


EASA	AIRWORTHINESS DIRECTIVE	
	<p>AD No.: 2009-0002</p> <p>Date: 07 January 2009</p> <p>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.</p>	
<p>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 Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive 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].</p>		
<p>Type Approval Holder's Name : TURBOMECA</p>		<p>Type/Model designation(s) : Arriel 1 series turboshaft engines</p>
<p>TCDS Number : EASA.E.073</p>		
<p>Foreign AD : Not applicable</p>		
<p>Supersedure : None</p>		
ATA 72		Engine – Reduction Gear Box Intermediate Pinion – Modification
<p>Manufacturer(s): Turboméca</p>		
<p>Applicability: Arriel 1B, 1D and 1D1 turboshaft engines, all serial numbers. These engines are known to be installed on, but not limited to, Eurocopter AS 350 B, AS 350 BA, AS 350 B1 and AS 350 B2 helicopters.</p>		
<p>Reason: Several events of rupture of the Arriel 1 Reduction Gear Box Intermediate Pinion have been reported in service. The ruptures have been determined to be originated at the pinion teeth root due to increased vibratory stresses. This increase in vibratory stresses is mainly caused by increased teeth wear over engine life time.</p> <p>The rupture of the Reduction Gear Box Intermediate Pinion may result in an overspeed of the Power Turbine and, subsequently, an uncommanded engine in-flight shutdown. This could lead to an emergency autorotation landing on a single-engine helicopter.</p> <p>To reduce the level of vibratory stresses and improve tooth resistance, Turboméca modification TU 232 incorporates the addition of a damping ring below the teeth and a shot peening of the teeth roots. These modifications reduce the risk of incipient fatigue cracks.</p> <p>This AD requires the replacement of all Reduction Gear Box Intermediate Pinions with Pinions incorporating Turboméca modification TU 232.</p>		
<p>Effective Date: 21 January 2009</p>		

Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>No later than 28 February 2011, replace the Reduction Gear Box Intermediate Pinions (P/N 0 292 70 779 0) with Pinions incorporating Turboméca modification TU 232 in accordance with Turboméca Mandatory Service Bulletin 292 72 0276 Version B dated 06 November 2008.</p>
Ref. Publications:	<p>Turboméca, S.A. Mandatory Service Bulletin No. 292 72 0276 Version B dated 06 November 2008.</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p>
Remarks :	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 26 November 2008 as PAD 08-136 for consultation until 25 December 2009. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, 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 1 Customer Support, 40220 TARNOS, FRANCE. Fax: +33 5 59 74 45 15; or contact your nearest technical representative at www.turbomeca-support.com