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**Ships and marine technology —  
Pressure/vacuum valves for cargo  
tanks**

*Navires et technologie maritime — Soupapes de pression/dépression  
pour citernes à cargaison*



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ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
[copyright@iso.org](mailto:copyright@iso.org)  
[www.iso.org](http://www.iso.org)

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 8, *Ships and marine technology*, Subcommittee SC 3, *Piping and machinery*.

This third edition cancels and replaces the second edition (ISO 15364:2007), which has been technically revised.

# Ships and marine technology — Pressure/vacuum valves for cargo tanks

## 1 Scope

This International Standard is applicable to pressure-vacuum relief valves protecting marine vessel systems, including cargo tanks, which may be subject to gas/vapour pressure or vacuum beyond the design parameters of the system/tank. This International Standard specifies the minimum requirements for performance and testing of pressure-vacuum relief valves, with emphasis on selection of materials, internal finish and surface requirements for pressure-vacuum valves installed on cargo tanks in tankers (see [Annex A](#)). This International Standard specifies design and in-service performance criteria, operational testing and maintenance requirements. Design or manufacturing in accordance with this International Standard does not imply suitability for any given installation, it indicates that certain minimum requirements have been considered and that information necessary for determination of suitability is provided to the buyer of the equipment.

This International Standard does not cover all test procedures for devices that prevent the passage of flame, such as flame arresters. Such devices can be used in conjunction with pressure/vacuum valves.

NOTE 1 Additional information for devices to prevent the passage of flame is found in the International Maritime Organization (IMO) “International Convention for the Safety of Life at Sea, 2009” (SOLAS), Chapter II-2, Regulation 4, and IMO Maritime Safety Committee (MSC) Circular No. 677 (MSC/Circ. 677), “Revised Standards for the Design, Testing and Locating of Devices to Prevent the Passage of Flame into Cargo Tanks in Tankers”, as amended.

NOTE 2 In addition to providing pressure relief, high velocity vent valves are devices that prevent the passage of flame. Where high velocity vent valves are installed on the pressure relief system and the vacuum relief valve is protected by a flame arrester, the standards of IMO MSC/Circ. 677, as amended, are applicable. ISO 16852 is also an acceptable test standard for devices to prevent the passage of flame.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

International Maritime Organization, Assembly Resolution A.746 (18), *Survey Guidelines under the Harmonized System of Survey and Certification*. International Maritime Organization, *International Convention for the Safety of Life at Sea (SOLAS)*, 2002, Chapter II-2, Regulation 4

International Maritime Organization (IMO), *International Convention for the Safety of Life at Sea (SOLAS)*, 2009

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **flame arrester**

device to prevent the passage of flame, designed and tested in accordance with a specified performance standard

Note 1 to entry: Its flame-arresting unit is based on the principle of quenching.