



NSAI
Standards

Irish Standard
I.S. EN ISO 16147:2017&LC:2017

Small craft - Inboard diesel engines - Engine-mounted fuel and electrical components (ISO 16147:2002, including Amd 1:2013)

I.S. EN ISO 16147:2017&LC:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN ISO 16147:2017&LC:2017 is the adopted Irish version of the European Document EN ISO 16147:2017, Small craft - Inboard diesel engines - Engine-mounted fuel and electrical components (ISO 16147:2002, including Amd 1:2013)

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In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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Correction Notice

Reference: EN ISO 16147:2017

Title: Small craft - Inboard diesel engines - Engine-mounted fuel and electrical components (ISO 16147:2002, including Amd 1:2013)

Work Item: CST01167

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please include the following minor editorial correction(s) in the document related to:

the following language version(s) :

- English
- French
- German

for the following procedure :

- PQ/UQ
- Enquiry
- 2nd Enquiry
- Parallel Enquiry
- 2nd Parallel Enquiry
- Formal Vote
- 2nd Formal Vote
- Parallel Formal Vote
- 2nd Parallel Formal Vote
- UAP
- TC Approval
- 2nd TC Approval
- Publication
- Parallel Publication

It has been brought to our attention that this document, issued on 2017-08-16, requires modification.

EN ISO 16147:2002/A1:2013 has been added in the European flyleaves.

Titles and Forewords have been updated accordingly.

Please find enclosed the updated English, French and German versions.

We apologise for any inconvenience this may cause.

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EUROPEAN STANDARD

EN ISO 16147

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2017

ICS 47.080

Supersedes EN ISO 16147:2002

English Version

**Small craft - Inboard diesel engines - Engine-mounted fuel
and electrical components (ISO 16147:2002, including
Amd 1:2013)**

Petits navires - Moteurs intérieurs diesels - Éléments
des circuits d'alimentation et des systèmes électriques
fixés sur le moteur (ISO 16147:2002, y compris Amd
1:2013)

Kleine Wasserfahrzeuge - Eingebaute Dieselmotoren -
Am Motor befestigte Kraftstoff- und Elektrikbauteile
(ISO 16147:2002, einschließlich Amd 1:2013)

This European Standard was approved by CEN on 16 July 2017.

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



EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN ISO 16147:2017 (E)

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European foreword

The text of ISO 16147:2002, including Amd 1:2013 has been prepared by Technical Committee ISO/TC 188 “Small craft” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 16147:2017.

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 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

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

This document supersedes EN ISO 16147:2002.

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

Endorsement notice

The text of ISO 16147:2002, including Amd 1:2013 has been approved by CEN as EN ISO 16147:2017 without any modification.

(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2013/53/EU

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 2013/53/EU.

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 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.

Table ZA.1 — Correspondence between this European Standard and Directive 2013/53/EU

Clauses/subclauses of this European Standard	Essential requirements (ERs) of EU Directive 2013/53/EU	Qualifying remarks/Notes
4; 5; 6	I.A.5.1.1 - Installation requirements; inboard engine	In respect of fuel and electrical components fitted to diesel inboard-mounted engines.
4; 5	I.A.5.2.1 - Fuel system; general	In respect of minimising the risk of fuel leakage and risk/spread of fire from fuel components that are engine mounted. Fire resistant fuel hoses meeting the requirements of EN ISO 7840 deal with the use of biofuels.
4; 6	I.A.5.3 - Electrical system	In respect of minimising the risk/spread of fire from electrical components that are engine mounted. This Standard does not deal with the following elements of this essential requirement in relation to engine mounted electrical components: <ul style="list-style-type: none"> — AC electrical engine-mounted components; — Protection from electric shock; — Overload and short circuit protection; — Interaction with electric propulsion circuits; — Ventilation of explosive

		gases emitted from batteries; — Battery installation.
4; 5; 6	I.A.5.6.1 Fire protection - General	In respect of the design and installation arrangements for engine mounted fuel and electrical components on inboard diesel engines.

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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INTERNATIONAL STANDARD

ISO 16147

First edition
2002-10-15

Small craft — Inboard diesel engines — Engine-mounted fuel and electrical components

*Petits navires — Moteurs intérieurs diesels — Éléments des circuits
d'alimentation et des systèmes électriques fixés sur le moteur*



Reference number
ISO 16147:2002(E)

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ISO 16147:2002(E)

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 16147 was prepared by Technical Committee ISO/TC 188, *Small craft*.

Small craft — Inboard diesel engines — Engine-mounted fuel and electrical components

1 Scope

This International Standard establishes requirements for the design and installation of engine-mounted fuel and electrical components on diesel inboard-mounted engines for minimizing fuel leakage and the risk of and/or the spread of fire on small craft of hull length up to 24 m.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 7840:1994, *Small craft — Fire-resistant fuel hoses*

ISO 10088:2001, *Small craft — Permanently installed fuel systems and fixed fuel tanks*

ISO 10133:2000, *Small craft — Electrical systems — Extra-low-voltage d.c. installations*

3 Terms and definitions

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

3.1

engine-mounted

component fixed to the marine inboard engine and which will be in place while the engine is in operation

3.2

diesel fuel

hydrocarbon fuel or blends of hydrocarbon fuels which are liquids at atmospheric pressure and are used in compression-ignition engines

3.3

diesel engine

compression-ignition engine in which ignition is obtained by means of compressing the diesel fuel/air mixture

3.4

accessible

capable of being reached for inspection, removal or maintenance without removal of the permanent boat structure

NOTE Hatches are not regarded as permanent boat structures in this sense, even if tools are needed to open them.

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