Irish Standard
I.S. EN ISO 11623:2015

Gas cylinders - Composite construction - Periodic inspection and testing (ISO 11623:2015)

I.S. EN ISO 11623:2015

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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National Foreword

I.S. EN ISO 11623:2015 is the adopted Irish version of the European Document EN ISO 11623:2015, Gas cylinders - Composite construction - Periodic inspection and testing (ISO 11623:2015)

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 11623

December 2015

ICS 23.020.30

Supersedes EN ISO 11623:2002

English Version

Gas cylinders - Composite construction - Periodic inspection and testing (ISO 11623:2015)

Bouteilles à gaz - Construction composite - Contrôles et essais périodiques (ISO 11623:2015)

Gasflaschen - Verbundbauweise - Wiederkehrende Inspektion und Prüfung (ISO 11623:2015)

This European Standard was approved by CEN on 3 October 2015.

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European foreword

This document (EN ISO 11623:2015) has been prepared by Technical Committee ISO/TC 58 "Gas cylinders" in collaboration with 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of an identical text or by endorsement, at the latest by June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

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 ISO 11623:2002.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

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 11623:2015 has been approved by CEN as EN ISO 11623:2015 without any modification.

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I.S. EN ISO 11623:2015

INTERNATIONAL STANDARD

ISO 11623

Second edition
2015-12-01

Gas cylinders — Composite construction — Periodic inspection and testing

Bouteilles à gaz — Construction composite — Contrôles et essais périodiques

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 58, *Gas cylinders*, Subcommittee SC 4, *Operational requirements for gas cylinders*.

This second edition cancels and replaces the first edition (ISO 11623:2002), which has been technically revised with the following changes:

— up-to-date terminology particularly for the various types of composite cylinders;

— up-to-date normative references for steel and aluminium-alloy liner materials;

— list defects according to severity with an additional set of acceptance/rejection criteria;

— replacement of the procedure regarding obstructed cylinder valve (former Annex A) with a reference to ISO 25760;

— addition of a new, normative Annex B for the internal inspection of translucent composite cylinders;

— information regarding intervals between periodic inspection and testing based on cylinder type, formerly listed in Tables 1 through 4, moved into new, informative Annex C;

— update of some photographs to provide sharper examples of damage.

Introduction

The principal aim of periodic inspection and testing is that at the completion of the test, the cylinders can be reintroduced into service for a further period of time. It is not possible to identify all considerations for periodic inspection and testing of composite cylinders in this International Standard. In such cases or where there is doubt, questions regarding specific cylinders should be directed to the manufacturer or owner.

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 the UN Model Regulations (see Reference [1]). Attention is drawn to requirements in the 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.

Gas cylinders — Composite construction — Periodic inspection and testing

1 Scope

This International Standard specifies the requirements for periodic inspection and testing and to verify the integrity for further service of hoop-wrapped and fully-wrapped composite transportable gas cylinders, with aluminium-alloy, steel or non-metallic liners or of linerless construction (Types 2, 3, 4, and 5), intended for compressed, liquefied or dissolved gases under pressure, of water capacity from 0,5 l up to 450 l.

This International Standard is written to address the periodic inspection and testing of composite cylinders constructed to ISO 11119-1, ISO 11119-2, and ISO 11119-3 standards and can be applied to other composite cylinders designed to comparable standards when authorized by the competent authority.

As far as practicable, this International Standard also can be applied to cylinders of less than 0,5 l water capacity.

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 32, *Gas cylinders for medical use — Marking for identification of content*

ISO 6406, *Gas cylinders — Seamless steel gas cylinders — Periodic inspection and testing*

ISO 7225, *Gas cylinders — Precautionary labels*

ISO 10461, *Gas cylinders — Seamless aluminium-alloy gas cylinders — Periodic inspection and testing*

ISO 11114-2, *Gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 2: Non-metallic materials*

ISO 11621, *Gas cylinders — Procedures for change of gas service*

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

ISO 13769, *Gas cylinders — Stamp marking*

ISO 25760, *Gas cylinders — Operational procedures for the safe removal of valves from gas cylinders*

3 Terms and definitions

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

3.1
composite overwrap
fibres (3.3) and *matrix* (3.14) taken together as a combined unit