EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2015-0213 **Date: 16 October 2015** 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 EU 748/2012, Part 21.A.3B. In accordance with EU 1321/2014 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 [EU 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:	**Type/Model designation(s):**
TURBOMECA	ARRIEL 2 engines

TCDS Number:	EASA E.001
Foreign AD:	Not applicable
Supersedure:	None

ATA 73	**Engine Fuel & Control – Hydro-Mechanical Metering Unit – Additional Check Valve and Constant Delta Pressure Valve Diaphragm – Replacement**

Manufacturer(s):	Turbomeca
Applicability:	ARRIEL 2E and 2N engines, all serial numbers. These engines are known to be installed on, but not limited to, Airbus Helicopters AS 365 N3 and Airbus Helicopters Deutschland MBB-BK 117 D-2 helicopters.
Reason:	Fuel flow non-conformities were found during reception tests of ARRIEL 2E Hydraulic Mechanical Metering Unit (HMU). Investigation and instrumented tests revealed instabilities on the additional check valve. These instabilities lead to hydraulic pulses. All HMU installed on ARRIEL 2E and 2N engines could present these instabilities. This condition, if not corrected, could lead to life reduction of the delta pressure valve diaphragm, and consequently, an uncommanded engine power increase, or an uncommanded in flight shutdown, possibly resulting in an emergency landing. To address this unsafe condition, Turbomeca certified a new additional check valve with modification (Mod) TU 193 and issued Mandatory Service Bulletin (MSB) 292 73 2193 with instructions to replace the adjusted high/low pressure (HP/LP) fuel pump and metering valve assembly (also known as HMU) with a post-Mod TU193 unit and to replace the constant delta pressure valve diaphragm.

	For the reasons described above, this AD requires replacement of the constant delta pressure valve and embodiment of Mod TU 193.
Effective Date:	30 October 2015
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) For an engine in pre-Mod TU 193 configuration, before exceeding 880 HMU operating hours since new, **or** during the next "800 hours periodical engine inspection", whichever occurs first after the effective date of this AD, modify the engine by replacing the HMU with a serviceable HMU (see Note 1 of this AD) and replace the constant delta pressure diaphragm in accordance with the instructions of Turbomeca MSB 292 72 2193. Note 1: For the purpose of this AD, a serviceable HMU is one that embodies Mod TU 193. (2) After modification of an engine as required by paragraph (1) of this AD, it is allowed to install a replacement HMU on that engine, provided the HMU is a serviceable one (see Note 1 of this AD).
Ref. Publications:	Turbomeca MSB 292 73 2193 version A dated 16 July 2015. The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.
Remarks:	1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 14 September 2015 as PAD 15-122 for consultation until 12 October 2015. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Safety Information 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 2 Customer Support 40220 Tarnos, France Fax: +33 5 59 74 45 15, or your usual or nearest TURBOMECA technical representative (refer to http://www.turbomeca-support.com).