



SLOVENSKI STANDARD
SIST EN 1440:2008/kFprA1:2011
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Oprema in pribor za utekočinjeni naftni plin (UNP) - Periodični pregledi premičnih, ponovno polnljivih jeklenk za UNP - Dopolnilo A1

LPG equipment and accessories - Periodic inspection of transportable refillable LPG cylinders

Flüssiggas-Geräte und Ausrüstungsteile - Wiederkehrende Prüfung von ortsbeweglichen, wiederbefüllbaren Flaschen für Flüssiggas (LPG)

Equipement et accessoires GPL - Contrôle périodique des bouteilles de GPL transportables et réutilisables

Ta slovenski standard je istoveten z: EN 1440:2008/FprA1

ICS:

23.020.30	Tlačne posode, plinske jeklenke	Pressure vessels, gas cylinders
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English Version

LPG equipment and accessories - Periodic inspection of transportable refillable LPG cylinders

Équipement et accessoires GPL - Contrôle périodique des
bouteilles de GPL transportables et réutilisables

Flüssiggas-Geräte und Ausrüstungsteile - Wiederkehrende
Prüfung von ortsbeweglichen, wiederbefüllbaren Flaschen
für Flüssiggas (LPG)

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 286.

This draft amendment A1, if approved, will modify the European Standard EN 1440:2008. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 1440:2008/FprA1:2011) has been prepared by Technical Committee CEN/TC 286 "Liquefied Petroleum Gas equipment and accessories", the secretariat of which is held by NSAI.

This document is currently submitted to the Unique Acceptance Procedure.

EN 1440:2008/FprA1:2011 (E)**1 Modifications to the Foreword**

1.1 *Delete the last sentence from the 4th paragraph to read:*

"This European Standard has been submitted for reference into the RID (Regulations concerning the International Carriage of Dangerous Goods by Rail) and/or in the technical annexes of the ADR (European Agreement concerning the international carriage of Dangerous goods by Road).".

1.2 *Add new 7th paragraph summarising the scope of the changes in this amendment EN 1440:2008/FprA1:2011:*

"The changes in this amendment (EN 1440:2008/FprA1:2011) include:

- inclusion of the new ADR requirement relative to the 15 year interval between periodic inspections introduced in ADR 2011;
- revision of procedures of periodic inspection in order to meet all ADR requirements;
- introduction of a new annex dealing with the testing of cylinders with a water capacity less than 6,5 litres."

2 Modification to the Introduction

Delete the word "now" from the 3rd paragraph to read:

"This European Standard has been prepared to reflect the current state of the art for period inspecting of LPG cylinders, and is based on the operating experience of many hundreds of millions of cylinder years of service."

3 Modifications to Clause 2

3.1 *Delete the following references:*

- "EN 13152, *Specification and testing of LPG cylinder valves – Self closing*
- "EN 13153, *Specification and testing of LPG cylinder valves – Manually operated*".

3.2 *Add the following new references:*

- "EN 13322-1, *Transportable gas cylinders — Refillable welded steel gas cylinders — Design and construction — Part 1: Carbon steel*" and
- "EN ISO 4628-3, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 3: Assessment of degree of rusting (ISO 4628-3:2003)*
- "EN ISO 14245, *Gas cylinders — Specifications and testing of LPG cylinder valves — Self-closing (ISO 14245:2006)*
- "EN ISO 15995, *Gas cylinders — Specifications and testing of LPG cylinder valves — Manually operated (ISO 15995:2006)*".

4 Modifications to Clause 3

4.1 Modification to 3.1

Replace term and definition 3.1 with new term and definition:

"inspection body

independent inspection and testing body approved by the competent authority".

4.2 Modification to 3.2

Replace definition 3.2 with new definition:

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

4.3 Modification to 3.3

Replace definition 3.3 with new definition:

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

4.4 Modification to 3.5

Replace the definition and note in 3.5 with the following new definition:

"cylinder fully covered with a protection against impact and external corrosion so that the cylinder wall cannot be seen".

4.5 Modification to 3.7

Replace term, definition and note 3.7 with new term and definition:

"liquefied petroleum gas

LPG

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 or traces of other hydrocarbon gases".

4.6 Modification to 3.8

Replace term with "tare weight".

4.7 Addition of new term and definition 3.9

Insert new term and definition 3.9:

"3.9

competent authority

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

EN 1440:2008/FprA1:2011 (E)**5 Modification to Clause 4**

5.1 *In the 2nd paragraph, after the NOTE, add “maximum” between “The” and “interval” to read as follows:*

"The maximum interval between periodic inspections for welded steel, brazed steel and welded aluminium LPG cylinders shall be 10 years."

5.2 *Replace the 3rd paragraph:*

"However, for welded and brazed steel LPG cylinders, this period can be extended to 15 years, provided the conditions of Annex E are fully met and approval from the relevant competent authority(ies) has been given."

with the following paragraphs:

"However for welded and brazed steel LPG cylinders manufactured before the date 2015-01-01, this maximum interval can be extended to 15 years, provided the conditions of Annex E are fully met and approval from the relevant competent authority(ies) has been given."

The interval between periodic inspections of RID/ADR welded steel LPG cylinders can be extended to 15 years provided the requirements of Annex I are fulfilled and approval from the relevant competent authority has been given."

5.3 *Delete the last sentence of the last paragraph:*

"The inspection procedure to be applied shall be selected from the alternatives given in Clause 5."

6 Modification to Clause 5**6.1 Modification to 5.1**

Replace the text and table in 5.1 and with the following:

"Periodic inspections/tests shall be carried out by a competent person under the control of an inspection body based on a written scheme and in accordance with the procedures specified in Table 1."

For composite cylinders the written scheme shall be approved by the competent authority.

NOTE 1 A written scheme describes work procedures, criteria, responsibilities and other minimum requirements.

Cylinders rejected shall be segregated and be either reconditioned, re-tested or rendered unserviceable.

The decision to render a cylinder unserviceable can be taken at any stage during the periodic inspection procedure. With agreement by the owner, a cylinder shall be rendered unserviceable in accordance with EN 12816 so that it cannot be re-issued into service as a pressure vessel.

NOTE 2 In some countries, render unserviceable means scrapping.

Table 1 – Procedures for periodic inspection

Cylinder types	Maximum periodic inspection interval	Procedures
Brazed steel cylinders	10 years	— External visual inspection as described in 6.1.2.1, 6.1.3 and Annex A
Welded steel cylinders in conformity with EN 1442, EN 13322-1 or Council Directive 84/527/EEC Annex I parts 1 to 3	15 years under the conditions of Annex I	— Proof pressure test — (hydraulic proof pressure test or pneumatic proof test and leak test) as described in 5.2 and 6.2 — Internal condition check as described in 6.3.1 and Annex A
Welded and brazed steel cylinders – manufactured before 1 st January 2015	15 years under the conditions of Annex E	— Inspection of threads as described in 5.2 and 6.4 — Inspection of valves as described in 6.5
Welded steel cylinders in conformity with EN 14140 or equivalent standard	10 years	— External visual inspection as described in 6.1.2.1, 6.1.3 and Annex B — Proof pressure test (hydraulic proof pressure test or pneumatic proof test and leak test) as described in 5.2 and 6.2
Welded steel cylinders in conformity with EN 14140 or equivalent standard – manufactured before 1st January 2015	10 years; or 15 years with the agreement of the competent authority and under the conditions of Annex E	— Internal condition check as described in 6.3.1 and Annex B — Inspection of threads as described in 5.2 and 6.4 — Inspection of valves as described in 6.5
Welded aluminium cylinders	10 years	— External visual inspection as described in 6.1.2.1, 6.1.3 and Annex C — Proof pressure tests (hydraulic proof pressure test or pneumatic proof test and leak test) as described in 5.2 and 6.2 — Internal condition check as described in 6.3.2 — Inspection of threads as described in 5.2 and 6.4 — Inspection of valves as described in 6.5
Composite cylinders	As determined by the competent authority. Guidance for 10 year periodic inspection interval described in Annex F	— External visual inspection as described in 6.1.2.2, 6.1.3 and Annex D — Proof pressure test (hydraulic proof pressure test or pneumatic proof test and leak test) as described in 5.2 and 6.2

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		<ul style="list-style-type: none"> — Internal condition check as described in 6.3.2 — Inspection of threads as described in 5.2 and 6.4 — Inspection of valves as described in 6.5
Protected cylinders	<p>As determined by the competent authority.</p> <p>Annex G provides guidance for a inspection scheme with an interval of maximum 3 years after putting in service and thereafter every "n" years dependent from the results of the first periodic inspection</p>	As specified in Annex G
Cylinders with a water capacity of less than 6.5 liters	10 years	As specified in Annex J
Non ADR/RID welded and brazed steel cylinders	15 years under the conditions of Annex E	As specified in Annex H

".

6.2 Modification to 5.2

Replace the subclause title of 5.2 and the text in subclause 5.2 including 5.2.1, 5.2.2 and 5.2.3 with the following new subclause:

"5.2 Inspection requirements

Each cylinder shall be submitted to periodic inspection and test. The following procedures form the requirements for such inspection and test, and are explained more fully in later clauses:

- external visual inspection (see 6.1);
- proof pressure test (see 6.2);
- check of the internal condition of the cylinder (see 6.3);
- inspection of cylinder threads if there is evidence of corrosion or if the fittings are removed (see 6.4);
- inspection of valves (see 6.5).

Final operations are described in Clause 7.

As an alternative, periodic inspections of cylinders with a water capacity below 6,5 l can consist of tests described in Annex J.