



SLOVENSKI STANDARD
SIST EN ISO 12217-3:2002
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Small craft - Stability and buoyancy assessment and categorization - Part 3: Boats of hull length less than 6 m (ISO 12217-3:2002)

Kleine Wasserfahrzeuge - Festlegung und Kategorisierung von Stabilität und Auftrieb - Teil 3: Boote unter 6 m Rumpflänge (ISO 12217-3:2002)

ITeH STANDARD PREVIEW

Petits navires - Evaluation et catégorisation de la stabilité et de la flottabilité - Partie 3: Bateaux d'une longueur de coque inférieure a 6 m (ISO 12217-3:2002)

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English version

Small craft - Stability and buoyancy assessment and
categorization - Part 3: Boats of hull length less than 6 m (ISO
12217-3:2002)

Petits navires - Evaluation et catégorisation de la stabilité et
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Kleine Wasserfahrzeuge - Festlegung und Kategorisierung
von Stabilität und Auftrieb - Teil 3: Boote unter 6 m
Rumpflänge (ISO 12217-3:2002)

This European Standard was approved by CEN on 1 May 2002.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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Foreword

This document (ISO 12217-3:2002) has been prepared by Technical Committee ISO/TC 188 "Small craft", the secretariat of which is held by CMC.

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 November 2002, and conflicting national standards shall be withdrawn at the latest by November 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(s).

For relationship with EU Directive(s), see informative annex ZB, 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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Endorsement notice

The text of the International Standard ISO 12217-3:2002 has been approved by CEN as a European Standard without any modifications.

NOTE Normative references to International Standards are listed in annex ZA (normative).

Annex ZA (normative)

Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 9093-1	1994	Small craft - Seacocks and through-hull fittings - Part 1: Metallic	EN ISO 9093-1	1997
ISO 10240	1995	Small craft - Owner's manual	EN ISO 10240	1996
ISO 11812	2001	Small craft - Watertight cockpits and quick-draining cockpits	EN ISO 11812	2001
ISO 12217-1	2002	Small craft - Stability and buoyancy assessment and categorization - Part 1: Non-sailing boats of hull length greater than or equal to 6 m	EN ISO 12217-1	2002
ISO 12217-2	2002	Small craft - Stability and buoyancy assessment and categorization - Part 2: Sailing boats of hull length greater than or equal to 6 m	EN ISO 12217-2	2002
ISO 14946	2001	Small craft - Maximum load capacity	EN ISO 14946	2001

Annex ZB (informative)

Clauses of this European Standard addressing essential requirements or other provisions of EU Directives

This European Standard 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 94/25/EC.

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

The following clauses of this standard, as detailed in Table ZA.1, are likely to support requirements of Directive 94/25/EC.

Compliance with the clauses of this standard provides one means of conforming with the specific essential requirements of the Directive concerned 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	Comments
5, 6, 7, 8, Annex A, B, C, D	Annex 1, Clause 3.2, Stability and Freeboard, Clause 3.5, Flooding, and Clauses 3.6 and 3.2, maximum load and number of persons	Design categories A, B, C and D defined in the standard are considered to correspond to design categories A, B, C and D of the Directive.
6.4, 6.5, 7.3, Annex B, C, D	Annex I, Clause 3.3, Buoyancy and flotation.	
Annex E	Annexe I, Clause 2.5, Owner's manual	

**Small craft — Stability and buoyancy
assessment and categorization —**

**Part 3:
Boats of hull length less than 6 m**

*Petits navires — Évaluation de la stabilité et de la flottabilité et
catégorisation —*

Partie 3: Bateaux d'une longueur de coque inférieure à 6 m

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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 3.

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 part of ISO 12217 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 12217-3 was prepared by Technical Committee ISO/TC 188, *Small craft*.

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*

Annexes A, B, C, D and E form a normative part of this part of ISO 12217. Annexes F and G are for information only.

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Introduction

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

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Small craft — Stability and buoyancy assessment and categorization —

Part 3: Boats of hull length less than 6 m

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

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 craft 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 (C or D) appropriate to its design and maximum load.

This part of ISO 12217 is applicable to boats of hull length less than 6 m, whether propelled by human or mechanical power, except habitable sailing multihulls. Boats of hull length less than 6 m, which are fitted with a full deck and quick-draining cockpit(s) complying with ISO 11812, may alternatively be assessed using ISO 12217-1 or ISO 12217-2 (for non-sailing and sailing boats respectively), in which case higher design categories may be assigned.

This part of ISO 12217 excludes

- aquatic toys,
- canoes, kayaks or other boats with a beam of less than 1,1 m,
- inflatable and rigid-inflatable boats up to 8 m covered by ISO 6185,
- personal watercraft covered by ISO 13590,
- hydrofoils and hovercraft when operating in the dynamically supported mode, and
- submersibles.

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

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 12217. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 12217 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 12217-3:2002(E)

ISO 2896:2001, *Rigid cellular plastics — Determination of water absorption*

ISO 8666:—¹⁾, *Small craft — Principal data*

ISO 9093-1:1994, *Small craft — Seacocks and through-hull fittings — Part 1: Metallic*

ISO 9093-2:—¹⁾, *Small craft — Seacocks and through-hull fittings — Part 2: Non-metallic*

ISO 9094-1:—¹⁾, *Small craft — Fire protection — Part 1: Craft with a hull length of up to and including 15 m*

ISO 9094-2:—¹⁾, *Small craft — Fire protection — Part 2: Craft with a hull length of over 15 m*

ISO 10240:1995²⁾, *Small craft — Owner's manual*

ISO 11812:2001, *Small craft — Watertight cockpits and quick-draining cockpits*

ISO 12216:—¹⁾, *Small craft — Windows, portlights, hatches, deadlights and doors — Strength and tightness requirements*

ISO 12217-1:2002, *Small craft — Stability and buoyancy assessment and categorization — Part 1: Non-sailing boats of hull length greater than or equal to 6 m*

ISO 12217-2:2002, *Small craft — Stability and buoyancy assessment and categorization — Part 2: Sailing boats of hull length greater than or equal to 6 m*

ISO 14946:2001, *Small craft — Maximum load capacity*

IMO Resolution MSC.81(70) — *Revised Recommendation on Testing of Life-Saving Appliances*

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3 Terms and definitions

For the purposes of this part of ISO 12217, the following terms and definitions apply.

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 8.2.

3.1.2 recess

any volume open to the sky that may retain water

EXAMPLE Cockpits, wells, open volumes or areas bounded by bulwarks or coamings

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

1) To be published.

2) Undergoing revision.

3.1.3**quick-draining recess**

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

NOTE 1 ISO 11812 contains requirements with which most sailing dinghies cannot comply.

NOTE 2 According to its characteristics, a cockpit may be considered to be quick-draining for one design category, but maybe not for a higher one.

3.1.4**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.

3.1.5**fully decked 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 $L_H B_H F_M / 40$,

all closing appliances being watertight in accordance with ISO 12216

3.1.6**partially decked boat**

boat in which at least two-thirds of the horizontal projection of the sheerline area is equipped with decking, cabins, shelters or rigid covers which are watertight according to ISO 12216 and designed to shed water overboard, in which area all that within $L_H / 3$ from the bow and also the area 100 mm inboard from the periphery of the boat are included

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

3.2 Downflooding**3.2.1****downflooding opening**

any opening (including the edge of a recess) that may admit water into the interior or bilge of a boat, or a recess, apart from those excluded in 6.2.1.1

3.2.2**downflooding height**

h_D

smallest height above the waterline to any downflooding opening, apart from those excluded in 6.2.1.1, when the boat is upright in calm water at loaded displacement mass and design trim

NOTE Downflooding height is expressed in metres.

3.3 Condition and mass**3.3.1****light craft condition**

boat equipped as the light craft mass according to ISO 8666 with the following added and positioned as appropriate:

- a) where provision is made for propulsion by outboard engine(s) of more than 3 kW, the heaviest engine(s) recommended for the boat by the manufacturer, mounted in the working position(s);