

SINGAPORE STANDARD

**Code of practice for the filling, inspection,
testing and maintenance of gas cylinders for
the storage and transport of compressed gases**

– Part 3 : Acetylene cylinders – Periodic inspection and
maintenance

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– Part 3 : Acetylene cylinders – Periodic inspection and maintenance

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Asia Industrial Gases Association
Industrial Gases Association of Singapore
Leeden National Oxygen Ltd
Linde Gas Asia Pte Ltd
Ministry of Manpower
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Foreword

This Singapore Standard was prepared by a Working Group appointed by the Technical Committee on Safety and Health Involving Equipment which is under the direction of the Quality and Safety Standards Committee.

The review of CP 12 – ‘Code of practice for the filling, inspection, testing and maintenance of containers for the storage and transport of compressed gases’:

- Part 1: Seamless metal containers for gases, excluding dissolved acetylene
- Part 2: Containers for dissolved acetylene gas

resulted in the development of the new SS 639 consisting of the following three parts, under the general title ‘Code of practice for the filling, inspection, testing and maintenance of gas cylinders for the storage and transport of compressed gases’:

- Part 1: Seamless steel and aluminium alloy cylinders (excluding dissolved acetylene) – Inspection at the time of filling, periodic maintenance and testing
- Part 2: Acetylene cylinders – Filling conditions and filling inspection (Identical adoption of ISO 11372:2011)
- Part 3: Acetylene cylinders – Periodic inspection and maintenance

SS 639 replaces CP 12.

In preparing this standard, reference was made to the following publications:

- | | |
|--|---|
| 1. ISO 3807 | Gas cylinders – Acetylene cylinders – Basic requirements and type Testing |
| 2. ISO 4706 | Gas cylinders – Refillable welded steel cylinders – Test pressure 60 bar and below |
| 3. ISO 9809-3 | Gas cylinders – Refillable seamless steel gas cylinders – Design, construction and testing – Part 3: Normalised steel cylinders |
| 4. ISO 10297 | Gas cylinders – Cylinder valves – Specification and type testing |
| 5. ISO 13341 | Gas cylinders – Fitting of valves to gas cylinders |
| 6. AIGA Asia Industrial Gas Association 036 Guidelines for the management of waste acetylene cylinders | |

Tables B.1 and B.2 and Figures C.1 and C.2 are reproduced from ISO 10462 : 2013 Gas cylinders – Acetylene cylinders – Periodic inspection and maintenance.

Acknowledgement is made for the use of information from the above publications.

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

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Code of practice for the filling, inspection, testing and maintenance of gas cylinders for the storage and transport of compressed gases – Part 3 : Acetylene cylinders – Periodic inspection and maintenance

0 Introduction

0.1 Cylinders for dissolved acetylene differ from cylinders transporting other compressed or liquefied gases in that they contain a porous mass and normally a solvent in which the stored acetylene is dissolved. For the periodic inspection cycle, due regard should be given to the different types of construction of cylinders and porous masses. The contents of this part of the standard should be read considering these differences. However, for special laboratory purposes, a limited quantity of acetylene cylinders containing a porous mass and no solvent also exists.

0.2 Experience in the inspection and testing of cylinders, which are specified in this standard, is important when determining whether a cylinder should be returned into service.

1 Scope

1.1 This standard specifies the minimum requirements for the periodic inspection and maintenance of transportable dissolved acetylene cylinders. It applies to cylinders with a nominal water capacity of up to 150 litres.

1.2 Due to the presence of a porous mass in the cylinder, neither a hydraulic test nor visual inspection of internal surface is carried out.

2 Normative references

There are no normative references in this standard.