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Gas cylinders — Transportable cylinders for dissolved acetylene — Periodic inspection and maintenance

*Bouteilles à gaz — Bouteilles transportables pour acétylène dissous —
Contrôles et entretien périodiques*



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Intervals between periodic inspections	3
5 Preparation of gas cylinder	4
6 Inspection and maintenance	5
7 Identification of contents	8
8 Markings	8
9 Records	8
10 Rejection and rendering cylinders unserviceable	9
11 Disposal of unserviceable cylinders	9
Annex A (informative) Inspection periods	10
Annex B (normative) Procedure to be adopted when de-valving and when it is suspected that a cylinder valve is obstructed	11
Annex C (normative) Description and evaluation of defects and conditions for rejection of acetylene gas cylinders at time of visual inspection	13
Annex D (informative) Tops of acetylene cylinders containing monolithic porous mass	16
Annex E (informative) Illustration of cracks in the porous mass of an acetylene cylinder, and tools and clearance gauges	18
Annex F (informative) Inspection and maintenance of valves and their junctions: recommended procedures	20
Annex G (informative) Test date rings for gas cylinders	21
Bibliography	22

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 10462 was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 4, *Operational requirements for gas cylinders*.

This second edition cancels and replaces the first edition (ISO 10462:1994), which has been technically revised.

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Introduction

Acetylene cylinders differ from all other cylinders transporting compressed or liquefied gases in that they contain a porous mass and normally a solvent in which the acetylene stored is dissolved. However, for special applications there is also a limited quantity of acetylene cylinders containing a porous mass and no solvent. For the periodic inspection cycle, due regard is to be given to the different types of 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 that could cause an explosion.

The requirements dealt with in this document are mainly those that are specific for acetylene cylinders; for more general requirements related to the periodic inspection of gas cylinders, reference is made to the relevant ISO documents.

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.

Due to the presence of a porous mass in the cylinder, neither a hydraulic or pneumatic pressure test, nor a visual inspection of the internal surface of the shell can be carried out.