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भारतीय मानक का मसौदा

लघु जलयान - स्थिरता तथा उत्प्लावकता मूल्यांकन और वर्गीकरण - भाग 1: 6 मीटर से अधिक या उसके बराबर पेटे की लंबाई वाली बिना पाल वाली नौकाएं
[IS 17884 (भाग 1) का प्रथम पुनरीक्षण]

Draft Indian Standard

**SMALL CRAFT — STABILITY AND BUOYANCY ASSESSMENT AND
CATEGORIZATION PART 1: NON-SAILING BOATS OF HULL
LENGTH GREATER THAN OR EQUAL TO 6 M**

[First Revision of IS 17884 (Part 1)]

ICS 47.080

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Inland Harbour Crafts and Fishing Vessels Sectional Committee, TED 18

NATIONAL FOREWORD

This draft Indian Standard which is identical with ISO 12217-1: 2022 ‘Small craft — Stability and buoyancy assessment and categorization — Part 1: Non-sailing boats of hull length greater than or equal to 6 m’ issued by International Organization for Standardization (ISO), shall be adopted by the Bureau of Indian Standards on the recommendations of the Inland Harbour Crafts and Fishing Vessels Sectional Committee and approval of the Transport Engineering Division Council.

This draft standard was first published in 2022 which was identical adoption of ISO 12217-1:2015. This first revision of the standard has been undertaken to harmonize it with ISO 12217-1:2022. The changes compared to the previous edition are as follows:

- a) The Normative references have been updated;
- b) The “allowance for the maximum mass of optional equipment and fittings not included in the manufacturer’s basic outfit” has been moved from 3.4.4 (maximum load) to 3.4.5 (maximum load condition);

- c) In Clause H.1, the first paragraph has been slightly reworded as a Note, so as to clearly make an informative reference to ISO 10240, which has been moved from Clause 2 to the Bibliography;
- d) In Annex J, the calculation worksheet No. 1 has been corrected to reflect the changes in 3.4.4 and 3.4.5;
- e) Minor editorial changes throughout the document.

This draft standard has been issued in several parts. Other parts in this series are:

- Part 2 Sailing boats of hull length greater than or equal to 6 m
- Part 3 Boats of hull length less than 6 m

The text of ISO Standard may be approved for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this draft standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the edition indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 2896:2001 Rigid cellular plastics — Determination of water absorption	IS 11239 (Part 9):1988 Methods of test for rigid cellular thermal insulation materials: Part 9 water absorption	Technically Equivalent to ISO 2896:1987
ISO 3864-1:2011 Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings	IS 16449 (Part 1):2018 Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings	Identical

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 8666:2020 Small craft — Principal data	IS 17469 Small craft — Principal data (<i>Under Revision</i>).	Identical
ISO 12217-2:2022 Small craft — Stability and buoyancy assessment and categorization — Part 2: Sailing boats of hull length greater than or equal to 6 m	IS 17884 (Part 2) Small craft — Stability and buoyancy assessment and categorization — Part 2: Sailing boats of hull length greater than or equal to 6 m (<i>Under Revision</i>)	Identical

The technical committee may also review the provisions of following International Standards referred in this draft standard and decide if these are acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 6185-4:2011	Inflatable boats — Part 4: Boats with a hull length of between 8 m and 24 m with a motor power rating of 15 kW and greater
ISO 9093	Small craft — Seacocks and through-hull fittings
ISO 11812	Small craft — Watertight cockpits and quick-draining cockpits
ISO 12216	Small craft — Windows, port lights, hatches, deadlights and doors — Strength and watertightness requirements
ISO 14946	Small craft — Maximum load capacity
ISO 15083	Small craft — Bilge-pumping systems
ISO 15085	Small craft — Man-overboard prevention and recovery

Attention is drawn to the possibility that some of the elements of this draft standard may be the subject of patent rights. The Bureau of Indian Standards shall not be held responsible for identifying any or all such patent rights.

Annex A, B, C, D, E, F, G and Annex H form normative part of this draft standard. Annex I, J and Annex K are for information only.

In reporting the result of a test or analysis made in accordance with this draft standard, if the final value, observed or calculated, is to be rounded off it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’.

INTRODUCTION

This document 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 2013/53/EU.

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.

SCOPE

This document 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 document 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 document 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 document 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 the ISO 6185 series, except for references made in ISO 6185 series to specific clauses of the ISO 12217 series;
- 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.

FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO 12217-1: 2022 or CONTACT:

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