AS 4413-1996

# Australian Standard®

## Steel tubes—Pressure application— Flash butt welding

This Australian Standard was prepared by Committee ME/1, Pressure Equipment. It was approved on behalf of the Council of Standards Australia on 8 May 1996 and published on 5 July 1996.

The following interests are represented on Committee ME/1: A.C.T. WorkCover Aluminium Development Council, Australia Australasian Corrosion Association Australian Building Codes Board Australian Chamber of Commerce and Industry Australian Institute of Energy Australian Institute of Engineering Inspection Australian Institute of Petroleum Australian Liquefied Petroleum Gas Association Boiler and Pressure Vessel Manufacturers Association of Australia Bureau of Steel Manufacturers of Australia Department for Industrial Affairs, S.A. Department of Employment, Vocational Education, Training and Industrial Relations, Qld Department of Labour, New Zealand Electricity Corporation of New Zealand Electricity Supply Association of Australia Health and Safety Organisation, Vic. Institute of Metals and Materials, Australasia Institution of Engineers, Australia Insurance Council of Australia Metal Trades Industry Association of Australia National Association of Testing Authorities, Australia New Zealand Engineering Federation New Zealand Heavy Engineering Research Association New Zealand Petrochemical Users Group New Zealand Timber Industry Federation Tasmania Development & Resources Welding Technology Institute of Australia WorkCover Authority, N.S.W. Work Health Authority, N.T. WorkSafe Western Australia

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This Standard was issued in draft form for comment as DR 95211.

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### Steel tubes—Pressure application— Flash butt welding

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#### PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/1 on Pressure Equipment to supersede AS CB15.5—1968, *The welding of steel pressure piping (known as the SAA Pipe Welding Code)*, Part 5: *Flash butt welding of steel pipes and tubes* (incorporating Amendment No. 1).

This Standard is the result of a consensus among representatives on the Joint Committee to produce this document as an Australian Standard. Consensus means general agreement by all interested parties. Consensus includes an attempt to remove all objections and implies much more than the concept of a simple majority, but not necessarily unanimity. It is consistent with this meaning that a member may be included in the Committee list and yet not be in full agreement with all clauses of this Standard.

Changes since the last edition include the following:

- (a) A complete revision and renumbering of the Standard.
- (b) Updating to current Standards Australia style.
- (c) Updating all reference documents and materials.
- (d) Inclusion of a typical flash butt weld procedure data sheet as an Appendix.

This Standard specifies welding procedure, equipment, requirements for completed welds, procedure qualification tests, and production control tests and includes an Appendix illustrating flash butt weld imperfections.

For the purpose of this Standard, the term 'tube' has been adopted, but no difference is intended in the meaning between 'tube' and 'pipe' although idiomatic use prefers sometimes the one and sometimes the other.

Reference was made to BS 4204:1989, *Specification for flash welding of steel tubes for pressure applications* during the preparation of this Standard and acknowledgment is gratefully made to the British Standards Institution for the considerable assistance provided by BS 4204.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

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