

CAN/CSA-Z150-11 - Safety code on Mobile Cranes Welding Requirements

This document provides an overview of the requirements of *CAN/CSA-Z150-11 - Safety code on Mobile Cranes* with respect to welding. It is designed to provide guidance for individuals and organizations involved in the design, construction, installation, erection, inspection, maintenance, repair or modification of lattice and telescopic boom mobile cranes.

This document is only for general guidance purposes; reference to the full text of CSA Z150 should be made. For further information, please contact the CWB at 1-800-844-6790 or info@cwbgroupp.org.

Introduction

Welding is a key joining method used in the fabrication of mobile cranes. To ensure welds of the highest quality and the safety of both the users of mobile cranes and the general public, CSA Standard Z150 provide specific requirements around the welded fabrication, erection and welding inspection of such equipment.

Welded Fabrication

CSA Z150 provides the following requirements:

4.9.4 Welded construction

Welding procedures and welding operator qualifications to be used on load-sustaining members shall be in accordance with CSA W59 and CSA W47.1, or equivalent. Welding standards and procedures produced by the SDOs listed in Clause 4.1.2.2 may be used, provided the welding process meets the criteria of CSA W59, or equivalent. Where special steels or other materials are used, the manufacturer shall provide welding procedures.

CSA Z150 requires that fabricators meet the requirements of CSA W47.1 and CSA W59. CSA Standard W47.1 provides requirements for the qualification of welders and welding operators, welding procedures and welding supervisory and engineering personnel. CSA Standard W59 provides guidance on weld design, fabrication techniques, inspection and other key considerations around welding.

An organization meeting the requirements of CSA Standard W47.1 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. 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 Z150 and place public safety at risk.

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

Welding Inspection

CSA Z150 provides the following requirements:

5.3.5.1 Annual Inspection

Complete inspection of the crane shall be performed by a competent person and supervised by an engineer competent in the inspection of cranes. Visual weld inspection shall be performed and documented in accordance with CSA W59 (reference CSA W59 as applicable), by a person qualified to the requirements of CSA W178.2.

CSA Z150 requires that visual weld inspection be completed by certified welding inspectors following the requirements of CSA Standard W178.2. It also requires that 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.

For a listing of all individuals who currently meet the requirements of CSA Standard W178.2, please see www.cwbgroup.org.