LPG equipment and accessories - Procedure for checking transportable refillable LPG cylinders before, during and after filling

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NATIONAL FOREWORD

See Eesti standard EVS-EN 1439:2017 sisaldab Euroopa standardi EN 1439:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 1439:2017 consists of the English text of the European standard EN 1439:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 21.06.2017.	Date of Availability of the European standard is 21.06.2017.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

LPG equipment and accessories - Procedure for checking transportable refillable LPG cylinders before, during and after filling

Équipements pour GPL et leurs accessoires - Procédure de vérification des bouteilles transportables et rechargeables pour GPL avant, pendant et après le remplissage

Flüssiggas-Geräte und Ausrüstungsteile - Kontrollverfahren für Flaschen für Flüssiggas (LPG) vor, während und nach dem Füllen

This European Standard was approved by CEN on 10 April 2017.

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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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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 1439:2017) 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 2017, and conflicting national standards shall be withdrawn at the latest by December 2017.

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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association

This document supersedes EN 1439:2008.

The changes to this document include:

— definitions have been updated and modified;

— changes in requirement to Clause 6;

— the addition of requirements to 7.3;

— the addition of requirements for composite cylinders with a metallic liner in Annex D.

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

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document calls for the use of substances and procedures that can 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 document that the execution of its provisions is entrusted to appropriately qualified and experienced people. Where judgements are called for, it has been assumed that they are made by competent persons who have been trained specifically for the tasks.

Protection of the environment is a key political issue in Europe and elsewhere, for CEN/TC 286 this is covered in CEN/TS 16765 [3] and this Technical Specification should be read in conjunction with this standard. This 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.

1 Scope

This document specifies the procedures to be adopted when checking transportable refillable LPG cylinders before, during and after filling.

This document applies to transportable refillable LPG cylinders of water capacity not exceeding 150 l and deemed to be fitted with valves designed according to EN ISO 14245 [4] and EN ISO 15995 [5].

This document does not cover the requirements for filling LPG cylinders that are designed and equipped for filling by the user.

This document does not cover the requirements for filling LPG containers on vehicles.

This document is applicable to the following:

— welded and brazed steel LPG cylinders with a specified minimum wall thickness (see EN 1442 and EN 12807 [1] or an equivalent standard);

— welded steel LPG cylinders without specified minimum wall thickness (see EN 14140 or an equivalent standard);

— welded aluminium LPG cylinders (see EN 13110 [2] or an equivalent standard);

— composite LPG cylinders (see EN 14427 or an equivalent standard); and

— over-moulded cylinders (OMC).

Specific requirements for the different types of cylinders are detailed in Annex A, Annex B, Annex C, Annex D and Annex G.

This draft standard is intended to be applied to cylinders complying with RID/ADR [6] [7] (including pi marked cylinders) and also to existing non RID/ADR cylinder populations.

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 549, *Rubber materials for seals and diaphragms for gas appliances and gas equipment*

EN 1440, *LPG equipment and accessories - Transportable refillable traditional welded and brazed steel Liquefied Petroleum Gas (LPG) cylinders - Periodic inspection*

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

EN 10028-7, *Flat products made of steels for pressure purposes - Part 7: Stainless steels*

EN 12816, *LPG equipment and accessories - Transportable refillable LPG cylinders - Disposal*

EN 13952, *LPG cylinders - Filling procedures*

EN 14140, *LPG equipment and accessories - Transportable refillable welded steel cylinders for LPG - Alternative design and construction*

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

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

EN 15202, *LPG equipment and accessories - Essential operational dimensions for LPG cylinder valve outlet and associated equipment connections*

EN 16728, *LPG equipment and accessories - Transportable refillable LPG cylinders other than traditional welded and brazed steel cylinders - Periodic inspection*

3 Terms and definitions

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

3.1
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

3.2
competent person
person which by combination of appropriate qualification, training, experience, and resources, is able to make objective judgments on the subject

3.3
over-moulded cylinder
OMC
a pressure receptacle intended for the carriage of LPG of a water capacity not exceeding 13 litres made of a coated steel inner cylinder with an over-moulded protective case made from cellular plastic, which is non removable and bonded to the outer surface of the steel cylinder wall

3.4
periodic inspection
activities carried out at defined intervals, such as examining, measuring, testing or gauging the characteristics of a pressure vessel or a pressure receptacle and comparing these with specified requirements

3.5
filled to a level
filled to a fixed level using a fixed liquid level device

3.6
filled by mass
filled with LPG using a weighing machine

3.7
filled by volume
filled with a fixed volume of LPG