



**SLOVENSKI STANDARD**  
**SIST EN 1502:2020**

**01-maj-2020**

**Nadomešča:**  
**SIST EN 1502:2000**

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**Plovila za celinske vode - Stopnice za vkrcanje**

Inland navigation vessels - Boarding stairs

Fahrzeuge der Binnenschifffahrt - Außenbordtreppen

Bateaux de navigation intérieure - Escaliers de bordaille

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**Ta slovenski standard je istoveten z: EN 1502:2020**

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**ICS:**

47.020.10	Ladijski trupi in njihovi konstrukcijski elementi	Hulls and their structure elements
47.060	Jezerska in rečna plovila	Inland navigation vessels

**SIST EN 1502:2020**

**en,fr,de**

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EUROPEAN STANDARD

EN 1502

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2020

ICS 47.020.10; 47.060

Supersedes EN 1502:1995

English Version

## Inland navigation vessels - Boarding stairs

Bateaux de navigation intérieure - Escaliers de  
bordaille

Fahrzeuge der Binnenschifffahrt - Außenbordtreppen

This European Standard was approved by CEN on 13 January 2020.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

<b>Contents</b>	<b>Page</b>
European foreword.....	3
1 Scope.....	4
2 Normative references.....	4
3 Terms and definitions .....	4
4 Safety requirements.....	5
4.1 Dimensions.....	5
4.2 Parts .....	5
4.2.1 General.....	5
4.2.2 Strings .....	5
4.2.3 Steps.....	5
4.2.4 Handrails and beam .....	5
4.2.5 Spacer .....	5
4.3 Assembly .....	7
4.4 Strength .....	8
5 Construction.....	8
5.1 Welded konstruktion.....	8
5.2 Buoyancy.....	8
5.3 Safe tread .....	8
5.4 Edges.....	8
5.5 Mass.....	8
5.6 Materials.....	8
6 Testing.....	8
6.1 General.....	8
6.2 Test of materials.....	8
6.3 Strength test.....	9
6.4 Buoyancy test.....	9
7 Designation.....	9
8 Marking.....	9
Bibliography.....	10

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SIST EN 1502:2020  
<https://standards.iteh.ai/catalog/standards/sist/d80299f5-87cc-403b-be2e-95c00943421/sist-en-1502-2020>

## European foreword

This document (EN 1502:2020) has been prepared by Technical Committee CEN/TC 15 "Inland navigation vessels", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2020, and conflicting national standards shall be withdrawn at the latest by September 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1502:1995.

The following changes have been made to EN 1502:1995:

- a) Clause "Terms and definitions" has been revised, definitions have been changed, the term "hook" has been deleted;
- b) handrail must be provided on both sides;
- c) maximum permissible masses in Table 1 have been adapted;
- d) design requirements have been reformulated;
- e) material requirements have been changed, FRP is accepted;
- f) tests have been formulated more precisely;
- g) the document was editorially revised.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## EN 1502:2020 (E)

## 1 Scope

This document applies to boarding stairs for inland navigation vessels. Boarding stairs are used on inland navigation vessels for a safe transition into ship's boats, safe disembarking to the shore or a safe crossing over onto vessels with lower decks.

This document specifies safety requirements on the design, dimensions and strength and test methods for outboard stairs.

Boarding stairs are designed for vessels having a boarding height greater than 1,5 m above the light water-line. They can be used up to a height of around 3,0 m above the light water-line.

Boarding stairs are not intended for use by passengers.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 22768-1, *General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1)*

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### 3.1

#### **boarding stair**

movable device with steps to be attached to the vessel's side for comfortable boarding and disembarking

### 3.2

#### **string**

<inland navigation> lateral limitation of a boarding stair supporting the steps

### 3.3

#### **step**

<inland navigation> tread of the boarding stair

### 3.4

#### **inclination angle**

<inland navigation> angle between the pitch line connecting the front edge of the steps and the horizontal line

### 3.5

#### **handrail**

<inland navigation> component parallel to the string (3.2) serving as handhold and as fall protection

### 3.6

#### spacer

<inland navigation> component which holds the boarding stair at the specified angle to the vessel's side

## 4 Safety requirements

### 4.1 Dimensions

General tolerances: ISO 2768 – c (see EN 22768-1).

Dimensions are given in Figure 1, and Table 1.

Edges shall be rounded to min. R 1,5 mm.

Data which have not been specified shall be selected as appropriate.

### 4.2 Parts

#### 4.2.1 General

Boarding stairs are not expected to conform to the designs illustrated here; however the dimensions and specifications given shall be followed. Maximum permissible masses are given in Table 1.

#### 4.2.2 Strings

Strings shall be made of rectangular hollow profile.

#### 4.2.3 Steps

Steps shall be made of rectangular hollow profile.

#### 4.2.4 Handrails and beam

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4.2.4.1 The handrails and the beam shall be made from tubular section.

4.2.4.2 The handrails shall be fitted on both sides. The handrail on the left hand side, as one ascends, shall only be extended to the top of the string.

4.2.4.3 The handrails shall run parallel to the string up to the third step from the bottom and attached to the string between the second and third step from the bottom.

4.2.4.4 It shall be possible to grip the handrail on the right hand side horizontally at its upper end.

4.2.4.5 The beam is placed on the upper end of the right string and connects both parts of the handrail with the string on the right hand side.

4.2.4.6 The upper end of the handrails shall lead back downwards so that it forms, at the right hand side together with the beam, a hook for attaching the outboard stairs to the vessel's side, see Figure 1.

#### 4.2.5 Spacer

4.2.5.1 The spacer shall be large enough to ensure an inclination angle of  $75^{\circ}+0^{\circ}/-10^{\circ}$ .

4.2.5.2 Where the spacer comes into contact with the vessel's side, it shall be designed so that the contact surface is not less than 500 mm wide or the contact points are at least 500 mm apart.

4.2.5.3 The spacer shall be attached to the two strings. If it is of the folding type, it shall automatically lock by bringing in its operating position.

**Table 1 — Dimensions and maximum permissible masses**

No. of steps	<i>h</i> mm <sup>a</sup>	<i>l</i> mm <sup>a</sup>	Permissible mass kg max.
6	1 400	2 505	15,5
7	1 680	2 795	17,0
8	1 960	3 085	19,0
9	2 240	3 375	20,5
10	2 520	3 665	22,5

<sup>a</sup> Tolerances, see Figure 1, are not included.

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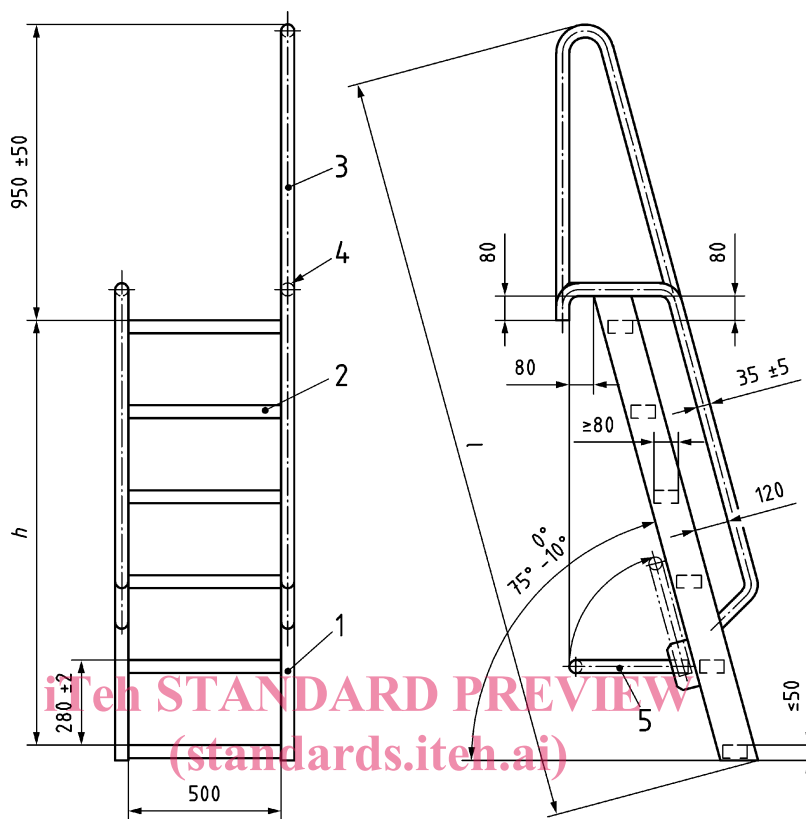
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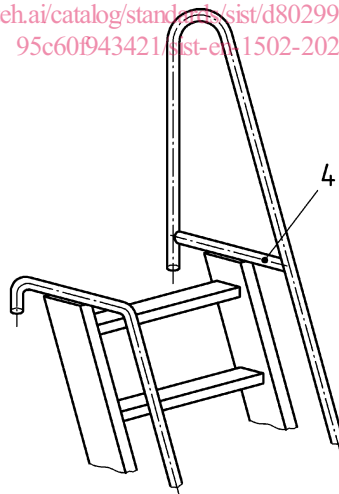
## 4.3 Assembly

Dimensions in millimetres



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**Key**

- 1 string
- 2 step
- 3 handrail
- 4 beam
- 5 spacer
- h raiser raiser hight of boarding stair
- l total length of boarding stair

**Figure 1 — Boarding stair having 6 steps**