INTERNATIONAL STANDARD

ISO 3500

Third edition
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Gas cylinders — Seamless steel CO_2 cylinders for fixed fire-fighting installations on ships

Bouteilles à gaz — Bouteilles à CO_2 en acier, sans soudure, pour installations fixes de lutte contre l'incendie à bord des navires

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Reference number
ISO 3500:2005(E)

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Foreword

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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 3500 was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 3, *Cylinder design*.

This third edition cancels and replaces the second edition (ISO 3500:1990), which has been technically revised.

Gas cylinders — Seamless steel CO_2 cylinders for fixed fire-fighting installations on ships

1 Scope

This International Standard specifies the principal external dimensions, accessories, filling ratio, and marking for seamless steel CO_2 cylinders used in fixed fire-fighting installations on cargo ships, passenger ships, salvage vessels, heavy lift vessels, tug barge combinations and off shore drilling and production platforms, any of which can be serviced in port or in drydock, in order to facilitate the interchangeability of such cylinders.

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.

ISO 9809-1:1999, *Gas cylinders — Refillable seamless steel gas cylinders — Design, construction and testing — Part 1: Quenched and tempered steel cylinders with tensile strength less than 1 100 MPa*

ISO 9809-2:2000, *Gas cylinders — Refillable seamless steel gas cylinders — Design, construction and testing — Part 2: Quenched and tempered steel cylinders with tensile strength greater than or equal to 1 100 MPa*

ISO 9809-3:2000, *Gas cylinders — Refillable seamless steel gas cylinders — Design, construction and testing — Part 3: Normalized steel cylinders*

ISO 10920:1997, *Gas cylinders — 25E taper thread for connection of valves to gas cylinders — Specification*

ISO 13769, *Gas cylinders — Stamp marking*

DIN 477-1, *Gas cylinder valves rated for test pressures up to 300 bar; types, sizes and outlets*

3 Terms and definitions

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

3.1
tare
combined mass, expressed in kilograms, of the empty cylinder (including the mass of any paint), neck collar, valve and siphon tube when presented for filling

3.2
permissible filling ratio
maximum permissible mass of carbon dioxide in kilograms per litre of cylinder water capacity