hours since new or since repair/overhaul, then each time the HMU is removed/installed. 3. If inspection reveals signs of wear, as listed in § 2.B.1.d of TURBOMECA Mandatory Service Bulletin No 292 73 2812, before next flight, replace HMU and coupling shaft assembly.
Ref. Publications:	Turbomeca, S.A. Mandatory Service Bulletin No. 292 73 2812 - Update n°4 (or later approved revisions of this document)
Remarks :	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Methods of Compliance (AMOCs) for this AD. 2. This AD was posted as PAD 07-008 on 11 January 2007 for consultation until 12 February 2007. No comments were received during the consultation period. 3. Enquiries regarding this Airworthiness Directive should be referred to the AD Focal Point - Certification Directorate, EASA. E-mail: ADs@easa.europa.eu . 4. For any question concerning the technical content of the requirements in this AD, please contact: Turboméca, S.A., ARRIEL 2 Customer Support, 40220 TARNOS, FRANCE. Fax: +33 5 59 74 45 15.