

COMMENT RESPONSE DOCUMENT

EASA PAD No. 19-051 and PAD No. 19-051R1

[Published on 29 March 2019, revised and republished (R1) on 05 April 2019 and officially closed for comments on 12 April 2019]

Note: EASA have removed reference to SAFRAN /AVOX SB 10015804-35-02 from the Final AD as the P/N listed in that SB are not eligible for installation on Airbus aeroplanes.

Commenter 1: AMAC Aerospace Switzerland – Pavol Sikula – 01/04/2019

Comment # 1

We propose to add to AD paragraph “credit for previous compliance with the applicable AOT”, to cover situation when operators already complied with AOT prior AD publication.

EASA response:

Comment not agreed. The standard sentence “Required as indicated, unless accomplished previously” already provides the necessary credit. As the AD also includes a prohibition to install an affected part, having a fully compliant aeroplane does not allow the AD to be considered closed.

No changes have been made to the Final AD in response to this comment.

Commenter 2: Air France – Yannick Canagassabe – 03/04/2019

Comment # 2

The effectivity for this PAD is given for Airbus airplanes only, based on the Airbus AOT. The affected P/N 806835-01 can be installed on Boeing B777 airplanes and probably on other Boeing models. Air France’s B777 fleet has this P/N installed.

Which means the SB 10015804-35-02 is applicable to this B777 fleet. As a consequence, this situation brings questions about how to deal with the AD to come.



Has the EASA considered the fact that the affected P/N could be installed on other airplane models?

Would the AD to come be effective to Airbus airplanes only or to any other airplanes that may have the affected P/N installed?

EASA response:

Comment agreed. The Final AD has been amended, partially in response to this comment, by removing certain P/N and the references to SB 10015804-35-02, as the P/N listed in that SB are not eligible for installation on Airbus aeroplanes.

At this time, AD action applicable at equipment (oxygen cylinder P/N) level is being considered. Failing that option, EASA confirm that further (P)AD action at aircraft level cannot be excluded.

Commenter 3: SIA Engineering Company – Mohamed Khasrul – 04/04/2019

Comment # 3

Is review of records to identify the P/N and S/N installed on the aircraft an acceptable means to determine the aircraft's applicability to the PAD?

EASA response:

Comment noted. The AD does not require an inspection to identify P/N and s/n, which implies that any method, including a maintenance records check, may be acceptable for identification purposes, determining whether part inspection and corrective action is required on an aeroplane. However, determining that no affected part is installed on an aeroplane only means the aeroplane is part of Group 2. It does not mean the AD does not apply – paragraph (4) must be complied with [was § (3) in the PAD].

No changes have been made to the Final AD in response to this comment.

Commenter 4: Emirates – Waliuddin – 07/04/2019

Comment # 4

EK A319-115 MSN 4822 A6CJE A/C is fitted with Crew Oxygen cylinder P/N 89794015 S/N C11070550 date of Manufacture is June 2011 and one Crew Oxygen cylinder P/N 89794015 S/N 29945 date of manufacture is June 2013 is available in EK stock.



This PAD is not mentioned that airplane maintenance records are acceptable, but Airbus has confirmed that they are acceptable.

Please confirm that a review of EK A319-115 MSN 4822 A6CJE airplane maintenance records is acceptable in lieu of this inspection per AOT A35N012-19 and Zodiac VSB 10015804-35-01 if the P/N, S/N & date of manufacture of the crew oxygen cylinder can be conclusively determined from that review.

EASA response:

Comment noted. We concur the issue has been discovered on 2018 production batch. However, the AD requirements do not consider production date as such, but rather the potentially affected P/N and s/n, as specified in the SAFRAN / AVOX SB.

See also EASA answer to Comment #3 above.

No changes have been made to the Final AD in response to this comment.

Commenter 5: Cebu Air, Inc. – Guiseppe Andrew B. Buffe – 09/04/2019

Comment # 5

In preparation for CEB's compliance to AOT A35N012-19 for our A320 and A321 fleet, a proposal was raised to Zodiac Aerospace to use a 2mm feeler gauge in lieu of the pin gauge required. They have accepted this alternate tool provided that the inspection will be performed strictly in accordance to the one depicted in the VSB. Could the use of alternate tooling be stated in the final issuance of the AD?

EASA response:

Comment partially agreed. We assume that, where the commenter refers to 'Zodiac' and 'the VSB', that is actually a reference to one of the SAFRAN / AVOX SBs specified in the PAD. If SAFRAN / AVOX revise the SB to include the described alternative method, the AD would allow use of that method, as the AD allows use of 'later approved revisions' of the SB. In all other cases, an application for AMOC approval would have to be made.

No changes have been made to the Final AD in response to this comment.

Commenter 6: Cathay Pacific Airways Limited – Dicky Or – 09/04/2019

Comment # 6



After reviewing PAD 19-051R1, we have question regarding para (1) which requires inspection “before any maintenance action” on affected cylinder, this criteria is very restrictive because potentially the oxygen cylinder could have unscheduled maintenance (e.g. replacement or recharging) at any time, thus operator would have to perform inspection immediately before AD effective. Could EASA clarify the wording?

EASA response:

Comment noted. This wording is to address the threat associated to the hand valve operation / manipulation (refer to the Reason section of the AD). No changes have been made to the Final AD in response to this comment.

Commenter 7: Delta Air Lines – Cliff L. Brown – 12/04/2019

Comment # 7

References:

- (1) EASA PAD 19-051R1 5-Apr-2019
- (2) AOT A35L013-19 Rev 00 ATA 35 – Inspection of Crew and Passenger Oxygen Cylinder for missing sub-component 6-Mar-2019
- (3) AOT A35N012-19 Rev 00 ATA 35 – Inspection of Crew Oxygen Cylinder for missing sub-component 6-Mar-2019
- (4) Safran / Avox SB 10015804-35-01 Oxygen – Cylinder – Possible Missing Component On Oxygen Valve Assembly
- (5) Safran / Avox SB 10015804-35-02 Oxygen – Cylinder – Possible Missing Component On Oxygen Valve Assembly

SUMMARY: EASA PAD 19-051R1 proposes the inspection and possible replacement of certain Safran / Avox / Zodiac crew and passenger O2 cylinder valve assemblies produced in 2018 potentially affected by a manufacturing discrepancy, an internal part (guide) may not be assembled onto the stem. Lists of potentially affected serial numbers of the affected seven (7) Safran / Avox part numbers were supplied by the manufacturer as Excel spreadsheet attachments in Safran / Avox service bulletins Ref. (4) and (5). Cylinder valve assemblies that fail the inspection are to be removed and returned to the manufacturer. Inspected assemblies that pass will be marked with a blue dot.

DELTA AIR LINES COMMENTS:

A: EASA PAD 19-051R1: The definition for ‘affected part’ is used to describe both affected parts and some serviceable parts, “... having a serial number (s/n) as listed in the Appendix of the applicable SB, except those that passed an inspection (marked with blue dot)...”. The definition for ‘serviceable part’ does not include affected parts that have passed inspection and are marked with a blue dot.



Request: To prevent confusion for operators with affected parts that have passed the VSB inspection, DAL proposes extending the definition of a serviceable part.

Serviceable part: "Oxygen cylinders which are not an affected part, and previously affected parts marked with a blue dot that have passed inspection in accordance with VSB10015804-35-01 or VSB10015804-35-02."

- B: EASA PAD 19-051R1 Inspection(s)(1) and Corrective Action(s)(2) specifies a maintenance requirement for Group 1 aircraft, "...inspect the hand valve of each affected part in accordance with the instructions of the applicable AOT and the applicable SB", however a specific section in the applicable AOT or applicable service bulletin is not clarified. The referenced AOTs and SBs are not written in required for compliance format. Therefore, the PAD as written would potentially require all aspects of the AOTs and SBs to be followed to be in compliance. However, DAL assumes section 4.2.2. Inspection Requirements, 4.2.3 Findings and 5.1 Follow-Up Plan from both AOT ref. (2) and AOT ref. (3) are the intended sections for safety compliance as all other aspects and parts of the AOT are un-related to the unsafe condition and are for operator reference and logistics information. Sections such as access information, tooling, reporting, and other sections are for operator logistics and information only.

Request: DAL proposes revising the AD sections Inspection(s)(1) and Corrective Actions(s)(2) to include references to the specific sections of the AOT and the specific sections of the VSB required to address the safety concern.

- C: EASA PAD 19-051R1 defines two groups of aircraft, Group 1 and Group 2. Group 1 aircraft are defined as any aircraft with an affected assembly installed. By removing an affected assembly, the aircraft becomes Group 2. The only compliance method then would be to ensure an affected assembly is not reinstalled on the aircraft so that it can remain Group 2. This can create confusion for operators as to which aspects of the rule apply to a given aircraft.

Request: Delta requests the rule be changed to include instructions to operators that by removing an affected cylinder assembly, and aircraft may move from Group 1 to Group 2 for purposes of compliance to this rule.

- D: The current proposal requires an operator to identify cylinders on the valve with a blue dot once the CVA is determined acceptable per the applicable SB. Delta has learned that part marking outside of traditional part marks such as part number on a data plate or indicating mod levels on data plates can be ineffective at communicating part status. Delta therefore recommends not requiring the blue dot part mark, but allowing an operator to install an affected bottle if it can be determined the cylinder has an acceptable CVA. This may be done through various other means, including accomplishing the pin gauge inspection immediately prior to installation on an aircraft or by another part modification or through a records verification.

Request: Delta requests that the proposed AD be revised to allow an operator to install an affected assembly if that assembly can be verified to have an acceptable CVA as defined in the applicable Avox SB through part marking, physical inspection, records review or other acceptable method that can conclusively be used to determine if the CVA is acceptable.



E: The current proposal requires an operator to report findings to Zodiac Aerospace (Reference AVOX SBs) and Airbus (Reference AOTs). Delta does not believe reporting of findings to Airbus or Zodiac helps mitigate the safety concern and therefore should not be required. Delta does not mind reporting data to these two companies, however does not believe it should be mandated.

Request: Delta recommends revising the proposal to not require reporting to Zodiac and Airbus of findings.

EASA response:

- A. Comment not agreed. By excluding from the definition of ‘affected part’ any affected oxygen cylinders that have passed an inspection, i.e. “except those that passed an inspection (marked with blue dot)”, the definition of ‘serviceable part’ automatically includes those parts having a blue dot: “Any oxygen cylinder that is not an affected part”.**
- B. Comment not agreed. Both Inspection and Corrective Action sections ‘only’ require, respectively, to inspect the cylinder or to empty it in case of finding as per the instructions of the AOT and SB. Therefore the AOT and SB sections dealing with those actions are required. Including references of both AOT and SB sections, as proposed, is deemed to be confusing. Based on these considerations, EASA see no need to add references to the AOT or SB sections. This practice also eliminates the need to update our AD as soon as the AOT or SB § numbering may change in a later revision. Please note that the AOT also includes actions (within 60 days) on parts held as spare, whereas the AD only requires such actions ‘before installation’ on an aeroplane.**
- C. Comment noted. EASA agree on the logic specified by the commenter, which we expect all operators to be able to apply. The Group definition determination is valid for any aeroplane, to be based on the condition/configuration of the aeroplane at the latest on the effective date of the AD and accomplish the next action(s) based on that determination.**
- Removing affected parts from an aeroplane and replacing these with serviceable parts meets the intent of §§ (1) and (2) of the AD for that aeroplane. The removed parts remain ‘affected part’ until passing an inspection in accordance with the SB, to determine that it is a serviceable part.**
- The Final AD has been amended to clarify this alternative action by inserting a new paragraph (3). Subsequent § (3) of the PAD has been re-numbered § (4) in the Final AD accordingly.**
- D. Comment not agreed. Airbus and SAFRAN / AVOX have agreed on this approach for traceability of acceptable oxygen cylinders, which is acceptable for EASA. Note that the same marking is also applied on an affected part after in-shop correction by AVOX Systems.**
- The SB specifies that “If the cylinder & valve assembly fails the inspection criteria it should be returned to AVOX Systems for disposition”. The AD does not require this specific “return to AVOX Systems” action, but if not returned to AVOX Systems, any affected part failing the inspection will remain an “affected part” for the purpose of this AD.**



The AD also does not explicitly require marking of any cylinder with a blue dot after passing an inspection, but it is clearly in the operator interest to do so. If an affected part passes an inspection and is not so marked, that oxygen cylinder will remain an “affected part” for the purpose of this AD. Note that § (4) of the Final AD prohibits installation of any affected part, as defined in the AD.

Nevertheless, EASA agree that other methods could be equally acceptable. An AMOC application would have to be made to allow EASA to determine whether such method provides equivalent safety to the AD requirements and, if so, approve that method.

E. Comment not agreed. The AD does not include any reporting requirement.

It is EASA policy that instructions specified in an SB (or any other service publication referenced in an AD) are not required by an AD, unless they are explicitly stated as requirement in an AD (same approach as for point B above).

No changes have been made to the Final AD in response to points A, B, D and E of this comment.

