



DIRECTIVE

No: D-B6 050106 1

CALCULATING THE MAXIMUM ALLOWABLE WORKING PRESSURE OF LAP SEAM BOILERS

This Directive is being issued by a provincial safety manager pursuant to section 30 of the Safety Standards Act.

Date of Issue: January 6, 2005

General Details

This directive is being issued to provide direction to owners of lap seam antique show boilers on how to determine the Maximum Allowable Working Pressure (MAWP) of their boiler. To determine the MAWP of a lap seam boiler the ANSI/NB-23 Code must be used. The requirements of CSA B51, Clause 6.2. must not be used when calculating the MAWP of lap seam antique show boilers.

Specific Details

There are two Codes adopted under the Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation that address the MAWP of lap seam boilers – CSA B51 (Boiler, Pressure Vessel and Pressure Piping Code) and ANSI/NB-23 (National Board Inspection Code). For clarity, the provincial safety manager hereby directs that the National Board Inspection Code must be used and *not* CSA B51 when calculating the MAWP of lap seam boilers. More specifically, ANSI/NB-23 Appendix C: Historical Boilers (Section C-8000) must be used to compute the strength of each boiler component. Additionally, ANSI/NB-23 Section PR16.2 must be taken into consideration. That section provides a limitation on the allowable MAWP of longitudinal joints of a shell or drum that is lap-riveted. The strength of the weakest component as determined by the formulas of ANSI/NB-23 Section C-8000 (or 100 PSI, whichever is the lowest) will govern the MAWP for these types of boilers.

Malcolm Bishop
Provincial Safety Manager, Boilers

For more information, contact your local safety officer or visit our web site at:

www.safetyauthority.ca



Relevant Legislation

Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation

Schedule

Adopted Codes and Standards

Adopted Codes

2 The following codes, standards or parts of a code or standard of the American National Standards Institute and National Board of Boiler and Pressure Vessel Inspectors (ANSI/NB) are adopted:

- (a) ANSI/NB 23 National Board Inspection Code.

References:

Power Engineers, Boiler, Pressure Vessel & Refrigeration Safety Regulation