

SVENSK STANDARD

SS-EN 14570:2014



Fastställt/Approved: 2014-04-07
Publicerad/Published: 2014-04-09
Utgåva/Edition: 2
Språk/Language: engelska/English
ICS: 23.020.30

Utrustning och tillbehör för gasol (LPG) – Utrustning för gasolcisterner (LPG), ovan mark och i mark

LPG equipment and accessories – Equipping of overground and underground LPG vessels

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Denna standard ersätter SS-EN 14570:2005, utgåva 1 och SS-EN 14570:2005/A1:2006, utgåva 1.

The European Standard EN 14570:2014 has the status of a Swedish Standard. This document contains the official version of EN 14570:2014.

This standard supersedes the Swedish Standard SS-EN 14570:2005, edition 1 and SS-EN 14570:2005/A1:2006, edition 1.

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EUROPEAN STANDARD

EN 14570

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2014

ICS 23.020.30

Supersedes EN 14570:2005

English Version

LPG equipment and accessories - Equipping of overground and underground LPG vessels

Équipements et accessoires GPL - Équipement des réservoirs sous pression GPL aériens et enterrés

Flüssiggas-Geräte und Ausrüstungsteile - Ausrüstung von oberirdisch und unterirdisch aufgestellten Behältern für Flüssiggas (LPG)

This European Standard was approved by CEN on 4 February 2014.

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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COMITÉ EUROPÉEN DE NORMALISATION
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Contents		Page
Foreword.....		4
Introduction		5
1 Scope		6
2 Normative references		6
3 Terms, definitions and abbreviations		6
3.1 Terms and definitions		6
3.2 Abbreviations		9
4 Pressure vessel equipment		9
4.1 General.....		9
4.2 Selection of pressure vessel equipment.....		9
4.3 Screwed joints.....		10
4.4 Seals and gaskets.....		10
5 Operational functions.....		10
5.1 General.....		10
5.2 Pressure relief.....		11
5.2.1 General.....		11
5.2.2 Isolating devices and manifolds		12
5.2.3 Vent pipes		12
5.3 Drainage.....		12
5.4 Liquid removal system.....		12
5.5 Maximum fill indication/control.....		13
5.5.1 General.....		13
5.5.2 Fixed liquid level gauge		13
5.5.3 Overfill protection device.....		13
5.6 Filling system		13
5.7 Vapour off-take.....		13
5.8 Vapour return		13
5.9 Liquid off-take		14
5.10 Liquid return.....		14
5.11 Temperature indication		14
5.12 Pressure indication.....		14
5.13 Liquid level indication		14
5.14 Road tanker potential bonding.....		14
5.15 Earthing		15
6 Equipping		15
6.1 General.....		15
6.2 Screwed joints.....		15
6.3 Flanged joints.....		15
7 Checking and testing		15
7.1 General.....		15
7.2 Leak tightness.....		16
7.3 Excess flow valve		16
7.4 Completion and purging		16
8 Storage, handling and transportation.....		16
9 Documentation.....		17

Annex A (informative) Examples of alternative means of over pressure protection for underground/mounded pressure vessels.....	18
Annex B (normative) Settings and discharge rates for PRVs and hydrostatic relief valves	19
B.1 Setting.....	19
B.2 Discharge rates.....	19
B.2.1 General	19
B.2.2 Above ground pressure vessels	19
B.2.3 Underground/fully mounded pressure vessels.....	19
B.2.4 Semi-mounded pressure vessels	20
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC	21
Bibliography.....	22

Foreword

This document (EN 14570:2014) 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 October 2014, and conflicting national standards shall be withdrawn at the latest by October 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 14570:2005.

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.

The main modifications in comparison to EN 14570:2005 are:

- update of definitions taking into account the terminology document prepared by TC 286 WG11 (tanks replaced by pressure vessels ,etc.);
- amendment A1 September 2006 included in new standard : paragraph 5.5.1 modified by addition of “or” at the end of the a) and b) paragraphs.

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.

Introduction

This European Standard calls for the use of substances and procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

Protection of the environment is a key political issue in Europe and elsewhere. Protection of the environment is taken in a very broad sense. What is meant is the total life cycle aspects of, e.g. a product on the environment, including expenditure of energy and during all phases from mining of raw materials, fabrication, packaging, distribution, use, scrapping, recycling of materials, etc.

It is recommended that companies using this European Standard develop an environmental management policy. For guidance see ISO 14000 series.

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

All pressures are gauge pressure.

1 Scope

This European Standard specifies requirements for the equipping of LPG pressure vessels, overground and underground, with a volume not greater than 13 m³ manufactured in accordance with EN 12542 or equivalent and have been hydraulically tested.

The equipment covered by this European Standard is directly mounted onto the pressure vessel connections.

This European Standard excludes the equipping of depot storage pressure vessels and refrigerated storage vessels.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 751-2:1996, *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 751-3:1996, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water — Part 3: Unsintered PTFE tapes*

EN 12542:2010, *LPG equipment and accessories - Static welded steel cylindrical tanks, serially produced for the storage of Liquefied Petroleum Gas (LPG) having a volume not greater than 13 m³ - Design and manufacture*

EN 13175:2003+A2:2007, *LPG equipment and accessories - Specification and testing for Liquefied Petroleum Gas (LPG) tank valves and fittings*

EN 13799:2012, *LPG equipment and accessories - Contents gauges for Liquefied Petroleum Gas (LPG) pressure vessels*

EN 14071:2004, *Pressure relief valves for LPG tanks - Ancillary equipment*

EN 14129:2004, *Pressure relief valves for LPG tanks*

EN ISO 10497:2010, *Testing of valves — Fire type-testing requirements (ISO 10497:2010)*

EN ISO 15995:2010, *Gas cylinders — Specifications and testing of LPG cylinder valves — Manually operated (ISO 15995:2006)*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

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

3.1.1

liquefied petroleum gas

LPG

low pressure liquefied gas composed of one or more light hydrocarbons which are assigned to UN 1011, UN 1075, UN 1965, UN 1969 or UN 1978 only and which consists mainly of propane, propene, butane, butane isomers, butene with traces of other hydrocarbon gases

3.1.2

pressure vessel

assembly of the pressure envelope (including the openings and their closures) and non-pressure-retaining parts attached directly to it

3.1.3

underground pressure vessel

pressure vessel below the surrounding ground level and completely covered

3.1.4

overground pressure vessel

pressure vessel above the surrounding ground level and not covered

3.1.5

fixed liquid level gauge

control device, such as a dip tube in combination with a vent valve to indicate when a predetermined liquid level has been reached or surpassed

3.1.6

depot storage vessel

pressure vessel at an installation where LPG is stored before being transferred into road/rail tankers and/or LPG cylinders for distribution

3.1.7

remotely operated

operated from a point at least 3 m from the vessel

3.1.8

drainage

process of removal of residual vessel content

3.1.9

liquid removal

withdrawal of LPG from the vessel for a purpose different from the normal use of the LPG (e.g. removal of LPG for decommissioning, maintenance or in case of an emergency)

3.1.10

vapour service

delivery of LPG in its vapour phase

Note 1 to entry: Vapour service is also referred to as vapour off-take.

3.1.11

liquid service

delivery of LPG in its liquid phase

Note 1 to entry: Liquid service is also referred to as liquid off-take.

3.1.12

connection

boss, flange, pad provided at an opening for the purpose of attaching equipment piping or pipe fittings

3.1.13

fail-safe shut-off valve

valve that automatically returns to its safe position in case of actuating power failure or fire engulfment