

ICS 23.020.30

CCS J16



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

GB 7512-2023

Replacing GB/T 7512-2017

Valves for liquefied petroleum gas cylinders

液化石油气瓶阀

Issued on: November 27, 2023

Implemented on: December 1, 2023

**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 Model Representation Method	2
5 Structural type and basic dimensions	2
4 Minimum design service life	7
15 Handwheel fire resistance test	11
4 Inspection items	11
17 Reference	18

Foreword

This document complies with the provisions of GB/T 1:1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting: This document replaces GB/T 7512-2017 "Liquefied Petroleum Gas Cylinder Valve": Compared with GB/T 7512-2017, except for structural adjustment and editing In addition to sexual changes, the main technical changes are as follows:

- a) Added the terms and definitions of "overflow cut-off device, electronic reading mark, authorized filling device, information bottle valve, intelligent bottle valve" (see 3:2, 3:3, 3:4, 3:5, 3:6);
- b) Added the content of bottle valve sealing structure design requirements (see 5:2);
- c) The specification of the air inlet thread PZ19:2 has been deleted, and the plastic liner fiber fully wrapped cylinder valve air inlet thread M26x1:5 has been added: Specifications (see 5:4,:2017 version of 5:5);
- d) Added the requirement that the gas cylinder valve be equipped with an overflow shut-off device (see 5:7);
- e) For metal materials, the HPb59-2 grade content has been deleted (see 6:1:1:1 of the:2017 edition), and the chemical compositions of Cu, Pb, and Fe have been deleted: Content (see Table 3 of the:2017 version);
- f) Table 4 has been changed, PZ19:2 has been deleted from the air inlet thread, and the installation torque of M26x1:5 has been added (see Table 4,:2017 version of the table 4);
- g) The number of durability tests for self-closing devices has been changed to:2000 times

(see 6:3:5:2, 2017 version of 6:3:5:2);

h) Added requirements for automatic collection and recording of inspection data for air tightness tests (see 7:8:4);

i) The requirements for product certificates have been changed, and the requirements for electronic reading marks of bottle valves have been added (see 9:1:3, 9:1:3 in the 2017 version);

j) Added requirements for publicity website and factory documents (see 9:3);

k) Added requirements for information bottle valves and smart bottle valves (see Appendix A): Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents: This document is proposed and managed by the State Administration for Market Regulation: The previous versions of this document and the documents it replaces are as follows:

---First published as GB 7512-1987 in 1987, revised for the first time in 1998, and revised for the second time in 2006;

---The third revision in 2017 is GB/T 7512-2017;

1 Scope

GB 7512-2023 is the Chinese national standard on valves for liquefied petroleum gas cylinders, in the field of fluid systems and general-purpose components. 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 27 November 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 December 2023. Classification: ICS 23.020.30, CCS J16. 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 model representation method, structural type and basic dimensions, technical requirements, Inspection and test methods, inspection rules, marking, packaging, storage and transportation: This document is suitable for use in environments where the ambient temperature is $-40\text{ }^{\circ}\text{C} \sim 60\text{ }^{\circ}\text{C}$, the nominal working pressure is not greater than 2.5MPa, and the medium complies with GB 11174, Liquefied petroleum gas cylinder valve with the center line of the air inlet and air outlet at 90° : This document does not apply to vehicle LPG cylinder valves:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document

through normative references in the text: Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

GB/T 197 Ordinary thread tolerances GB/T 228:

1 Tensile test methods for metallic materials Part 1: Room temperature test methods

GB/T 1184 Shape and position tolerances No tolerance value noted

GB/T 1804 General tolerances Tolerances for linear and angular dimensions without tolerances noted

GB/T 3934 Technical conditions for ordinary thread gauges GB/T 5121:

1 Methods for chemical analysis of copper and copper alloys Part 1: Determination of copper content GB/T 5121:

3 Methods for chemical analysis of copper and copper alloys Part 3: Determination of lead content GB/T 5121:

9 Methods for chemical analysis of copper and copper alloys Part 9: Determination of iron content

GB/T 5231 Processed copper and copper alloy grades and chemical composition

GB/T 8335 Special thread for gas cylinders

GB/T 8336 Special thread gauge for gas cylinders GB/T 10567:

2 Residual Stress Testing Method for Copper and Copper Alloy Processed Materials Ammonia Fumigation Test Method

GB/T 13005 Gas cylinder terminology

3 Terms and definitions

The terms and definitions defined in GB/T 13005 and the following apply to this document:

3:1 the self-closing device Located in the air outlet of the bottle valve, it can automatically open the bottle valve after being connected to the inflation device (or pressure regulator): After removing the inflation device (or pressure regulator) A protection device that can automatically close the bottle valve: