AS 2030.2—1996
(Incorporating Amendment Nos 1 and 2)

Australian Standard™

A1

The verification, filling, inspection, testing and maintenance of cylinders for the storage and transport of compressed gases

Part 2: Cylinders for dissolved acetylene

Standards Australia

This Australian Standard was prepared by Committee ME/2, Gas Cylinders. It was approved on behalf of the Council of Standards Australia on 13 September 1996 and published on 5 October 1996.

The following interests are represented on Committee ME/2:

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Airconditioning and Refrigeration Wholesalers Association
Australasian Railway Association
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Australian Chamber of Manufactures
Australian Gas Association
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/2 on Gas Cylinders. It supersedes AS 2030.2—1985, *The approval, filling, inspection, testing and maintenance of cylinders for the storage and transport of compressed gases*, Part 2: *Cylinders for dissolved acetylene*.

This Standard incorporates Amendment No. 1 (1999) and Amendment No. 2 (2000). The changes arising from the Amendments are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof.

This Standard is the result of a consensus among representatives on the Joint Committee to produce it as an Australian Standard.

It is essential for safety reasons that only those persons experienced in the subject of dissolved acetylene cylinders should apply the Standard, and expert advice should be obtained whenever doubt arises.

The inspection and testing of dissolved acetylene gas cylinders is not catered for by AS 2337.1, *Gas cylinder test stations*, Part 1: *General requirements, inspections and tests—Gas cylinders*, although the visual inspection section may be applied to acetylene cylinders.

This Standard takes into account ISO 3807, *Dissolved acetylene cylinders—Basic requirements*, although the requirements of that Standard are more fully taken into account by AS 2527, *Cylinders for dissolved acetylene*.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

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STANDARDS AUSTRALIA

Australian Standard

A1 | # The verification, filling, inspection, testing and maintenance of cylinders for the storage and transport of compressed gases

Part 2: Cylinders for dissolved acetylene

1 SCOPE This Standard specifies requirements for the acceptance, filling, inspection, and care of refillable gas cylinders for the storage of compressed acetylene dissolved in a solvent, and having a cylinder shell water capacity exceeding 5 kg.

NOTES:

1 Requirements for cylinders for gases other than acetylene are specified in AS 2030.1.

2 This Standard provides for solvents other than acetone, but only dimethylformamide (DMF) has been specifically considered as an alternative and DMF should be used only where cylinders are in manifolded crates.

3 The requirements of this Standard are not intended to preclude the filling of previously acceptable, and not specifically provided for, small dissolved acetylene gas cylinders (of nominal water capacities 5.0 to 11 kg).

2 REFERENCED DOCUMENTS A list with titles of the documents referred to in this Standard is given in Appendix A.

3 DEFINITIONS For the purpose of this Standard, the definitions given in AS 2030.1 and AS 2527, and those below apply.

3.1 Available gas—that quantity of gas which is available for use when the cylinder and its contents are in equilibrium at the Standard Reference Temperature (15°C).

3.2 Current tare mass—the original tare mass plus the mass of any subsequent additions to the porous filler.

NOTE: The definition of current tare mass for a dissolved acetylene cylinder differs from that for cylinders covered by AS 2030.1.

3.3 Original tare mass—the combined mass, at the time of first commissioning, of the shell, porous filler, filters, safety devices, paint, solvent, saturation gas, valve and any permanently attached valve protection features. The mass of any removable guard or top is excluded.

NOTE: The definition of original tare mass for a dissolved acetylene cylinder differs from that for cylinders covered by AS 2030.1.

3.4 Saturation gas—that quantity of gas which is retained in the solvent when the cylinder and its contents are in equilibrium at Standard Reference Temperature (15°C) and Standard Reference Pressure (101.325 kPa absolute).

3.5 Shall—introduces a mandatory statement.

3.6 Should—introduces a suggestion or recommendation that is not mandatory

4 CYLINDERS Cylinders and safety devices shall comply with the requirements of AS 2527.

NOTE: AS 2527 provides for use of the cylinder shells manufactured in accordance with the following specifications AS 2469, AS 2470, AS 2873, AS 2874, AS 2875, ICC, DOT, BTC, CTC Nos 8 and 8 AL; Home Office Exemption order No. 9; and BS 5045, Part 1 and Part 2.

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