

Irish Standard I.S. EN ISO 6185-3:2014

Inflatable boats - Part 3: Boats with a hull length less than 8 m with a motor rating of 15 kW and greater (ISO 6185-3:2014)

© CEN 2014 No copying without NSAI permission except as permitted by copyright law.

#### I.S. EN ISO 6185-3:2014

2014-09-06

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R.~xxx: Standard~Recommendation-recommendation~based~on~the~consensus~of~an~expert~panel~and~subject~to~public~consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on: Published:

EN ISO 6185-3:2014 2014-08-20

This document was published ICS number:

under the authority of the NSAI and comes into effect on: 47.080

NOTE: If blank see CEN/CENELEC cover page

NSAI T +353 1 807 3800 Sales:

 1 Swift Square,
 F +353 1 807 3838
 T +353 1 857 6730

 Northwood, Santry
 E standards@nsai.ie
 F +353 1 857 6729

 Dublin 9
 W NSAI.ie
 W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

**EUROPEAN STANDARD** 

**EN ISO 6185-3** 

NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

August 2014

ICS 47.080

Supersedes EN ISO 6185-3:2001

#### **English Version**

## Inflatable boats - Part 3: Boats with a hull length less than 8 m with a motor rating of 15 kW and greater (ISO 6185-3:2014)

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 (ISO 6185-3:2014) Aufblasbare Boote - Teil 3: Boote mit einer Rumpflänge unter 8 m mit einer Motorleistung von mindestens 15 kW (ISO 6185-3:2014)

This European Standard was approved by CEN on 21 June 2014.

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, 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

#### EN ISO 6185-3:2014 (E)

Contents	Page
Foreword	3
Annex ZA (informative) Relationship between this European Standard and the Essential  Requirements of EU Directive 94/25/EC as amended by Directive 2003/44/EC	Δ

EN ISO 6185-3:2014 (E)

#### **Foreword**

This document (EN ISO 6185-3:2014) has been prepared by Technical Committee ISO/TC 188 "Small craft".

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 February 2015, and conflicting national standards shall be withdrawn at the latest by August 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 6185-3:2001.

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

#### **Endorsement notice**

The text of ISO 6185-3:2014 has been approved by CEN as EN ISO 6185-3:2014 without any modification.

### Annex ZA

(informative)

## Relationship between this European Standard and the Essential Requirements of EU Directive 94/25/EC as amended by Directive 2003/44/EC

This European standard has been prepared under a mandate given to CEN by the European Commission to provide one means of conforming to Essential Requirements of the New Approach Directive 94/25/EC as amended by Directive 2003/44/EC.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one member state, 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 relevant Essential Requirements of that Directive and associated EFTA regulations.

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

Table ZA.1: Correspondence between this standard and Directive 94/25/EC amended by Directive 2003/44/EC

Clauses/sub-clauses of this European Standard	Corresponding annexes/paragraphs of Directive 94/25/EC	Comment
9	2.1 Craft identification	
9	2.2 Builder's plate	
6.2; 7.9; 7.14; 10	2.3 Protection from falling overboard and means of reboarding	
7.10	2.4 Visibility from the main steering position	
10	2.5 Owner's manual	
5; 6.1; 6.2; 6.3; 6.4; 6.5; 6.6; 6.8; 6.10; 6.15; 7.6; 7.7; 7.12; 7.13; 8	3.1 Structure	
7.3; 7.4	3.2 Stability and freeboard	Design Category B, C and D only. Apply EN ISO 12217 for Category A
6.4; 7.4; 7.5; 7.6	3.3 Buoyancy and flotation	
6.17	3.4 Openings in hull, deck and superstructure	
6.7; 7.3; 7.4; 8.5; 8.7	3.5 Flooding	
7.1; 7.2	3.6 Manufacturer's maximum recommended load	
7.11	3.7 Liferaft stowage	
_	3.8 Escape	Not applicable – Only fo craft over 12 m

#### EN ISO 6185-3:2014 (E)

6.9; 6.15	3.9 Anchoring, mooring and towing	
7.8; 8.3; 8.6	4 Handling characteristics	
6.12; 6.14;	5.1 Engines and engine spaces	
6.12; 6.13; 6.14	5.2 Fuel system	
6.11	5.3 Electrical system	
6.8; 7.13	5.4 Steering system	
6.18	5.5 Gas system	
6.12; 6.16	5.6 Fire protection	
6.19	5.7 Navigation lights	
6.7; 6.20;	5.8 Discharge prevention and installations facilitating the delivery ashore of waste	

This is a free page sample. Access the full version online.

This page is intentionally left blank

This is a free page sample. Access the full version online. I.S. EN ISO 6185-3:2014

# 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





#### COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Case postale 56 • CH-1211 Geneva 20 Tel. + 41 22 749 01 11 Fax + 41 22 749 09 47 E-mail copyright@iso.org Web www.iso.org

Published in Switzerland

Forev	word		<b>v</b>
Intro	duction		<b>v</b> i
1			
_	-		
2		ative references	
3	Terms	and definitions	3
4	Symbo	ols	4
5	Struct	ural Materials	5
J	5.1	General	
	5.2	Materials making up the flexible floor and buoyancy tube	
	5.3	Wood	
	5.4	Metal parts	
	5.5	Glass-reinforced plastics	
	5.6	Other materials	
	5.7		
6		ional components	
	6.1	Conditioning	
	6.2 6.3	Fittings bonded to the flexible parts of the boat	
	6.4	Valves (if applicable)	
	6.5	Rowlocks and oars	
	6.6	Transom (where applicable)	
	6.7	Hull drainage	11
	6.8	Remote steering system (where offered as standard or optional equipment)	
	6.9	Towing, anchoring and mooring devices	
	6.10	Seating and attachment systems (where offered as a standard or optional equipment)	
	6.11 6.12	Electrical installations (where offered as standard or optional equipment)) Engine and engine spaces	
	6.13	Fuel systems	
	6.14	Ventilation of petrol engine and/or petrol tank compartments (where applicable)	
	6.15	Devices for lifting the boat (if applicable)	
	6.16	Fire protection (if applicable)	13
	6.17	Openings in hull, deck or superstructure	
	6.18	Gas systems	
	6.19	Navigational lights	
	6.20	Discharge prevention	
7	_	requirements of the completed boat	
	7.1	Maximum Load Capacity	
	7.2 7.3	Crew limit (CL) Static stability	
	7.3 7.4	Buoyancy requirements	
	7.5	Compartmentation	
	7.6	Nominal pressures (inflatable buoyancy tubes)	
	7.7	Strength of the inflatable buoyancy tube	
	7.8	Maximum motor power	
	7.9	Man overboard prevention and recovery	
	7.10	Field of vision from the helm position	
	7.11 7.12	Provision for (a) liferaft(s)	
	7.12	Strength of principal fitted accessories	
	7.13	Safety Sign	
8		rmance	21

### This is a free page sample. Access the full version online. I.S. EN ISO 6185-3:2014

#### ISO 6185-3:2014(E)

	8.1	General	21
	8.2	Drop test (Ribs only)	21
	8.3	Drop test (Ribs only) In-water performance	22
	8.4	Rowing test (where applicable, see 6.5)	23
	8.5	Watertightness test (not applicable to open floor, self-bailing boats)	23
	8.6	Wannellyring-sneed test	/ -
	8.7	Self-Draining (type VIII Boats only)	25
9	Build	der's plate(s)	
10	Own	er's manual	25
11	Stan	dard equipment	26
Anne	ex A (in	formative) General arrangement of a typical Type VII boat	27
Anne	ex B (in	formative) General arrangement of a typical Type VIII boat	28
Ribli	ogrant	nv	30

#### 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</li>
- 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  $L_{\rm H}$  < 8 m propelled exclusively by manual means.
- Type II Powered boats with  $L_{\rm H}$  < 8 m with a power ≤ 4, 5 kW.
- Type III Canoes and kayaks with  $L_{\rm H}$  < 8 m.
- Type IV Sail boats with  $L_H$  < 8 m with a sail area ≤ 6 m<sup>2</sup>.

#### 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  $L_{\rm H}$  < 8 m with sail area > 6 m<sup>2</sup>.

#### ISO 6185-3:

- Type VII Powered boats with  $L_{\rm H}$  < 8 m with power ≥ 15 kW.
- Type VIII Powered boats with  $L_{\rm H}$  < 8 m with power ≥ 75 kW.

#### ISO 6185-4:

- Type IX Powered boats (design categories C and D) with 8m <  $L_{\rm H}$  ≤ 24 m with power ≥ 15 kW.
- Type X Powered boats (design category B) with 8m <  $L_{\rm H}$  ≤ 24 m with power ≥ 75 kW.

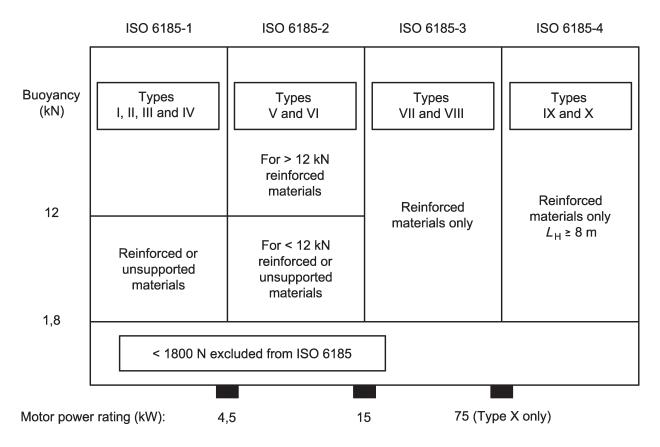


Figure 1 — Illustration of how ISO 6185 is sub-divided

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.

This is a free page sample. Access the full version online. **I.S. EN ISO 6185-3:2014** 

#### 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  $L_{\rm H}$  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

 ${\tt ISO~4674-1:2003}, Rubber-\ or\ plastics-coated\ fabrics--Determination\ of\ tear\ resistance--Part\ 1:\ Constant\ rate\ of\ tear\ methods$ 

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<sup>1)</sup>Small craft — man overboard prevention and recovery

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

<sup>1)</sup> Under revision



**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation