
**Ships and marine technology —
Aluminium shore gangways for
seagoing vessels**

*Navires et technologie maritime — Planchons en aluminium pour
navires de haute mer*

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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).

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).

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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](http://www.iso.org/foreword)

The committee responsible for this document is ISO/TC 8, *Ships and marine technology*, Subcommittee SC 1, *Lifesaving and fire protection*.

This third edition cancels and replaces the second edition (ISO 7061:1993), which has been technically revised.

Ships and marine technology — Aluminium shore gangways for seagoing vessels

1 Scope

This International Standard specifies requirements for aluminium shore gangways.

This International Standard applies to gangways designed to be carried on board ships, to provide a lightweight, convenient and safe means of access from ship to shore, for use primarily by the ship's crew. These gangways may also be used for access from ship to ship when conditions are favourable.

This International Standard applies to gangways suitable for use horizontally or inclined up to an angle of 30° from the horizontal. For angles of inclination less than 55°, special consideration of the design of steps and decking may be necessary.

The gangways to which this International Standard applies are not intended to carry wheeled traffic such as loaded trolleys.

Users of this International Standard, while observing its requirements, should, at the same time, ensure compliance with any statutory requirements, rules and regulations, applicable to the individual ship concerned.

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 209, *Aluminium and aluminium alloys — Chemical composition*

ISO 630-1, *Structural steels — Part 1: General technical delivery conditions for hot-rolled products*

ISO 1181, *Fibre ropes — Manila and sisal — 3-, 4- and 8-strand ropes*

ISO 1346, *Fibre ropes — Polypropylene split film, monofilament and multifilament (PP2) and polypropylene high-tenacity multifilament (PP3) — 3-, 4-, 8- and 12-strand ropes*

ISO 1460, *Metallic coatings — Hot dip galvanized coatings on ferrous materials — Gravimetric determination of the mass per unit area*

ISO 1461, *Hot dip galvanized coatings on fabricated iron and steel articles — Specifications and test methods*

ISO 2408, *Steel wire ropes for general purposes — Minimum requirements*

ISO 6361-2, *Wrought aluminium and aluminium alloys — Sheets, strips and plates — Part 2: Mechanical properties*

ISO 6362-2, *Wrought aluminium and aluminium alloys — Extruded rods/bars, tubes and profiles — Part 2: Mechanical properties*

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*

ISO 10074, *Anodizing of aluminium and its alloys — Specification for hard anodic oxidation coatings on aluminium and its alloys*

3 Types

Gangway can be designed into two types: decking plate gangway and anti-slip steps gangway. The gangway body can be designed as one section, which can also be designed as two sections as required.

3.1 Type A decking gangway

The surface of type A gangway is provided with the decking plate and anti-slip steps, with the maximum inclination degree of 30° (see [Figure 1](#)).

3.2 Type B anti-slip arc steps gangway

This surface is designed directly as anti-slip arc step to position side stringers and support loading, the lower side of which is equipped with a guard board, with the maximum inclination degree of 55°, defined as type B gangway.

4 Definitions

For the purposes of this International Standard, the following definitions apply.

4.1 gangway

Bridge structure to allow safe embarkation and disembarkation from ship to shore or access to another ship.

4.2 side stringer

Longitudinal-strength member of the gangway to which the cross-members, stanchions, roller or wheels and the lifting lugs, etc. are attached.

4.3 cross-member

Part that holds the side stringer in position, and provides support for the decking.

4.4 decking

Flat-topped corrugated section or plate serving as the gangway floor.

4.5 step

Batten or small section fitted proud of the decking, or anti-slip arc material fixed directly at both sides of stringers for load bearing to give better foot grip when the gangway is inclined from the horizontal position.

4.6 guard rail

Hand and intermediate guide, supported by stanchions, to prevent people falling from the gangway.

4.7 anti-slip securing parts

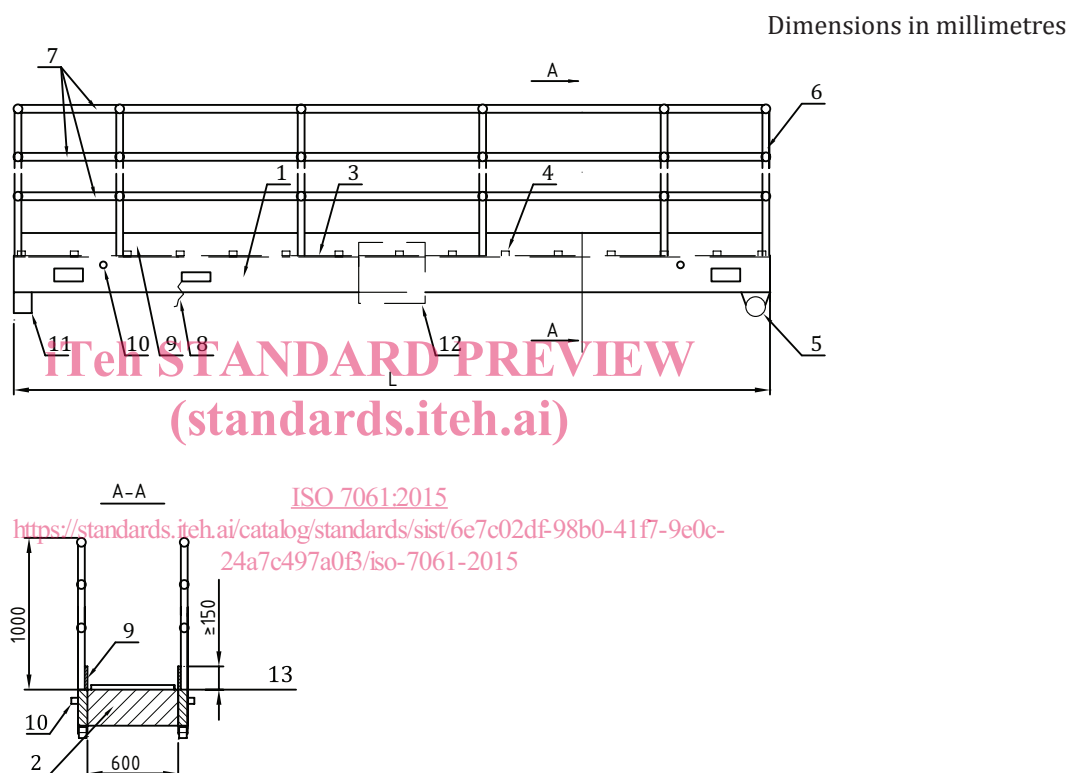
Hooked to the hook plate, eye pad or angle section at the upper end of side stringer, so as to facilitate the gangway's firm connection with shipboard structure to avoid slip.

4.8 removable connection parts

Hooked to the side stringer at the end of 2 parted sections of gangway, facilitating the securing parts' disconnection and connection, so as to connect firmly the 2 parted section of gangway as 1 gangway, or to disconnect 1 complete gangway into 2 sections.

5 Dimensions

5.1 The dimensions of an aluminium shore gangway type A shall be in accordance with [Figure 1](#). The minimum overall length, L , shall be 2 m, with optional increments of approximately 0,5 m up to a length of 9 m. For gangways longer than 9 m, the increments shall be approximately 1 m in length, until the desired overall length is attained.



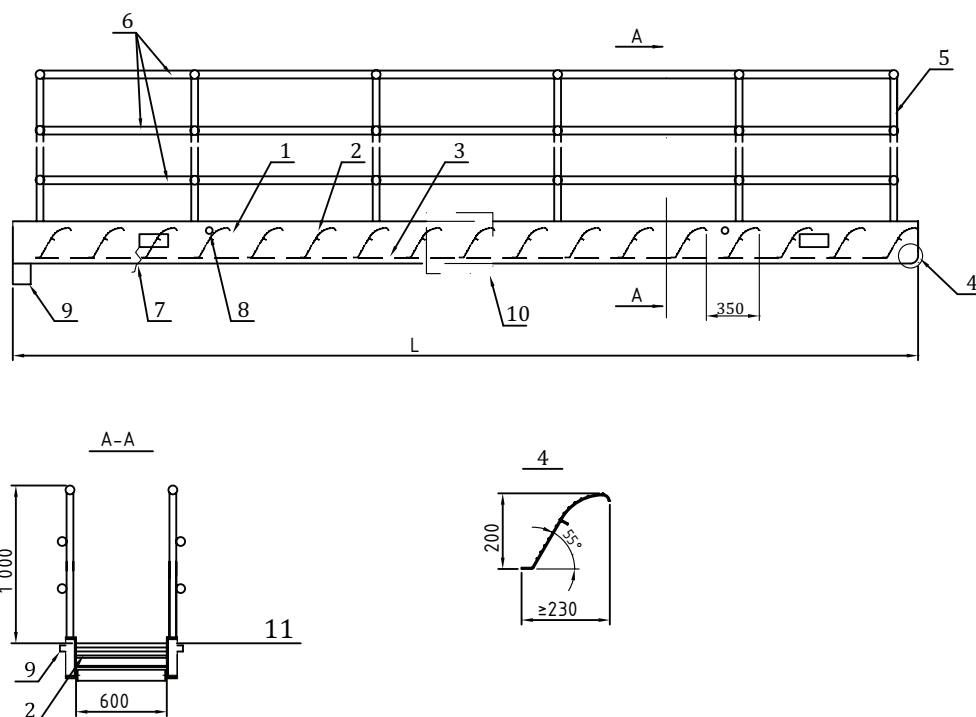
Key

- | | |
|-------------------------|------------------------------|
| 1 side frame | 8 securing device |
| 2 cross member | 9 toe-board |
| 3 deck or decking plate | 10 lifting lug |
| 4 anti-slip step | 11 anti-slip securing part |
| 5 roller or wheel | 12 removable connecting part |
| 6 stanchion | 13 decking or floor |
| 7 handrail | |

NOTE The width of 600 mm is net width.

Figure 1 — General arrangement of a gangway type A

5.2 See [Figure 2](#) for the dimensions of gangway type B.



Key

- | | | | |
|---|--------------------|----|----------------------------------|
| 1 | side frame | 7 | securing device |
| 2 | anti-slip arc step | 8 | lifting lug |
| 3 | decking plate | 9 | anti-slip securing part |
| 4 | roller or wheel | 10 | removable connecting part |
| 5 | stanchion | 11 | upper surface of anti-slip tread |
| 6 | handrail | | |

NOTE The width of 600 mm is net width.

Figure 2 — General arrangement of a gangway type B

6 Materials

The materials for aluminium gangway components shall comply with the requirements of [Table 1](#). Alternative materials may be used provided that they are at least as suitable in all respects for the intended duty and are equally acceptable to the purchaser.

7 Design and construction

7.1 General design features

7.1.1 The manufacturer of the gangway shall be informed of any unusual or hazardous conditions affecting the criteria for design of the gangway.

7.1.2 Direct contact between dissimilar metals shall be avoided to prevent galvanic corrosion.

7.1.3 If the gangway is for use on tankers or ships carrying flammable cargo, it shall be provided with an effective and marked earthing device, and shall be suitably surface-coated at the possible points of contact to prevent sparking.

Table 1 — Materials

Item number ^a	Component		Materials	ISO number	Remarks ^b
1	Side frame		Aluminium alloy	ISO 209 ISO 6361-2: ISO 6362-2	AW-AlMg5(AW5019) AW-Al SiMg(AW-6005A) AW-Al MgSi (AW-6060) AW-Al Si1MgMn (AW-6082)
2	Cross-member		Aluminium alloy	ISO 209 ISO 6361-2 ISO 6362-2	AW-Al SiMg(AW-6005A) AW-Al MgSi (AW-6060) AW-Al Si1MgMn (AW-6082)
3	Decking or deck plate		Aluminium alloy	ISO 209 ISO 6361-2	AW-AlMg5(AW5019) AW-AlMg2.5(AW-5052) AW-Al Si1MgMn (AW-6082)
4	Step		Aluminium alloy	ISO 209 ISO 6362-2	AW-AlMg2.5(AW-5052) AW-Al SiMg(AW-6005A) AW-Al MgSi (AW-6060) AW-Al Si1MgMn (AW-6082) or other suitable alloy
			Hardwood	—	e.g. oak
5	Roller		Carbon steel with rubber or plastics sleeve	ISO 630-1	Fe 360B
			Aluminium alloy	ISO 209 ISO 6362-2	AW-Al SiMg(AW-6005A) AW-Al MgSi (AW-6060) AW-Al Si1MgMn (AW-6082) or other suitable alloy
	Wheel		Carbon steel with solid tyre of rubber or plastics	ISO 630-1	Fe 360B
6	Stanchion		Aluminium alloy	ISO 209 ISO 6362-2	AW-Al SiMg(AW-6005A) AW-Al MgSi (AW-6060) AW-Al Si1MgMn (AW-6082)
			Carbon steel	ISO 630-1	Fe 360B
7	Handrail	Rigid rail	Aluminium alloy	ISO 209 ISO 6362-2	AW-Al SiMg(AW-6005A) AW-Al MgSi (AW-6060) AW-Al Si1MgMn (AW-6082)
		Fibre rope	Sisal or manila	ISO 1181	See 7.9
			Polypropylene mono-filament or film rope	ISO 1346	
		Wire rope, plastics-coated	PVC-coated guard-wire rope	ISO 2408:2004	Plastics-coated