

STN	Malé plavidlá Zabudované vznetové motory Palivové, olejové a elektrické súčasti namontované na motore (ISO 16147: 2018)	STN EN ISO 16147 32 4140
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Small craft - Inboard diesel engines - Engine-mounted fuel, oil and electrical components (ISO 16147:2018)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/18

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EN ISO 16147

NORME EUROPÉENNE

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English Version

Small craft - Inboard diesel engines - Engine-mounted fuel, oil and electrical components (ISO 16147:2018)

Petits navires - Moteurs intérieurs diesels - Éléments des circuits d'alimentation, des systèmes de lubrification et des systèmes électriques fixés sur le moteur (ISO 16147:2018)

Kleine Wasserfahrzeuge - Eingebaute Dieselmotoren - Am Motor befestigte Kraftstoff-, Öl- und Elektrikbauteile (ISO 16147:2018)

This European Standard was approved by CEN on 2 April 2018.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 18 July 2018.

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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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 16147:2018 (E)

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European foreword

This document (EN ISO 16147:2018) has been prepared by Technical Committee ISO/TC 188 "Small craft" in collaboration with CCMC.

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of an identical text or by endorsement, at the latest by December 2018, and conflicting national standards shall be withdrawn at the latest by December 2018.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 16147:2017.

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 16147:2018 has been approved by CEN as EN ISO 16147:2018 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of Directive 2013/53/EU aimed to be covered

This European standard has been prepared under a Commission's standardization request M/542 C(2015) 8736 final to provide one voluntary means of conforming to Essential Requirements of Directive 2013/53/EU.

Once this standard is cited in the Official Journal of the European Union under that Directive, 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 corresponding Essential Requirements of that Directive and associated EFTA regulations.

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

Essential requirements (ERs) of EU Directive 2013/53/EU	Clauses/subclauses of this European Standard	Qualifying remarks/Notes
Annex I, Part A, 5.1.1 - Installation requirements; inboard engine	4, 5, 6	In respect of inspection of fuel, oil and electrical components fitted to diesel inboard-mounted engines.
Annex I, Part A, 5.2.1 - Fuel system; general	4, 5, 7	In respect of minimising the risk of fuel leakage and risk/spread of fire from fuel components that are engine mounted.
Annex I, Part A, 5.3 - Electrical system	4, 6	Only in respect of minimising the risk/spread of fire from electrical components that are engine mounted.
Annex I, Part A, 5.6.1 Fire protection - General	4, 5, 6, 7	In respect of the design and installation arrangements for engine mounted fuel, oil and electrical components on inboard diesel engines.

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

INTERNATIONAL STANDARD

ISO
16147

Second edition
2018-05

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

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



Reference number
ISO 16147:2018(E)

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ISO 16147:2018(E)

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 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.

The committee responsible for this document is ISO/TC 188, *Small craft, SC 2, Engines and propulsion systems*.

This second edition of ISO 16147 cancels and replaces the first edition (ISO 16147:2002), of which it constitutes a technical revision. It also incorporates the amendment ISO 16147:2002/Amd 1:2013.

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

- in [4.2](#), requirements for access to fuel and electrical components have been added;
- in [4.3](#), requirements for exposed operating or hot components have been added;
- in [4.4](#), requirements that installation of fuel and electrical components shall take account of the risk and spread of fire have been added;
- in [5.3.1](#), requirements and temperature requirements on material in low pressure fuel lines have been deleted;
- in [5.4](#), requirements on oil filters have been added;
- in [6.1.2](#), requirements that AC installations shall meet the requirements in IEC 60092-507 or ISO 13297 have been added;
- in [6.1.3](#), requirements that electronic shift and throttle components if engine mounted and part of engine delivery from manufacturer shall meet the requirements in ISO 25197 have been added;
- in [Clause 7](#), requirements to state return fuel temperature/energy and flow in installation manual have been deleted and replaced by information about fuel line dimensions.

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

1 Scope

This document establishes requirements for the design and installation of engine-mounted fuel, oil and electrical components on diesel inboard-mounted engines for minimizing fuel leakage, risk of electric shock 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 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 7840:2013, *Small craft — Fire-resistant fuel hoses*

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

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

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

ISO 25197, *Small craft — Electrical/electronic control systems for steering, shift and throttle*

IEC 60529, *Degrees of protection provided by enclosures (IP CODE)*

IEC 60092-507, *Electrical Installations in Ships — Part 507: Small vessels*

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