



NSAI
Standards

Irish Standard
I.S. EN 12807:2009

LPG equipment and accessories -
Transportable refillable brazed steel
cylinders for liquefied petroleum gas
(LPG) - Design and construction

I.S. EN 12807:2009

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Údarás um Chaighdeáin Náisiúnta na hÉireann

English Version

LPG equipment and accessories - Transportable refillable
brazed steel cylinders for liquefied petroleum gas (LPG) -
Design and construction

Équipement et accessoires pour GPL - Bouteilles
transportables et rechargeables en acier brasé pour gaz de
pétrole liquéfié (GPL) - Conception et fabrication

Flüssiggas-Geräte und Ausrüstungsteile - Ortsbewegliche,
wiederbefüllbare, hartgelötete Flaschen aus Stahl für
Flüssiggas (LPG) - Konstruktion und Herstellung

This European Standard was approved by CEN on 14 May 2009.

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Foreword

This document (EN 12807:2009) 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of an identical text or by endorsement, at the latest by December 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document supersedes EN 12807:2001.

The main technical changes are a widening of the range of materials permitted, reference to the latest EN brazing standards, a reduction in the minimum required burst pressure from 50 bar to 35 bar and simplification of the marking requirements by reference to EN 14894.

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).

This European Standard has been submitted for reference into the RID and/or in the technical annexes of the ADR.

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.

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, 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 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.

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

All pressures are gauge unless otherwise stated.

NOTE This standard requires measurement of material properties, dimensions and pressures. All such measurements are subject to a degree of uncertainty due to tolerances in measuring equipment, etc. It may be beneficial to refer to the leaflet "measurement uncertainty leaflet (SP INFO 2000 27 uncertainty pdf)".

1 Scope

This European Standard specifies the minimum requirements for the design, construction and testing during manufacture of transportable refillable brazed steel Liquefied Petroleum Gas (LPG) cylinders, of water capacity from 0,5 l up to and including 15 l, exposed to ambient temperatures.

This European Standard applies only to cylinders having a circular cross-section without any longitudinal joint.

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 1044, *Brazing – Filler metals*

EN 10002-1, *Metallic materials - Tensile testing - Part 1: Method of test at ambient temperature*

EN 10120, *Steel sheet and strip for welded gas cylinders*

EN 10204:2004, *Metallic products - Types of inspection documents*

EN 12797, *Brazing – Destructive tests of brazed joints*

EN 12799:2000, *Brazing – Non-destructive examination of brazed joints*

EN 13134, *Brazing – Procedure approval*

EN 14894, *LPG equipment and accessories - Cylinder and drum marking*

EN ISO 11117:2008, *Gas cylinders – Valve protection caps and valve guards – Design, construction and tests (ISO 11117:2008)*

3 Terms, definitions and symbols

3.1 Terms and definitions

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

3.1.1

yield strength

upper yield strength R_{eH} or 0,2 % proof strength (non-proportional elongation), $R_{p0,2}$, for steels that do not exhibit a defined yield

3.1.2

normalised

heated to a uniform temperature above the upper critical point (A_{c3}) of the steel and then cooled under controlled conditions in still air

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