

SLOVENSKI STANDARD SIST EN 13175:2003/A1:2005

01-julij-2005

Specifikacija in preskušanje ventilov in fitingov za rezervoarje za utekočinjeni naftni plin (UNP)

Specification and testing for Liquefied Petroleum Gas (LPG) tank valves and fittings

Spezifikation und Prüfung für Armaturen und Ausrüstungsteile von Flüssiggasbehältern

Spécifications et essais des équipements et accessoires pour réservoirs de gaz de pétrole liquéfié (GPL) (standards.iteh.ai)

Ta slovenski standard je istoveten z EN 13175:2003/A1:2005/milps//standards.ten.avca.io/standards/sisvaodo-coo-es/2e-4e19-abb-

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| 23.020.10 | Nepremične posode in rezervoarji | Stationary containers and tanks |
|-----------|--|---------------------------------|
| 23.060.01 | Ventili na splošno | Valves in general |
| 75.180.01 | Oprema za industrijo nafte in zemeljskega plina na splošno | • • |

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EUROPEAN STANDARD

EN 13175:2003/A1

NORME EUROPÉENNE EUROPÄISCHE NORM

April 2005

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English version

Specification and testing for Liquefied Petroleum Gas (LPG) tank valves and fittings

Spécifications et essais des équipements et accessoires pour réservoirs de gaz de pétrole liquéfié (GPL) Spezifikation und Prüfung für Armaturen und Ausrüstungsteile von Flüssiggasbehältern

This amendment A1 modifies the European Standard EN 13175:2003; it was approved by CEN on 1 March 2005.

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. 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.

This amendment 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 Central Secretariat has the same status as the official versions.

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

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

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Foreword

This document (EN 13175:2003/A1:2005) has been prepared by Technical Committee CEN/TC 286 "Liquefied petroleum gas equipment and accessories", the secretariat of which is held by NSAI.

This Amendment to the European Standard EN 13175:2003 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2005, and conflicting national standards shall be withdrawn at the latest by October 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 Directive 97/23/EC.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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1 Modification to Clause 1

Add new last paragraph:

"This document does not apply to refineries or other process plants."

2 Modification to Clause 2

Delete references to prEN 12516-3, prEN 13709 and prEN 13789 and replace with the following:

"EN 12516-3, Valves – Shell design strength – Part 3: Experimental method.

EN 13709, Industrial valves – Steel globe and globe stop and check valves.

EN 13789, Industrial valves – Cast iron globe valves."

Replace the references to the drafts where ever they occur in the standard with the updated references.

3 Modification to Clause 3

Add new definition:

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"3.21

service valve (standards.iteh.ai)

valve for fluid off-take which is operated by a hand-wheel to provide a leak-tight seal"

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4 Modification to subclause 5.2.4 bacc834d/sist-en-13175-2003-a1-2005

Delete clause and replace with the following:

5.2.4 Hot stamped brass shall be non-porous and suitable for machining or other processes. Leaded brass shall be CW614N or CW617N in accordance with EN 12420 or EN 12165. Sand-cast brass shall not be used. Cold drawn brass rods shall only be used for machining after adequate testing for internal cracking, porosity or other inclusions and shall be heat-treated if required. Components produced from stamping brass shall not exhibit cold shuts, also known as folds, or surface defects.

5 Modification to subclause 7.3

Delete clause and replace with the following:

"7.3 Shut-off valves

7.3.1 General

Shut off valves shall be of the ball valve, globe valve types or shall be a service valve. Ball valves shall be in accordance with prEN 1983 or prEN 13547 and globe valves shall be in accordance with prEN 12360, EN 13709 or EN 13789. A service valve shall meet the requirements of 7.3.3.

7.3.2 Excess flow protection

Valves with a minimum cross section of LPG passage through the valve, greater than 7 mm² (equivalent to a diameter of 3 mm) for liquid phase withdrawal, shall be protected by an excess flow valve.

Valves with a minimum cross section of LPG passage through the valve, greater than the equivalent cross sectional area of 50 mm² diameter (equivalent to a diameter of 8 mm) for vapour phase withdrawal, shall be protected by an excess flow valve.

7.3.3 Service valve

7.3.3.1 Valve operating mechanism

The valve operating mechanism includes a hand-wheel.

The valve operating mechanism shall be designed in such a way that it remains captive, and it achieves a direct contact with the valve body in the case of absence of the sealing element. The valve shall be designed in such a way that the valve operating mechanism cannot be removed during normal use and without showing tamper evidence.

Under normal use the valve shall operate without difficulty even after prolonged use and shall satisfy the requirements of 8.6 with the closing torque not exceeding 3 N.m.

The sealing element, to ensure internal leak tightness, shall be attached or otherwise assembled such that it will not become dislocated under service conditions. The means to secure the sealing element shall not rely solely on cement or adhesive.

All valves shall close when turned clockwise and open when turned anti-clockwise. It is recommended that the valve operating mechanism should be visibly marked with a portion of circle terminating in two arrows. One arrow marked "-" and the other arrow marked "+", to indicate the result of the rotation (see Figure 1).



Figure 1 — Hand-wheel marking

7.3.3.2 Valve body

If the valve body is made of more than one part, precautions shall be taken to ensure that there can be no unintentional dismantling. Disassembly shall require specialised equipment.

7.3.3.3 Sealing mechanism

The mechanism shall ensure internal leak tightness.

7.3.3.4 Operating torque

After the endurance test in accordance with 8.6, the operating torque shall not exceed 3 N.m during the service valve life."

6 Modification to subclause C.2

Delete clause and replace with the following:

"C.2 Production testing shall be carried out on each valve or fitting produced and shall be in accordance with Table C.1. These tests shall be carried out at ambient temperature only."

7 Modification to subclause C.3

Delete clause and replace with the following:

- **"C.3** Batch samples shall be taken in accordance with ISO 2859-1 and at least the following tests and inspections shall be carried out:
- correct operation;
- dimensional verification;
- material suitability;
- marking."

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