Airworthiness Directive

AD No.: 2016-0041

Issued: 03 March 2016

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, 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 Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (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 [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:
TURBOMECA

Type/Model designation(s):
ARRIUS 2F engines

Effective Date: 17 March 2016

TCDS Number(s): EASA.E.031

Foreign AD: Not applicable

Supersedure: None

ATA 73 – Engine Fuel & Control – Fuel Control Unit Assembly – Modification

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Manufacturer(s):
Turbomeca

Applicability:
ARRIUS 2F engines, all serial numbers.

These engines are known to be installed on, but not limited to, Airbus Helicopters (formerly Eurocopter, Eurocopter France) EC 120 B helicopters.

Reason:
In the event of rupture of the delta P diaphragm and as a function of the power required by the engine, the fuel flow increase may be sudden and significant. In more detail, delta P diaphragm damage leads to a rapid increase in rotor speed, triggering high NR (main rotor speed) visual and audio warning signals; a rapid increase in engine parameters, triggering audio and visual warnings signalling exceedance of the power limitations; and prevents the pilot to reduce engine speed by positioning the twist grip between the flight and idle notches. In any case, the pilot can still shutdown the engine by using the twist grip.

This condition, if not corrected, could lead to engine overspeed and in-flight shut-down, possibly resulting in a forced landing.

To address this potential unsafe condition, Turbomeca developed modification (Mod) Tf 77 and published Mandatory Service Bulletin (MSB) 319 73 4077 with instructions to replace Fuel Control Unit (FCU), delta P return pipe and FCU drain pipe with post-Mod Tf 77 parts.

For the reasons described above, this AD requires embodiment of Mod Tf 77.

Required Action(s) and Compliance Time(s):
Required as indicated, unless accomplished previously:

(1) For an engine in pre-Mod Tf 77 configuration, within 9 months after the effective date of this AD, modify the engine by replacing the FCU, delta P return pipe and FCU drain pipe with serviceable parts (see Note 1 of this AD) in accordance with the instructions of Turbomeca MSB 319 73 4077 Version E.

Note 1: For the purpose of this AD, serviceable parts are post-Mod Tf 77 parts.

(2) Modification of an engine, accomplished before the effective date of this AD in accordance with the instructions of any previous revision of Turbomeca SB 319 73 4077, is acceptable to comply with the modification as required by paragraph (1) of this AD for that engine.

(3) Do not install any pre-Mod Tf 77 parts on an engine, as required by paragraph (3.1) or (3.2) of this AD, as applicable.

(3.1) For an engine that, on the effective date of this AD, is in post-Mod Tf 77 (equal to post-MSB 319 73 4077) configuration: From the effective date of this AD.

(3.2) For an engine that, on the effective date of this AD, is in pre-Mod Tf 77 configuration: After modification of that engine as required by this AD.

Ref. Publications:
Turbomeca MSB 319 73 4077 Version A dated 08 June 2010, or Version B dated 10 December 2010, or Version C dated 17 October 2012, or Version D dated 06 December 2013, or Version E dated 20 February 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 27 January 2016 as PAD 16-011 for consultation until 24 February 2016. No comments were received during the consultation period.

3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. For any question concerning the technical content of the requirements in this AD, please contact:
Turbomeca, S.A., ARRIUS Customer Support, 40220 TARNOS, France,
Fax: +33 5 59 74 45 15; or
contact your nearest technical representative at www.turbomeca-support.com.