INTERNATIONAL STANDARD

ISO 6185-3

Second edition
2014-08-15

Inflatable boats —

Part 3: Boats with a hull length less than 8 m with a motor rating of 15 kW and greater

Bateaux pneumatiques —

Partie 3: Bateaux d'une longueur de coque inférieure à 8 m et d'une puissance moteur assignée supérieure ou égale à 15 kW

Reference number
ISO 6185-3:2014(E)

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Published in Switzerland

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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).

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 second edition cancels and replaces the first edition (ISO 6185-3:2001), which has been technically revised.

ISO 6185 consists of the following parts, under the general title *Inflatable boats*:

— *Part 1: Boats with a maximum motor power rating of 4, 5 kW*

— *Part 2: Boats with a maximum motor power rating of 4, 5 kW to 15 kW inclusive*

— *Part 3: Boats with a hull length less than 8m and with a motor power rating of 15 kW and greater*

— *Part 4: Boats with a hull length of between 8 m and 24 m and with a maximum motor power rating of 15 kW and greater*

Introduction

ISO 6185 is subdivided into four parts as shown in Figure 1. It excludes:

— single-chambered boats;

— boats < 1 800 N buoyancy; and

— boats made from unsupported materials > 12 kN inflated buoyancy and powered by motors > 4, 5 kW.

It is not applicable to:

— aquatic toys; and

— inflatable liferafts.

ISO 6185-1:

— Type I Boats with L_H < 8 m propelled exclusively by manual means.

— Type II Powered boats with L_H < 8 m with a power ≤ 4, 5 kW.

— Type III Canoes and kayaks with L_H < 8 m.

— Type IV Sail boats with L_H < 8 m with a sail area ≤ 6 m^2.

ISO 6185-2:

— Type V Powered boats with L_H < 8 m with power 4,5 kW < P ≤ 15 kW

— Type VI Sail boats with L_H < 8 m with sail area > 6 m^2.

ISO 6185-3:

— Type Vll Powered boats with L_H < 8 m with power ≥ 15 kW.

— Type Vlll Powered boats with L_H < 8 m with power ≥ 75 kW.

ISO 6185-4:

— Type IX Powered boats (design categories C and D) with 8m < L_H ≤ 24 m with power ≥ 15 kW.

— Type X Powered boats (design category B) with 8m < L_H ≤ 24 m with power ≥ 75 kW.

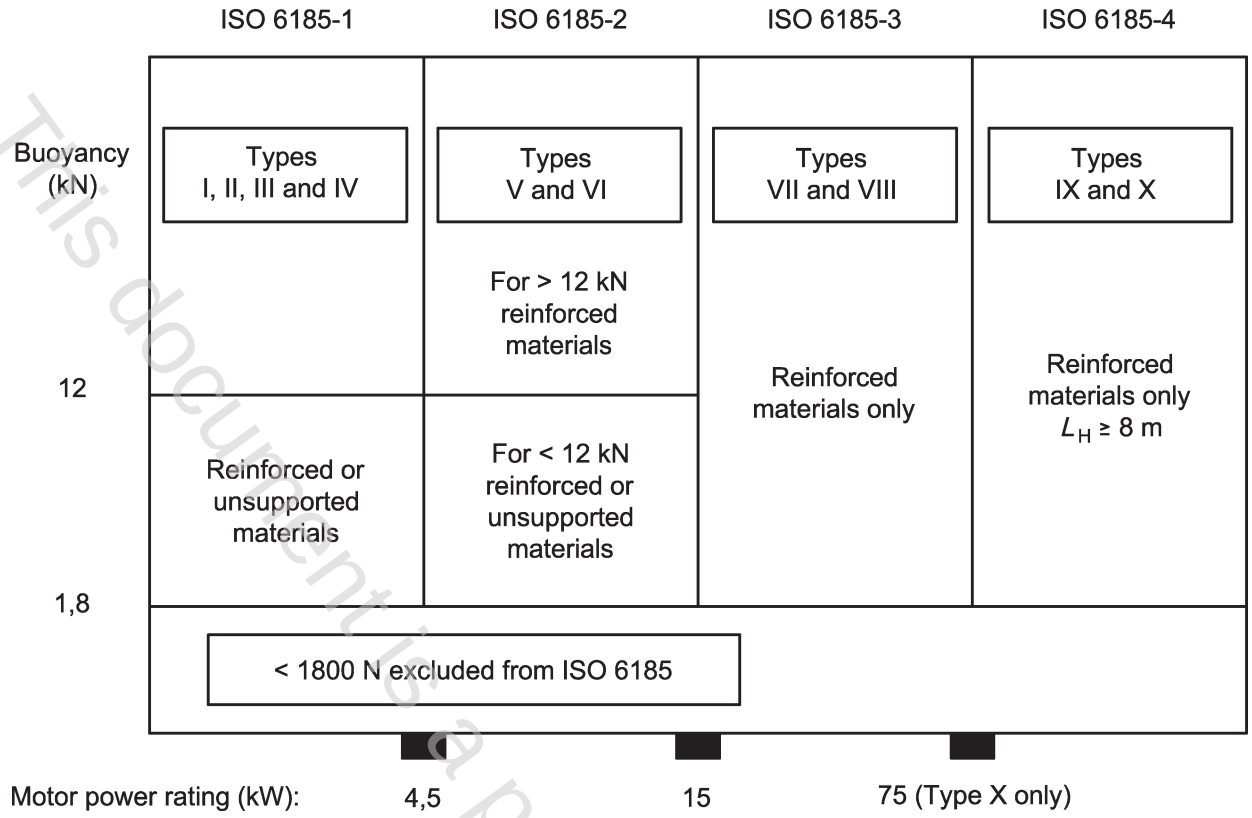

Figure 1 — Illustration of how ISO 6185 is sub-divided

This document enables the boat to be assigned to a design category appropriate to its design and maximum load. The 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.

Inflatable boats —

Part 3:
Boats with a hull length less than 8 m with a motor rating of 15 kW and greater

1 Scope

This part of ISO 6185 specifies the minimum safety characteristics required for the design, materials to use, manufacture and testing of inflatable boats and rigid inflatable boats with a hull length L_H in accordance with ISO 8666 less than 8 m with a motor power rating of 15 kW and greater.

This part of ISO 6185 is applicable to the following types of boats intended for use within the operating temperatures of – 20 °C to + 60 °C:

— Type VII: Powered Boats fitted with a buoyancy tube attached to the port and starboard sides, suitable for navigation in conditions of Design Categories C and D and capable of installing motor power rating of 15 kW and greater.

— Type VIII: Powered Boats fitted with a buoyancy tube attached to the port and starboard sides, suitable for navigation in conditions of Design Category B capable of installing motor power rating of 75kW and greater.

NOTE 1 General arrangements of typical boats of Types VII and VIII are given in Annexes A and B, respectively.

This part of ISO 6185 excludes single-chambered boats and boats made from unsupported materials, and is not applicable to aquatic toys and inflatable liferafts.

NOTE 2 For craft, concerned by the Recreational Craft Directive (RCD) of the European Union, fitted with inboard engines with nonstandard integral exhausts, noise emission requirements need to be considered.

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.

EN 314-2, *Plywood - Bonding quality - Part 2: Requirements*

ISO 1817, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*

ISO 2411, *Rubber- or plastics-coated fabrics — Determination of coating adhesion*

ISO 3011, *Rubber- or plastics-coated fabrics — Determination of resistance to ozone cracking under static conditions*

ISO 3864-1, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings*

ISO 4674-1:2003, *Rubber- or plastics-coated fabrics — Determination of tear resistance — Part 1: Constant rate of tear methods*

ISO 4675, *Rubber- or plastics-coated fabrics — Low-temperature bend test*

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 8099, *Small craft — Toilet waste retention systems*

ISO 8666, *Small craft — Principal data*

ISO 8847, *Small craft — Steering gear — Cable and pulley systems*

ISO 8848, *Small craft — Remote steering systems*

ISO 9093, *Small craft — Seacocks and through-hull fittings*

ISO 9094,*Small craft — Fire protection*

ISO 9775, *Small craft — Remote steering systems for single outboard motors of 15 kW to 40 kW power*

ISO 10087, *Small craft — Craft identification — Coding system*

ISO 10088, *Small craft — Permanently installed fuel systems*

ISO 10133, *Small craft — Electrical systems — Extra-low-voltage d.c. installations*

ISO 10239, *Small craft — Liquefied petroleum gas (LPG) systems*

ISO 10240, *Small craft — Owner's manual*

ISO 10592, *Small craft — Hydraulic steering systems*

ISO 11105, *Small craft — Ventilation of petrol engine and/or petrol tank compartments*

ISO 11547, *Small craft — Start-in-gear protection*

ISO 11592, *Small craft less than 8 m length of hull — Determination of maximum propulsion power rating*

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

ISO 12215-3:2002, *Small craft — Hull construction and scantlings — Part 3: Materials: Steel, aluminium alloys, wood, other materials*

ISO 12215-5, *Small craft — Hull construction and scantlings — Part 5: Design pressures for monohulls, design stresses, scantlings determination*

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 13297, *Small craft — Electrical systems — Alternating current installations*

ISO 14945, *Small craft — Builder's plate*

ISO 14946, *Small craft — Maximum load capacity*

ISO 15084, *Small craft — Anchoring, mooring and towing — Strong points*

ISO 15085:2003[1)]*Small craft — man overboard prevention and recovery*

ISO 15652, *Small craft — Remote steering systems for inboard mini jet boats*

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1) Under revision

ISO 21487, *Small craft — Permanently installed petrol and diesel fuel tanks*

3 Terms and definitions

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

3.1
inflatable boat
buoyant structure (hull), achieving all or part of its intended shape and buoyancy by the medium of inflation and which is intended for the transportation of people and/or loads on the water, and where the design and shape of it gives it the capability of withstanding forces and movements arising from sea conditions

3.2
rigid inflatable boat
buoyant structure comprising two essential parts: a lower hull formed by a rigid structure achieving part of its intended shape and a non-rigid buoyancy tube(s) that is of either inflatable or foam-filled type and where the volume of the buoyancy tube(s) comprises not less than 50 % of the total required buoyant volume of the boat (3.4)

Note 1 to entry: Tubes made from rigid aluminium, rotomoulded polyethylene, GRP or other rigid materials are excluded.

3.3
buoyancy of an inflatable boat
buoyancy of all chambers which form the inflatable hull, plus any other buoyant component which is permanently fixed to it

Note 1 to entry: The term “permanently fixed” implies detachment is only possible by the use of tools

3.4
total buoyant volume (*V*)
buoyancy comprising the buoyant volumes of the inflatable buoyancy tube (3.5) and the foam filled buoyancy tube (3.6) added to the permanent inherent buoyancy (3.7) added to the permanent sealed buoyancy (3.8) added to the inherent buoyancy of the rigid parts of the boat

3.5
inflatable buoyancy tube
multi-chambered tube attached to the length of both port and starboard sides of the hull when the boat is in use, and inflated with air

3.6
foam-filled buoyancy tube
buoyancy tube attached to the length of both port and starboard sides of the hull when the boat is in use, and filled with resilient closed cell type foam

Note 1 to entry: For material requirements, see 5.7.

3.7
permanent inherent buoyancy
buoyancy provided by non-intercellular (closed cell) foam or other materials, contained within the rigid hull and cockpit, which are less dense than fresh water

Note 1 to entry: For material requirement see ISO 12217-1:2013, Annex F.

3.8
permanent sealed buoyancy
buoyancy provided by sealed compartments, contained within the rigid hull and cockpit, filled with air

Note 1 to entry: For requirements see ISO 12217-1:2013, Annex F reference air containers.