



SLOVENSKI STANDARD SIST EN ISO 12217-2:2013

01-maj-2013

Nadomešča:

SIST EN ISO 12217-2:2002

Mala plovila - Stabilnost in ocena vzgona ter kategorizacija - 2. del: Jadrnice s trupom, večjim ali enakim 6 m (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 12217-2:2013)

Kleine Wasserfahrzeuge - Stabilitäts- und Auftriebsbewertung und Kategorisierung - Teil 2: Segelboote ab 6 m Rumpflänge (ISO 12217-2:2013)

Petits navires - Évaluation et catégorisation de la stabilité et de la flottabilité - Partie 2: Bateaux à voiles d'une longueur de coque supérieure ou égale à 6 m (ISO 12217-2:2013)

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ICS:

47.080

Čolni

Small craft

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EUROPEAN STANDARD
NORME EUROPÉENNE
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Supersedes EN ISO 12217-2:2002

English Version

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

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Kleine Wasserfahrzeuge - Stabilitäts- und Auftriebsbewertung und Kategorisierung - Teil 2: Segelboote ab 6 m Rumpflänge (ISO 12217-2:2013)

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 12217-2:2013) 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 12217-2:2002.

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 12217-2:2013 has been approved by CEN as EN ISO 12217-2:2013 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, 7, Annex A, B, C, D	Annex IA, Clause 3.2, Stability and Freeboard, Clause 3.5, Flooding, and Clauses 3.6 and 3.7 maximum recommended load.	Design categories A, B, C and D defined in the standard are considered to correspond to design categories A, B, C and D of Directive 94/25/EC as amended by 2003/44/EC.
6.9, 7.12, Annex D, E	Annex IA2, Clause 3.3, Buoyancy and flotation.	
7.13	Annex IA2, Clause 3.8, Escape	
Annex F	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
12217-2

Second edition
2013-03-01

Small craft — Stability and buoyancy assessment and categorization —

Part 2:

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 2 Bateaux à voiles 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
Web 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.

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 12217-2 was prepared by Technical Committee ISO/TC 188, *Small craft*.

This second edition cancels and replaces the first edition (ISO 12217-2:2002), which has been technically revised.

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*

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ISO 12217-2:2013(E)**Introduction**

This part of ISO 12217 enables the determination of 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.

Annex J provides worksheets to assist in the systematic assessment of a boat according to this part of ISO 12217.

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Small craft — Stability and buoyancy assessment and categorization —

Part 2: 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 load.

This part of ISO 12217 is principally applicable to boats propelled primarily by sail (even if fitted with an auxiliary engine) of 6 m up to and including 24 m hull length. However, it can also be applied to boats less than 6 m if they are habitable multihulls or may be applied 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;
- gondolas and pedalos;
- surfboards including sailing surfboards; and
- hydrofoils and foil stabilized boats when not operating in the displacement mode.

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 2896:2001, *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*

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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 9094 (all parts), *Small craft — Fire protection*

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

ISO 12217-3:2013, *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*

3 Terms and definitions

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

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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 9.2.

3.1.2**sailing boat**

boat for which the primary means of propulsion is by wind power, having reference sail area (3.4.8)
 $A_S \geq 0,07(m_{LDC})^{2/3}$

NOTE m_{LDC} is the mass of the boat in the maximum load condition, expressed in kilograms.

3.1.3**catamaran**

boat with two main load-bearing hulls

EXAMPLE Boats with a centreline or bridge-deck nacelle which supports less than 30 % of the mass in the maximum load condition are considered to be catamarans. Proas are asymmetric catamarans.

3.1.4**trimaran**

boat with a centre main hull and two sidehulls in which the centre hull, when the boat is upright, supports 30 % or more of the mass in the maximum load condition

3.1.5**recess**

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

EXAMPLE 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.

3.1.6 quick-draining recess

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

NOTE 1 According to its characteristics, a cockpit may be considered to be quick-draining for one design category, but not for a higher category.

NOTE 2 ISO 11812 contains requirements with which most sailing dinghies cannot comply.

3.1.7 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.

3.1.8 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 which comply 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 6.3.

3.1.9 habitable boat

boat having a fully enclosed cabin with rigid roof fitted with one or more bunks, benches, pipecots, hammocks or similar locations that can be used for sleeping when the boat is under way

NOTE 1 A boat is considered to be “habitable” if a fabric closure is used instead of a rigid door, or the cabin has fabric sides.

NOTE 2 The following are not considered to render a boat “habitable”:

- a cockpit tent, or
- an open-sided cuddy intended to provide limited protection from spray, provided it is not fitted with fabric closures all round.

NOTE 3 Locations used for sleeping have minimum dimensions of 1,5 m diagonal length, 0,4 m width at the widest point, and with a minimum headroom of 0,4 m over the length. The cabin sole and compartments designated by the builder to be used exclusively for storage and referenced in the owner’s manual are not included.

3.1.10 habitable part of a boat

spaces within a habitable boat with rigid roof that are fitted with a toilet or in which there is provision for any of the following activities: sitting, sleeping, cooking, eating, washing, navigation, steering

NOTE Compartments designated by the builder to be used exclusively for storage and referenced in the owner’s manual are not included.