Supplement No 1 (June 1986) to AS 2030

FOREIGN GAS CYLINDER SPECIFICATIONS

This supplement, prepared by Committee ME/2, Gas Cylinders, was approved on behalf of the Council of the Standards Association of Australia on 27 May 1986, and published on 2 June 1986.

Review of Australian Standards. *To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.*

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

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PREFACE

The Association's Committee on Gas Cylinders has from time to time prepared documents known as Interpretations to AS 2030, SAA Gas Cylinders Code (formerly AS CB4). These documents are intended to set down conditions under which gas cylinder specifications now covered by AS 2030 may be taken to satisfy the requirements of that standard. This Supplement combines the Interpretations issued on foreign gas cylinder specifications. The specifications themselves (with the exception of BS 5045, Part 1 and DOT 4E) are reproduced as appendices, and Interpretations 3, 4, 5, 7, 8, 9 and 10 to AS CB4 are accordingly withdrawn.

This edition of the Supplement brings up-to-date the references to AS 2030.1 and AS 2337. There are no technical changes. References to specifications DOT 4E and BS 5045, Part 1, have been omitted from this edition as cylinders to these specifications are adequately provided for by AS 2030.1 and the specifications are readily obtainable.

Acknowledgement is made to the (British) Home Office for use of specifications HOAL 1, HOAL 2, HOAL 3, HOAL 4, HOT, and HOLASW 1.

Reference is made to the following standards*:

AS 1192	Electroplated Coatings—Nickel and Chromium
AS 2030.1	SAA Gas Cylinders Code, Part 1—Cylinders for Compressed Gases Other Than Acetylene
AS 2177	Radiography of Welded Butt Joints in Metal Part 1—Methods of Test Part 2—Image Quality Indicators (IQI) and Recommendations for Their Use
AS 2337	Gas Cylinder Test Stations
ISO/R 286	ISO System of Limits and Fits, Part 1—General, Tolerances and Deviations
BS 18:1962	Methods for Tensile Testing of Metals (see Note 1)
BS T59: 1948	50 Ton Chromium-molybdenum Steel Tubes (see Note 2)
BS 2S 100	Inspection and Testing Procedure for Aircraft Steels (see Note 3)
BS 240	Method for Brinell Hardness Test Part 1—Testing of Metals
(BS) PD 420:1953	Methods of Protection Against Corrosion for Light Gauge Steel Used in Building (see Note 4)
BS 427	Methods for Vickers Hardness Test Part 1—Testing of Metals
BS 970:1955	Wrought Steels in the Form of Blooms, Billets, Bars and Forgings (see Note 5)
BS 1476:1963	Wrought Aluminium and Aluminium Alloys for General Engineering Purposes—Wire (see Note 6)
BS 2910:1973	Methods for Radiographic Examinations of Fusion Welded Circumferential Butt-joints in Steel Pipes
ASTM E 8-57T	Methods of Compression Testing of Metallic Materials (see Note 7)

NOTES:
1. Superseded by BS 18; Part 1:1970.
2. Withdrawn. Superseded by BS T65.
3. Superseded by BS 4S 100:1975.
4. Withdrawn, refer to BS DD24.
5. Superseded by BS 970:1972.
6. Withdrawn, refer to BS 1476:1969.
7. Superseded by ASTM E 8-79.

As this Supplement expresses the opinions of the Gas Cylinders Committee, it has not been subjected to public review.

* Some referenced standards are not the most recent edition, or are withdrawn. As it is not appropriate to amend the original foreign specification, it is left to the user of this standard to verify that alternative standards are acceptable to the relevant Statutory Authority.

Superseded and withdrawn standards are available for reference at the libraries of the Standards Association of Australia.

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STANDARDS ASSOCIATION OF AUSTRALIA

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1 SCOPE. This supplement to AS 2030 prescribes the conditions, additional requirements and modifications applying to cylinders manufactured to certain foreign specifications, so that the cylinders may be deemed to comply with AS 2030 for use in Australia.

The cylinder specifications included in this supplement are as follows:

(a) (British) Home Office Specification HOAL 1—Seamless Aluminium Alloy Cylinders (see Appendix A).

(b) (British) Home Office Specification HOAL 2—Seamless Aluminium Alloy Cylinders (see Appendix B).

(c) (British) Home Office Specification HOAL 3—Seamless Aluminium Alloy Cylinders (see Appendix C).

(d) (British) Home Office Specification HOAL 4—Seamless Aluminium Alloy Cylinders (see Appendix D).

(e) (British) Home Office Specification HOT—Alloy Seamless Steel Cylinders (see Appendix E).

(f) (British) Home Office Specification HOLASW 1—Lightweight Alloy Steel Welded Containers (see Appendix F).

(g) (British) Home Office Specification HOLASS 1—Lightweight Alloy Seamless Steel Containers (see Appendix H).

2 APPLICATION. This supplement is intended to permit the use in Australia of cylinders manufactured overseas to certain foreign specifications.

In addition, this supplement may provide specifications for manufacture of cylinders within Australia, but such manufacture should only be with the specific approval of the relevant Statutory Authority, and only within the currency of the particular specification.

NOTE: All (British) Home Office Specifications listed herein are no longer current, having been superseded by British standards.

3 DEFINITIONS. The definitions of AS 2030.1 apply.

4 RESTRICTIONS ON USE OF CYLINDERS. Cylinders shall be used in accordance with Table 1.

5 DESIGN. The design of the cylinder shall be suitable for a maximum service temperature not less than 65 °C, and a corresponding maximum developed pressure not less than that given in column 9 of Table 3 of AS 2030.1 for the intended contents of the cylinder. The minimum test pressure applicable for design and as a basis for wall thickness calculations shall comply with the hydrostatic test pressure specified in AS 2030.1.

6 COMPLIANCE WITH AS 2030.1. The cylinders shall have been manufactured in accordance with the specification as provided for by the manufacturing specification requirements of AS 2030.1.

7 TEST CERTIFICATES. Test certificates required in compliance with the specification shall be retained by the cylinder owner during the life of the cylinder.

NOTE: Presentation of test certificates may be required prior to the filling of a cylinder.

8 HYDROSTATIC STRETCH TEST. Before initial filling, the cylinders shall be subjected to a hydrostatic stretch test, in accordance with the hydrostatic pressure test specified in AS 2337, and at the minimum test pressure used in Clause 5 herein. The stretch recorded shall not exceed that permitted by the cylinders specification, and where the test method differs from that of the specification, e.g. when elastic stretch is not measured, shall not exceed 1/5000 of the original volume.

NOTE: For HOLASW 1 and HOLASS 1, the water jacket method is the only method permitted.

Any cylinder that fails the above requirements shall be condemned in accordance with the requirements for treatment of failed cylinders specified in AS 2030.1.

TABLE 1
RESTRICTIONS ON USE OF CYLINDERS

Specification	Limits of use
HOAL 1	CO_2 firefighting equipment CO_2 brewery (hotel) equipment Compressed air or oxygen mixture underwater breathing equipment (to 11.3 kg water capacity)
HOAL 2	Portable fire extinguishers Portable resuscitation apparatus Breathing apparatus for rescue purposes Compressed air or oxygen mixture breathing apparatus (underwater and non-underwater)
HOAL 3	Aircraft use Portable fire extinguishers Portable resuscitation apparatus Breathing apparatus for rescue purposes
HOAL 4	Gases given in Appendix J
HOT	Portable resuscitation apparatus Breathing apparatus for rescue purposes Compressed air or oxygen mixture of breathing apparatus (but not for underwater use of cylinders manufactured prior to 1970)
HOLASW 1	Portable resuscitation apparatus Breathing apparatus for rescue purposes (excluding underwater)
HOLASS 1	Portable resuscitation apparatus Breathing apparatus for rescue purposes (excluding underwater)

9 ADDITIONAL INSPECTION. The following additional inspection shall be satisfied:

For HOLASW 1—radiographic examination as detailed in Appendix G.

NOTE: This inspection is additional to inspection carried out by a cylinder manufacturer outside Australia.