

SLOVENSKI STANDARD

SIST EN ISO 12217-1:2013

01-maj-2013

Nadomešča:

SIST EN ISO 12217-1:2002

SIST EN ISO 12217-1:2002/A1:2009

Mala plovila - Stabilnost in ocena vzgona ter kategorizacija - 1. del: Čolni razen jadrnic s trupom, večjim ali enakim 6 m (ISO 12217-1:2013)

Small craft - Stability and buoyancy assessment and categorization - Part 1: Non-sailing boats of hull length greater than or equal to 6 m (ISO 12217-1:2013)

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Kleine Wasserfahrzeuge - Stabilitäts- und Auftriebsbewertung und Kategorisierung - Teil 1: Nicht-Segelboote ab 6 m Rumpflänge (ISO 12217-1:2013)

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Petits navires - Évaluation et catégorisation de la stabilité et de la flottabilité - Partie 1: Bateaux à propulsion non vélique d'une longueur de coque supérieure ou égale à 6 m (ISO 12217-1:2013)

Ta slovenski standard je istoveten z: EN ISO 12217-1:2013

ICS:

47.080 Čolni Small craft

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EUROPEAN STANDARD
NORME EUROPÉENNE
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Supersedes EN ISO 12217-1:2002

English Version

Small craft - Stability and buoyancy assessment and categorization - Part 1: Non-sailing boats of hull length greater than or equal to 6 m (ISO 12217-1:2013)

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This European Standard was approved by CEN on 21 December 2012.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN ISO 12217-1:2013) has been prepared by Technical Committee ISO/TC 188 "Small craft".

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 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.

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

This document supersedes EN ISO 12217-1:2002.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

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

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The text of ISO 12217-1:2013 has been approved by CEN as EN ISO 12217-1:2013 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 94/25/EC as amended by Directive 2003/44/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission to provide one means of conforming to Essential Requirements of the New Approach Directive 94/25/EC as amended by Directive 2003/44/EC.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one member state, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and EU Directives

Clauses/sub-clauses of this European Standard	Corresponding annexes/paragraphs of Directive 94/25/EC as amended by 2003/44/EC	Comments
5, 6, Annexes A, B, C, D, E	Annex IA, Clause 3.2, Stability and Freeboard; Clause 3.3, Buoyancy and flotation; Clause 3.5, Flooding; Clause 3.6, Maximum recommended load; and Clause 3.8, Escape in the event of inversion..	
7	Annex IA1 Design categories	Design categories A, B, C and D defined in the standard are considered to equate to design categories A, B, C and D of the Directive 94/25/EC as amended by 2003/44/EC.
6.8, Annexes F, G	Annex IA2, Clause 3.3, Buoyancy and flotation.	
Annex H	Annex IA2, Clause 2.5, Owner's manual	

WARNING: Other requirements and other EU Directives may be applicable to the product(s) falling within scope of this standard.

INTERNATIONAL STANDARD

ISO
12217-1

Second edition
2013-03-01

Small craft — Stability and buoyancy assessment and categorization —

Part 1:

Non-sailing boats of hull length greater than or equal to 6 m

*Petits navires — Évaluation et catégorisation de la stabilité et de la flottabilité —
Partie 1: Bateaux à propulsion non vélique d'une longueur de coque supérieure ou égale à 6 m*

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Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
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ISO 12217-1:2013(E)

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 12217-1 was prepared by Technical Committee ISO/TC 188, *Small craft*.

This second edition cancels and replaces the first edition (ISO 12217-1:2002), which has been technically revised. It also incorporates the Amendment ISO 12217-1:2002/Amd.1:2009.

ISO 12217 consists of the following parts, under the general title *Small craft — Stability and buoyancy assessment and categorization*:

— Part 1: Non-sailing boats of hull length greater than or equal to 6 m

— Part 2: Sailing boats of hull length greater than or equal to 6 m

— Part 3: Boats of hull length less than 6 m [SIST EN ISO 12217-1:2013](https://standards.iteh.ai/catalog/standards/sist/ba8acf41-5379-41b7-be8e-7c66b34064e2/sist-en-iso-12217-1-2013)

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Introduction

This part of ISO 12217 enables the determination of the limiting environmental conditions for which an individual boat has been designed.

It enables the boat to be assigned to a design category appropriate to its design and maximum load. The design categories used align with those in the Recreational Craft Directive of the European Union, EU Directive 94/25/EC as amended by Directive 2003/44/EC.

The design category given in respect of stability and buoyancy is that for which the boat satisfies all the requirements according to 5.3, as summarized in Annex I.

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Small craft — Stability and buoyancy assessment and categorization —

Part 1:

Non-sailing boats of hull length greater than or equal to 6 m

CAUTION — Compliance with this part of ISO 12217 does not guarantee total safety or total freedom of risk from capsizing or sinking.

IMPORTANT — The electronic file of this document contains colours which are considered to be useful for the correct understanding of the document. Users should therefore consider printing this document using a colour printer.

1 Scope

This part of ISO 12217 specifies methods for evaluating the stability and buoyancy of intact (i.e. undamaged) boats. The flotation characteristics of boats vulnerable to swamping are also encompassed.

The evaluation of stability and buoyancy properties using this part of ISO 12217 will enable the boat to be assigned to a design category (A, B, C or D) appropriate to its design and maximum total load.

This part of ISO 12217 is principally applicable to boats propelled by human or mechanical power of 6 m up to 24 m hull length. However, it can also be applied to boats of under 6 m if they do not attain the desired design category specified in ISO 12217-3 and they are decked and have quick-draining recesses which comply with ISO 11812.

In relation to habitable multihulls, this part of ISO 12217 includes assessment of vulnerability to inversion, definition of viable means of escape and requirements for inverted flotation.

This part of ISO 12217 excludes:

- inflatable and rigid-inflatable boats covered by ISO 6185, except for references made in ISO 6185 to specific clauses of ISO 12217;
- personal watercraft covered by ISO 13590 and other similar powered craft;
- gondolas and pedalos;
- sailing surfboards;
- surfboards, including powered surfboards;
- hydrofoils and hovercraft when not operating in the displacement mode; and
- submersibles.

NOTE Displacement mode means that the boat is only supported by hydrostatic forces.

It does not include or evaluate the effects on stability of towing, fishing, dredging or lifting operations, which need to be separately considered if appropriate.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 12217-1:2013(E)

ISO 2896, *Rigid cellular plastics — Determination of water absorption*

ISO 3864-1, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs and safety markings*

ISO 8666, *Small craft — Principal data*

ISO 9093-1, *Small craft — Seacocks and through-hull fittings — Part 1: Metallic*

ISO 9093-2, *Small craft — Seacocks and through-hull fittings — Part 2: Non-metallic*

ISO 10240, *Small craft — Owner's manual*

ISO 11812, *Small craft — Watertight cockpits and quick-draining cockpits*

ISO 12216, *Small craft — Windows, portlights, hatches, deadlights and doors — Strength and watertightness requirements*

ISO 12217-2:2013, *Small craft — Stability and buoyancy assessment and categorization — Part 2: Sailing boats of hull length greater than or equal to 6 m*

ISO 12217-3:2013, *Small craft — Stability and buoyancy assessment and categorization — Part 3: Boats of hull length less than 6 m*

ISO 14946, *Small craft — Maximum load capacity*

ISO 15083, *Small craft — Bilge-pumping systems*

ISO 15085, *Small craft — Man-overboard prevention and recovery*

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3 Terms and definitions

SIST EN ISO 12217-1:2013

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

NOTE The meanings of certain symbols used in the definitions are given in Clause 4.

3.1 Primary**3.1.1****design category**

description of the sea and wind conditions for which a boat is assessed to be suitable by this part of ISO 12217

NOTE See also 7.2.

3.1.2**non-sailing boat**

boat for which the primary means of propulsion is other than by wind power, having reference sail area (3.3.8) $A_S < 0,07(m_{LDC})^{2/3}$, where m_{LDC} is the mass of the boat in the maximum load condition, expressed in kilograms

3.1.3**recess**

volume open to the air that might retain water within the range of loading conditions and corresponding trims

EXAMPLES Cockpits, wells, open volumes or areas bounded by bulwarks or coamings.

NOTE 1 Cabins, shelters or lockers provided with closures according to the requirements of ISO 12216 are not recesses.

NOTE 2 Cockpits that are open aft to the sea are considered to be recesses. Flush decks without bulwarks or coamings are not recesses.

3.1.4**quick-draining recess**

recess fulfilling all the requirements of ISO 11812 for “quick-draining cockpits and recesses”

NOTE According to its characteristics, a cockpit may be considered to be quick-draining for one design category, but not for a higher category.

3.1.5**watertight recess**

recess fulfilling all the requirements of ISO 11812 for “watertight cockpits and recesses”

NOTE This term only implies requirements in respect of watertightness and sill heights, but not those for drainage.

3.1.6**fully enclosed boat**

boat in which the horizontal projection of the sheerline area comprises any combination of

- watertight deck and superstructure, and/or
- quick-draining recesses complying with ISO 11812, and/or
- watertight recesses complying with ISO 11812 with a combined volume of less than $(L_H B_H F_M)/40$, and

all closing appliances have their degree of watertightness in accordance with ISO 12216

NOTE The size of recesses permitted for boats of design category A, B or some boats of design category C is restricted by the requirements of 6.5.

3.1.7**partially protected boat**

boat which does not fulfil the definition of a fully-enclosed boat and in which the plan projected area of decking, cabins, shelters, outboard engine wells, or other rigid covers which are watertight from above according to ISO 12216 and which immediately shed water directly overboard (i.e. not via drains) and

- comprises at least one-third of the plan projected area of the sheerline, and
- includes all the area within $L_H/3$ from the bow, and
- includes at least 100 mm inboard from the sheerline,

except that the area of any watertight recesses with a total volume of less than $(L_H B_H F_M)/40$ might shed water via drains

NOTE 1 This is illustrated in Figure 1.

NOTE 2 Outboard engine wells are considered to provide a covering suitable for this purpose.