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BSI Standards Publication

**Gas cylinders – Welded aluminium-alloy, carbon
and stainless steel gas cylinders – Periodic
inspection and testing (ISO 10460:2018)**

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National foreword

This British Standard is the UK implementation of EN ISO 10460:2018.

The UK participation in its preparation was entrusted to Technical Committee PVE/3/7, Gas containers - Gas cylinder (receptacle) operations.

A list of organizations represented on this committee can be obtained on request to its secretary.

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

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Compliance with a British Standard cannot confer immunity from legal obligations.

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English Version

Gas cylinders - Welded aluminium-alloy, carbon and stainless steel gas cylinders - Periodic inspection and testing (ISO 10460:2018)

Bouteilles à gaz - Bouteilles à gaz soudées en alliage d'aluminium, carbone et acier inoxydable - Contrôles et essais périodiques (ISO 10460:2018)

Gasflaschen - Geschweißte Gasflaschen aus Aluminiumlegierung, Kohlenstoffstahl und Edelstahl - Wiederkehrende Inspektion und Prüfung (ISO 10460:2018)

This European Standard was approved by CEN on 8 September 2018.

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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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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN ISO 10460:2018) 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of an identical text or by endorsement, at the latest by April 2019, and conflicting national standards shall be withdrawn at the latest by April 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 10460:2018 has been approved by CEN as EN ISO 10460:2018 without any modification.

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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 4, *Operational requirements of gas cylinders*.

This third edition cancels and replaces the second edition (ISO 10460:2005), which has been technically revised.

The main changes compared to the previous edition are as follows:

- inclusion of text to evaluate welded aluminium-alloy and welded stainless steel cylinders;
- removal of conformity assessment requirements;
- deletion of text on blocked valves as this edition now references a specific standard.

This corrected version of ISO 10460:2018 incorporates the following correction:

- In Table C.1, in the fourth column of the "Stamping" row, the "c" at the end of "Render unserviceablec" has been changed to superscript to lead to a footnote at the bottom of the table.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document contains requirements that reflect current practice and experience.

This document provides information and procedures for the periodic inspection and testing of welded cylinders and the condition of the test equipment. The principal aim of periodic inspection and testing is that at the satisfactory completion of the inspection the cylinders may be reintroduced into service for a further period of time.

This document has been written so that it is suitable to be referenced in the UN *Model Regulations*^[1].

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Gas cylinders — Welded aluminium-alloy, carbon and stainless steel gas cylinders — Periodic inspection and testing

CAUTION — Some of the tests and procedures specified in this document involve the use of processes which could lead to a hazardous situation.

1 Scope

This document specifies the requirements for the periodic inspection and testing of welded aluminium-alloy, carbon and stainless steel gas cylinders of water capacity from 0,5 l to 150 l intended for compressed and liquefied gas service under pressure and to verify the integrity of such gas cylinders for further service.

It also applies, as far as is practical, to cylinders of less than 0,5 l water capacity and greater than 150 l up to 450 l.

This document does not apply to the periodic inspection and testing of acetylene cylinders or composite (fully wrapped or hoop-wrapped) cylinders.

It is primarily intended for use with cylinders containing industrial gases other than liquefied petroleum gas (LPG). This document may also be applicable to LPG. Requirements for LPG applications are also provided in ISO 10464.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 10286, *Gas cylinders — Terminology*

ISO 11114-1, *Gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 1: Metallic materials*

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

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 terms and definitions given in ISO 10286 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <https://www.iso.org/obp>