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Ships and marine technology — Hydraulic hinged watertight fireproof doors

Navires et technologie maritime — Portes étanches incombustibles à charnières hydrauliques

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Foreword

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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).

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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 8, *Ship design*.

Introduction

Fire-proof doors shall comply with the requirements of IMO FTP-code. The standard provides reference for design, manufacturing and inspection of hydraulic watertight hinged fireproof doors, so it is not imperative for shipyards to implement the standard.

Ships and marine technology — Hydraulic hinged watertight fireproof doors

1 Scope

This International Standard specifies classification and designation, requirements, test method, marking, packaging, transport, and storage of hydraulic watertight hinged fireproof doors (hereinafter referred to as "watertight doors").

This International Standard is applicable to the design, manufacture, and acceptance of hydraulic watertight hinged fireproof doors with water pressure not more than 1,0 MPa used for ships, other floating structures and ocean engineering.

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.

ISO 3796, *Ships and marine technology — Clear openings for external single-leaf doors*

ISO 8501-1, *Preparation of steel substrates before application of paints and related products — Visual assessment of surface cleanliness — Part 1: Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings*

IEC 61162-1:2010, *Maritime navigation and radio communication equipment and systems — Digital interfaces — Part 1: Single talker and multiple listeners*

AWS D1.1/D1M:2008, *Structural Welding Code — Steel*

IMO Resolution MSC.302 (87), *Adoption of performance standards for Bridge Alert Management*

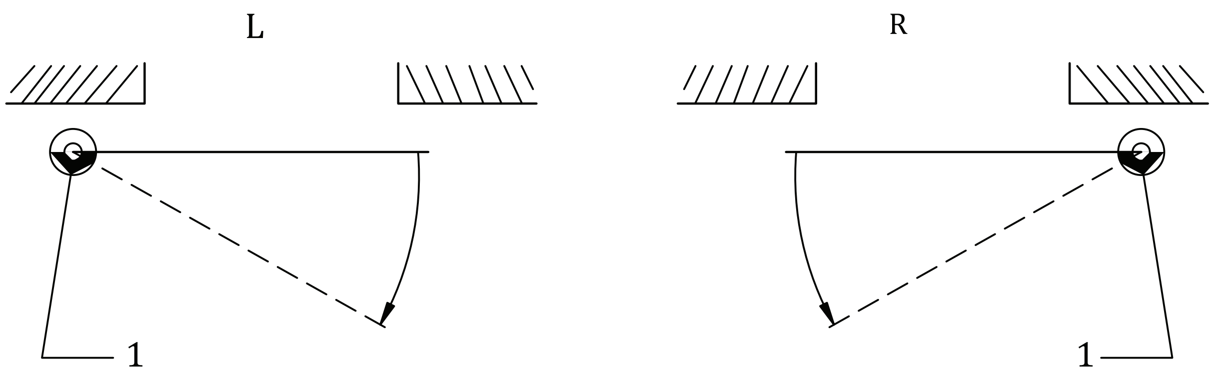
3 Classification and designation

3.1 Types

3.1.1 Depending on the opening direction, watertight doors shall be classified into two types (see Figure 1):

— Type R-Right-hand watertight door (the hinge stays right when the door opens towards the observer);

— Type L-Left-hand watertight door (the hinge stays left when the door opens towards the observer).



Key

1 hinge

L left-hand door

R right-hand door

Figure 1 — Opening directions

3.1.2 According to the fire-protection rating, watertight doors shall be classified into four levels: A-60, A-30, A-15, and A-0.

3.2 Structure and main dimensions

3.2.1 The structure and main dimensions of watertight doors shall be in accordance with Table 1 and Figure 2. The nominal size, $L \times B$, of watertight doors is denoted by reference to the clear opening according to ISO 3796. Watertight doors of other dimensions can be provided upon agreement between manufacturer and purchaser.

Table 1 — Main dimensions for watertight door

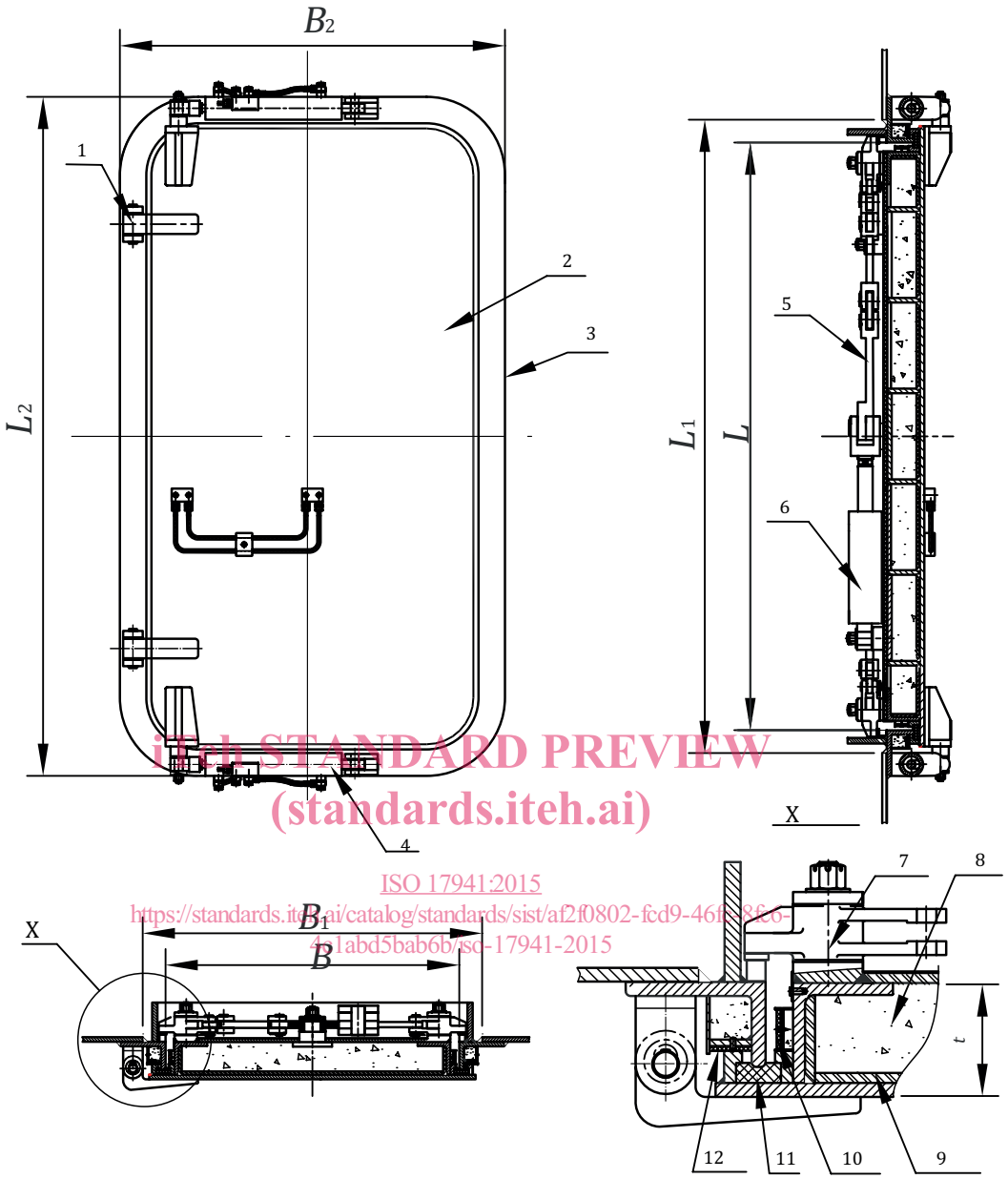
Dimensions in millimetres

Nominal size	**Opening in the bulkhead plate**		**Door frames**	
$L \times B$	L_1	B_1	L_2	B_2
1 200 × 600	1 340	740	1 480	880
1 400 × 600	1 540	740	1 680	880
1 400 × 750	1 540	890	1 680	1 030
1 400 × 900	1 540	1 040	1 680	1 180
1 600 × 600	1 740	740	1 880	880
1 600 × 750	1 740	890	1 880	1 030
1 600 × 900	1 740	1 040	1 880	1 180
1 800 × 750	1 940	890	2 080	1 030
1 800 × 900	1 940	1 040	2 080	1 180

The tolerance is as follows:

— Nominal size: $_{-2}^{\ 0}$ mm;

— Opening in the bulkhead panel and door frames: $_{-2}^{+2}$ mm.



Key

1	hinge	7	dog
2	door panel	8	insulation
3	door frame	9	insulation plate
4	door opening/closing cylinder	10	fire-resistant sealing strip II
5	driving mechanism	11	sealing strip
6	lock cylinder	12	fire-resistant sealing strip I

Figure 2 — Left-hand watertight door (Right-hand watertight door in contrast)

3.2.2 The door panel's sealing mechanism shall ensure the door is watertight.