

CAN/CSA-B354.5-07 – Mast-climbing work platforms

This document provides an overview of the requirements of *Welding Requirements CSA-B354.5 – Mast-climbing work platforms* with respect to welding. It is designed to specify the requirements for design, manufacturing, remanufacturing, rebuilding/ reconditioning, testing, performance, inspection, training, and maintenance for mast-climbing work platforms that are primarily used to provide a working surface for personnel, along with their necessary tools and materials, at elevated work locations.

This document is only for general guidance purposes; reference to the full text of CSA B354.5 should be made. For further information, please contact the CWB at 1-800-844-6790 or info@cwbgroup.org.

Introduction

Welding is a key joining method used in the fabrication of mast-climbing work platforms. To ensure welds of the highest quality and the safety of both the users of platforms and the general public, CSA Standard B354.5 provides specific requirements around the design and fabrication of mast-climbing work platforms, with awareness that the platforms are used by people.

Welded Fabrication

CSA B354.5 provides the following requirements:

4.2.4.2 Design Standards

Structural design shall comply with

- (a) CAN/CSA-S16 (where the construction is of steel);
- (b) CSA S157 (where the construction is of aluminum); and
- (c) CAN/CSA-086 (where the construction is of wood).

4.2.4.3 Welding Standards

Welded construction shall comply with

- (a) CSA W59 (for metal arc welding of steel); and
- (b) CSA W59.2 (for welding of aluminum).

CSA Standard S16 states that all fabricators and erectors responsible for welding structures fabricated or erected under this Standard shall be certified by the Canadian Welding Bureau to the requirements of CSA W47.1 (Division 1 or Division 2), CSA W55.3, or both, as applicable. Part of the work may be sublet to a Division 3 fabricator or erector; however, the Division 1 or Division 2 fabricator or erector shall retain responsibility for the sublet work.

CSA Standard S157 states that all fabricators and erectors responsible for welding structures fabricated or erected under this Standard shall be certified to the requirements of CSA W47.2.

CSA Standard W47.1 and CSA Standard W47.2 provide requirements for the qualification of welders and welding operators, welding procedures and welding supervisory and engineering personnel.

CSA Standard W59 requires that contractors performing work under this standard be certified under the requirements of CSA Standard W47.1 unless the Engineer of record approves the contractor for the work to be undertaken. CSA Standard W59.2 requires that contractors performing work under this standard be certified under the requirements of CSA Standard W47.2.

CSA Standard W59 and Standard W59.2 provide guidance on weld design, fabrication techniques, inspection and other key considerations around welding for steel.

An organization meeting the requirements of CSA Standard W47.1 and CSA Standard W47.2 will have qualified welders, 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 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 place public safety at risk.

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

Welding Inspection

CSA Standard W59 and 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 W186 and CSA Standard W59 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 www.cwbgroup.org.