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## Small craft — Maximum load capacity

*Petits navires — Capacité de charge maximale*

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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.

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](http://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](http://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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

The document was prepared by Technical Committee ISO/TC 188, *Small craft*.

This second edition cancels and replaces the first edition (ISO 14946:2001), which has been technically revised.

The main changes compared to the previous edition are as follows:

- in [Clause 3](#), definitions have been updated, the occupancy area has been clarified and Figure 1 has been added;
- in [Clause 5](#), it has been clarified that the ballast in maximum load  $m_{ML}$  does not include ballast for the manufacturer to meet ISO 12217 (all parts);
- [Clause 6](#) and [Clause 7](#) have been added for greater clarity;
- in [Clause 8](#), the owner's manual reference has been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Small craft — Maximum load capacity

## 1 Scope

This document specifies the items included in the maximum load of small craft, without exceeding the limits set by other ISO standards for stability, freeboard, and flotation. It further sets requirements for seating and occupancy areas of crew members.

Personal watercraft are excluded from the Scope of this document.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

### 3.1

**light craft mass**  $m_{LCC}$   
mass of the *craft* (3.4) in light craft condition

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Note 1 to entry: Refer to ISO 8666.

### 3.2

#### seat

surface, horizontal or nearly horizontal, intended for a person to sit, with minimum dimensions of 400 mm width by 750 mm length inclusive of clear foot space in front of the seat

Note 1 to entry: See [Figure 1](#).

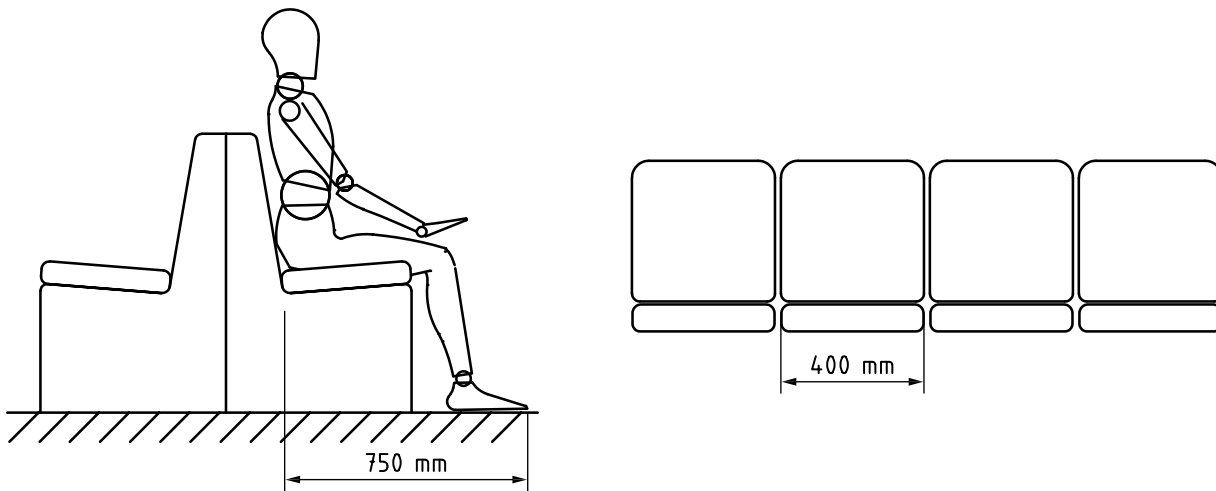


Figure 1 – Seat dimensions

**3.3 occupancy area**

clear space within the confines of the *craft* (3.4) intended for persons to stand or lean provided that a minimum area measuring 400 mm × 400 mm is available for each person so accommodated

**3.4 small craft**

recreational boat, and other watercraft using similar equipment, of up to 24 m length of hull ( $L_H$ )

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Note 1 to entry: The length of hull is defined in ISO 8666.

**4 Maximum recommended number of persons (crew)**

The manufacturer's maximum recommended number of persons carried when the craft is underway shall not exceed the number of persons for which seats and/or occupancy area is assigned by the manufacturer with dimensions as defined in 3.2 and 3.3.

NOTE The maximum recommended number of persons can be limited by other standards, particularly those for freeboard, stability, and flotation.

**5 Maximum load,  $m_{ML}$**

Load which the craft is designed to carry in addition to the light craft condition, comprised of the following:

- a) the crew mass, limited at 75 kg each;  
NOTE ISO 12217-3 and ISO 6185 (all parts) allow half person capacity for a child up to 37,5 kg.
- b) the personal effects of the crew;
- c) stores and cargo (if any), dry provisions, consumable liquids;
- d) contents of all permanently installed storage tanks filled to 95 % of their maximum capacity, including fuel, drinking water, black water, grey water, lubricating and hydraulic oil, bait tanks and/or live wells;
- e) ballast water at 100 % capacity;

- f) consumable liquids in portable tanks (drinking water, fuel) filled to 95 % of the maximum capacity;
- g) dinghy or other craft intended to be carried aboard, and any outboard motor associated with them;
- h) liferaft(s) if carried in excess of the minimum required in essential safety equipment;
- i) non-edible stores and equipment normally carried on the craft and not included in the manufacturer's list of standard equipment, e.g. loose internal equipment and tools, spare parts, and additional anchors;

NOTE Liferafts are not included in essential safety equipment for design categories C and D. See ISO 12217 (all parts) for a description of the design categories.

As a guide, not less than 20 kg per person should be allowed for personal effects on habitable craft.

## 6 Manufacturer's maximum recommended load

Maximum load specified in [Clause 5](#) (fuel, water, provisions, miscellaneous equipment and people, in kilograms) for which the craft is designed, determined in accordance with the stability, freeboard, buoyancy and flotation requirements for its design category.

NOTE 1 Methods for evaluating stability, freeboard, buoyancy and flotation requirements are specified in ISO 12217 (all parts).

NOTE 2 The maximum recommended load can be downrated or limited by the manufacturer, or other standards, particularly those for freeboard, stability, and flotation.

## 7 Maximum load for the builder's plate, $m_{MBP}$

Manufacturer's maximum recommended load displayed on the builder's plate, which excludes the weight of the contents of the fixed tanks when full, as specified in [Clause 5](#), d) and e).

## 8 Owner's manual

**8.1** The manufacturer shall state in the owner's manual the maximum recommended number of persons in accordance with [Clause 4](#).

**8.2** The manufacturer shall state in the owner's manual the maximum load for the builder's plate in accordance with [Clause 7](#).

## Annex ZA (informative)

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

NOTE Annex ZA is not included in the final ISO publication.

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 and Annex II of Directive 2013/53/EU**

Essential Requirements of Directive 2013/53/EU	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
Annex I.A.2.2 (d) Manufacturer’s Maximum Recommended Load excluding the weight of the contents of the fixed tanks	<a href="#">Clause 7</a>  <a href="https://standards.iteh.ai/catalog/standards/sist/7c3f3c8a-0f0b-4f15-bbd1-631a5523b741/iso-fdis-14946-2">https://standards.iteh.ai/catalog/standards/sist/7c3f3c8a-0f0b-4f15-bbd1-631a5523b741/iso-fdis-14946-2</a>	
Annex I.A.2.5 Owner’s Manual	<a href="#">Clause 8</a>	In respect of information to be included in the owner’s manual
Annex I.A.3.6 Manufacturer’s Maximum Recommended Load	<a href="#">Clause 6</a>	

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.



## Bibliography

- [1] ISO 6185 (all parts), *Inflatable boats*
- [2] ISO 8666, *Small craft — Principal data*
- [3] ISO 12217 (all parts), *Small craft — Stability and buoyancy assessment and categorization*

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