



Number: CTSO-C103

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Approved by: Xu Chaoqun

China Civil Aviation Technical Standard Order

This China Civil Aviation Technical Standard Order (CTSO) is issued according to Part 37 of the China Civil Aviation Regulations (CCAR-37). Each CTSO is a criterion which the concerned aeronautical materials, parts or appliances used on civil aircraft must comply with when it is presented for airworthiness certification.

Continuous Flow Oxygen Mask Assembly

(For Non-Transport Category Aircraft)

1. Purpose.

This China Civil Aviation Technical Standard Order (CTSO) is for manufacturers applying for Continuous Flow Oxygen Mask Assembly (For Non-Transport Category Aircraft) CTSO authorization (CTSOA). This CTSO prescribes the minimum performance standards(MPS) that Continuous Flow Oxygen Mask Assembly (For Non-Transport Category Aircraft) must first meet for approval and identification with the applicable CTSO marking.

2. Applicability.

(1) Minimum Performance Standard. This China Civil Aviation Technical Standard Order (CTSO) prescribes the minimum performance standard that continuous flow aviation oxygen masks must meet in order

to be identified with the applicable CTSO marking. This CTSO has been prepared in accordance with section 21.353 of CCAR-21R4. Continuous flow aviation oxygen masks that are to be so identified and that are manufactured on or after the date of this CTSO must meet the standard set forth in Society of Automotive Engineers, Inc. (SAE), Aerospace Standard (AS) 1224A, "Continuous Flow Aviation Oxygen Masks," dated September 15, 1971, revised January 15, 1978, as amended and supplemented by this CTSO.

(2) Exception. Masks defined as open-port or restrictive-dilution masks without rebreathing or reservoir bag, as defined by Aerospace Standard AS 1224A, paragraph 1.4 (d) are not eligible for approval under this CTSO.

(3) Environmental Standard. AS 1224A references NAS 1179 for vibration testing and performance tests.

(4) Addition. If the equipment design implementation includes a digital computer, an acceptable means of compliance for validation and verification of the computer software package is contained in Radio Technical Commission for Aeronautics (RTCA) DO-178, "Software Considerations in Airborne Systems and Equipment Certification" November 18, 1981.

3. Marking.

In addition to the marking specified in CCAR 21.423(b), the

altitude limitation shall be legibly and permanently marked on the equipment.

4. Marking.

a. Mark at least one major component permanently and legibly with all the information in 21.423(b) of CCAR-21R4. The marking must include the serial number.

b. Also, mark the following permanently and legibly, with at least the manufacturer's name, subassembly part number, and the CTSO number:

- (1) Each component that is easily removable (without hand tools);
- and,
- (2) Each subassembly of the article that manufacturer determined may be interchangeable.

c. If the article includes software and/or airborne electronic hardware, then the article part numbering scheme must identify the software and airborne electronic hardware configuration. The part numbering scheme can use separate, unique part numbers for software, hardware, and airborne electronic hardware.

d. The applicant may use electronic part marking to identify software or airborne electronic hardware components by embedding the identification within the hardware component itself (using software) rather than marking it on the equipment nameplate. If electronic marking

is used, it must be readily accessible without the use of special tools or equipment.

5. Data Requirements.

The applicant must furnish the responsible certification personnel with the related data to support design and production approval. The application data include a statement of conformance as specified in section 21.353(a)(1) in CCAR-21R4 and one copy each of the following technical data:

- (1) Operating instructions.
- (2) Equipment limitations.
- (3) Inspection and test procedures applicable to this product.
- (4) Installation procedures and limitations. These limitations shall include the regulators which are capable of providing an oxygen partial pressure.
- (5) Manufacturer's cleaning and sterilizing procedures.
- (6) Specifications.
- (7) Manufacturer's CTSO qualification test report.
- (8) The functional test specification to be used to test each production article to ensure compliance with this CTSO.

6. Availability of Reference Documents.

- (1) SAE documents can be ordered from the following address:

Society of Automotive Engineers, Inc.

400 Commonwealth Drive, WARRENDALE, PA 15096-001, USA

Copies can also be ordered through the website www.sae.org.

(2) Copies of NAS 1179 may be obtained from the National Standards Association, 5161 River Road, Bethesda, MD 20816.

(3) RTCA documents can be ordered from the following address:

Radio Technical Commission for Aeronautics, Inc.

1150 18th Street NW, Suite 910, Washington D.C. 20036

Copies can also be ordered through the website www.rtca.org.