ICS 47.080 SLOVENSKÁ TECHNICKÁ NORMA Marec 2018

STN	**Malé plavidlá Stanovenie stability a plávateľnosti a kategorizácia Časť 2: Plachtové člny s dĺžkou trupu 6 m alebo väčšou (ISO 12217-2: 2015)**	**STN EN ISO 12217-2** 32 0231

Small craft - Stability and buoyancy assessment and categorization - Part 2: Sailing boats of hull length greater than or equal to 6 m (ISO 12217-2:2015)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/18

Obsahuje: EN ISO 12217-2:2017, ISO 12217-2:2015

Oznámením tejto normy sa ruší
STN EN ISO 12217-2 (32 0231) z mája 2016

126315

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 12217-2

September 2017

ICS 47.080

Supersedes EN ISO 12217-2:2015

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 12217-2:2015)

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 12217-2:2015)

Kleine Wasserfahrzeuge - Stabilitäts- und Auftriebsbewertung und Kategorisierung - Teil 2: Segelboote ab 6 m Rumpflänge (ISO 12217-2:2015)

This European Standard was approved by CEN on 23 July 2017.

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.

CEN members are the national standards bodies of 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN ISO 12217-2:2017 E

Contents

Page

European foreword

The text of ISO 12217-2:2015 has been prepared by Technical Committee ISO/TC 188 “Small craft” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 12217-2:2017.

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 March 2018, and conflicting national standards shall be withdrawn at the latest by March 2018.

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 ISO 12217-2:2015.

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 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 12217-2:2015 has been approved by CEN as EN ISO 12217-2:2017 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the essential requirements of Directive 2013/53/EU aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/542/C(2015) 8736 final to provide one voluntary means of conforming to essential requirements of Directive 2013/53/EU.

Once this standard is cited in the Official Journal of the European Union under that Directive, 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 corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Annex I of Directive 2013/53/EU

Essential Requirements of Directive 2013/53/EU	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
I.A.1 - Watercraft Design Categories	Clause 5; 6; 7; 9; Table 11; Annex I	The evaluation of stability and buoyancy properties using ISO 12217-2 will enable boats propelled primarily by sail (even if fitted with an auxiliary engine) of 6 m to 24 m hull length to be assigned to a design category (A, B, C or D) appropriate to its design and maximum load. Design categories A, B, C and D defined in this standard correspond to design categories A, B, C and D of Directive 2013/53/EU.
I.A.2.3.2 - Stability and Freeboard	Clause 5, 6, 7 Annexes A, B, C, D, G, H	
I.A.2.3.3 - Buoyancy and flotation	6.9, 7.12, Annexes D, E	Includes requirements for inverted flotation.
I.A.2.3.5 - Flooding	Clause 6.2, 7.2 and 7.3 Annex A, B	In respect of watertight integrity and downflooding openings including ventilation openings and fittings.
I.A.2.3.6 - Maximum recommended load	Clause 5, 6 and 7	
I.A.2.3.8 - Escape	Clauses 7.11 and 7.13	In relation to habitable multihulls, these clauses include an assessment of susceptibility to inversion and viable means of

		escape after inversion. This standard does not include means of escape in the event of fire.
I.A.2.2.5 - Owner's manual	Annex F	

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

INTERNATIONAL STANDARD

ISO 12217-2

Third edition
2015-10-15

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

Reference number
ISO 12217-2:2015(E)

COPYRIGHT PROTECTED DOCUMENT

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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.

The committee responsible for this document is ISO/TC 188, *Small craft*.

This third edition cancels and replaces the second edition (ISO 12217-2:2013), of which it constitutes a minor revision. It incorporates the following modifications:

— Introduction: the reference to the European Directive has been updated (2013/53/EU);

— Clause 1, 6.2.1.6 d) 3), 7.6, 7.11, 7.12, 7.13, Annex I, Table I.2, and Annex J, Worksheets 2, 12, 14 and 16: vulnerable has been replaced with susceptible;

— Clause 3: definitions 3.1.1, 3.5.5, 3.5.6 and 3.6.11 have been amended;

— Subclause 6.3.1: second item in the list has been inserted;

— Subclauses 6.3.2.3 and 6.3.2.4: formulae coefficients have been corrected;

— Subclause 6.6.2: exponent '0,3' has been deleted;

— Subclause 6.6.7: symbols have been corrected;

— Subclause 6.6.8: a note has been added to explain the phrase "fully flooded with water";

— Clause 9.2: the text and Table 11 have been amended;

— Subclause H.3.2 c): the coefficient in the formula has been corrected;

— Annex J: worksheets 1, 2, 5, 7, 12 and 16 have been corrected to align with corrections listed above;

— Annex K has been added;

— Bibliography: reference to ISO 7010 has been added;

— Editorial and cross-referencing corrections have been made to Table 1, Annex J, worksheets 1, 5, 7, 12, 14 and 16, and to subclauses 6.3.1, 6.3.2.2 and 6.3.2.3.

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*

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 2013/53/EU.

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

INTERNATIONAL STANDARD **ISO 12217-2:2015(E)**

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 capsize 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.0

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 susceptible 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 susceptibility 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 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 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*

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 12217-1:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 1: Non-sailing boats of hull length greater than or equal to 6 m*

ISO 12217-3:2015, *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*