AS/NZS 1200:1994
Pressure equipment
(In Professional Packages 19A, 21A, 62A-69A, 99A) 2 pp FF
Sets out the Australian and New Zealand requirements to which pressure equipment (boilers, pressure vessels and pressure piping) is to be designed, manufactured, tested, inspected, supplied, installed, commissioned, operated, maintained, repaired, altered and disposed of. Specifies requirements which are common to Australian and New Zealand pressure equipment Standards. Appendices include pressure equipment covered by this Standard, enquiries, materials, a list of Australian and New Zealand regulatory authorities, definitions, the basis of design strength and New Zealand loading requirements.
(ME/1): Supersedes AS 1200—1988: DR 93266. Publication date 1994-07-18.

Standards Association of Australia

Australian Standard®
1200—1988

BOILERS AND PRESSURE VESSELS

This Australian Standard was prepared by Committee ME/1, Boilers and Unfired Pressure Vessels. It was approved on behalf of the Council of the Standards Association of Australia on 4 February 1988 and published on 9 May 1988.

The following interests are represented on Committee ME/1:

Aluminium Development Council
Australasian Institute of Metals
Australian Compressed Air Institute
Australian Institute for Non-destructive Testing
Australian Institute of Energy
Australian Institute of Petroleum Limited
Australian Liquefied Petroleum Gas Association
Australian Society of Sugar Cane Technologists
Australian Valve Manufacturers Association
Australian Welding Institute
Australian Welding Research Association
Boiler and Pressure Vessel Manufacturers Association of Australia
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Department of Defence
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Insurance Council of Australia Ltd
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National Association of Testing Authorities Australia
Railways of Australia Committee
Society of Mechanical Engineers of Australasia
Work Health Authority, N.T.

AUSTRALIAN STANDARD

BOILERS AND PRESSURE VESSELS

Known as the SAA BOILER CODE

AS 1200—1988

For history before 1972 see Preface.
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PREFACE

This edition of this Standard was prepared by the Association's Committee on Boilers and Unfired Pressure Vessels to supersede AS 1200—1981.

Changes to the 1981 edition include the following:

(a) Revision of the Foreword to align it with the current policy of Committee ME/1 and SAA.

(b) Addition of the definition for 'Unattended Boiler' and updating of other definitions.

(c) Updating of Clause 2.2, Applicable Standards.

(d) Deletion of former Appendix A (Interpretations).

(e) Insertion of new Appendix A giving the Inspecting Authorities' categories of attendance and supervision of boilers, for information.

(f) Deletion of Appendix C (Policy for Materials Accepted for Use Under the SAA Boiler Code) as it does not comply in full with the current general policy of the Committee.

A new edition of Doc 1200R (renumbered AS 1200 Supplement 1), *Rulings to the SAA Boiler Code*, retaining only those Rulings which are current, has been prepared in conjunction with this new edition of AS 1200. In accordance with current practice, notice of issue of any subsequent new Rulings will be advised in *The Australian Standard* published monthly by SAA.

AS CB1, the original *SAA Boiler Code*, was initially issued in 1931 to provide detailed guidance on the practices to be adopted in the design, construction and testing of boilers, unfired pressure vessels and associated equipment, and also to assist in obtaining uniform statutory requirements throughout Australia. It was revised and re-issued several times, and immediately prior to the publication of the first metricated Standards in 1972 it consisted of the following Parts:

Part I—1962 *Boilers other than water tube boilers and locomotive boilers for railway purposes*

Part III—1957 *Locomotive boilers for railway purposes*

Parts I-IV—1952 *Boilers and unfired pressure vessels and their appurtenances*

Part V—1951 *Welding*

When the first metricated Standards of the *SAA Boiler Code* were published in 1972, the opportunity was taken to prepare and publish AS 1200 as a central reference Standard for all Standards forming the *SAA Boiler Code* and to retain that 'short' title for the reference document.

Except for some obsolete types of boilers, e.g. riveted boilers and locomotive boilers, boilers previously covered in the various Parts of AS CB1 are now covered in the metricated Standards listed in Section 2. When the pressure piping Standards AS CB15 and AS CB18 are replaced by a combined pressure piping Standard (in the course of preparation), the program for metrication of the *SAA Boiler Code* will have been completed.

CONTENTS

FOREWORD

The application of the several Standards that form the SAA Boiler Code may give rise to a need for consideration of unusual and other designs which do not comply in all respects with the requirements of the relevant Standard or which are not adequately covered in any Standard.

Where it is desired to use materials or methods which do not comply with the requirements of, or are not adequately covered by the relevant Standard, designs incorporating such departures should be submitted to the relevant Inspecting Authority for approval. Where necessary, SAA Committee ME/1, Boilers and Unfired Pressure Vessels, may be asked to serve in an advisory capacity in the determination of the suitability of such designs. (See also Clause 1.4.)

It is emphasized that this activity of the committee is limited to technical aspects of the Code and that the committee has no power or jurisdiction to adjudicate upon contractual matters or regulatory matters or the duties of any persons concerned with the subject of the submission.

It is further emphasized that the committee will undertake consideration of only those matters which relate to interpretation of, or proposed changes to, the Standards for which it is responsible. In particular it will not consider or make recommendations indicating approval of proprietary equipment, materials, components or methods.

A method developed by the committee for communicating its findings is the use of Rulings. A Ruling is issued in reply to a specific enquiry from a specific organization and applies only to the set of circumstances referenced in the Ruling. Copies of Rulings are sent to the relevant Inspecting Authorities and may be used by the authorities as the basis for approval of the particular application or for approval of similar submissions from other organizations. Current Rulings are available under the reference AS 1200 Supplement 1.

Where the committee judges the subject to be suitable, a Ruling may be incorporated in an amendment to the relevant Standard, whereupon the Ruling is withdrawn. If the timing is appropriate, the finding of the committee may be issued directly as an amendment.

NOTES:

1. In the past some Rulings have been designated 'Committee Opinions' but this term is no longer used.
2. In the past, the committee has also issued 'Interpretations' which were considered to be equivalent to an amendment. The practice has been discontinued and all Interpretations have now been withdrawn.

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
BOILERS AND PRESSURE VESSELS

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This Standard, together with those Standards listed herein and collectively termed the 'SAA Boiler Code', sets out the requirements to which pressure equipment shall be designed, constructed, tested, inspected and installed.

1.2 PURPOSE. The purpose of this Standard is to provide a ready reference to the requirements of pressure equipment and thus promote safe and economic application leading to uniformity in engineering practice throughout the Commonwealth of Australia and its Territories, but it is not to be taken as in any way overriding the requirements (or exclusions) of the specific Standard (see Section 2).

NOTE: It is recommended that, where appropriate, reference be made only to the specific Standard, e.g. AS 1210, and not to the general reference AS 1200.

1.3 INTERPRETATION OF THIS STANDARD. Where ambiguity is found, or where doubt arises as to the meaning or effect of any part of this Standard or whether anything ought to be done or not done in order to comply fully with this Standard, the question should be referred to SAA Committee ME/1, Boilers and Unfired Pressure Vessels, for an interpretation of the intent of those particular parts of this Standard.

NOTE: The committee does not have any power or jurisdiction to adjudicate on contractual matters.

1.4 NEW DESIGNS, MATERIALS AND CONSTRUCTION METHODS. The Standards listed herein do not prohibit the use of materials or methods of design or construction that are not specifically referred to herein. (See Foreword for the procedure for obtaining approval in such cases.)

1.5 STATUTORY AUTHORITY REQUIREMENTS. Since the use of most boilers and pressure vessels in the Commonwealth of Australia and its Territories is subject to the controls of Statutory Authorities and various other governmental bodies, their requirements have to be complied with before permission to operate a boiler or pressure vessel is obtained. Although compliance with the SAA Boiler Code will normally be sufficient to obtain such permission, other requirements may be imposed. The owner of the boiler or pressure vessel therefore should ensure that the appropriate authorities having jurisdiction in the area of operation are consulted.

Throughout the various Standards which comprise the SAA Boiler Code, the term 'Inspecting Authority' is used for the Authority in each State or Territory of Australia that has statutory powers to control the design, manufacture, installation and certification of boilers, pressure vessels and other pressure equipment which is to be operated in that State or Territory.

NOTES:

1. The Inspecting Authorities' categories of attendance and supervision of boilers are given in Appendix A.
2. A list of the Inspecting Authorities is given in Appendix B.

1.6 DEFINITIONS. For the purpose of this Standard, the definitions below apply.

1.6.1 Boiler—an arrangement of vessels and interconnecting parts, wherein steam, or other vapour, is generated or water or other liquid is heated at a pressure above that of the atmosphere by the application of fire or the products of combustion or by electrical means or by solar means.

It also includes valves, gauges, fittings and controls directly associated with the boiler and, where consistent with the requirements of this Standard, includes the boiler setting, and associated equipment.

It does not include a fully flooded system or pressurized system where the water or other liquid is heated to a temperature lower than the normal atmospheric boiling temperature of the liquid.

Boilers are divided into three types, viz fire-tube boilers, water-tube boilers, and miscellaneous boilers, as follows:

(a) *Fire-tube boiler*—a boiler in which the fluid to be heated is contained in a vessel which may be directly heated and/or contain tubes in which combustion takes place or through which products of combustion flow.

(b) *Water-tube boiler*—a boiler in which the heat transfer takes place through the wall of tubes inside which the fluid to be heated flows or circulates and which are exposed externally to combustion or products of combustion.

(c) *Miscellaneous boilers*—boilers which are not classified as fire-tube or water-tube boilers.

Some types of fire-tube and miscellaneous boilers have an obvious shell and are also referred to commercially as 'shell boilers'.

1.6.2 Unattended boiler—a boiler designed for fully automatic operation with self-checking fail-safe features and approved by the Inspecting Authority as suitable for limited periods of operation without human supervision.

NOTE: This definition embraces both 'limited attendance' and 'unattended' as defined by the Inspecting Authorities (see Table A1, Appendix A).

1.6.3 Unfired pressure vessel—a vessel subject to internal pressure or external pressure including interconnecting parts and components up to the first point of connection to connected piping and fittings by bolting, screwing, welding or by other means, but does not include those vessels wherein steam or other vapour is or is intended to be generated or water or other liquid is or is intended to be heated by the application of fire or the products of combustion or by electrical means.