

Level Up, Own Your Lift *Self-Planned Inspections*

Crane Employer Site Inspection Questions

BC Crane Safety is providing these self-planned inspection questions to educate crane stakeholders for a better understanding of their health and safety responsibilities to comply with WorkSafeBC’s Occupational Health and Safety Regulation and relevant CSA standards.

This set of questions have been developed in conjunction with WorkSafeBC’s Crane/Mobile Equipment Team. It is recommended that crane employers and owners refer to these questions to improve their company or site safety management systems.

What is the “Level Up; Own Your Lift” self-planned inspection process?

The “Level Up; Own Your Lift” inspection program is a self-planned inspection process for worksites that use cranes (mobile, self-erect and tower) to measure your responsible persons’/parties’ compliance with crane safety.

BC Crane Safety is constructing crane-process-specific self-planned inspection questions and support materials for:

- Prime contractors
- Crane employers
- Crane owners
- Crane supervisors
- Crane operators

Plan — Site Responsibilities Questions

Questions: Site Planning	Next Steps
<p>1. Is the crane user the prime contractor or a sub-contracted employer? WCA 24, OHSR 4.1, 20.3</p>	<ul style="list-style-type: none"> • If crane is leased, review the lease to determine if an assembly supervisor has been assigned, and how routine maintenance will be completed.
<p>2. What company employs the crane operator? WCA 21, OHSR 14.34</p>	<ul style="list-style-type: none"> • Use Crane Operator Questions
<p>3. Who is the crane operator’s qualified supervisor? Is the qualified supervisor at the work site? WCA 21, OHSR 14.34</p>	<ul style="list-style-type: none"> • Use Provisional Crane Operator Supervisor Questions
<p>4. Has the employer adequately assessed and planned the work site to identify the hazards and risks associated with crane operations and developed safe work practices? WCA 21, 24, OHSR 4.1, 14.38(6), 20.3(4)(c)</p>	<ul style="list-style-type: none"> • Use the BCCS Tower Crane Pre-erection requirements checklist. • Site specific hazard identification and risk assessment

What is the planned inspection about?

The self-planned inspection uses these questions to conduct a consistent and responsibility-driven inspection of the crane-related parties on the worksite.

Plan — Site Planning Questions, continued

Questions: Site Planning cont.	Next Steps
<p>5. Has the employer ensured appropriate safe work procedures are in place to mitigate the identified risks? WCA 21, 24, OHSR 4.1, 14.38(6), 20.3(4)(c)</p>	<ul style="list-style-type: none"> • Use the BCCS Tower Crane Pre-erection requirements checklist. • Site specific hazard identification and risk assessment • Site specific work procedures
<ul style="list-style-type: none"> • The assembly and disassembly of a tower crane including, mobile crane location, qualified assembly supervisor and workers. OHSR14.73 	<ul style="list-style-type: none"> • BCCS Crane Assembly Supervisor Questions
<ul style="list-style-type: none"> • Loading and lifting zones for the duration of the job. CSA Z248 - 6.2.3 	<ul style="list-style-type: none"> • Site safety plans, traffic control plans
<ul style="list-style-type: none"> • Crane selection and placement to minimize potential contacts with adjacent structures, cranes, pumps, and other equipment. OHSR 4.1, 14.84, 14.85, 20.3(4)(b) 	<ul style="list-style-type: none"> • Site plans showing crane location and hazards
<ul style="list-style-type: none"> • Overlapping cranes to ensure contact does not occur. OHSR 14.84 	<ul style="list-style-type: none"> • Anti-collision, zoning, range limiting. • Site specific work procedures
<ul style="list-style-type: none"> • Overhead High voltage power lines and overhead trolley lines OHSR 19.12, 19.24 	<ul style="list-style-type: none"> • 30M33 in place • Anti-collision, zoning, range limiting • Safe Work Procedures
<ul style="list-style-type: none"> • Emergency response planning for workers and crane operators. OHSR 4.13, CSA Z248 - 7.2 	<ul style="list-style-type: none"> • BCCSA Technical High Angle Rope Rescue Agreement • Safe work procedures including Designated Emergency Platform (DEP)

Check — Documentation Program Questions

Questions — Maintenance Program	Validation
<p>6. Who is responsible to collect and organized all relevant documentation for the crane in use at this work site? OHSR 14.13, 14.79</p>	<ul style="list-style-type: none"> • Crane binder, with table of contents

How many types of self-planned inspections are there?

The self-planned inspection uses these questions to conduct a consistent and responsibility-driven inspection of the crane-related parties on the worksite.

There are five types of inspections, including:

- Crane Employer/Site Inspections
- Provisional Operator Supervisor Checks
- Crane Assembly Supervisor Checks
- Preventive Maintenance Inspections
- Crane Operator Qualification Checks

Inspection/Check Questions are available for download on the BC Crane Safety website.

Check — Documentation Program Questions, continued

Questions — Maintenance Program	Validation
<p>7. Are the crane operator and crane supervisor familiar with the documentation and have they signed off on all relevant documents and site-specific work procedures?</p> <p>WCA 24</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>8. Is the crane documentation accessible for crane operators, the crane supervisor, riggers, maintenance workers and inspectors?</p> <ul style="list-style-type: none"> • Where are the records kept at the work site? <p>OHRS 14.79</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>9. Is the manufacturer's manual on site and available to the crane operator, riggers, crane supervisors, maintenance crews and inspectors?</p> <p>OHSR 14.12</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Check — Crane Operations Questions

<p>10. Describe how routine and preventive maintenance is carried out at the work site, daily, weekly, monthly.</p> <ul style="list-style-type: none"> • Is adequate time being allotted for this? <p>OHSR 14.13, 14.35</p>	<input type="checkbox"/> BCCS Preventive Maintenance Workbook
<p>11. Do the site records confirm the name of the crane operator or other person carrying out this work, the type of maintenance in detail and date of the maintenance?</p> <p>OHSR 14.34, 14.79</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>12. Have there been any operational concerns identified and reported by the crane operator to the appropriate person?</p> <p>OHSR 3.10, 14.35, 14.79</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Check — Documentation Program Questions, continued

<p>13. Has the employer confirmed the qualifications of third-party maintenance company and personnel carrying out structural welding and other repairs or modifications? WCA 21, 23, OHSR 14.35, 14.79</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>14. Demonstrate an understanding of various types of rigging equipment including selection, use and maintaining records of inspections. OHSR 15.2</p>	<p><input type="checkbox"/> Complete <input type="checkbox"/> Incomplete</p>

PLAN, DO, CHECK, & ACT

BC Crane Safety's Level Up Self-Planned Inspections are education and awareness materials for crane stakeholders to use an informed approach to inspections as part of a safety management system focusing on worksite monitoring and continuous improvement.

Act — Post Inspection Discussion

Continuous Improvement Next Steps

During the post inspection discussion, please encourage the worksite representatives to act on the key learnings or areas of improvement.

If unsure, help them to identify 1-2 measures that need/must be corrected, changed, eliminated, or modified to improve worker and worksite safety.

The Act stage of the Plan-Do-Check-Act process is where the worksite representative/superintendent implements an improved baseline of operations and re-measures implementation to ensure improvements/corrections. By measuring implementation, i.e., identifying a lower level of risk, reducing hazard severity/frequency, the worksite is taking positive action towards improved health and safety.

WCB OHSR EXCERPTS

Included are some of the relevant parts of the Occupational Health and Safety Regulation (OHSR) on crane employer and site responsibilities.

Workers Compensation OHSR — Excerpts

Manual and instructions – OHSR 14.12

(1) In this section:

“engineer’s instructions” mean instructions, approved in writing by a professional engineer, for the assembly, erection, dismantling, maintenance, inspection and operation of the component parts of a crane or hoist and of the assembled crane or hoist.

“manufacturer’s manual” means a manual, prepared by the manufacturer of a crane or hoist, that describes the approved methods of assembly, erection, dismantling, maintenance, inspection and operation of the component parts of the crane or hoist and of the assembled crane or hoist.

Workers Compensation OHSR — Excerpts, continued

- (2) A crane or hoist must not be used unless the following is reasonably accessible to the equipment operator and other persons inspecting or maintaining the equipment at the workplace where the crane or hoist is to be used:
 - (a) the manufacturer's manual for the crane or hoist;
 - (b) if the manufacturer's manual is not available, an engineer's instructions for the crane or hoist.
- (3) A crane or hoist must not be used unless the following is readily available at the workplace where the crane or hoist is to be used:
 - a) the portions of the manufacturer's manual related to the assembly, erection, dismantling, inspection, routine maintenance and safe operation of the crane or hoist;
 - b) if the portions of the manufacturer's manual referred to in paragraph (a) are not available, the portions of an engineer's instructions related to the assembly, erection, dismantling, inspection, routine maintenance and safe operation of the crane or hoist.

Pre-use inspection – OHSR 14.35

- (1.) Before an operator uses a crane or hoist, the operator must ensure that
 - (a) the crane or hoist was inspected for that work shift, and
 - (b) the control and safety devices were tested for that work shift.
- (1.1) The inspection and testing in subsection (1) must be carried out in the manner specified
 - a) by the manufacturer,
 - b) in the applicable design or safety standards set out in section 14.2, and
 - c) in this Regulation.
- (2.) Any defects found during inspection or use of a crane or hoist must be recorded in the inspection and maintenance record system and be reported immediately to the supervisor, who must determine the course of action to be taken.
- (3.) If a defect affects the safe operation of the crane or hoist, the equipment must not be used until the defect has been remedied.

Coordination at multiple-employer workplaces – WCA24

- (1.) The prime contractor of a multiple-employer workplace must
 - a) ensure that the activities of employers, workers and other persons at the workplace relating to occupational health and safety are coordinated, and
 - b) do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance with the OHS provisions and the regulations in respect of the workplace.
- (2.) Each employer of workers at a multiple-employer workplace must give to the prime contractor the name of the person the employer has designated to supervise the employer's workers at that workplace.

FOR MORE INFORMATION

For more crane safety related information, including operator certification, contact BC Association for Crane Safety (BC Crane Safety)

Where can I find out more information about crane safety?

Check BC Crane Safety's websites at:

www.bccranesafety.ca