Chinastandards.org

ICS 47.020.30
CCS U 52

NATIONAL STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

GB/T 19699-2023

Replacing GB/T 19699-2012

Ships and marine technology - Pressure-vacuum valves for cargo tanks and devices to prevent the passage of flame into cargo tanks

船舶和海上技术 液货舱压力-真空阀和阻火装置

(English Translation)

Issued on: November 27, 2023 **Implemented on: March 1, 2024**

Issued by: State Administration for Market Regulation, China National Standardization Administration

Preview: page 1 of 4 shown, 28 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-19699-2023

Chinastandards.org

Table of Contents

Preface

1 Scope

2 Normative references

3 Terms and Definitions

4 Symbols

5 Materials

6 Other requirements

7 Type test

8 Flow and flow rate testing

9 Undamped oscillation test

10 Production Control and Inspection

11 File

12 Signs

13 Quality Assurance

Appendix A (informative) Ship installation requirements in compliance with the International Convention for the Safety of Life at Sea (SOLAS), as amended

Appendix B (Normative) Flow Test Measurement

Appendix C (normative) Fire arresting device

Appendix D (Informative) Material Selection Guide

Appendix E (Informative) Corrosion Prevention Guidelines

Appendix F (Informative) Instruction Information

Appendix G (informative) Traffic diagram example

Appendix H (Informative) Issues related to reducing the loss of volatile organic compounds (VOC) during cargo handling

Appendix I (Informative) Size Guide

Appendix J (Normative) Valve Leakage Limits

Appendix K (informative) Device location and installation dimensions

Reference

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:

Preview: page 2 of 4 shown, 28 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-19699-2023

Chinastandards.org

This document replaces GB/T 19699-2012 "Ship and Marine Technology Cargo Tank Pressure/Vacuum Valve" and is consistent with GB/T 19699-2012 in comparison, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) The inspection regulations have been changed, and Chapter 8 "Inspection" in the original standard has been adjusted to Chapter 10 "Production Control and Inspection" (see Chapter 10 Chapter, Chapter 8 of the:2012 edition);

b) Added requirements for fire arresting devices (see Appendix C);

c) Added requirements for valve leakage limits (see Appendix J):

This document is equivalent to ISO 15364:2021 "Ship and offshore technical cargo tank pressure - Vacuum valves and fire arresters":

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

1 Scope

This document specifies the minimum requirements for performance and testing of pressure-vacuum valves and flame arresters, performance requirements during design and operation, operational testing inspection and maintenance requirements: Design or manufacture in accordance with this document does not imply suitability for any given installation; it indicates that some consideration has been these minimum requirements are provided to the equipment purchaser with the necessary information to determine suitability:

This document applies to pressure-vacuum valves and flame arresters, both of which protect cargo tanks from explosive gases/vapors and/or the effects of gas/vapor pressure or vacuum exceeding system/tank design parameters:

This document contains flame test procedures for ISO 16852:2016:

Note: For the minimum requirements for fire arresting devices, see Chapter II-2, Regulation 4 and in IMO Maritime Safety Committee (MSC) Circular No: 677 (MSC/Circ:677), "Revised Standards for the Design, Testing and Installation of Fire Stopping Devices" content:

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:

Preview: page 3 of 4 shown, 28 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-19699-2023

Chinastandards.org

ISO 5817 Fusion welding joints for welding steel, nickel, titanium and their alloys (except beam welding) Defect quality class [Welding-elsforimperfections] Note: GB/T 19418-2003 Guide to Quality Grading of Arc Welded Joint Defects in Steel (ISO 5817:1992, IDT) Note: GB/T 24598-2009 Welder skill assessment for fusion welding of aluminum and aluminum alloys (ISO 9606-2:2004, MOD) GB/T 30563-2014 Welder skill assessment for fusion welding of copper and copper alloys (ISO 9606-3:1999, MOD) GB/T 32257-2015 Welder skills assessment for fusion welding of nickel and nickel alloys (ISO 9606-4:1999, MOD) GB/T 36234-2018 Welder skills assessment for fusion welding of titanium and titanium alloys, zirconium and zirconium alloys (ISO 9606-5:2000, MOD) Note: GB/T 19866-2005 General principles for welding procedure specifications and assessment (ISO 15607:2003, IDT) ISO 16852:2016 Flame arrester performance requirements, test methods and use limitations (Flamearresters-Performancere-Note: GB/T 27025-2019 General requirements for testing and calibration laboratory capabilities (ISO/IEC 17025:2017, IDT) International Maritime Organization Maritime Safety Committee Circular No: 677 (MSC/Circ:677) approved by IMO MSC/Circ:1009 and MSC/Circ:1324 Revised Standard for the design, testing and installation of devices to prevent flames from entering cargo tanks of tankers (Revised tanksintankers)

Preview: page 4 of 4 shown, 28 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-19699-2023