

Specification for the installation of LPG systems for habitation purposes in leisure accommodation vehicles and accommodation purposes in other vehicles

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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EUROPEAN STANDARD

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ICS 43.100; 97.200.30

Supersedes EN 1949:2011+A1:2013

English Version

Specification for the installation of LPG systems for
habitation purposes in leisure accommodation vehicles
and accommodation purposes in other vehicles

Spécifications relatives aux installations des systèmes
GPL pour les besoins domestiques dans les véhicules
habitables de loisirs et dans les autres véhicules

Festlegungen für die Installation von Flüssiggasanlagen
in bewohnbaren Freizeitfahrzeugen und zu
Wohnzwecken in anderen Fahrzeugen

This European Standard was approved by CEN on 23 August 2021.

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.

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Contents

Page

European foreword.....	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions.....	7
4 General Requirements.....	11
4.1 General.....	11
4.2 Dynamic loads.....	11
4.3 Tightness.....	12
4.4 Second LPG system.....	12
5 LPG cylinder housing.....	13
5.1 LPG Cylinder compartment.....	13
5.2 External access without cylinder compartment.....	17
6 LPG tank compartment.....	17
6.1 General.....	17
6.2 Ventilation for LPG tank compartments.....	18
6.3 Electric equipment in LPG tank compartments.....	18
6.4 Distance from the engine exhaust.....	18
7 Pressure regulation systems and working pressures.....	18
7.1 Working pressures.....	18
7.2 Pressure regulation systems.....	18
7.3 Marking of the working pressure.....	24
7.4 Device(s) to protect against over-pressure.....	24
7.5 Connection of a dual LPG cylinder system.....	24
7.6 Connection of a multi LPG cylinder system for caravan holiday homes.....	24
7.7 Connection of an external LPG supply by means of a plug-in connector.....	24
8 Components.....	26
8.1 Hose assemblies.....	26
8.2 Pipes.....	27
8.3 Pipe fittings.....	28
8.4 Jointing materials.....	30
8.5 Shut-off valves.....	30
8.6 Manual changeover valve.....	30
8.7 Leak detection device.....	30
9 Installation design.....	30
9.1 General.....	30
9.2 Protection against mechanical damage.....	30
9.3 Avoidance of corrosion.....	30
9.4 Pipe sizing.....	30
9.5 Pipe fittings.....	31
9.6 Positioning of LPG pipes near to other services.....	31
9.7 Fixing of pipes.....	31
9.8 Shut-off valves.....	31
9.9 Equipotential bonding of LPG pipes.....	33
10 Connection of appliances to the LPG supply.....	33

10.1	General	33
10.2	Road vehicles.....	34
10.3	Slide outs of road vehicles	34
10.4	Caravan holiday homes	35
11	LPG Appliances	35
11.1	Suitability of LPG appliances	35
11.2	Installations.....	35
11.3	Space heaters	35
11.4	Water heaters.....	36
11.5	Cooking appliances	37
11.6	Refrigerators.....	37
11.7	Gas lights	37
11.8	LPG fuel cells.....	37
11.9	LPG power generators	38
12	Flueing	38
12.1	Flues	38
12.2	Flue terminals.....	38
12.3	Weather protection.....	40
12.4	Draught diverters	40
12.5	Accessibility of flues	40
13	Installation of LPG tanks on road vehicles supplying LPG appliances	40
13.1	LPG tank and accessories.....	40
13.2	Installation of the LPG tank and LPG system requirements	41
14	User's handbook.....	42
Annex A (informative) National situation concerning the maximum flow rate of pressure regulating devices for caravan holiday homes		44
Annex B (informative) National situations in the Member States		46
Annex C (informative) Manufacturer declaration		48
Bibliography		50

European foreword

This document (EN 1949:2021) has been prepared by Technical Committee CEN/TC 181 “Appliances and leisure vehicle installations using liquefied petroleum gas and appliances using natural gas for outdoor use”, the secretariat of which is held by AFNOR.

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 2023.

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 1949:2011+A1:2013.

The following main technical changes have been made compared to EN 1949:2011+A1:2013:

- a) definition for LPG tank compartment has been added;
- b) declaration of conformity is now mandatory;
- c) several clauses have been separated to clearly state the requirements for road vehicles and caravan holiday homes;
- d) requirements for LPG cylinder compartment with internal access has been amended;
- e) requirements for LPG tank compartment have been added;
- f) requirements for electric installations inside LPG cylinder/tank compartments have been extended;
- g) requirements for slide outs have been added;
- h) requirements for LPG tanks and LPG tank installations have been extended;
- i) Annex A for national regulation concerning the maximum flow rate of pressure regulating devices for caravan holiday homes has been added;
- j) Annex B (old) has been deleted;
- k) former Annex A became Annex B;
- l) Annex C has been updated.

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.

1 Scope

This document specifies the requirements for the installation of liquefied petroleum gas systems for habitation purposes in leisure accommodation vehicles and for accommodation purposes in other vehicles.

It details health and safety requirements on:

- the selection of materials;
- components and appliances;
- design considerations;
- tightness testing of installations;
- the contents of the user's handbook.

This document only covers installations supplied with 3rd family gases (LPG).

It does not cover:

- water connections or electrical power supplies to the appliance(s);
- portable appliances, incorporating their own LPG supply;
- the installation of LPG appliances to be used for commercial purposes;
- LPG installations on boats;
- LPG supply equipment and LPG appliances separate from and external to the body of the vehicle.

This document covers LPG tanks fulfilling the requirements of the Pressure Equipment Directive (2014/68/EU).

Attention is drawn to the Pressure Equipment Directive (2014/68/EU) for any parts of the installation operating above 0,5 bar.

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 331:2015, *Manually operated ball valves and closed bottom taper plug valves for gas installations for buildings*

EN 624, *Specification for dedicated LPG appliances - Room sealed LPG space heating equipment for installation in vehicles and boats*

EN 732, *Specifications for dedicated liquefied petroleum gas appliances - Absorption refrigerators*

EN 751-2, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 2: Non-hardening jointing compounds*

EN 751-3, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 3: Unsintered PTFE tapes*

EN 1057, *Copper and copper alloys — Seamless, round copper tubes for water and gas in sanitary and heating applications*

EN 1254-1, *Copper and copper alloys - Plumbing fittings - Part 1: Capillary fittings for soldering or brazing to copper tubes*

EN 1254-2, *Copper and copper alloys - Plumbing fittings - Part 2: Compression fittings for use with copper tubes*

EN 1254-4, *Copper and copper alloys - Plumbing fittings - Part 4: Threaded fittings*

EN 10226-1, *Pipe threads where pressure tight joints are made on the threads - Part 1: Taper external threads and parallel internal threads - Dimensions, tolerances and designation*

EN 10305-1, *Steel tubes for precision applications - Technical delivery conditions - Part 1: Seamless cold drawn tubes*

EN 10305-2, *Steel tubes for precision applications - Technical delivery conditions - Part 2: Welded cold drawn tubes*

EN 10305-3, *Steel tubes for precision applications - Technical delivery conditions - Part 3: Welded cold sized tubes*

EN 10305-4, *Steel tubes for precision applications - Technical delivery conditions - Part 4: Seamless cold drawn tubes for hydraulic and pneumatic power systems*

EN 12979:2002, *Automotive LPG-systems - Installation requirements*

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

EN 14800, *Corrugated safety metal hose assemblies for the connection of domestic appliances using gaseous fuels*

EN 15033, *Room sealed storage water heaters for the production of sanitary hot water using LPG for vehicles and boats*

EN 15266, *Stainless steel pliable corrugated tubing kits in buildings for gas with an operating pressure up to 0,5 bar*

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 16436-2:2018, *Rubber and plastics hoses, tubing and assemblies for use with propane and butane and their mixtures in the vapour phase — Part 2: Assemblies*

EN ISO 1127, *Stainless steel tubes - Dimensions, tolerances and conventional masses per unit length (ISO 1127)*

EN ISO 8434-1, *Metallic tube connections for fluid power and general use - Part 1: 24° cone connectors (ISO 8434-1)*

ISO 8434-2, *Metallic tube connections for fluid power and general use — Part 2: 37 degree flared connectors*