



## Airworthiness Directive

**AD No.:** 2018-0234R1

**Issued:** 13 November 2018

Note: This Airworthiness Directive (AD) 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.

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 (EU) 2018/1139, Article 71 exemption].

### Design Approval Holder's Name:

AIRBUS

### Type/Model designation(s):

A350 aeroplanes

**Effective Date:** 13 November 2018 (same as original issue)

**TCDS Number(s):** EASA.A.151

**Foreign AD:** Not applicable

**Revision:** This AD revises EASA AD 2018-0234 dated 30 October 2018.

## ATA 78 – Exhaust – Thrust Reverser Actuators – Greasing / Master Minimum Equipment List Restriction – Amendment

### Manufacturer(s):

Airbus

### Applicability:

Airbus A350-941 and A350-1041 aeroplanes, all manufacturer serial numbers.

### Definitions:

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

**Affected TRA:** Thrust reverser actuators (TRA), all Part Numbers.

**Serviceable TRA:** An affected TRA that is new (never installed), or has been refurbished; or an affected TRA that has not exceeded the limits specified in Table 2 of this AD, as applicable, depending on the TRA condition.

**Refurbished:** Repaired in-shop by (or by a company authorized by) Goodrich/UTAS, using a process including replacement of the balls and re-setting the TRA's time in service to zero (0) FC.

**The AOT:** Airbus Alert Operators Transmission (AOT) A78P001-18 Revision 01 (or later revision).



**The FOT:** Flight Operators Transmission (FOT) Ref. 999.0083/18.

**The MER:** Airbus A350 Master Minimum Equipment List (MMEL), Major Event Revision (MER), dated 22 October 2018.

**The Goodrich SB:** Goodrich Service Bulletin (SB) RA35078-048.

**Airbus date of manufacture:** The date of transfer of title (ownership) of the aeroplane upon delivery by Airbus to the first operator.

**Reason:**

Operators of A350 aeroplanes have reported some occurrences of TRA jamming. Further investigation results indicated that the ball bearings inside the TRA are suffering from corrosion due to lack of grease and are degrading with time.

This condition, if not corrected, could lead to an inadvertent thrust reverser sleeve deployment, possibly resulting in reduced control or performance of the aeroplane.

To address this potential unsafe condition, Airbus issued the AOT to provide instructions for repetitive TRA greasing to prevent actuator ball bearings degradation, and the MER that incorporates temporary restrictions of the MMEL items related to thrust reverser actuation system. The AOT also provides instructions to replace certain affected TRA, depending on condition and previously applied greasing.

For the reasons described above, this AD requires implementation of certain dispatch restrictions. This AD also requires repetitive greasing of each affected TRA and a one-time replacement of certain affected TRA, depending on condition.

This AD is revised to introduce some additional definitions, amend the compliance time in paragraph (3) for the initial greasing, amend paragraph (4) to include reference to certain maintenance procedures (MP) for TRA replacement, to introduce additional Notes for clarification, and to correct an error in Note 1 (now Note 3). This revised AD does not change the requirements, except to provide flexibility.

This AD is still considered to be an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

**MMEL Changes / Dispatch Restrictions:**

- (1) Within 30 days after the effective date of this AD, implement the MMEL changes, as specified in the FOT, in accordance with the instructions of the MER, inform all flight crews, and, thereafter, operate the aeroplane accordingly.



**Concurrent Maintenance Requirement:**

- (2) Concurrently with the MMEL update as required by paragraph (1) of this AD, implement or replace the related MP tasks listed in Table 1 of this AD which have been temporarily revised, inform all maintenance staff, and, thereafter, accomplish maintenance on the aeroplane accordingly.

Table 1 – Updated MP related to MMEL Item 78-09-01A (see Note 1 of this AD)

MP Task No.	MP Task Description
A350-A-78-3X-XX-05001-560A-A	Confirmation of the T/R Tertiary Lock Monitoring System Functionality
A350-A-78-3X-XX-03001-560A-A	Deactivation of the T/R Locking System
A350-A-78-3X-XX-03001-760A-A	Reactivation of the T/R Locking System

Note 1: The tasks specified in Table 1 of this AD were available under Airbus AirNav as temporary revision since 19 October 2018, before EASA AD 2018-0234 original issue was published. These were subsequently integrated with the November 2018 revision.

**Repetitive Greasing:**

- (3) Within 250 flight cycles (FC) after the effective date of this AD, or before exceeding 250 FC since Airbus date of manufacture, whichever occurs later, and, thereafter, at intervals not to exceed 4 months or 250 FC, whichever occurs first, accomplish greasing (see Note 2 of this AD) of each affected TRA in accordance with the instructions of the AOT and the instructions of the Goodrich SB.

Note 2: The initial and repetitive greasing of an affected TRA as required by paragraph (3) of this AD can also be accomplished in-shop in accordance with the instructions of the Goodrich SB.

Table 2 – One-time Replacement (see Note 3 of this AD)

Condition of Affected TRA		Compliance Time
1	First greasing was performed before 500 FC, in accordance with instructions of Goodrich SB original issue or Revision 1, thereafter repeated at intervals not exceeding 250 FC	None (no replacement required)
2	First greasing was performed before 500 FC, in accordance with instructions of Goodrich SB original issue or Revision 1, thereafter repeated at intervals not exceeding 500 FC	Before exceeding 3 500 FC
3	Condition other than described in 1 or 2 above	Whichever occurs later, <b>A</b> or <b>B</b> : <b>A</b> – Before exceeding 2 400 FC <b>B</b> – Within 250 FC or 4 months, whichever occurs first after the effective date of this AD



Note 3: Unless specified otherwise, the FC indicated in Table 2 of this AD are those accumulated by an affected TRA since first installation of that TRA on an aeroplane.

**Affected TRA Replacement:**

- (4) Within the compliance time specified in Table 2 of this AD, as applicable, replace each affected TRA with a serviceable TRA, as defined in this AD. For replacement of an actuator, the Airbus A350 MP tasks as specified in Table 3 can be used.

Table 3 – Replacement of Thrust Reverser (T/R) Actuators

Actuator	MP Task No.	Action
Locking actuator	A350-A-78-35-64-00001-520A-A	T/R Primary-Lock Actuator Removal
	A350-A-78-35-64-00001-720A-A	T/R Primary-Lock Actuator Installation
Non Locking actuator	A350-A-78-35-65-00001-520A-A	T/R and Manual Drive Actuator Removal
	A350-A-78-35-65-00001-720A-A	T/R and Manual Drive Actuator Installation
Locking Feedback actuator	A350-A-78-35-66-00001-520A-A	T/R Primary-Lock Actuator Removal
	A350-A-78-35-66-00001-720A-A	T/R Primary-Lock Actuator Installation

**Terminating Action:**

- (5) None.

**Ref. Publications:**

Airbus AOT A78P001-18 Revision 01 dated 16 October 2018.

Airbus A350 MMEL MER dated 22 October 2018.

Airbus FOT Ref. 999.0083/18 original issue dated 22 October 2018.

Goodrich SB RA35078-048 original issue dated 22 June 2018, or Revision 1 dated 26 October 2018.

MP Task No. A350-A-78-3X-XX-05001-560A-A issue date 02 November 2018.

MP Task No. A350-A-78-3X-XX-03001-560A-A issue date 02 November 2018.

MP Task No. A350-A-78-3X-XX-03001-760A-A issue date 02 November 2018.

The use of later approved revisions of the above-mentioned documents 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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#).
5. For any question concerning the technical content of the requirements in this AD, please contact: [continued-airworthiness.a350@airbus.com](mailto:continued-airworthiness.a350@airbus.com).

