CAN/CSA- CSA Z240-09 Series-Mobile Homes Welding Requirements

This document provides an overview of the requirements of *CAN/CSA- Z240-09 Series-Mobile Home* with respect to welding. It is designed to provide guidance for individuals and organizations involved in the design and fabrication of mobile homes.

This document is only for general guidance purposes; reference to the full text of CSA Z240 should be made. For further information, please contact the CWB at 1-800-844-6790 or <u>info@cwbgroup.org</u>.

Introduction

Welding is a key joining method used in the fabrication of mobile homes. To ensure welds of the highest quality and the safety of both the users of mobile homes and the general public, CSA Standard Z240 provides specific requirements around the design, welded fabrication and erection of mobile homes.

Welded Fabrication

CSA Z240 provides the following requirements:

5.1.2 Structural members and their connections

When the sizes of and connections for structural members are not specified in this Standard, the members and their connections shall comply with CAN/CSA-O86, CAN/CSA-S16, CAN/CSA-S136, CAN/CSA-S157, and the Canadian Wood Council's Engineering Guide for Wood Frame Construction, except that design live loads shall meet the requirements of Clauses 5.2.1 to 5.2.3 and deflection limits shall meet the requirements of Clause5.3.

CAN/CSA-S16, CAN/CSA-S136 and CAN/CSA-S157 provide requirements for welding fabrication and erection. All welding fabricators shall be certified to CSA Standard W47.1 for welding and erection of steel structures and to CSA Standard W47.2 for welding and erection of aluminum structures.

CSA Standard W47.1 and / or CSA Standard W47.2 provide requirements for the qualification of welders and welding operators, welding procedures and welding supervisory and engineering personnel. A company certified to CSA W47.1 and / or CSA W47.2 Division 1 requires having full time engineer(s) and a company certified to Division 2 requires having retained part time engineer(s).

CSA Standard W59 and / or CSA Standard W59.2 provide guidance on weld design, fabrication techniques, inspection and other key considerations around welding for steel respective aluminum. CSA W59 and / or CSA W59.2 require that contractors performing work under this standard be certified under the requirements of CSA Standard W47.1 respective CSA Standard W47.2.

An organization meeting the requirements of CSA Standard W47.1 and / or CSA Standard W47.2 will have qualified welders, operators, accepted welding procedures and accepted supervisory/engineering personnel. All elements of the welding operation will be independently verified by the Canadian Welding Bureau on an on-going basis.

Please note that there are no domestic or international equivalents to CSA Standard W47.1 and / or CSA Standard W47.2. Other national systems, such as that of the American Welding Society (AWS) do not include key concepts such as independent and on-going verification and welding supervisors/engineers. The CWB strongly cautions the reader around accepting substitutions; doing so may contravene the intent of CSA Z240 and place public safety at risk.

For a listing of all organizations that currently meet the requirements of CSA Standard W47.1 and / or CSA Standard W47.2 please see <u>www.cwbgroup.org</u>.

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Welding Inspection

CSA Standard W59 and / or CSA Standard W59.2 require that all welds be visually inspected. In addition, when required by contract weld inspection must be completed by certified welding inspectors or a welding inspection organization following the requirements of CSA Standard W178.2 or CSA Standard W178.1 respectively. It also requires that CSA Standard W59 and / or CSA Standard W59.2 be followed for the acceptance criteria for all welds. It should be noted that CSA Standard W178.2 has individual "product categories" that inspectors may qualify to, including one for CSA Standard W59 and one for CSA Standard W59.2.

For a listing of all organizations and individuals who currently meet the requirements of CSA Standard W178.1 and CSA Standard W178.2, please see <u>www.cwbgroup.org</u>.

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