

# INTERNATIONAL STANDARD



3500

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

## Seamless steel CO<sub>2</sub> cylinders for fixed fire-fighting installations on ships

*Bouteilles à CO<sub>2</sub> en acier, sans soudure, pour installations fixes de lutte contre l'incendie à bord des navires*

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**Descriptors :** shipbuilding, fire equipment, fire extinguishers, fixed extinguishers, carbon dioxide extinguishers, gas cylinders, steel products, specifications, dimensions, marking.

Price based on 2 pages

## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3500 was drawn up by Technical Committee ISO/TC 58, *Gas cylinders*, and was circulated to the Member Bodies in September 1974.

It has been approved by the Member Bodies of the following countries :

Australia	India	Romania
Austria	Iran	South Africa, Rep. of
Belgium	Ireland	Sweden
Bulgaria	Israel	Turkey
Czechoslovakia	Mexico	United Kingdom
Finland	Netherlands	U.S.S.R.
Germany	Portugal	Yugoslavia

The Member Bodies of the following countries expressed disapproval of the document on technical grounds :

Canada	Japan	U.S.A.
France	New Zealand	
Italy	Norway	

# Seamless steel CO<sub>2</sub> cylinders for fixed fire-fighting installations on ships

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the principal external dimensions, accessories, filling ratio and marking for seamless steel CO<sub>2</sub> cylinders used in fire-fighting installations on board ships, in order to facilitate their interchangeability.

## 2 REFERENCES

ISO/R 228, *Pipe threads where pressure-tight joints are not made on the threads (1/8 inch to 6 inches)*.

ISO/R 408, *Safety colours*.

ISO/R 448, *Marking of industrial gas cylinders for the identification of the content*.

ISO 4705, *Seamless steel gas cylinders — Design, construction and acceptance*.<sup>1)</sup>

## 3 DEFINITIONS

For the purposes of this International Standard, the following definitions apply :

**3.1 tare** : The combined mass, expressed in kilograms, of empty cylinder, neck collar, valve and syphon tube.

**3.2 permissible filling ratio** : The maximum permissible mass of carbon dioxide in kilograms per litre of internal cylinder volume.

## 4 GENERAL CHARACTERISTICS

### 4.1 Cylinder

4.1.1 The external dimensions of the cylinder shall be in accordance with the values given in the table.

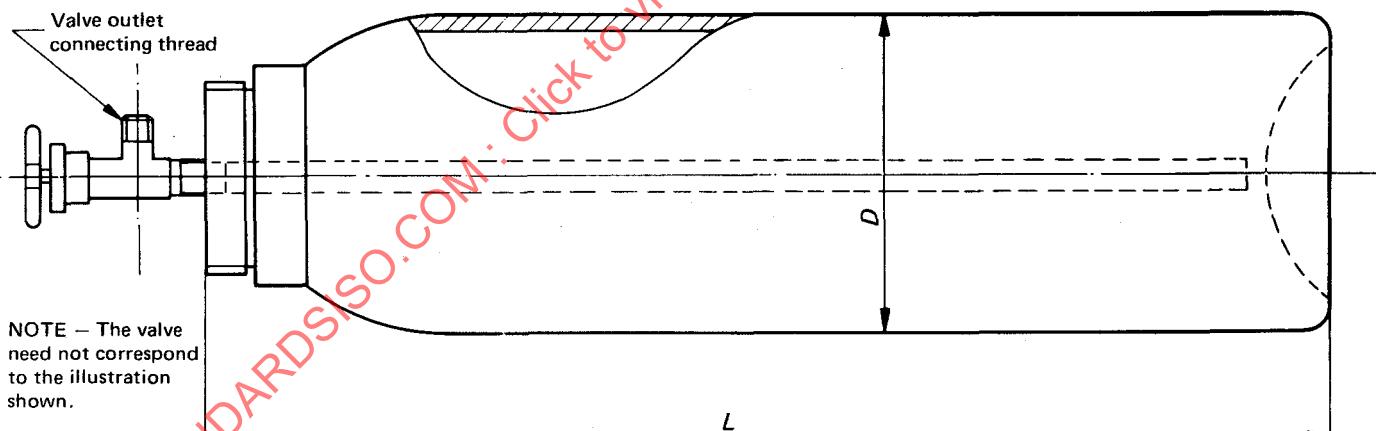


FIGURE — Cylinder dimensions

TABLE — General characteristics

Reference size	Volume (min.)	Maximum permissible mass of CO <sub>2</sub> *	Outside diameter** D	Length** L
	l	kg	mm	mm
A	45	30	227 to 235	1 263 to 1 420
B	67,5	45	265 to 273	1 395 to 1 562

\* The maximum permissible filling quantity is 0,67 kg of CO<sub>2</sub> per litre of cylinder volume.

\*\* In order to obtain the minimum specified volume, it is necessary to provide ranges for both outside diameter and length having regard to the possible variations in manufacturing processes involved.

1) In preparation.