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**BS EN ISO 10088:2013**



**BSI Standards Publication**

# **Small craft — Permanently installed fuel systems (ISO 10088:2013)**

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This British Standard is the UK implementation of EN ISO 10088:2013. It supersedes BS EN ISO 10088:2009 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GME/33, Small craft.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

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**Amendments issued since publication**

Date	Text affected
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## EUROPÄISCHE NORM

August 2013

ICS 47.080

Supersedes EN ISO 10088:2009

English Version

## Small craft - Permanently installed fuel systems (ISO 10088:2013)

Petits navires - Systèmes à carburant installés à demeure  
(ISO 10088:2013)

Kleine Wasserfahrzeuge - Dauerhaft installierte  
Kraftstoffsysteme (ISO 10088:2013)

This European Standard was approved by CEN on 8 June 2013.

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**

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## Foreword

This document (EN ISO 10088:2013) 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 2014, and conflicting national standards shall be withdrawn at the latest by February 2014.

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 10088:2009.

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.

For relationship with EU Directive, 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 10088:2013 has been approved by CEN as EN ISO 10088:2013 without any modification.

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## Annex ZA (informative)

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

This standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a 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 Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the 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 standard and EU Directive 94/25/EC as amended by Directive 2003/44/EC**

Clause(s)/sub-clause(s) of this standard	Essential Requirements (ERs) of EU Directive 94/25/EC as amended by Directive 2003/44/EC	Qualifying remarks/Notes
All clauses	Annex 1 A, Clause 5.1.1 inboard engine.	The clauses in this standard are limited to the installation of the fuel system to minimise the risk of fire.
All clauses	Annex 1 A, Clause 5.2.1, Fuel system -General	For compliance with Directive 94/25/EC as amended by Directive 2003/44/EC, installations intended for any fuel with a flash point below 55 °C shall comply with this standard's requirements for petrol tank compartments.
All clauses	Annex 1 A, Clause 5.2.2 Fuel tanks	The design and construction of fuel tanks are covered by ISO 21487:2012. The clauses in this standard address the fuel lines and ventilation of petrol tank compartments
All clauses	Annex 1, Clause 5.6.1 Fire protection - General	The scope of this standard is for permanently installed propulsion or auxiliary internal combustion engines. It does not cover the fuel supply for other types of diesel or petrol burning appliances but may be used as a guide for this type of equipment.
4.1.7, 4.1.8, 4.2.3, 5.2.8	Annex 1 A, Clause 5.8 Discharge prevention	

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

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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. [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. [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.

The committee responsible for this document is ISO/TC 188, *Small craft*.

This fourth edition cancels and replaces the third edition (ISO 10088:2009), which has been technically revised. The major changes concern [4.1.6](#), [4.3.2](#), and [5.5.4](#).

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# Small craft — Permanently installed fuel systems

## 1 Scope

This International Standard specifies the requirements for the design, materials, construction, installation and testing of permanently installed fuel systems as installed for internal combustion engines.

It applies to all parts of permanently installed diesel and petrol fuel systems as installed, from the fuel fill opening to the point of connection with the propulsion or auxiliary engine(s) on inboard- and outboard-powered small craft of up to 24 m hull length.

Requirements for the design, materials, construction and testing of permanently installed fixed fuel tanks are given in ISO 21487.

## 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.

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

ISO 7840:2013, *Small craft — Fire-resistant fuel hoses*

ISO 8469:2013, *Small craft — Non-fire-resistant fuel hoses*

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

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

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

ISO 11192, *Small craft — Graphical symbols*

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

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

#### **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 such as wrenches or screwdrivers are needed to open them. Hatches for inspection or maintenance of fuel tanks may be covered by uncut carpet, provided that all tank fittings can be inspected and maintained through other openings.

### 3.2

#### **readily accessible**

capable of being reached quickly and safely for maintenance or effective use under emergency conditions without the use of tools