



SKC Engineering
19165 94th Avenue
Surrey, BC, V4N 3S4
T +1 604 882 1889
www.skceng.com

Together
beyond
standards

Annual Equipment Certifications – Client Update

1 June 2020 – R0

Background

On January 23rd, 2020 Engineers & Geoscientists of British Columbia released a Professional Practice Guideline on Annual Equipment Inspection & Certification in British Columbia. As per the BC OHS the following equipment types require annual inspection & certification by a Professional Engineer:

Equipment Type	Standard(s)	Certification Required
Articulating Boom Cranes	ASME B30.22	Safe for Use
Mobile Cranes	ASME B30.5, CSA Z150	Safe for Use
Aerial Devices	CSA C225	Safe for Use
Sign Trucks	CSA C225 & CSA Z150	Safe for Use
Masts Supporting Concrete Pumps	CSA Z151	Structural Only
Tower Cranes	CSA Z248	Structural Only
Fire Truck Aerial Devices and Ground Ladders	NFPA 1914	Safe for Use
Self-Propelled Boom-Supported Work Platforms	CSA B354.4	Safe for Use

Most of these equipment types require certification as 'Safe for Use' which means that the Engineer of Record must certify the structural, mechanical & controls components of the device. At SKC Engineering we currently provide inspections of the structural components of equipment which allows us to issue a 'Limited Certification' of the structural components of the device. This document is to explain your options for obtaining a 'Safe for Use' certification as required by the BC OHS.

Mechanical & Controls Inspections

Option 1 – Employ your own mechanics & carry out your own preventive maintenance work

You may carry out your own mechanical & controls inspections of your equipment & supply documentation of the inspections to us. Ideally you will use an OEM issued preventive maintenance form as this will allow us to easily identify that all required items have been completed. If you wish to your own preventive maintenance, please contact us in advance as we will need to verify that the forms cover every item required by the OEM. The preventive maintenance record must clearly identify the person that carried out the work. As the employer it is your responsibility to ensure that the person carrying out the work is qualified & we will require a statement of qualification for the mechanic using the attached form.

If you would like you can upload preventive maintenance records to our inspection tracking site: www.fleetutility.com prior to bringing your device in for inspection. Or if you prefer you can email the records to Mathew Smith (mathew.smith@applusrtd.com) or simply bring a paper record with you at the time of inspection.



SKC Engineering
19165 94th Avenue
Surrey, BC, V4N 3S4
T +1 604 882 1889
www.skceng.com

Together
beyond
standards

Option 2 – Use a third party for preventive maintenance work

We currently have a working relationship with the following third-party suppliers:

- 1) Falcon Equipment Ltd – Surrey – www.falconequip.com
- 2) Commercial Truck Equipment – Surrey, Delta – www.comtruck.ca
- 3) Ayers Repairs – Nanaimo – www.ayers-repairs.ca
- 4) Summit Trailers – Penticton – www.summittrailer.ca

You can arrange for inspection at any of these locations and they will upload mechanical & controls inspection reports directly into our system

If you choose to use a different supplier, then please forward the mechanical & controls inspection record to us along with a statement of qualification for the mechanic who did the work (signed by their employer). Ideally the third party will use OEM issued preventive maintenance forms. If these are not available then we will need to review the supplied documentation to ensure it covers all items required by the OEM.

Tear-down Inspections

As per CSA Z150 boom tear downs of mobile cranes are required after 10 years and every 5 years thereafter. However, the OEM normally requires teardowns on mobile cranes & aerial devices on a 5, 7 or 10 year cycle. Safe for Use certification can only be issued if all required tear-down inspections have been completed as per the relevant code or the OEM (whichever is more stringent). If you are carrying out a tear-down inspection of a mobile crane, please contact us as it is a requirement that we carry out magnetic particle inspection of the overlapping sections of the booms every-time they are apart.

Structural Repairs & Modifications

All structural repairs must be approved by the engineer of record. As minimum all repairs must be completed by a welder certified to either CSA W59 or AWS D1.1 following an approved welding procedure. Prior to any structural repair please contact Mathew Smith (mathew.smith@applusrtd.com) to review the repair procedure and welder qualifications. **We will not certify a crane if repairs are carried out by welder who is not qualified.**

Mechanical repairs can be carried out without our approval provided the repair does not constitute a modification of the device. Where a modification is defined as:

“Any change, repair, or replacement that results in a deviation from the original specifications provided by the Original Equipment Manufacturer”.

Prepared by:
Mathew Smith, Ph.D., P.Phys., P.Eng.