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STN	**Zariadenia a príslušenstvo na LPG Hnacie systémy LPG pre lode, jachty a iné plavidlá Inštalačné požiadavky**	**STN EN 15609** 07 8250

LPG equipment and accessories - LPG propulsion systems for boats, yachts and other watercraft - Installation requirements

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. 02/22

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ICS 47.020.20; 47.080 Supersedes EN 15609:2012

English Version

LPG equipment and accessories - LPG propulsion systems for boats, yachts and other watercraft - Installation requirements

Équipements pour gaz de pétrole liquéfié et leurs accessoires - Systèmes de propulsion GPL des bateaux, yachts et autres navires - Exigences d'installation

Flüssiggas-Geräte und Ausrüstungsteile - Flüssiggas(LPG)-Antriebsanlagen für Boote, Jachten und andere Wasserfahrzeuge - Einbauvorschriften

This European Standard was approved by CEN on 24 October 2021.

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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

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European foreword

This document (EN 15609:2021) has been prepared by Technical Committee CEN/TC 286 “Liquefied petroleum gas equipment and accessories”, the secretariat of which is held by NSAI.

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of an identical text or by endorsement, at the latest by June 2022, and conflicting national standards shall be withdrawn at the latest by June 2022.

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 15609:2012.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

The main changes with respect to the previous edition include:

— Addition of fusible plug requirements;

— Addition of requirements for Outboard engines;

— Addition of LPG generator sets;

— Addition of Informative Annex G - Types of LPG propulsion systems;

— Addition of requirements for Fixed container - liquid phase for liquid LPG injection fuel system;

— Addition of new definitions;

— Updated text to paragraphs 4.2.3, 5.1, 5.2, 5.12.2;

— Update to Annex ZA, Relationship between this European Standard and the essential requirements of Directive 2013/53/EU [1] aimed to be covered;

— Removal of Environmental annex, references now made to CEN/TS 16765 [2].

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document specifies requirements for the installation of equipment for the use of Liquefied Petroleum Gas (LPG) in the propulsion systems of small watercraft.

This document calls for the use of substances and procedures that can be injurious to health if adequate precautions are not taken.

Protection of the environment is a key political issue in Europe and elsewhere. For TC 286 this is covered in CEN/TS 16765 [2] LPG equipment and accessories - Environmental considerations for CEN/TC 286 standards, and this Technical Specification should be read in conjunction with this document. The Technical Specification provides guidance on the environmental aspects to be considered regarding equipment and accessories produced for the LPG industry and the following is addressed:

a) design;

b) manufacture;

c) packaging;

d) use and operation; and

e) disposal.

It has been assumed in the drafting of this document that the execution of its provisions is entrusted to appropriately qualified and experienced persons.

This document is based on EN 12979 [3].

1 Scope

This document specifies the installation requirements for LPG propulsion systems on watercraft with hull lengths less than or equal to 24 m, as defined in EN ISO 8666 [11]. This document does not cover appliances with directly attached gas cylinders, such as portable self-contained camping stoves and portable gas lamps.

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.

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

EN 1442:2017, *LPG equipment and accessories - Transportable refillable welded steel cylinders for LPG - Design and construction*

EN 10025-2:2019, *Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels*

EN 12805:2002, *Automotive LPG components - Containers*

EN 12806:2003, *Automotive liquefied petroleum gas components - Other than containers*

EN 13110:2012+A1:2017, *LPG equipment and accessories - Transportable refillable welded aluminium cylinders for liquefied petroleum gas (LPG) - Design and construction*

EN 14140:2014,[1] *LPG equipment and accessories - Transportable refillable welded steel cylinders for LPG - Alternative design and construction*

EN 14291:2004, *Foam producing solutions for leak detection on gas installations*

EN 14427:2014, *LPG equipment and accessories - Transportable refillable fully wrapped composite cylinders for LPG - Design and construction*

EN 16129:2013, *Pressure regulators, automatic change-over devices, having a maximum regulated pressure of 4 bar, with a maximum capacity of 150 kg/h, associated safety devices and adaptors for butane, propane, and their mixtures*

EN 60529:1991,[2] *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*

EN ISO 898-1:2013, *Mechanical properties of fasteners made of carbon steel and alloy steel - Part 1: Bolts, screws and studs with specified property classes - Coarse thread and fine pitch thread (ISO 898-1:2013)*

EN ISO 8846:2017, *Small craft - Electrical devices - Protection against ignition of surrounding flammable gases (ISO 8846:1990)*

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[1] As impacted by EN 14140:2014/AC:2015.

[2] As impacted by EN 60529:1991/A1:2000.

EN ISO 9094:2017, *Small craft - Fire protection (ISO 9094:2015)*

EN ISO 10133:2017, *Small craft - Electrical systems - Extra-low-voltage d.c. installations (ISO 10133:2012)*

EN ISO 10239:2017, *Small craft - Liquefied petroleum gas (LPG) systems (ISO 10239:2014)*

EN ISO 11105:2020, *Small craft - Ventilation of petrol engine and/or petrol tank compartments (ISO 11105:2020)*

EN ISO 12217-1:2017, *Small craft - Stability and buoyancy assessment and categorization - Part 1: Non-sailing boats of hull length greater than or equal to 6 m (ISO 12217-1:2015)*

EN ISO 12217-2:2017, *Small craft - Stability and buoyancy assessment and categorization - Part 2: Sailing boats of hull length greater than or equal to 6 m (ISO 12217-2:2015)*

EN ISO 12217-3:2017, *Small craft - Stability and buoyancy assessment and categorization - Part 3: Boats of hull length less than 6 m (ISO 12217-3:2015)*

EN ISO 13297:2018, *Small craft - Electrical systems - Alternating current installations (ISO 13297:2014)*

ISO 20826:2006, *Automotive LPG components — Containers*