

ICS 13.340.30

CCS C 73



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 23394-2024

Replacing GB 23394-2009

**Respiratory protection - Positive pressure self-contained
closed-circuit compressed oxygen breathing apparatus**

呼吸防护 正压式自给闭路压缩氧气呼吸器

Issued on: December 31, 2024

Implemented on: January 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Classification and labeling	2
5 Technical Requirements	2
6 Test methods	9
7 Inspection Rules	23
23 Table A.1 Oxygen breathing apparatus simulation operation test time and frequency ..	27

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. This document replaces GB 23394-2009 "Self-contained closed-circuit compressed oxygen breathing apparatus". Compared with GB 23394-2009, in addition to the structural adjustment In addition to editorial changes, the main technical changes are as follows:

- Changed the scope (see Chapter 1, Chapter 1 of the.2009 edition);
- Added provisions for classification of low-pressure gas storage structures and gas cylinders (see 4.1.2, 4.1.3);
- Changed the marking provisions (see 4.2.1, 4.2 of the.2009 edition);
- Added the provisions for the production year and number marking on the mask body (see 4.2.2);
- Added the design requirements for the service life of oxygen breathing apparatus (see 5.1.1);
- Changed the requirements for carbon dioxide absorbent (see 5.6, 5.4.6 of the.2009 edition);
- Changed the requirements for cleaning, disinfection and drying of oxygen breathing apparatus (see 5.7, 5.5 of the.2009 edition);

--- Changed the requirements for mask headband strength (see 5.10.3, 5.8.3 of the 2009 edition);

1 Scope

GB 23394-2024 is the Chinese national standard on respiratory protection - positive pressure self-contained closed-circuit compressed oxygen breathing apparatus, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 31 December 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 January 2026. Classification: ICS 13.340.30, CCS C 73. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the classification and marking, technical requirements, inspection rules, marking, packaging, transportation, etc. of positive pressure self-contained closed-circuit compressed oxygen breathing apparatus. The requirements for transport and storage are described and the test methods are described. This document applies to positive pressure self-contained closed-circuit compressed oxygen breathing apparatus (hereinafter referred to as oxygen breathing apparatus).

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 1226 General pressure gauge

GB/T 2410 Determination of light transmittance and haze of transparent plastics

GB 2626-2019 Respiratory protection Self-priming filter type anti-particulate respirator

GB 2890-2022 Respiratory protection self-priming filter respirator

GB/T 3836.1 Explosive atmospheres Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 breathing apparatus The mask is used to isolate the wearer's respiratory organs from harmful ambient air, using compressed oxygen as the breathing gas source to absorb exhaled gas. The carbon dioxide in the low-pressure system is then supplemented with oxygen for breathing, forming a complete breathing cycle. Air-carrying isolating respiratory protective equipment with a pressure not lower than the ambient pressure.

3.2 High pressure system It consists of gas cylinders, gas cylinder valves, pressure reducers, manual supply valves, pressure indicators, alarms and other components and connectors that carry high-pressure oxygen.

4 Equipment protected by intrinsic safety type "i"

GB/T 8982 Medical and aviation breathing oxygen

GB/T 11640 Aluminum alloy seamless gas cylinders

GB/T 16556-2007 Self-contained open-circuit compressed air breathing apparatus

GB/T 28053 Aluminum alloy liner carbon fiber fully wrapped gas cylinder

GB/T 32166.2-2015 Personal protective equipment Eye and face protection Occupational eye and face protection Part

2.Measurement methods MT/T 454 Technical requirements for calcium hydroxide for isolated oxygen breathing apparatus and self-rescuer TSG23-2021 Gas Cylinder Safety Technical Regulations