



# Notification of a Proposal to issue an Airworthiness Directive

**PAD No.: 17-169**

**Issued: 12 December 2017**

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:**

AIRBUS

**Type/Model designation(s):**

A330 and A340 aeroplanes

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

**TCDS Numbers:** EASA.A.004, EASA.A.015

**Foreign AD:** Not applicable

**Supersedure:** None

## ATA 29 – Hydraulic Power – Ram Air Turbine – Identification / Replacement

### Manufacturer(s):

Airbus (formerly Airbus Industrie)

### Applicability:

Airbus A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342 and A330-343 aeroplanes, all manufacturer serial numbers (MSN), and

Airbus A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313 aeroplanes, all MSN.

### Reason:

Four A330 Ram Air Turbine (RAT) units were returned to the supplier due to low discharge pressure. These defects were detected during Airbus production tests. Subsequent investigations by the RAT manufacturer UTAS (formerly Hamilton Sundstrand) revealed that some RAT hydraulic pumps, Part Number (P/N) 5916430, were involved in an alternative manufacturing process of the pump pistons. This resulted in form deviations (rough surface finish and sharp edges), which caused excessive wear and damage to the bore where the pistons moved, resulting in low performance of the pumps.



This condition, if not corrected, could possibly result in reduced control of the aeroplane, particularly if occurring following a total engine flame out, or during a total loss of normal electrical power generation.

To address this potential unsafe condition, Airbus published Service Bulletin (SB) A330-29-3130 and SB A340-29-4098, providing instructions for identification of the P/N and serial number (s/n) of the RAT hydraulic pumps and replacement of the affected pumps.

For the reasons described above, this AD requires replacement of the affected RAT hydraulic pumps. This AD also requires re-identification of the RAT module.

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

Required as indicated, unless accomplished previously:

Note 1: Airbus SB A330-29-3130 and SB A340-29-4098, as applicable, are hereafter collectively referred to as “the applicable SB” in this AD.

Note 2: For the purpose of this AD, RAT hydraulic pumps with P/N 5916430 and a s/n as listed in UTAS / Hamilton Sundstrand SB ERPS06M-29-22 are hereafter referred to as ‘affected pump’ in this AD (see Note 4 of this AD).

Note 3: For the purpose of this AD, Group 1 aeroplanes are those equipped with an affected pump (see Note 2 of this AD). Group 2 aeroplanes are those not equipped with an affected pump.

#### **Replacement:**

- (1) For Group 1 aeroplanes: Within 18 months after the effective date of this AD, replace the affected pump (see Note 2 of this AD) with a serviceable RAT hydraulic pump, as defined in, and in accordance with the instructions of, the applicable SB.

#### **Re-Identification:**

- (2) For Group 1 aeroplanes: Concurrent with the replacement as required by paragraph (1) of this AD, re-identify the P/N of the RAT module in accordance with the instructions of the applicable SB.

Note 4: The applicable SB also provides instructions for re-identifying the P/N of RAT hydraulic pumps that are not affected (see Note 2 of this AD), as well as the P/N of the RAT modules that are not equipped with an affected RAT hydraulic pump.

#### **Credit:**

- (3) An A330 aeroplane on which Airbus modification 206604 has been embodied in production is a Group 2 aeroplane, not affected by the requirements of paragraph (1) of this AD, provided it is determined that the aeroplane remains in that configuration and no affected RAT hydraulic pump (see Note 2 of this AD) is installed on that aeroplane.
- (4) Replacement of a RAT hydraulic pump and re-identification of the RAT Module on an aeroplane, as required by paragraph (1) and (2) of this AD, also constitutes compliance with the requirements EASA AD 2015-0008 for that aeroplane.



**Part installation:**

(5) Do not install an affected pump (see Note 2 of this AD) on any aeroplane, as required by paragraph (5.1) or (5.2) of this AD, as applicable.

(5.1) For Group 1 aeroplanes: After RAT hydraulic pump replacement as required by paragraph (1) of this AD.

(5.2) For Group 2: From the effective date of this AD.

**Ref. Publications:**

Airbus SB A330-29-3130 original issue dated 03 May 2017.

Airbus SB A340-29-4098 original issue dated 03 May 2017.

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

UTAS / Hamilton Sundstrand SB ERPS06M-29-22 Revision 01, dated 27 June 2017.

**Remarks:**

1. This Proposed AD will be closed for consultation on 09 January 2018.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – EIAL (Airworthiness Office), E-mail: [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com).

