SLOVENSKI STANDARD
SIST EN 12754:2002

01-maj-2002

Premiļne plinske jeklenke - Jeklenke za raztopljeni acetilen - Kontrola med polnjenjem

Transportable gas cylinders - Cylinders for dissolved acetylene - Inspection at time of filling

Ortsbewegliche Gasflaschen - Gasflaschen für gelöstes Acetylen - Prüfung zum Zeitpunkt des Füllens

Bouteilles a gaz transportables - Bouteilles pour acétylène dissous - Contrôle au moment du remplissage

Ta slovenski standard je istoveten z: **EN 12754:2001**

ICS:

23.020.30	Tlaļne posode, plinske jeklenke	Pressure vessels, gas cylinders

SIST EN 12754:2002 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 12754

December 2001

ICS 23.020.30

English version

Transportable gas cylinders - Cylinders for dissolved acetylene - Inspection at time of filling

Bouteilles à gaz transportables - Bouteilles pour acétylène dissous - Contrôle au moment du remplissage

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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 Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN 12754:2001 E

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 23 "Transportable gas cylinders", the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by June 2002, and conflicting national standards shall be withdrawn at the latest by June 2002.

This European Standard has been submitted for reference into the RID and/or in the technical annexes of the ADR. Therefore in this context the standards listed in the normative references and covering basic requirements of the RID/ADR not addressed within the present standard are normative only when the standards themselves are referred to in the RID and/or in the technical annexes of the ADR.

Annex A is for information only and is not a mandatory part of this standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This Standard covers requirements which reflect current practice and experience.

Each transportable gas cylinder for dissolved acetylene is inspected at time of filling in order to establish that:

— it has no defects such that the cylinder is unsafe for filling or continued use;

— it can be identified and complies with the relevant requirements with regard to marking, labelling, colour coding and completeness of its accessories;

— its valve functions satisfactorily;

— the appropriate amounts of the acetylene and solvent have been determined and charged.

The cylinder filling inspection is carried out only by persons who are trained and competent in the subject, for the purpose of ensuring that a cylinder is safe for continued use.

1 Scope

This European Standard specifies minimum requirements which reflect current practice and experience for inspection at time of filling of cylinders of water capacity up to 150 litres for the storage and transport of dissolved acetylene gas under pressure. The standard is not applicable to manifolded bundles or manifolded trailer cylinders. Aspects related to the inspection or testing of the porous mass, are not covered in this standard.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 1800:1998, *Transportable gas cylinders — Acetylene cylinders — Basic requirements and definitions.*

3 Terms and definitions

For the purposes of this European Standard the terms and definitions of EN 1800:1998 together with the following apply, though there may be differences with other standards of CEN/TC 23:

3.1
cylinder shell
pressure vessel manufactured for storage and transport, and suitable for containing a porous mass, a solvent for the acetylene and the acetylene

3.2
complete cylinder
cylinder shell, ready to be charged with acetylene gas that is complete with porous mass, solvent, saturation gas, valve, any valve protection (permanently attached to the cylinder shell) and other permanently fixed accessories (e.g. neck ring, foot ring, fusible plugs)

3.3
porous mass
single or multi-component material introduced or formed in the cylinder in order to fill it and which due to its porosity allows for the absorption of the solvent/acetylene gas solution

NOTE The porous mass can be either:

— monolithic, consisting of a solid product obtained by reacting materials or by materials connected together with a binder;

or

— non monolithic, consisting of granular, fibrous or similar materials without the addition of a binder

[EN 1800:1998]

3.4
solvent
liquid absorbed by the porous mass capable of dissolving and releasing the acetylene [EN 1800:1998]

3.5
nominal solvent weight
weight of solvent that the complete cylinder shall contain established during the prototype testing

3.6
saturation gas
weight of acetylene dissolved in solvent in a cylinder at atmospheric pressure and 15 °C

3.7
maximum acetylene content
specified maximum weight of acetylene in the cylinder (in kilograms); when a solvent is used it includes the weight of saturation gas

[EN 1800:1998]

3.8
working pressure
maximum settled pressure in bar (gauge) developed at a uniform temperature of 15 °C in a cylinder containing the maximum acetylene content and the specified weight of solvent content

[EN 1800:1998]

3.9
tare
tare weight of an acetylene cylinder expressed in one of the three following ways:

a) tare A
the weight of the complete cylinder, as per 3.2 minus the saturation gas

b) tare S
the weight of the complete cylinder, as per 3.2 including saturation gas

c) tare F
tare A (see a)) minus the weight of solvent (used for solvent free acetylene cylinders)

3.10
maximum charging weight

3.10.1 In the case of tare A, the maximum charging weight is the maximum acetylene content (see 3.7)

3.10.2 In the case of tare S, the maximum charging weight is the maximum acetylene content (see 3.7) minus saturation gas (see 3.6)

3.11
the filler
person or persons responsible for inspection prior to, during and immediately after filling and who has received an appropriate level of training for the work involved, and has access to all necessary data for the cylinder, valve and all other fittings used

4 Filling inspection

Each cylinder shall be submitted to an inspection as appropriate prior to, during, and immediately after filling. The following items shall be covered by a filling inspection:

a) verification of serviceable condition (see 5.1);

b) identification of cylinder for suitablility for filling (see 5.2);

c) identification of cylinder owner, if required (see 5.3);

d) verification of integrity of and presence of permanent attachments (e.g. neck ring/threaded boss) (see 5.4);

e) verification of valve integrity and suitability (see 5.5);

f) verification of filling conditions (see 5.6).

5 Description of inspection items

5.1 Verification of serviceable condition

It shall be established that each cylinder is in a serviceable condition before a cylinder is taken to the filling manifold. It shall therefore be established that the cylinder is clean and free of foreign material (i.e. such that the cylinder can be assessed for mechanical damage that would prevent it from being filled safely) and does not exhibit any abnormalities which could impair the safety such as arc burns, severe corrosion, heat/fire damage, or significant mechanical damage.

Any pressure relief device, if fitted, such as a fusible plug, shall be inspected to ensure it is in a satisfactory condition.

5.2 Identification of cylinder for suitability for filling

Before filling a cylinder, it shall be identified that:

a) the cylinder has not passed its due date for retest;

b) the complete cylinder is permitted for filling in the country of the filling station (e.g. by questioning the cylinder owner);

c) the stampmarking, label and colour coding, if any, are appropriate to acetylene (any conflict shall be rectified prior to filling).

5.3 Identification of owner

Certain cylinder owners may request that their authorization is obtained prior to their cylinders being filled. Such ownership shall be established and this authorization obtained before filling the cylinders.

5.4 Verification of integrity of permanent attachments

Before filling a cylinder, it shall be established that the neck ring/threaded boss is fit for the intended purpose and that the neck ring, if one exists, is not loose. If there is a permanent valve guard, it shall be checked to ensure that it is properly attached. Similarly the integrity of a footring if fitted shall be checked for intended duty.

5.5 Verification of valve integrity and suitability

5.5.1 Before filling a cylinder, it shall be established that the installed valve is suitable for acetylene and is in a satisfactory condition. As a minimum it shall be established that:

a) the valve outlet is suitable for the intended use;

b) the valve is easy to operate;