

STANDARDS AUSTRALIA

Amendment No. 1
to
AS 4458—1997
Pressure equipment—Manufacture

REVISED TEXT

The 1997 edition of AS 4458 is amended as follows; the amendment(s) should be inserted in the appropriate place.

SUMMARY: This Amendment applies to Clauses 1.4.4 and 1.4.6, Section 2, Clauses 3.1 and 3.6, Table 6.1, Clause 6.3.1, Tables 7.1 and 7.2, Clauses 8.3.1 and 8.3.3, Tables 8.1 and 8.2, Clauses 9.1, 9.2, 9.3 and 9.5.2, Tables 10.1 and 11.1, Clauses 13.3, 14.2 and 14.3, Table 14.1, Clauses 14.5.1, 14.6.6, 14.7 and 14.11, Table 19.2 and Appendices A, C and F.

Published on 5 December 1999.

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Page 9 Clause 1.4.4

Delete Clause and *substitute* as follows:

1.4.4 Fabrication inspection body—a body corporate, firm or person, able to provide the inspection services of materials and construction of pressure equipment.

NOTE: In this Standard, ‘fabrication inspection body’ is referred to as the ‘inspection body’. Where such a body is not appointed, the owner should refer to the purchaser.

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Page 9 Clause 1.4.6

Delete the words ‘for use in a workplace or pressure equipment intended to be used in a workplace’.

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Page 10 Section 2

Second paragraph, *add* the following as the last sentence:

The design strength tables of AS 1210, AS 1228 and AS 4041 contain the material grouping for each specification listed.

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Page 12 Clause 3.1

Item (a) after ‘constructed’ *insert* ‘, the class of construction’.

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Page 13 Clause 3.6

Delete the last paragraph and *substitute* the following:

For boilers constructed to AS 1228, the report shall be the manufacturer’s data report as given in Appendix A of AS 1228.

For piping constructed to AS 4041, the report shall be the manufacturer’s data report as given in Clause 1.11 of AS 4041.

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Page 23 Table 6.1

- 1 Material group A1 & A2, Recommended forming temperature range 850–950, Recommended heat treatment after hot forming, *delete* ‘(Note 2)’ and *substitute* ‘(Notes 1 and 2)’.
 - 2 Material group A1 & A2, Recommended forming temperature range 950–1050, Recommended heat treatment after hot forming, *add* ‘(Note 1)’.
 - 3 Note 1, first line, *delete* ‘group A3’.
 - 4 Note 1, *add* the following as the final sentence:
This testing will apply to some grades of AS 1548, AS 1594 and AS 3678 materials.
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Page 27 Clause 6.3.1

Item (a), *delete* ‘A3 3920.1’ and *substitute* ‘AS 4343’.

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Page 34 Table 7.1

- 1 First column, *delete* ‘Outside diameter’ and *substitute* ‘Outside diameter (D_o)’.
 - 2 *Delete* all entries for outside diameter and *substitute* as follows:
$$D_o \leq 100$$
$$100 < D_o \leq 200$$
$$200 < D_o \leq 300$$
$$300 < D_o \leq 600$$
$$D_o > 600$$
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Page 35 Table 7.2

- 1 First column, after ‘. . . diameter’ *insert* ‘(D)’.
 - 2 First column for ‘Nominal inside diameter’, *delete* all entries and *substitute* as follows:
$$D \leq 900$$
$$900 < D \leq 1500$$
$$D > 1500$$
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Page 42 Clause 8.3.1

Informal table, Item (b), *delete* ‘ $12 < t \leq 40$ ’ and *substitute* ‘ $20 < t \leq 40$ ’.

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Page 43 Clause 8.3.1, Note to informal Table

First line, *delete* ‘Class H’ and *substitute* ‘Classes 1H and 2H’.

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Page 44 Clause 8.3.3

Item (a), fifth line, *delete* ‘30°’ and *substitute* ‘15°’.

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Page 45 Table 8.1

- 1 First column, *delete* ‘Bore of pipe’ and *substitute* ‘Nominal bore of pipe (DN)’.
 - 2 First column, *delete* values for Bore of pipe and *substitute* as follows:
$$DN \leq 100$$
$$100 < DN \leq 300$$
$$DN > 300$$
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Page 46 Table 8.2

- 1 First column, after ‘. . . pipe’ *insert* (T).
 - 2 First column, *delete* values for Nominal thickness of pipe and *substitute* as follows:
$$T \leq 3$$
$$3 < T \leq 4$$
$$4 < T \leq 5$$
$$T > 5$$
 - 3 *Delete* last column ‘Minimum weld leg length’.
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Page 48 Clause 9.1

- 1 First paragraph, *add* the following last sentence:
Welders of pressure piping shall be supervised in accordance with AS 4041.
 - 2 First paragraph, third line before ‘. . . application Standard’, *insert* ‘design and’.
 - 3 Second paragraph, *delete* last sentence and substitute as follows:
Production welding carried out by welders not holding an AS 1796 certification, but otherwise qualified in accordance with AS/NZS 3992 shall be supervised by a welding supervisor certificated in accordance with AS 1796, or by a person having qualifications and experience acceptable to the inspection body.
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Page 48 Clause 9.2

Delete Clause and *substitute* as follows:

The manufacturer shall qualify welding procedures in accordance with the requirements of AS/NZS 3992 or equivalent and nominate any welding procedures that do not require qualification to be applied in manufacture.

Page 48 Clause 9.3

Delete Clause and *substitute* as follows:

9.3 WELDING PERSONNEL

9.3.1 Competence of welding supervisors All welding on pressure components shall be carried out under the supervision of a person who has had suitable training or experience in the forms of fabrication and the processes of welding employed in the manufacturing process, except where otherwise agreed by the parties concerned. Supervisors required to supervise non-certificated welders shall hold an AS 1796 supervisors certificate or equivalent.

9.3.2 Competence of welders Each welder engaged in the welding of pressure components shall—

- (a) hold an appropriate welder’s certificate in accordance with AS 1796; or
 - (b) have had training or experience in the particular welding process to be used and be qualified in accordance with the requirements of AS/NZS 3992 for each welding procedure to be used.
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Page 49 Clause 9.5.2

Item (g), *Delete* item and *substitute* as follows:

Mixture of gas—where the qualified welding procedure requires the use of a gas mixture, it shall comply with the essential variable in Table 5.1 of AS/NZS 3992.
