

# Equipping of LPG tanks, overground and underground

The European Standard EN 14570:2005, with the incorporation of amendment A1:2006, has the status of a British Standard

ICS 23.020.30

# National foreword

This British Standard is the official English language version of EN 14570:2005, including amendment A1:2006.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated in the text by **A1** **A1**.

The UK participation in its preparation was entrusted to Technical Committee PVE/19, LPG containers and their associated fittings, which has the responsibility to:

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- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
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### Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 18, an inside back cover and a back cover.

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|          |              |                       |
|          |              |                       |

English version

## Equipping of LPG tanks, overground and underground (includes amendment A1:2006)

Équipement des réservoirs GPL aériens et enterrés  
(inclut l'amendement A1:2006)

Ausrüstung von Behältern für Flüssiggas (LPG),  
oberirdische und unterirdische Aufstellung  
(enthält Änderung A1:2006)

This European Standard was approved by CEN on 15 December 2004; amendment A1:2006 was approved by CEN on 29 December 2005.

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 Central Secretariat or to any CEN member.

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CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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## Contents

|                                                                                                                                     | Page |
|-------------------------------------------------------------------------------------------------------------------------------------|------|
| Foreword .....                                                                                                                      | 3    |
| 1 Scope .....                                                                                                                       | 4    |
| 2 Normative references .....                                                                                                        | 4    |
| 3 Terms, definitions and abbreviations .....                                                                                        | 4    |
| 4 Tank equipment.....                                                                                                               | 6    |
| 5 Operational functions .....                                                                                                       | 7    |
| 6 Equipping .....                                                                                                                   | 11   |
| 7 Checking and testing .....                                                                                                        | 11   |
| 8 Storage, handling and transportation .....                                                                                        | 12   |
| 9 Documentation .....                                                                                                               | 12   |
| Annex A (informative) Example of alternative means of over pressure protection for<br>underground/mounded tanks .....               | 14   |
| Annex B (normative) Settings and discharge rates for pressure relief valves .....                                                   | 15   |
| Annex ZA (informative) Relationship between this European Standard and the Essential<br>Requirements of EU Directive 97/23/EC ..... | 17   |
| Bibliography .....                                                                                                                  | 18   |

## Foreword

This document (EN 14570:2005) 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 November 2005, and conflicting national standards shall be withdrawn at the latest by November 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 97/23/EC.

For relationship with EU Directive 97/23/EC, see informative Annex ZA, B, C or D, 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## Foreword to amendment A1

This European Standard (EN 14570:2005/A1:2006) has been prepared by Technical Committee CEN/TC 286 “Liquefied petroleum gas equipment and accessories”, the secretariat of which is held by NSAI.

This Amendment to the European Standard EN 14570:2005 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2006, and conflicting national standards shall be withdrawn at the latest by August 2006.

This European Standard 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 97/23/EC.

For relationship with EU Directive 97/23/EC, see informative Annex ZA, which is an integral part of this European Standard.

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

## 1 Scope

This European Standard specifies requirements for the equipping of LPG tanks, overground and underground, with a volume not greater than 13 m<sup>3</sup> manufactured in accordance with EN 12542, EN 14075; or equivalent and have been hydraulically tested. The equipment covered by this European Standard is directly mounted onto the tank connections.

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

## 2 Normative references

The following referenced documents are indispensable for the application 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 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 12542:2002, *Static welded steel cylindrical tanks, serially produced for the storage of Liquefied Petroleum Gas (LPG) having a volume not greater than 13 m<sup>3</sup> and for installation above ground - Design and manufacture*

EN 13153, *Specification and testing of LPG cylinder valves - Manually operated*

EN 13175, *Specification and testing for Liquefied Petroleum Gas (LPG) tank valves and fittings*

EN 13799, *Contents gauges for LPG tanks*

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

EN 14075:2002, *Static welded steel cylindrical tanks, serially produced for the storage of Liquefied Petroleum Gas (LPG) having a volume not greater than 13 m<sup>3</sup> and for installation underground - Design and manufacture*

EN 14129, *Pressure relief valves for LPG tanks*

EN ISO 10497, *Testing of valves - Fire type-testing requirements (ISO 10497:2004)*

## 3 Terms, definitions and abbreviations

### 3.1 Terms and definitions

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

#### 3.1.1

##### **fixed level gauge**

device to indicate when a predetermined liquid level in a tank has been reached or surpassed

#### 3.1.2

##### **off-take connection**

opening from which product in the liquid or vapour phase is drawn from the tank for the purpose of being consumed

**3.1.3****depot storage tank**

LPG tank at an installation where LPG is stored before being transferred into bulk tankers and/or LPG cylinders for distribution

**3.1.4****remotely operated**

operated from a point at least 3 metres from the tank

**3.1.5****drainage**

process of removal of residual tank content

**3.1.6****liquid removal**

withdrawal of LPG from the tank 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)

**3.1.7****tank vapour service**

tank equipped for delivery of vapour to the customer through natural vaporisation

**3.1.8****tank liquid service**

tank equipped for delivery of liquid to the customer

**3.1.9****connection**

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

**3.1.10****fail-safe shut-off valve**

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

**3.1.11****shut-off valve**

valve to provide a leak-tight seal which is operated manually, remotely or is self-closing

**3.1.12****automatic maximum fill level control**

device that automatically stops the filling of liquid into the tank when a predetermined level has been reached

**3.1.13****thermal expansion valve**

self-closing valve which automatically, without the assistance of any energy other than that of the fluid concerned, discharges fluid at a predetermined pressure

**3.2 Abbreviations**

|     |                                                    |
|-----|----------------------------------------------------|
| PRV | Pressure Relief Valve,                             |
| PS  | Maximum allowable pressure                         |
| PED | Pressure Equipment Directive (Directive 97/23/EC ) |