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NSAI Standards

Irish Standard
I.S. EN 14638-3:2010

Transportable gas cylinders - Refillable welded receptacles of a capacity not exceeding 150 litres - Part 3: Welded carbon steel cylinders made to a design justified by experimental methods

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Incorporating amendments/corrigenda/National Annexes issued since publication:
EN 14638-3:2010/AC:2012

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14638-3:2010/AC

March 2012
Mars 2012
März 2012

ICS 23.020.30

English version
Version Française
Deutsche Fassung

Transportable gas cylinders - Refillable welded receptacles of a capacity not exceeding 150 litres - Part 3: Welded carbon steel cylinders made to a design justified by experimental methods

Bouteilles à gaz transportables - Récipients soudés rechargeables d'une capacité inférieure ou égale à 150 litres - Partie 3: Bouteilles en acier carbone soudées conçues par des méthodes expérimentales

Ortsbewegliche Gasflaschen - Wiederbefüllbare geschweißte Gefäße mit einem Fassungsraum von nicht mehr als 150 Liter - Teil 3: Flaschen aus geschweißtem Kohlenstoffstahl, ausgelegt nach experimentellen Verfahren

This corrigendum becomes effective on 7 March 2012 for incorporation in the official English version of the EN.

Ce corrigendum prendra effet le 7 mars 2012 pour incorporation dans la version anglaise officielle de la EN.

Die Berichtigung tritt am 7. März 2012 zur Einarbeitung in die offizielle Englische Fassung der EN in Kraft.

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

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Ref. No.:EN 14638-3:2010/AC:2012 E

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1 Modification to Clause 2

Replace "EN 1803" *with* "EN 1803:2002".

2 Modifications to 7.2.2

In list entry b), first paragraph, second indent*:*

Replace "7.2.5 (drop test, six cylinders)" *with* "7.2.4 (impact test, six cylinders)".

In list entry b), first paragraph, third indent:

Replace "7.2.3, 7.2.4 and 7.2.5" *with* "8.1.3, 8.1.4 and 8.1.5".

In list entry b), first paragraph, fourth indent:

Replace "8.2.1" *with* "8.1.7".

3 Modifications to 7.2.3

First paragraph, first sentence:

Replace "Clause 8" *with* "Clause 9".

Fifth paragraph, first sentence:

Replace "8.2.1" *with* "8.1.7".

4 Modification to 7.2.4.1.3

Final sentence:

Replace "drop test" *with* "impact test".

5 Modifications to 7.2.4.2

First paragraph after note, first sentence:

Replace "EN 1803" *with* "Annex C of EN 1803:2002".

Second paragraph after note, first sentence:

Replace "EN 1803" *with* "Annex C of EN 1803:2002".

6 Modifications to 7.2.4.3

First paragraph after note, first sentence:

Replace "EN 1803" *with* "Annex C of EN 1803:2002".

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Second paragraph after note, first sentence:

Replace "EN 1803" *with* "Annex C of EN 1803:2002".

Second paragraph after note, first sentence:

Replace "8.2.1" *with* "8.1.7."

7 Modification to 8.1.1

Second paragraph, fourth indent:

Replace "6.7" *with* "6.6".

8 Modifications to D.2

First paragraph, first sentence:

Replace "8.2.1" *with* "8.1.7".

Final paragraph, first sentence:

Replace "8.2.1" *with* "8.1.7".

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14638-3

August 2010

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English Version

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Foreword

This document (EN 14638-3:2010) 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 February 2011 and conflicting national standards shall be withdrawn at the latest by February 2011.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports the objectives of the framework Directives on Transport of Dangerous Goods [1] and [2].

This European Standard has been submitted for reference into the RID [3] and/or in the technical annexes of the ADR [4].

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Introduction

The purpose of this European Standard is to provide a specification for the design, manufacture, inspection and approval of welded carbon steel gas cylinders for use in the countries of the CEN members.

The specifications given in the present standard establish the methodology to be adopted to demonstrate that a cylinder conforms to the functional requirements demanded, based on experience of materials, design prescriptions, manufacturing processes and controls manufacturing.

This European Standard specifies experimental methods and appropriate stress analysis calculations. It does not cover methods exclusively by means of traditional calculation.

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1 Scope

This European Standard specifies minimum requirements concerning material, design, construction and workmanship, procedures and tests at manufacture of refillable transportable welded cylinders made of carbon steel, justified by experimental methods, of water capacities from 0,5 l up to and including 150 l for compressed or liquefied gases and of a test pressure up to 90 bar.

NOTE This European Standard may also be used as a guideline for cylinders less than 0,5 l water capacity.

This European Standard is primarily intended for industrial gases other than LPG but may also be applied for LPG. However, for dedicated LPG cylinders see EN 14140 [5], prepared by CEN/TC 286.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 287-1, *Approval testing of welders — Fusion welding — Part 1: Steels*

EN 462-1, *Non-destructive testing — Image quality of radiographs — Part 1: Image quality indicators (wire type) — Determination of image quality value*

EN 462-2, *Non-destructive testing — Image quality of radiographs — Part 2: Image quality indicators (step/hole type) — Determination of image quality value*

EN 473:2008, *Non-destructive testing — Qualification and certification of NDT personnel — General principles*

EN 910, *Destructive tests on welds in metallic materials — Bend tests*

EN 970, *Non-destructive examination of fusion welds — Visual examination*

EN 1418, *Welding personnel — Approval testing of welding operators for fusion welding and resistance weld setters for fully mechanized and automatic welding of metallic materials*

EN 1435:1997, *Non destructive examination of welds — Radiographic examination of welded joints*

EN 1803, *Transportable gas cylinders — Periodic inspection and testing of welded carbon steel gas cylinders*

EN 10028-1, *Flat products made of steels for pressure purposes — Part 1: General requirements*

EN 10028-3, *Flat products made of steels for pressure purposes — Part 3: Weldable fine grain steels, normalized*

EN 10028-5, *Flat products made of steels for pressure purposes — Part 5: Weldable fine grain steels, thermomechanically rolled*

EN 10045-1, *Metallic materials — Charpy impact test — Part1: Test method*

EN 10052, *Vocabulary of heat treatment terms for ferrous products*

EN 10083-1, *Steels for quenching and tempering — Part1: General technical delivery conditions*

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