INTERNATIONAL STANDARD

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Third edition
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Small craft — Owner's manual

Petits navires — Manuel du propriétaire

Reference number
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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 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 the following URL: www.iso.org/iso/foreword.html.

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

This third edition cancels and replaces the second edition (ISO 10240:2004), which has been technically revised. It also incorporates ISO 10240:2004/Amd 1:2015.

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

— the Introduction has been removed;

— the Scope has been reworded;

— the Normative references have been updated;

— former definition 3.1 (degree of hazard and safety labels) has been reworded in 5.2;

— 4.2 has been changed to reflect allowances provided by the Recreational craft Directive 2013/53/EU;

— 5.1 has been changed to reflect the wider scope of the Essential Requirements of the Recreational Craft Directive 2013/53/EU;

— 5.2 has been changed to include the degrees of hazard and to reflect Annex A;

— the craft design categories have been updated;

— the maximum load for the builder's plate has been clarified in 5.3;

— service and maintenance references have been added;

— inflatable stability standard reference has been added;

— the language in 5.7.5 has been changed;

— information relevant to grounding has been added in 5.7.7;

— ventilation language has been added in 5.8.2;

— a reference to ISO 16315:2016 has been added in 5.9;

— references to ISO 11592-1:2016 and ISO 11592-2:2019 have been added in 5.10;

— sailboat spars and rigging information have been added in 5.12;

— the language in Annex A has been enhanced;

— the references in Annex B have 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.

Small craft — Owner's manual

1 Scope

This document specifies requirements and information for inclusion in the owner's manual of small craft to enable the owner/operator to use the craft safely.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 6185-1:2001, *Inflatable boats — Part 1: Boats with a maximum motor power rating of 4,5 kW*

ISO 6185-2:2001, *Inflatable boats — Part 2: Boats with a maximum motor power rating of 4,5 kW to 15 kW inclusive*

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 6185-4:2011, *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 8099-1:2018, *Small craft — Waste systems — Part 1: Waste water retention*

ISO 8666:2016, *Small craft — Principal data*

ISO 8999:2001, *Reciprocating internal combustion engines — Graphical symbols*

ISO 9094:2015, *Small craft — Fire protection*

ISO 10133:2012, *Small craft — Electrical systems — Extra-low-voltage d.c. installations*

ISO 10239:2014, *Small craft — Liquefied petroleum gas (LPG) systems*

ISO 11105:1997, *Small craft — Ventilation of petrol engine and/or petrol tank compartments*

ISO 11192:2005, *Small craft — Graphical symbols*

ISO 11547:1994, *Small craft — Start-in-gear protection*

ISO 11592-1:2016, *Small craft less than 8 m length of hull — Determination of maximum propulsion power rating using manoeuvring speed*

ISO 11592-2:2019, *Small craft 8 m to less than 24m length of hull — Determination of maximum propulsion power rating using manoeuvring speed*

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 12217-2:2015, *Small craft — Stability and buoyancy assessment and categorization — Part 2: 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 13297:2014, *Small craft — Electrical systems — Alternating current installations*

ISO 14946:—[1)], *Small craft — Maximum load capacity*

ISO 15083:2003, *Small craft — Bilge-pumping systems*

ISO 15084:2003, *Small craft — Anchoring, mooring and towing — Strong points*

ISO 15085:2003/Amd 2:2017, *Small craft — Man-overboard prevention and recovery*

ISO 16315:2016, *Small craft — Electric Propulsion System*

ISO 80000-1:2009, *Quantities and units — Part 1: General*

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

Note 1 to entry: The length of hull (L_H) is defined in ISO 8666:2016.

4 General requirements

4.1 Information required

The owner's manual shall provide information necessary for the safe use of the craft and its equipment and systems. It shall draw particular attention to set up, maintenance, regular operation, prevention of risks and risk management with due consideration for the environment.

The owner's manual may contain a check-list of actions to be undertaken before craft use.

4.2 Format

The owner's manual shall be produced in a language acceptable to or required in the country of intended use. It can be multilingual. If only provided in an electronic means, the manufacturers shall have a procedure in place that allows printing of the owner's manual by the owner.

A generic owner's manual, i.e. one that may be used for more than one model or type of craft, may be used, provided it is modified, if necessary, to meet the requirements of this document for each craft type. This may be done with supplements.

The manual shall contain an index or table of contents referenced with page numbers, if it is more than four pages long.

Information may be presented as words, graphical symbols or pictograms.

Illustrations shall be in accordance with 4.4.

Where graphical symbols are used, ISO 8999:2001 and ISO 11192:2005 shall be used. If graphical symbols are used, they may be explained by words.

1) Under preparation. Stage at the time of publication: ISO/FDIS 14946:2019.

Where practicable, related texts and illustrations should be arranged so that they may be studied together.

4.3 Units and definitions

SI units shall be used in the owner's manual in accordance with ISO 80000-1:2009; other units may be added between brackets.

4.4 Illustrations

Drawings, schematics, photographs and diagrams may be used. Drawings need not be to scale.

5 Content of owner's manual

5.1 General

Subclauses 5.2 to 5.12 specify information that shall be included in the owner's manual as appropriate for the type of craft. If any information is already provided in an acceptable or required language by way of a specific manual(s) for an appliance(s), engine(s), equipment or system provided with the craft, it is only necessary to refer to this (these) manual(s) in the owner's manual.

5.2 Introduction to the manual

Each manual shall have an introductory paragraph informing the owner of his/her responsibility concerning the intended use of the craft.

If safety labels are used, their meaning shall be explained in the owner's manual, according to the following.

Danger — indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

Warning — indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

Caution — indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury.

Notice — indicates information considered important, but not hazard-related, for example, relating to property damage.

Annex A provides a general introduction to the owner's manual. It may be modified accordingly to suit the particular craft.

Annex B provides a list of international standards requiring information and safety labels to be inserted in the owner's manual.

5.3 General information and craft data

The following information shall be in the owner's manual. List only the relevant items.

a) Name of craft manufacturer, company or person responsible for placing the craft on the market.

b) Name of the model or type.

c) Craft design category/categories, as marked on the builder's plate, and statements explaining the design category(ies) as follows.

1) A craft given design category A is considered to be designed to operate in winds of less than Beaufort force 10 and the associated significant wave heights.

NOTE Typically such conditions might be encountered on extended voyages, for example across oceans, but can also occur inshore when unsheltered from the wind and waves for several hundred nautical miles. Depending on atmospheric conditions, winds can gust to about 32 m/s.

2) A craft given design category B is considered to be designed to operate in winds of Beaufort force 8 or less and the associated significant waves heights of up to 4 m.

NOTE Typically such conditions might be encountered on offshore voyages of sufficient length but can also occur on coasts where shelter might not always be immediately available. These conditions can also be experienced on inland seas of sufficient size for the wave height to be generated. Depending on atmospheric conditions, winds can gust to about 27 m/s.

3) A craft given design category C is considered to be designed to operate in typical steady winds of Beaufort force 6 or less and the associated significant waves heights of up to 2 m.

NOTE Typically such conditions might be encountered on exposed inland waters, in estuaries, and in coastal waters in moderate weather conditions. Depending on atmospheric conditions, winds can gust to about 18 m/s.

4) A craft given design category D is considered to be designed to operate in typical steady winds of Beaufort force 4 or less and the associated significant waves heights of up to 0,3 m and occasional waves of 0,5 m height.

NOTE Typically such conditions might be encountered on sheltered inland waters, and in coastal waters in fine weather. Depending on atmospheric conditions, winds can gust to about 12 m/s.

d) The mass in the light craft condition (m_{LC}) (unladen mass of the craft) (kg) according to ISO 8666:2016. For craft with outboard engines, it should be stated that this mass includes the mass of the heaviest recommended outboard engine, but in some cases (a small rowing or outboard tender for example) the craft may be used with or without the outboard. In these cases, it would be useful to also know the weight without the outboard motor (for example, to determine if it is light enough to carry on a car roof).

e) Maximum load for the builder's plate (m_{MBP}), according to ISO 14946:—[2)]. Include a note to draw attention to the loading provisions (see 5.5).

f) Mass of the craft in the fully loaded condition (m_{LDC}) (kg), which is the sum of the craft's mass, in the light craft condition, plus the maximum load for the builder's plate; a breakdown of the fully loaded mass as calculated is recommended.

g) Main dimensions of the craft: L_H, B_H, L_{max}, B_{max}, and the definition of the dimensions given; these dimensions shall be in accordance with ISO 8666:2016.

h) Drafts:

1) maximum height (air draft), in the light craft condition;

2) maximum draft(s) in the fully loaded condition.

i) Type of main propulsion [power, sail, other (give details)].

j) If the craft is a sailboat, basic information on sail and rigging.

NOTE Information such as main dimensions of sails, reefing system, storm sail dimensions, etc. may be given.

2) Under preparation. Stage at the time of publication: ISO/FDIS 14946:2019.

k) Tank capacities:

1) nominal fixed fuel tank(s) capacity (litres), with a statement mentioning that all of its capacity may not be usable according to trim and loading and that a 20 % reserve should be kept, type of fuel and position of filling point(s) and draining point (if fitted);

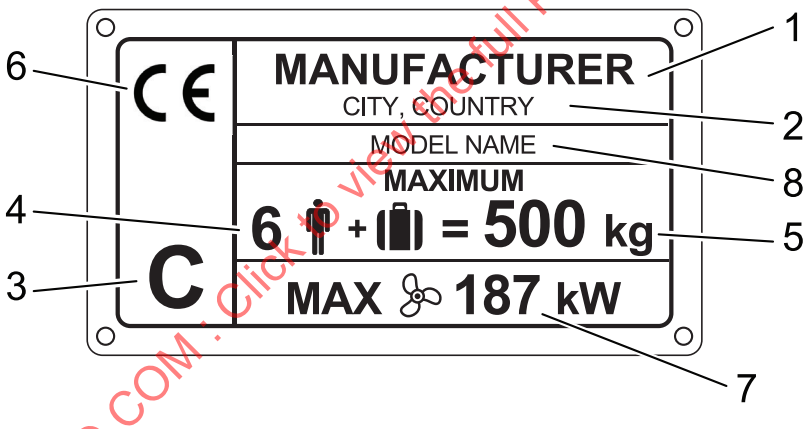
2) fixed fresh water tank(s) capacity (litres), with a statement mentioning that all of its capacity may not be usable according to trim and loading, and position of filling point(s) and draining point (if fitted);

3) fixed holding tank(s) capacity (litres), and position of through hull or deck fitting(s) and draining point (if fitted);

4) fixed oil tank(s) capacity (litres), clean oil and used oil, and position of filling and emptying point(s);

5) ballast tanks, supplied or intended by the builder, shall be listed in the owner's manual (permanently installed and/or portable).

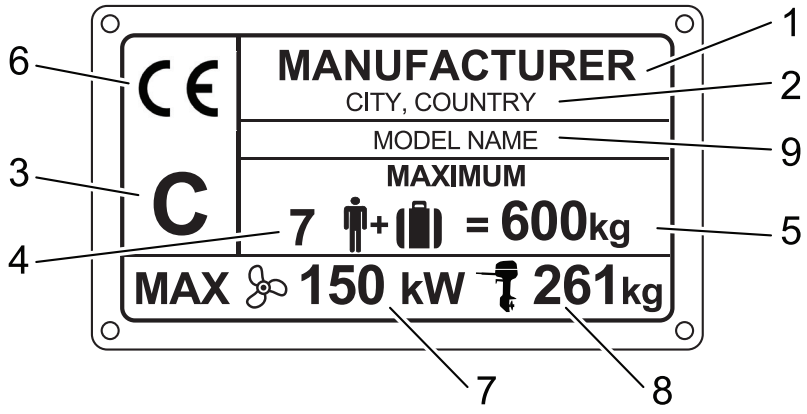
l) Builder's plate — the owner's manual shall include a mention such as: "Part of the information is given on the builder's plate affixed on the craft. A full explanation of this information is also given in the relevant sections of this manual." Figures 1 and 2 illustrate examples of builder's plates.



Key

1 manufacturer's name, registered trade name or registered trademark
2 contact address; notified body's identification number (if applicable)
3 craft design category
4 maximum persons' capacity
5 maximum recommended load for the builder's plate (kg)
6 CE marking
7 maximum power rating (kW)
8 model name

Figure 1 — Builder's plate with minimum information for craft powered by inboard or sterndrive engines — Example



Key

1 manufacturer's name, registered trade name or registered trademark
2 contact address; notified body's identification number (if applicable)
3 craft design category
4 maximum persons' capacity
5 maximum recommended load for the builder's plate (kg)
6 CE marking
7 maximum outboard power rating (kW)
8 for engines greater than 3kW, mass of the outboard engine(s) (kg)
9 model name

Figure 2 — Builder's plate with minimum information for craft powered by outboard engines — Example

5.4 Maximum number of persons

State the maximum recommended number of adult persons and/or combination of adults/children, determined in accordance with ISO 14946:—[3] and ISO 12217-1:2015, ISO 12217-2:2015 and ISO 12217-3:2015. Where more than one design category has been given, state the maximum number of persons for each given category.

Include the following warning note:

WARNING — Do not exceed the maximum recommended number of persons. Regardless of the number of persons on board, the total mass of persons and equipment must never exceed the maximum recommended load. Always use the seats/occupancy areas provided.

5.5 Loading

Give information that the maximum load for the builder's plate, m_{MBP} includes the mass of all recommended persons onboard, all provisions and personal effects, any equipment not included in the light craft mass, cargo (if any) minus liquids in fixed tanks.

Include the following warning note:

WARNING — When loading the craft, never exceed the maximum recommended load. Always load the craft carefully and distribute loads appropriately to maintain design trim (approximately level). Avoid placing heavy weights high up.

Give any other loading information relevant to the craft.

3) Under preparation. Stage at the time of publication: ISO/FDIS 14946:2019.

5.6 Engine information

Provide the following information:

— maximum recommended engine power (kW);

— maximum recommended engine mass (kg) (if relevant);

— routine servicing and maintenance instructions to ensure proper functioning of the engine(s);

— maintenance of the exhaust system.

5.7 Information connected with the risk of flooding and stability

5.7.1 General

The information in 5.7.2 to 5.7.7 shall be given in the owner's manual or supplements.

5.7.2 Openings in the hull

Give the following information.

a) Location of seacocks and through-hull fittings, by a plan, layout grid sketch or any convenient means.

b) Advice on keeping seacocks, cockpit drains, bungs and other opening/closing devices in the hull closed or open, as appropriate, to minimize the risk of flooding. If necessary, provide operating instructions for any such devices.

c) Advice on keeping portlights, windows, washboards, doors, hatches or ventilation openings closed when appropriate, e.g. in rough weather or at planing speeds. If necessary, provide operating instructions.

d) If relevant, provide routine user servicing and maintenance instructions.

e) If relevant, provide information on the need to keep the drains clean and unobstructed.

5.7.3 Bilge pumps and bailing

Give the information required by ISO 15083:2003, including the following.

a) Add a warning note: "**WARNING — The bilge pumping system is not designed for damage control." This note is not required if the craft's bilge pumping system is specifically designed for that purpose or if the craft has upright and level flotation.**

b) Location of each bilge pump by a plan, sketch, layout grid or any convenient means, and its capacity rated by the pump manufacturer.

c) Operating instructions, if relevant.

d) Routine user servicing and maintenance instructions. For craft where ISO 15083:2003 requires only a bucket or a bailer, add a note stating that it is the responsibility of the owner/operator to have at least one bucket/bailer onboard, secured against accidental loss.

e) Add a note: "**Note — Check the function of all bilge pumps at regular intervals. Clear pump inlets from debris. If seacocks are fitted in the fore and aft peak bulkheads, they shall be kept closed and shall only be opened to let water drain into the main bilges.**"

5.7.4 Stability and buoyancy

Give the stability information specific to the type of craft when required by the relevant part of ISO 12217-1:2015, ISO 12217-2:2015 and ISO 12217-3:2015 and ISO 6185-1:2001, ISO 6185-2:2001, ISO 6185-3:2014 and ISO 6185-4:2011, and include the following statements, if relevant:

a) any change in the disposition of the masses aboard (for example, the addition of a fishing tower, a radar, a stowing mast, change of engine, etc.) may significantly affect the stability, trim and performance of the craft;

b) bilge water should be kept to a minimum;

c) stability is reduced by any weight added above the main deck;

d) in rough weather, hatches, lockers and doorways should be closed to minimize the risk of flooding;

e) stability may be reduced when towing or lifting heavy weights using a davit or boom;

f) air tanks shall not be punctured;

g) breaking waves are a serious stability hazard.

5.7.5 Capsize recovery

Give capsize recovery information specific to the type of craft when required by the relevant part of ISO 12217-1:2015, ISO 12217-2:2015 and ISO 12217-3:2015.

If relevant, give the recommended technique for subsequent bailing.

5.7.6 Habitable multihull susceptible to inversion

State the position and operation of escape hatches, if fitted, of sailing multihulls in the event of inversion.

5.7.7 Grounding

Provide instructions applicable to the craft type for the actions to be taken following a grounding of the craft.

5.8 Information connected with the risk of fire or explosion

5.8.1 General

The information in 5.8.2 to 5.8.6 shall be given in the owner's manual.

5.8.2 Propulsion engines, generator sets, etc.

Give instructions for the safe operation of the engine, including, where relevant:

a) requirement to run the engine compartment exhaust blower for prescribed time, if relevant (petrol engines); explain the significance of labels as required by ISO 11105:1997;

b) requirement to ensure the flow of cooling water;

c) requirement to ensure that ventilation ducts are free from obstruction;

d) requirement to keep fixed ventilation openings unobstructed at all times;

e) precautions when refuelling, e.g., non-smoking and treatment of fuel spillage in craft;

f) prevention of damage to fuel lines;

g) avoidance of contact of flammable materials with hot engine parts;

h) advice not to store equipment containing petrol (outboard engines, tanks, petrol generators, etc.) in compartments not designed for this purpose.

5.8.3 Gas system

Give instructions for the safe operation and inspection of gas systems with descriptions as appropriate, including information required by ISO 10239:2014, including the following, where relevant:

a) operating instructions for appliances;

b) instructions for the inspection of the system;

c) requirement that gas cylinders shall be stored only in specified lockers or housings;

d) location of gas lockers or housings by a plan, sketch, layout grid or any convenient means;

e) procedure for changing gas cylinders;

f) precautions to avoid contact of materials with open flames and other hot areas;

g) advice to shut off the valve in the supply line in the event of a leak or fire;

h) advice to ensure proper ventilation in order to prevent asphyxiation (see 5.11.4).

5.8.4 Other fuel-burning systems

Give instructions for the safe operation and inspection of systems with descriptions as appropriate, including the following, where relevant:

a) operating instructions for appliances;

b) precautions when refuelling appliances;

c) instructions for the safe storage of fuel containers;

d) precautions to avoid contact of materials with naked flames and other hot areas;

e) advice to ensure proper ventilation in order to prevent asphyxiation (see 5.11.4).

5.8.5 Fire prevention and fire-fighting equipment

Relevant owner's manual information required by ISO 9094:2015 shall be provided.

5.8.6 Means of fire escape

Identify the location of hatches, doors and other openings intended to be a means of escape from the interior in case of fire, where required by ISO 9094:2015, and explain their operational procedures, if relevant.

5.9 Electrical systems — Risks of fire, explosion or electric shocks

Give information on

— the fire or explosion hazards that may result from improper use of DC and AC systems; and

— the electric-shock hazards that may result from improper use of DC and AC systems.

Give instructions for the safe operation of electrical systems with descriptions as appropriate, including information required, where relevant, by normative annexes of ISO 13297:2014 (AC), ISO 10133:2012 (extra-low-voltage DC) and ISO 16315:2016, for example:

a) operation and position of battery selector switches;

b) description of switch panel(s);

c) procedure for changing fuses and diagram indicating fuse position, type and capacity;

d) requirement, if relevant, not to obstruct battery ventilation ducts;

e) precautions when recharging and disconnecting/reconnecting battery;

f) **WARNING — Do not work on an energized AC system**;

g) precautions when connecting/disconnecting shore supply;

h) if a shore power supply is fitted, information about the risk of swimming close to a craft connected to shore power;

i) information required for the safe operation of 3 Phase AC service, if applicable.

5.10 Handling characteristics

5.10.1 Motor craft

Give information on the safe handling of the craft under power.

Give information required by ISO 11592-1:2016 or ISO 11592-2:2019, as applicable. Include the following information, where relevant.

— Do not operate the craft with an engine of rated power greater than the maximum recommended power as set out in the engine provisions (see 5.6).

— Avoid sudden manoeuvres at speed.

— For comfort and safety, reduce speed in high or rough seas.

— Always use the engine cut off lanyard if provided.

5.10.2 Engine starting

Give instructions for the safe operation when starting an engine to prevent craft movement and/or propeller rotation. For outboard engines, the information required by ISO 11547:1994 shall be used.

5.10.3 Emergency steering

Indicate the location and operation of emergency steering device, where applicable.

5.11 Proper operation — Other recommendations and information

5.11.1 Man-overboard prevention and recovery

In accordance with ISO 15085:2003/Amd 2:2017, give the following:

a) information on parts of the outside of the craft that are not considered as belonging to the working deck and which shall not be used when underway, with illustrations, if necessary;

b) identification of the means of recovery of man overboard (e.g. location and deployment of ladder and how to re-board without swamping or capsizing the craft).

5.11.2 Liferaft stowage

On craft where a liferaft stowage area needs to be identified, give information on its location.

5.11.3 Danger from moving parts of machinery

Give the following information, if relevant:

a) instructions to avoid moving parts of engine, propeller shafts, etc.;

b) details concerning guards fitted and instructions for use.

5.11.4 Ventilation when using a combustion device

Give the following information or instructions, where relevant, including information required by ISO 10239:2014.

a) **WARNING — Fuel-burning open-flame appliances consume cabin oxygen and release products of combustion into the craft. Ventilation is required when appliances are in use. Open designated vent openings while appliances are in use. Never obstruct ventilation openings and ensure that flued appliances are operating correctly.**

b) Information on risks from exhaust gases (e.g. CO and other gases).

c) Instructions for mitigating the spread of CO on petrol-powered craft.

5.11.5 Securing of loose equipment

Give recommendations to secure loose equipment safely when underway.

5.11.6 Respect for environment

Give the following information or instructions, if relevant:

a) advice to be aware of local environment laws, and to respect codes of good practice;

b) instructions not to discharge toilets or holding tanks close to shore or in any prohibited zone, and to use harbour or marina pump-out facilities to empty the holding tank before leaving the harbour;

c) advice to be aware of international regulations against marine pollution (MARPOL).

5.11.7 Use of holding tanks

If a holding tank is fitted, give information required by ISO 8099-1:2018, including:

a) operation and maintenance;

b) Y-valve use;

c) capacity of holding tanks, in litres;

d) chemicals acceptable for use: cleaning materials, deodorants, anti-freeze solutions;

e) pump-out procedure, including use of the manual relief valve, if applicable;

f) instructions that the system should be empty during storage at freezing temperatures;

g) note to be aware of local regulation on discharge;

h) location of discharge shutoff seacocks and methods of securing these sealed shut;

i) user servicing and maintenance instructions if relevant.

5.11.8 Anchoring, mooring and towing

Give identification of “strong points” in accordance with ISO 15084:2003, required for anchoring, mooring, towing and being towed.

5.11.9 Trailering (if relevant)

Give the mass (kg) of the craft when towed on a trailer, m_T, according to ISO 8666:2016. Provide a warning to use a trailer suitable for the craft and its mass.

5.12 Sailboat spars and rigging

Instructions how to tune and maintain rigging systems.

6 Other information

Any other information that is relevant for the safe operation of the craft should be included in the owner's manual.

Annex A
(informative)

General introduction for the owner's manual

This manual has been compiled to help you to operate your craft with safety and pleasure. It contains details of the craft, the equipment supplied or fitted, its systems and information on their operation, set up, maintenance, prevention of risks and management of those risks. Please read carefully and familiarize yourself with the craft before using it.

This owner's manual is not a course on boating safety or seamanship. If this is your first craft, or if you are changing to a type of craft you are not familiar with, for your own comfort and safety, please ensure that you obtain handling and operating experience before "assuming command" of the craft. Your dealer or national boating/sailing federation or yacht club will be pleased to advise you of local sea schools, or competent instructors.

Ensure that the anticipated wind and sea conditions will correspond to the design category of your craft, and that you and your crew are able to handle the craft safely in these conditions.

Even when your boat is categorized for them, the sea and wind conditions corresponding to the design categories A, B and C range from severe gale conditions for category A, to strong conditions for the top of category C, open to the hazards of a freak wave or gust. These are therefore dangerous conditions, where only a competent, fit and trained crew using a well-maintained craft can satisfactorily operate.

This owner's manual is not a detailed maintenance or trouble-shooting guide. In the case of difficulty, refer to the boat builder or boat builder's representative. If a maintenance manual is provided, use it for the craft's maintenance.

Always use trained and competent people for maintenance, repair or modifications. Modifications that may affect the safety characteristics of the craft shall be assessed, executed and documented by competent people. The boat builder cannot be held responsible for modifications that boat builder has not approved.

In some countries, a driving licence or authorization is required, or specific regulations are in force and carriage requirements may be subject to local regulations.

Always maintain your craft properly and take into account the deterioration that will occur over time and as a result of heavy use or misuse of the craft.

Any craft, no matter how strong it may be, can be severely damaged if not used properly. Inspect the craft regularly especially after any kind of suspected damage. Always adjust the speed and direction of the craft to sea conditions.

If your craft is fitted with a liferaft, carefully read its operating manual. The craft should have onboard the appropriate safety equipment (lifejackets, harnesses, etc.) according to the type of craft, weather conditions, etc. This equipment is mandatory in some countries. The crew should be familiar with the use of all safety equipment and emergency manoeuvring (man overboard recovery, towing, etc.). Sailing schools and clubs regularly organize training sessions.

All persons should wear a suitable personal floatation device (life jacket/ buoyancy aid) when on deck. Note that, in some countries, it is a legal requirement to wear a personal floatation device that complies with their national regulations. PLEASE KEEP THIS MANUAL IN A SECURE PLACE, AND HAND IT OVER TO THE NEW OWNER WHEN YOU SELL THE CRAFT.