



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 21-127

Issued: 20 August 2021

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:

ATR-GIE AVIONS de TRANSPORT RÉGIONAL

Type/Model designation(s):

ATR 42 and ATR 72 aeroplanes

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

TCDS Number(s): EASA.A.084

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2019-0111 dated 21 May 2019.

ATA 35 – Oxygen – Crew and Passenger Oxygen Cylinders – Inspection / Replacement

Manufacturer(s):

ATR-GIE Avions de Transport Régional, formerly EADS ATR - Alenia, Aérospatiale Matra ATR - ALENIA, Aérospatiale - Alenia, Aérospatiale – Aeritalia

Applicability:

ATR 42-200, ATR 42-300, ATR 42-320, ATR 42-400, ATR 42-500, ATR 72-101, ATR 72-102, ATR 72-201, ATR 72-202, ATR 72-211, ATR 72-212 and ATR 72-212A aeroplanes, all manufacturer serial numbers.

Definitions:

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

The SB: SAFRAN (AVOX Systems, Inc.) Service Bulletin (SB) 10015804-35-03.

The AOM: ATR Airworthiness Operator Message (AOM) 2019/04, which refers for accomplishment instructions to the SB.



Affected part:

Batch 1: Oxygen cylinders, having Part Number (P/N) 89794077, and having a serial number (s/n) as listed in Appendix 1 of the SB, except those that have passed an inspection (marked with blue dot) in accordance with the instructions of the AOM or the SB.

Batch 2: Oxygen cylinders, having P/N 89794077 or P/N 891311-14, and having a s/n as listed in Appendix 2 of the SB, except those that have passed an inspection (marked with blue dot) in accordance with the instructions of the AOM or the SB.

Serviceable part: Oxygen cylinders which are not an affected part.

Groups: Group 1 aeroplanes are those that have an affected part installed.

Group 2 aeroplanes are those that do not have an affected part installed.

Reason:

Several occurrences were reported of a cylinder and hand valve with oxygen leakage from the valve assembly vent hole. The technical investigation identified that an internal part (guide) was not assembled onto the system. It was determined that an initial batch of oxygen cylinders produced in 2018 is potentially affected by this manufacturing discrepancy.

This condition, if not detected and corrected, could lead to reducing the available oxygen capacity of the aeroplane, possibly resulting in injury to aeroplane occupants following a depressurization event. In addition, there is a possibility of ignition/fire in-flight in case of an open hand valve assembly failure, depending on installation zone, or ignition/fire during system ground testing following (re)installation on an aeroplane, possibly resulting in injury to aeroplane occupants or maintenance staff, respectively.

To address this potential unsafe condition, ATR issued the AOM to provide inspection instructions, and EASA issued AD 2019-0111 to require a one-time inspection of each affected part (batch 1) and, depending on findings, replacement with a serviceable part. That AD also prohibited (re)installation of an affected part (batch 1) on any aeroplane.

Since that AD was issued, additional parts (batch 2) have been identified by SAFRAN (AVOX Systems, Inc.) as affected by the same potential unsafe condition. The AOM and the SB have been revised accordingly.

For the reason described above, this AD retains the requirements of EASA AD 2019-0111, which is superseded, and expands the list of affected parts.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) For Group 1 aeroplanes: Within the compliance time specified in Table 1 of this AD, inspect the hand valve of each affected part in accordance with the instructions of the AOM.



Table 1 – Affected Part Inspection

Batch	Compliance Time
1	Before any maintenance action on an affected part, or within 60 days, whichever occurs first after 04 June 2019 [the effective date of EASA AD 2019-0111]
2	Before any maintenance action on an affected part, or within 60 days, whichever occurs first after the effective date of this AD

Corrective Action(s):

- (2) If, during the inspection as required by paragraph (1) of this AD, an affected part does not meet the acceptance criteria as defined in the AOM and the SB, before next flight, remove that affected part from service in accordance with the instructions of the applicable AOM or the SB, and replace it with a serviceable part.

Part(s) Installation:

- (3) For Group 1 and Group 2 aeroplanes: From the effective date of this AD, do not install an affected part on any aeroplane.

Ref. Publications:

ATR AOM 2019/04 original issue dated 16 April 2019, or issue 1 dated 19 April 2019, or issue 2 dated 27 May 2019, or issue 4 dated 27 July 2021.

SAFRAN (AVOX Systems, Inc.) SB 10015804-35-03 original issue dated 11 April 2019, or Revision 1 dated 21 May 2019, or Revision 2 dated 15 October 2019, or Revision 3 dated 18 June 2021.

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 17 September 2021.
2. Enquiries regarding this PAD should be referred to the EASA Safety 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](#). This may include reporting on the same or similar components, other than those covered by the design to which this PAD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
4. For any question concerning the technical content of the requirements in this PAD, please contact: ATR - GIE Avions de Transport Régional, Continued Airworthiness Service, Telephone: +33 (0)5 62 21 62 21, Fax: +33 (0) 5 62 21 67 18; E-mail: continued.airworthiness@atr-aircraft.com

