Gas cylinders - Acetylene cylinders - Periodic inspection and maintenance (ISO 10462:2013)

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NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 10462:2014 sisaldab Euroopa standardi EN ISO 10462:2013 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 10462:2014 consists of the English text of the European standard EN ISO 10462:2013.
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 18.12.2013.	Date of Availability of the European standard is 18.12.2013.
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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Gas cylinders - Acetylene cylinders - Periodic inspection and maintenance (ISO 10462:2013)

Bouteilles à gaz - Bouteilles d'acétylène - Contrôle et entretien périodiques (ISO 10462:2013)

Gasflaschen - Acetylenflaschen - Wiederkehrende Inspektion und Wartung (ISO 10462:2013)

This European Standard was approved by CEN on 23 November 2013.

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

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Foreword

This document (EN ISO 10462:2013) has been prepared by Technical Committee ISO/TC 58 “Gas cylinders” in collaboration with the 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of an identical text or by endorsement, at the latest by June 2014, and conflicting national standards shall be withdrawn at the latest by June 2014.

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 12863:2002.

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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.

Endorsement notice

The text of ISO 10462:2013 has been approved by CEN as EN ISO 10462:2013 without any modification.

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Introduction

Acetylene cylinders differ from all other cylinders transporting compressed or liquefied gases in that they contain a porous material and, normally, a solvent in which the acetylene is dissolved. Acetylene cylinders that contain a porous material but no solvent are only used for special applications. For periodic inspections, it is intended that due regard be given to the different types of construction of cylinders and porous materials. This International Standard should be read considering these differences.

The primary objective of the porous material is to limit an acetylene decomposition, if it is initiated, and thus prevent a cylinder incident. If some porous material is missing, or if a defect (e.g. a cavity, crack or void of significant size) exists as a result of breakdown or subsidence of the porous material, the decomposition could progress at a rate that can cause violent failure of the cylinder accompanied by an explosion.

The requirements in this International Standard are mainly those specific to acetylene cylinders. The periodic inspection of acetylene cylinders is to be performed only by competent persons and, in those jurisdictions requiring it, persons authorized by the regulatory authority.

This International Standard is intended to be used under a variety of national regulatory regimes, but has been written so that it is suitable for the application of Reference [1]. Attention is drawn to requirements in the specified relevant national regulations of the country (countries) where the cylinders are intended to be used that might override the requirements given in this International Standard. Where there is any conflict between this International Standard and any applicable regulation, the regulation always takes precedence.

In International Standards, “weight” is equivalent to a force, expressed in Newton. However, in common parlance (as used in terms defined in this International Standard), “weight” is used as an equivalent of “mass”, but this practice is deprecated (see ISO 80000-4).

Similarly, the unit “bar”[1)], which is not an SI unit and is deprecated by ISO, is used as an equivalent of Pascal, the SI unit for pressure. This is because of its universal use in the field of technical gases. Pressure values in this International Standard are given as gauge pressure (pressure exceeding atmospheric pressure), unless noted otherwise.

1) 1 bar = 0,1 MPa = 10^5 Pa; 1 MPa = 1 N/mm^2.

Gas cylinders — Acetylene cylinders — Periodic inspection and maintenance

1 Scope

This International Standard specifies requirements for the periodic inspection of acetylene cylinders as required for the transport of dangerous goods and for maintenance in connection with periodic inspection. It applies to acetylene cylinders with and without solvent and with a maximum nominal water capacity of 150 l.

NOTE The limitation of 150 l is derived from the definition of cylinder in Reference [1].

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.

ISO 13341, *Gas cylinders — Fitting of valves to gas cylinders*

ISO 22434, *Transportable gas cylinders — Inspection and maintenance of cylinder valves*

3 Terms and definitions

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

3.1
acetylene cylinder
cylinder manufactured and suitable for the transport of acetylene, containing a *porous material* (3.6) and *solvent* (3.9) (where applicable) for acetylene with a valve and other accessories affixed to the cylinder

Note 1 to entry: When there is no risk of ambiguity, the word “cylinder” is used.

3.2
cylinder shell
<acetylene cylinders> empty cylinder manufactured and suitable for receiving and containing a *porous material* (3.6) for use as part of an *acetylene cylinder* (3.1)

3.3
maximum acetylene content
<acetylene cylinders> specified maximum weight of acetylene including *saturation acetylene* (3.8) in an *acetylene cylinder* (3.1)

3.4
maximum acetylene charge
<acetylene cylinders> *maximum acetylene content* (3.3) minus the *saturation acetylene* (3.8)

3.5
periodic inspection body
<acetylene cylinders> body responsible for the periodic inspection of *acetylene cylinders* (3.1)