



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 15-142

Issued: 25 November 2015

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:

TURBOMECA

Type/Model designation(s):

ARRIUS 2B1 engines

Effective Date: [standard: 14 days after AD issue date]

TCDS Number(s): EASA.E.029

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2012-0249 dated 21 November 2012.

ATA 73 – Engine Fuel & Control – Main Injector Half-Manifolds and Preference Injector – Replacement

Manufacturer(s):

Turbomeca S.A.

Applicability:

ARRIUS 2B1 engines, all serial numbers.

These engines are known to be installed on, but not limited to, Airbus Helicopters Deutschland (formerly Eurocopter Deutschland) EC135 twin-engine helicopters.

Reason:

During inspections carried out at a repair workshop, it was found that some main injectors were totally or partially blocked.

This condition, if not corrected, could lead to engine flame out during rapid engine deceleration or to non-availability of the OEI 2min 30s rating, possibly resulting in an uncommanded engine in-flight shut down.



To address this unsafe condition, DGAC France issued AD 1999-217(A) to require periodical replacement of fuel manifolds.

Since that AD was issued, further investigation results demonstrated that:

- a periodic flow rate check (water technology) and the cleaning accomplished in accordance with the instructions of Turbomeca Mandatory Service Bulletin (MSB) N° A319 73 2012 did not meet the expected results (wrong indication and non-sufficient cleaning), and
- replacement of the fuel injection manifolds and preference injector ensures the airworthiness of the engine in case of blockage of the injection manifolds combined with a rapid engine deceleration or in case of the use of the OEI 2min 30s rating.

Consequently, EASA issued AD 2012-0249, which superseded DGAC France AD 1999-217(A), to require replacement of the fuel injection manifolds and preference injector before exceeding a defined limit of operating hours as specified in Turbomeca MSB N° A319 73 2012.

Since EASA AD 2012-0249 was issued, Turbomeca transferred the replacement instructions of Turbomeca MSB N° A319 73 2012 into the applicable Airworthiness Limitation Sections of the applicable Maintenance Manuals (MM). Furthermore, depending on the engine configuration (see Table 1 of this AD), the periodic replacement of the Right Hand (RH) and Left Hand (LH) main injector half-manifolds has been extended from 200 to 500 operating hours.

For the reasons described above, this AD requires implementation of these new limits by repetitive replacement of the RH and LH main injector half-manifolds and preference injector.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

- (1) From the effective date of this AD, before exceeding the compliance time (hours accumulated since first installation on an engine) as specified in Table 1 of this AD, as applicable, replace each main injector half-manifold and preference injector with a serviceable part in accordance with approved maintenance instructions.

Table 1 – Periodic Replacement

Part	Compliance Time
Main injector half-manifold – post-mod TU117	500 operating hours (see Note 2)
Main injector half-manifold – pre-mod TU117	200 operating hours
Preference injector pre/post-mod TU117	200 operating hours

Note 1: For the purpose of this AD, a serviceable main injector half-manifold or preference injector is one that has not exceeded the applicable limit as specified in Table 1 of this AD.

Note 2: For the main injector half-manifold – post-mod TU117, a non-cumulative tolerance of 100 operating hours may be applied to the compliance times specified in paragraph (1) of this AD.

- (2) From the effective date of this AD, it is allowed to install a replacement main injector half-manifold or preference injector on an engine, or an engine on a helicopter, provided it is



determined that the replacement main injector half-manifold or preference injector is a serviceable part as defined in Note 1 of this AD.

Ref. Publications:

Turbomeca ARRIUS 2B1 MM X 319 L5 301 2.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. This Proposed AD will be closed for consultation on 23 December 2015.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. For any question concerning the technical content of the requirements in this PAD, 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.

