

## Airworthiness Directive

**AD No.:** 2019-0168

**Issued:** 16 July 2019

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:** 30 July 2019

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

**Foreign AD:** Not applicable

**Supersedure:** This AD supersedes EASA AD 2018-0245R1 dated 05 December 2018.

**ATA 35 - Oxygen – Crew Oxygen Cylinder Assembly – Inspection**
**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:

**The AOT:** Airbus Alert Operator Transmission (AOT) A35P010-17.

**Affected part:** Oxygen cylinder assemblies, having Part Number (P/N) 4441227-058-000 or P/N 4441227-058-001.

**Serviceable part:** An affected part that, prior to installation, has passed (no defects detected) an inspection in accordance with the instructions of the AOT; or an oxygen cylinder assembly that is not an affected part.

**Reason:**

Several occurrences were reported of loss of retention of the regulator inlet filter retainer on certain oxygen cylinder assemblies. The filter retainer detached from the regulator and dropped within the cylinder internal volume. The technical investigation identified a design defect which was the cause of these events.

This condition, if not detected and corrected, could lead to particle ingestion into the regulator during ground handling, possibly resulting in ignition / fire during system ground operational testing following cylinder (re)installation on an aeroplane.

To address this potential unsafe condition, Airbus issued AOT A35P010-17, referring to B/E Aerospace SB 4441227-35-003 for inspection of P/N 4441227-058-000. Consequently, EASA issued AD 2018-0245 (later revised) to require a one-time inspection of affected oxygen cylinder assemblies having P/N 4441227-058-000 and, depending on findings, replacement. That AD also required replacement of all affected assemblies with improved serviceable assemblies having P/N 4441227-058-001.

Since EASA AD 2018-0245R1 was issued, the supplier has noted findings of loose filter retainers on improved oxygen cylinders P/N 4441227-058-001. These findings were determined to be due to a higher than specified torque application during the production installation of the regulator onto the cylinder. While the condition does not present structural risk to the cylinder, it may lead to retainer detachment from the regulator, as previously seen with oxygen cylinder P/N 4441227-058-000. Airbus revised the AOT accordingly, including reference to B/E Aerospace SB 4441227-35-004 for inspection of P/N 4441227-058-001.

For the reason described above, this AD retains the requirements of EASA AD 2018-0245R1, which is superseded, removes the requirement to replace any defective cylinder with a 'serviceable assembly' having P/N 4441227-058-001, and expands the affected parts to include oxygen cylinders having P/N 4441227-058-001.

This AD is an interim action and further AD action is expected, following the availability of a new oxygen cylinder assembly design.

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

Required as indicated, unless accomplished previously:

**Inspection(s):**

- (1) Within 6 months after the effective date of this AD, inspect each affected part in accordance with the instructions of the AOT.

**Corrective Action(s):**

- (2) If, during the inspection as required by paragraph (1) of this AD, any discrepancy is detected on an affected part, before next flight, replace that affected part with a serviceable part in accordance with the instructions of the AOT.



**Part(s) Installation:**

- (3) From the effective date of this AD, it is allowed to install on any aeroplane an affected part, provided it is a serviceable part, as defined in this AD.

**Ref. Publications:**

Airbus AOT A35P010-17 original issue dated 20 December 2018, or Revision 01 dated 11 April 2019.

B/E Aerospace SB 4441227-35-003 dated 19 December 2017.

B/E Aerospace SB 4441227-35-004 dated 08 April 2019.

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. This AD was posted on 14 June 2019 as PAD 19-104 for consultation until 28 June 2019. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness 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: AIRBUS XWB, E-mail: [continued-airworthiness.a350@airbus.com](mailto:continued-airworthiness.a350@airbus.com).

