



**SLOVENSKI STANDARD**  
**oSIST prEN ISO 9094:2020**  
**01-september-2020**

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**Mala plovila - Požarna zaščita (ISO/DIS 9094:2020)**

Small craft - Fire protection (ISO/DIS 9094:2020)

Kleine Wasserfahrzeuge - Brandschutz (ISO/DIS 9094:2020)

Petits navires - Protection contre l'incendie (ISO/DIS 9094:2020)

**Ta slovenski standard je istoveten z: prEN ISO 9094**

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**ICS:**

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47.080	Čolni	Small craft

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# DRAFT INTERNATIONAL STANDARD

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## Small craft — Fire protection

*Petits navires — Protection contre l'incendie*

ICS: 47.080

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# Contents

	Page
<b>Foreword</b> .....	<b>v</b>
<b>Introduction</b> .....	<b>vii</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 Fire prevention</b> .....	<b>4</b>
4.1 Cooking and heating appliances.....	4
4.1.1 General.....	4
4.1.2 Appliances with flues.....	4
4.1.3 Permanently installed fuel systems.....	4
4.2 Materials near cooking or heating appliances.....	5
4.2.1 General.....	5
4.2.2 Protection from open flames.....	5
4.2.3 Protection from radiated heat devices.....	6
4.2.4 Protection from solid fuel appliances.....	7
4.2.5 Protection from electrical appliances.....	7
4.3 Engine and fuel compartments and exhausts.....	7
4.3.1 General requirements not dependent on fuel type.....	7
4.3.2 Specific requirements for compartments containing fixed petrol engines and permanently installed petrol tanks.....	8
4.3.3 Specific requirements for compartments containing portable petrol- engined equipment and portable petrol tanks or containers.....	9
4.4 Electrical installations.....	9
4.5 Liquefied petroleum gas (LPG) systems.....	9
4.5.1 General.....	9
4.5.2 LPG systems not used for propulsion.....	9
4.5.3 LPG systems used for propulsion.....	9
4.5.4 Self-contained portable appliances.....	9
4.6 Ignition protection.....	9
4.7 Decklights.....	10
<b>5 Fire detection</b> .....	<b>10</b>
<b>6 Fire escape</b> .....	<b>10</b>
6.1 Fire escape routes.....	10
6.1.1 General.....	10
6.1.2 Escape routes passing over or beside an engine compartment.....	11
6.1.3 Escape routes passing over an open flame or radiated heat device.....	11
6.2 Fire exits.....	11
6.2.1 General.....	11
6.2.2 Minimum clear dimensions.....	11
6.2.3 Positioning fire exits.....	11
6.2.4 Capability to open fire exits.....	12
6.2.5 Deck hatches designated as fire exits.....	12
6.2.6 Water tightness of fire exits.....	12
<b>7 Fire fighting equipment</b> .....	<b>12</b>
7.1 Purpose.....	12
7.2 Protection of habitable spaces containing sleeping bunks.....	12
7.3 Protection of habitable spaces containing cooking and heating appliances.....	12
7.4 Protection of engine compartment(s).....	13
7.4.1 General.....	13
7.4.2 Fire ports.....	13
7.5 Portable fire extinguishers.....	14
7.5.1 Purpose.....	14

## ISO/DIS 9094:2020(E)

7.5.2	General requirements.....	14
7.5.3	Carbon dioxide (CO <sub>2</sub> ) extinguishers .....	15
7.5.4	Location and capacity of portable fire extinguishers.....	15
7.6	Fixed fire extinguishing systems .....	16
7.6.1	Purpose.....	16
7.6.2	General requirements.....	16
7.6.3	Requirements for use of asphyxiant mediums .....	17
7.6.4	General installation requirements .....	17
7.6.5	Activation of the system .....	18
7.7	Fire blanket.....	18
<b>8</b>	<b>Displayed information.....</b>	<b>19</b>
8.1	General requirements.....	19
8.2	Fixed system warning for non-asphyxiant medium .....	19
8.3	Fixed system warning for asphyxiant medium .....	19
8.4	CO <sub>2</sub> portable extinguisher.....	19
8.5	Storage of ladder to escape hatch.....	20
8.6	Displayed symbol requirements.....	20
<b>9</b>	<b>Owner's manual.....</b>	<b>20</b>
<b>Annex A (normative) Information to be provided in the Owner's manual.....</b>		<b>21</b>
<b>Annex B (informative) Classification of fires, fire ratings according to EN 3-7 and the selection of portable fire extinguishers.....</b>		<b>24</b>
<b>Annex C (informative) Selection of fixed fire extinguishing systems.....</b>		<b>26</b>
<b>Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2013/53/EU aimed to be covered.....</b>		<b>28</b>
<b>Bibliography.....</b>		<b>29</b>

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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).

This document was prepared by Technical Committee ISO/TC 88, *Small craft*.

This first edition of ISO 9094 cancels and replaces ISO 9094-1:2003 and ISO 9094-2:2002, which has been technically revised.

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

- changed definition of “readily accessible” being for “emergency conditions”;
- added definitions and requirements for cooking appliances, solid fuel appliances and heating appliance installations;
- added requirements for cooking and heating appliances using liquid fuel;
- specific requirements addressing compartments containing petrol tanks and containers and portable petrol driven engines were added;
- added requirements for fire protection for “domed” decklights;
- clarification of escape routes for quarter cabin arrangements;
- detailed requirements for access to deck hatches designated as fire exits;
- made changes to engine and engine compartment fire extinguishing requirements;
- clarified fixed fire extinguishing systems to be “approved systems”;
- established requirement for diesel engine shut down and “shut off dampers”;
- clarified that audible alarm requirements required only for protected spaces able to be occupied.
- added definition for small craft.
- added multihulls to [4.1.1](#).

**ISO/DIS 9094:2020(E)**

- clarified Zone 1 and Zone 2 requirements
- added minimum dB requirements in [Clause 5](#)
- updated [Table 2](#) outboard portable fire extinguisher requirements.
- clarified where CO2 can be used in fixed systems if properly installed and warned.
- removed all references to ISO 5923. Standard was withdrawn in 2017.
- updated Normative References and Bibliography.
- updated fire protection device requirements [clause 5](#).
- updated fire escape provisions in [clause 6](#).
- updated [Annex A](#) owner's manual requirements.
- removed section 7.6.4.6
- updated Bibliography

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).

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## Introduction

This document covers the prevention of fire and the protection of life in case of fire on small craft.

It is intended to ensure that the design and layout of the craft and the type of equipment installed minimize the risk and spread of fire and that every habitable craft is provided with viable means of escape in the event of fire.

The requirements in this document may not be effective against fires of some battery chemistries (for example Lithium based products). Battery manufacturers should be consulted for appropriate methods of fire suppression.

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# Small craft — Fire protection

## 1 Scope

This International Standard defines a practical degree of fire prevention and protection intended to provide enough time for occupants to escape a fire on board small craft.

It applies to all small craft of up to 24 m length of hull ( $L_H$ ) except for personal watercraft.

This International Standard excludes:

- the design and installation of those permanently installed galley stoves and heating appliances (including components used to distribute the heat) using fuels that are liquid at atmospheric pressure on small craft, which are covered by ISO 14895:2016;
- carbon monoxide detecting systems, which are covered by ISO 12133<sup>[2]</sup>.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 3-7:2004+A1:2007, *Portable fire extinguishers – Part 7: Characteristics, performance requirements and test methods*

EN 1869:2019, *Fire blankets*

IEC 60092-507:2014, *Electrical installations in ships — Part 507: Small vessels*

ISO 4589-3:2017, *Plastics — Determination of burning behaviour by oxygen index — Part 3: Elevated-temperature test*

ISO 7010:2019, *Graphical symbols — Safety colours and safety signs — Registered safety signs*

ISO 7165:2017, *Fire fighting — Portable fire extinguishers — Performance and construction*

ISO 8846:1990, *Small craft — Electrical devices — Protection against ignition of surrounding flammable gases*

ISO 10088:2013, *Small craft — Permanently installed fuel systems*

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

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

ISO 10240:2019, *Small craft — Owner's manual*

ISO 11105:2020, *Small craft — Ventilation of petrol engine and/or petrol tank compartments*

ISO 12216:2002, *Small craft — Windows, portlights, hatches, deadlights and doors — Strength and watertightness requirements*

ISO 13297:2014, *Small craft — Electrical systems — Alternating current installations*

ISO 14895:2016, *Small craft — Liquid-fuelled galley stoves and heating appliances*

EN 15609:2012, *LPG equipment and accessories — LPG propulsion systems for boats, yachts and other craft*

**ISO/DIS 9094:2020(E)**

ISO 16315:2016, *Small craft — Electric propulsion system*

ISO 21487:2012+Amd1:2013, *Small craft — Permanently installed petrol and diesel fuel tanks*

EN 12815:2013, *Residential cookers fired by solid fuel — Requirements and test methods*

EN 13240:2001, *Roomheaters fired by solid fuel — Requirements and test methods*

**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  
accessible**  
capable of being reached for inspection, removal or maintenance without removal of permanent craft structure

Note 1 to entry: Hatches are not regarded as permanent craft structures in this sense even if tools are needed to open them.

**3.2  
readily accessible**  
capable of being reached quickly and safely for effective use under emergency conditions without the use of tools

**3.3  
engine compartment**  
compartment of the craft, containing main or auxiliary engine(s)

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**3.4  
fixed fire extinguishing system**  
fire fighting system having all components fixed in position and having automatic activation and/or manual release from outside of the space protected

Note 1 to entry: In the following text this system is called “a fixed system”.

**3.5  
fire exit**  
any door, hatch, or aperture designated as an exit in case of fire and leading either directly or via other areas of the craft, to the open air

**3.6  
open flame device**  
any appliance where direct bodily contact with an exposed open flame is possible during normal operation

**3.7  
petrol**  
hydrocarbon fuel or blends thereof which is liquid at atmospheric pressure and is used in spark ignition engines

Note 1 to entry: In this context, kerosene is not regarded as petrol.