Transportable gas cylinders - Periodic inspection and maintenance of dissolved acetylene cylinders

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EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 12863:2002 sisaldab Euroopa standardi EN 12863:2002 ingliskeelset teksti. Käesolev dokument on jõustatud 06.08.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 12863:2002 consists of the English text of the European standard EN 12863:2002. This document is endorsed on 06.08.2002 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European standard deals with seamless and welded steel or aluminium alloy cylinders intended for the transport of dissolved acetylene in cylinders of water capacity up to 150 litres and deals with the requirements for the periodic inspection and maintenance of acetylene cylinders, regardless of the method of manufacture of the shell	**Scope:** This European standard deals with seamless and welded steel or aluminium alloy cylinders intended for the transport of dissolved acetylene in cylinders of water capacity up to 150 litres and deals with the requirements for the periodic inspection and maintenance of acetylene cylinders, regardless of the method of manufacture of the shell

ICS 23.020.30

Võtmesõnad: acetylene, acetylene gas bottles, dissolved gases, gas cylinders, gas holders, gases, maintenance, repeat tests, testing

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 12863

June 2002

ICS 23.020.30

English version

Transportable gas cylinders - Periodic inspection and maintenance of dissolved acetylene cylinders

Bouteilles à gaz transportables - Contrôle et entretien périodiques des bouteilles d'acétylène dissous

Ortsbewegliche Gasflaschen - Wiederkehrende Prüfung und Instandhaltung von Gasflaschen für gelöstes Acetylen

This European Standard was approved by CEN on 6 March 2002.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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Ref. No. EN 12863:2002 E

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Foreword

This document EN 12863:2002 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 December 2002, and conflicting national standards shall be withdrawn at the latest by December 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.

In this standard the annexes A, B, D and E are informative. Annex C is normative.

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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Acetylene cylinders differ from all other cylinders transporting compressed or liquefied gases because they contain a porous mass and normally a solvent in which the acetylene stored is dissolved. However, for special applications there exist some acetylene cylinders containing a porous mass and no solvent. For the periodic inspection cycle, due regard should be given to the different types of construction of cylinders and porous masses. The remainder of this document should be read considering these differences.

The primary objective of the presence of the porous mass is to limit an acetylene decomposition, should it be initiated, and thus prevent a cylinder incident. If some porous mass 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 mass, then the decomposition could progress at a rate which can cause a violent failure of the cylinder.

1 Scope

This European Standard specifies seamless and welded steel or seamless aluminium alloy cylinders intended for the transport of acetylene in cylinders of water capacity up to 150 l and specifies the requirements for the periodic inspection and maintenance of acetylene cylinders, regardless of the method of manufacture of the shell.

This European Standard also applies to solvent free acetylene cylinders.

This European Standard also specifies a procedure to qualify existing gas cylinders for free movement between member states of the European Union (see annex A).

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.*

EN 1089-1, *Transportable gas cylinders — Gas cylinder identification (excluding LPG) — Part 1: Stampmarking.*

EN 1089-2, *Transportable gas cylinders — Gas cylinder identification (excluding LPG) — Part 2: Precautionary labels.*

EN 1089-3, *Transportable gas cylinders — Cylinder identification — Part 3: Colour coding system.*

EN ISO 13341, *Transportable gas cylinders — Fitting of valves to gas cylinders (ISO 13341:1997).*

3 Terms and definitions

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

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

3.2
complete cylinder
cylinder shell ready to be charged with acetylene gas, which is complete with porous mass, solvent where relevant, saturation gas, valve, and any valve protection permanently fixed to the cylinder shell

3.3
porous mass
single or multi-component substance introduced into, or formed in the cylinder shell, in order to fill it and due to its porosity allow the absorption of the solvent and acetylene gas. The porous mass can be of two types

a) a non-monolithic porous substance consisting of granular, fibrous or similar substances without the addition of any binding materials;