

SLOVENSKI STANDARD SIST EN 14894:2013

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Oprema in pribor za utekočinjeni naftni plin (UNP) - Označevanje jeklenk in sodov

LPG equipment and accessories - Cylinder and drum marking

Flüssiggas-Geräte und Ausrüstungsteile - Kennzeichnung von Flaschen und Fässern

iTeh STANDARD PREVIEW

Équipements pour gaz de pétrole liquéfié - Marquage des bouteilles et des fûts à pression (standards.iteh.ai)

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ICS:

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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English Version

LPG equipment and accessories - Cylinder and drum marking

Équipements pour gaz de pétrole liquéfié - Marquage des bouteilles et des fûts à pression Flüssiggas-Geräte und Ausrüstungsteile - Kennzeichnung von Flaschen und Fässern

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> <u>SIST EN 14894:2013</u> https://standards.iteh.ai/catalog/standards/sist/88adf753-d608-4e84-afa4-323842216101/sist-en-14894-2013



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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(standards.iteh.ai)

Foreword

This document (EN 14894:2013) 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of an identical text or by endorsement, at the latest by October 2013, and conflicting national standards shall be withdrawn at the latest by October 2013.

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 14894:2011.

The main technical change to this version is to align the marking requirements with RID/ADR 2013 (see [7] and [8]).

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

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, 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.

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.

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1 Scope

This European Standard specifies stamp marking requirements for transportable refillable LPG cylinders and metallic drums including:

- Steel LPG cylinders designed and manufactured in accordance with EN 1442, EN 14140, EN 12807 or an equivalent standard or technical code recognised by the Competent Authority.
- LPG metallic drums designed and manufactured in accordance with EN 14893 or an equivalent standard or technical code recognised by the Competent Authority.
- Welded aluminium LPG cylinders designed and manufactured in accordance with EN 13110 or an equivalent standard or technical code recognised by the Competent Authority.
- LPG composite cylinders designed and manufactured in accordance with EN 14427 or an equivalent standard or technical code recognised by the Competent Authority.
- NOTE 1 All these types of receptacles are referred to throughout this standard as "cylinders".

This European Standard does not specify any requirements for product, hazard or safety-phrase labelling of packaging which may be required to meet ADR or other legislative requirements.

NOTE 2 The marking of cylinders is regulated by RID/ADR which take precedence over any clause in this European Standard. The European Directive on Transportable Pressure Equipment 2010/35/EU [9] includes additional marking requirements (π -marking).

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2 Terms and definitions (standards.iteh.ai)

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

<u>SIST EN 14894:2013</u>

2.1https://standards.iteh.ai/catalog/standards/sist/88adf753-d608-4e84-afa4-liquefied petroleum gas323842216101/sist-en-14894-2013

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

2.2

stamp marking

permanent or durable markings affixed to the cylinder

2.3

competent authority

authority designated as such in each country in accordance with national regulation

2.4

inspection body

independent inspection and testing body approved by the competent authority

3 Symbols and abbreviated terms

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road [8]

- D durable
- P permanent
- RID Regulations concerning the International Carriage of Dangerous Goods by Rail [7]

TPED Transportable Pressure Equipment Directive 2010/35/EU [9]

 π -marking Pi marking as defined in European Directive on Transportable Pressure Equipment 2010/35/EU [9]

4 Application of stamp markings

4.1 General

4.1.1 Stamp markings consist of manufacturing, operational and certification stamp marks and are listed in Clause 5, Clause 6, Clause 7 and Clause 8. The layout of the marks is covered by 4.3. Additional markings may be applied if required by other regulations or technical standards, or when required by the cylinder owner; provided the layout does not cause any confusion in their interpretation and the clarity of the other mandatory markings is not affected.

4.1.2 Low stress stamp marking methods shall be utilised.

4.1.3 Stamp markings shall be applied to low stress areas.

4.1.4 Stamp marking shall be in accordance with the requirements of EN 14894 and any requirements in the standard to which cylinder or drum is being manufactured.

The marking information may be supplemented and/or duplicated by electronic means or other types of coding where required by the operator.

NOTE 1 The TPED includes additional marking requirements (π-marking) **REVIEW**

NOTE 2 The requirements of RID/ADR override any conflicting requirements of this European Standard; this may lead to a temporary noncompliance with EN 14894.

SIST EN 14894:2013 4.2 Workmanship https://standards.iteh.ai/catalog/standards/sist/88adf753-d608-4e84-afa4

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4.2.1 All stamp markings shall be affixed clearly, legibly and durably on the cylinder and shall remain legible under all foreseeable operating and ageing conditions.

- Markings required to be "permanent" shall be such that they can only be removed with the use of special tools and may be done, for example by hard metal stamping, engraving, casting, embossing, encapsulation or other similar methods.
- Markings required to be "durable" shall be such that they remain visible for the relevant period of time and may be done, for example by printing, external labelling, stencilling, use of valve hand-wheel insert or other similar methods.

Clause 5, Clause 6, Clause 7 and Clause 8 indicate which markings shall be "permanent (P)" and which may be "durable (D)".

Markings which are permitted to be durable may be permanently applied if so desired.

4.2.2 For metallic cylinders, the markings shall be located on the shoulder, top end or neck of the cylinder or on a permanently affixed component, e.g. shroud, handle(s), foot ring, welded nameplate, etc.

4.2.3 If markings are applied after completion of manufacture or following periodic inspection, by stamping or engraving onto the pressure parts of the cylinder, it shall be demonstrated by fatigue and burst tests in accordance with the original design standard or equivalent, that failure does not initiate in the markings.

4.2.4 For composite cylinders, permanent markings may be affixed by use of a printed label encapsulated by either placing it under the resin or by covering it with a permanent transparent coating, on the shoulder or the sidewall of the cylinder (see 4.3).

The characters in the stamp markings shall be at least 5 mm in height. On cylinders with an outside 4.2.5 diameter less than 140 mm, this height may be reduced, but in no case shall the characters be less than 2,5 mm in height.

4.2.6 The π -mark, where applicable, shall have substantially the same vertical dimension as the other stamp markings but shall not be less than 5 mm. If the mark dimensions are changed, the proportions of the drawing shall be maintained.

NOTE The proportions of the π -mark are specified in the conformity marking drawing in the TPED.

4.2.7 The UN number and the letters "UN" shall be:

- a) at least 12 mm high for cylinders of greater than 60 I water capacity;
- at least 6 mm in height for cylinders of 60 I water capacity or less; and b)
- be of an appropriate size for cylinders of 5 l or less. c)

4.3 Arrangements for stamp marking

The markings for manufacturing, operation and certification shall be arranged in three groups as 4.3.1 specified in Clause 5, Clause 6 and Clause 7, where the manufacturing marks shall be the top grouping, the operational be the middle grouping and the certification marks be the bottom grouping.

The arrangement of additional markings specified in Clause 8, shall be such as to avoid confusion 4.3.2 with the markings specified in 4.3 A NDARD PREV

Where relevant, the certification marks of Table 4, e.c. the conformity reassessment mark and the 4.3.3 TPED conformity mark, shall be applied before or after the certification stamp markings in accordance with Table 3. SIST EN 14894:2013

https://standards.iteh.ai/catalog/standards/sist/88adf753-d608-4e84-afa4-Possible locations of the markings are given in Annex A. 3238422161011/sist-en-14894-2013 NOTE

4.3.4 When an identity plate (or label for composite cylinders) is used, all the stamp markings may be on a single plate or label together with any additional markings, provided the layout does not cause any confusion in their interpretation.