



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 19-054

Issued: 02 April 2019

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 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):

A380 aeroplanes

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

TCDS Number(s): EASA.A.110

Foreign AD: Not applicable

Supersedure: None

ATA 24 – Electrical Power – Ram Air Turbine Free Rotation – Manual Check

Manufacturer(s):

Airbus

Applicability:

Airbus A380-841, A380-842 and A380-861 aeroplanes, manufacturer serial number (MSN) 0006 to 0017 inclusive, MSN 0019 to 0023 inclusive, MSN 0025 to 0031 inclusive, MSN 0033 to 0036 inclusive, MSN 0038 to 0052 inclusive, MSN 0054 to 0059 inclusive, MSN 0061 to 0090 inclusive, MSN 0092 to 0096 inclusive, MSN 0098 to 0101 inclusive, MSN 0103, MSN 0105 to 0117 inclusive, MSN 0119 to 0128 inclusive, MSN 0130 to 0184 inclusive, MSN 0186 to 0195 inclusive, MSN 0197 to 0211 inclusive, MSN 0213 to 0244 inclusive, MSN 0247, MSN 0250 to 0255 inclusive and MSN 0257.

Definitions:

For the purpose of this AD, the following definitions apply:

Affected part: Ram air turbines (RAT), having Part Number (P/N) 1704287G, or P/N 1704287H, all serial numbers (s/n), except s/n AAB4000334 and subsequent.

The SB: Airbus Service Bulletin (SB) A380-24-8147, which includes reference to Hamilton Sundstrand Corporation SB ERPS38M-24-9.



Reason:

An occurrence was reported where an RAT installed on an aeroplane failed a ground torque check in accordance with the instructions of Airbus SB A380-24-8133, with the RAT gearbox drain hole not plugged. Subsequent disassembly of the RAT gearbox revealed excess water in the gearbox and corrosion. After investigation by the RAT manufacturer (previously Hamilton Sundstrand Corporation, currently Collins Aerospace), a significant amount of water, oil and metallic particles were found in the gearbox.

This condition, if not detected and corrected, could lead to water in the gearbox, surrounding the turbine shaft gear and freezing at altitude, possibly preventing RAT operation, resulting in loss of electrical generation and, if combined with an emergency electrical conditions, possibly resulting in reduced control of the aeroplane.

To address this unsafe condition, Airbus issued the SB to provide inspection instructions.

For the reasons described above, this AD requires a one-time manual turbine free rotation check of each affected part, and, depending on results, accomplishment of applicable corrective action(s). This AD also requires reporting certain findings to Collins Aerospace.

This AD is an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) Within 12 months after the effective date of this AD, accomplish a manual turbine free rotation check of the affected part in accordance with the instructions of the SB.

Corrective Action(s):

- (2) If, during the check as required by paragraph (1) of this AD, no discrepancies are detected, before next flight, inspect, drain, flush and refill the gearbox with new oil in accordance with the instructions of the SB.
- (3) If, during the check as required by paragraph (1) of this AD, the turbine fails the rotation check, before next flight, replace the affected part in accordance with the instructions of the SB.

Reporting:

- (4) Within 30 days after accomplishment of the corrective action(s) as required by paragraph (2) of this AD, or within 30 days after the effective date of this AD, whichever occurs later, submit a report to Collins Aerospace, including a digital photo of the oil in a clear container and a record that describes the condition of the oil that was removed. The form provided in Hamilton Sundstrand Corporation SB ERPS38M-24-9 can be used to comply with this reporting requirement.

Ref. Publications:

Airbus SB A380-24-8147 original issue dated 20 December 2018.



Hamilton Sundstrand Corporation SB ERPS38M-24-9 original issue dated 18 December 2018.

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

Remarks:

1. This Proposed AD will be closed for consultation on 30 April 2019.
2. Enquiries regarding this PAD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the [EU aviation safety reporting system](#).
4. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS SAS - EIANA (Airworthiness Office), Telephone: +33 562 110 253, Fax: +33 562 110 307, E-mail: account.airworth-A380@airbus.com.

