



Canadian
Supply Chain
Sector Council

Conseil canadien
sectoriel de la chaîne
d'approvisionnement

OCCUPATIONAL STANDARD

(For use in the development of supply chain related job descriptions, performance evaluations, career development plans, etc.)

Material Handler Position:	WORK STATION CRANE (=\leq 5 Tonne) OPERATOR <ul style="list-style-type: none"> • Gantry Cranes • Bridge Cranes • Jib Cranes • Hoist Cranes
Description of Position (As defined by the CSCSC Stakeholder Community)	<i>Work Station Crane Operators handle, move, load and unload materials manually, and/or by using a manually operated work station crane or a work station crane with a power source. They are employed by transportation, storage and moving companies, and by a variety of manufacturing and processing companies and retail and wholesale operations.</i>
Position Development	Progression to supervisory and management positions is possible through experience, additional training and associated supervisory certifications.
Required Qualifications:	(Education, Training, Related Work Experience)
Education	A high school diploma is considered an asset.
Specific Training for Work Station Crane Operators	(Certification and Training Composition)
ST.1 – Certification	<ul style="list-style-type: none"> • A Work Station Crane Operator requires an operator's certificate from a CSCSC accredited training course or program. • Additional training requirements may include retraining certification, need of which is determined by the equipment being utilized, task(s) being performed, operator performance issues, environment in which the equipment is being operated, operator period of inactivity, and/or the original date of the operator's certification. Retraining frequency consistent with the timelines recommended in applicable standards and regulations.
ST.2 – Training Composition	<ul style="list-style-type: none"> • The Operator will have received training in both theory and practical use of the lift truck.
General Training for Material Handlers	In general, Material Handlers need anywhere from a few weeks to one year of working with experienced employees. The length of training will depend on the complexity of the material handling operations and

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	types of material handling equipment. Training in Workplace Hazardous Materials Information System (WHMIS), Transportation of Dangerous Goods (TDG), and First Aid and Cardiopulmonary Resuscitation (CPR) is considered an asset.
Related Work Experience	A Work Station Crane Operator would require previous work-related skill, knowledge, and experience. The amount of skill, knowledge and experience would be dependant upon the level of the position to be filled (entry-level, experienced, and supervisory).
General Material Handling Tasks:	
Material Handlers, including Work Station Crane Operators, perform some or all of the following general tasks	<ul style="list-style-type: none"> • Operate and/or navigate material handling equipment • Review equipment log books and complete log book entries • Inspect material handling equipment, structures, or materials to identify problems or defects • Install protective devices as required • Attach rigging, hooks, and other devices to lift and guide loads • Perform general physical activities in order to load, unload, sort and move products and materials by hand or using material handling equipment • Perform tasks in multi-temperature environments • Read work orders or receive oral instructions for work assignments • Complete daily production sheets or work tickets • Maintain storage areas and carry out general yard duties • Provide on the job training to new/junior material handling staff • Contribute to the completion of incident reports in relation to health and safety issues or material spills
Tools and Technology:	
	<ul style="list-style-type: none"> • Material Handling Equipment – Work Station Cranes (including equipment accessories and auxiliary equipment used in maintenance of equipment) • Computer Hardware and Associated Software (e.g. data entry, machine control, inventory tracking, spreadsheet, electronic mail) • Communication Devices (e.g. voice pick systems) • Scanning Equipment (e.g. bar code scanning equipment) • Packaging Tools (e.g. staplers, tape guns, strapping machines) • Measurement Tools (e.g. scale, measuring tape, thermometer, temperature gauge, air pressure gauge)

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Required Competencies:	(Knowledge, Skills, Personal Attributes)
Specific Knowledge for Work Station Crane Operators	(Legislative Requirements, Equipment Design and Stability, Pre-Operational Safety, Operational Safety, Maintenance, Inspection and Repair, Power Source, and Attachments) Based on CSA B167-08 and CAN/CSA-Z150-98, available at http://www.shopcsa.ca .
SK.1 - Legislative Requirements	<ul style="list-style-type: none"> • Knowledge of where to locate and the content of applicable legislation, standards and guidelines • Aware of the legal responsibilities of a Work Station Crane Operator
SK.2 – Equipment Design and Stability	<ul style="list-style-type: none"> • Aware of the equipment load capacity limitations • Aware of causes of equipment related accidents and associated preventative measures • Familiar with the manufacturer’s criteria for equipment modifications • Aware of supplemental supporting parts for existing cranes • Knowledgeable of equipment stability including: <ul style="list-style-type: none"> ✓ general stability requirements ✓ conditions and hazards that may impact crane stability ✓ crane tipping prevention techniques
SK.3 – Pre-Operational Safety	<ul style="list-style-type: none"> • Aware of equipment log book entries, if applicable, and any associated safety considerations and/or concerns prior to work station crane operation • Knowledge of how to conduct a hazard assessment of the work area prior to work station crane operation • Knowledge of how to conduct a pre-operational safety and maintenance inspection of equipment (including rigging, attachments, lifting hardware, and limit switches) and the applicable reporting procedures • Familiar with equipment controls and safety features (e.g. stops, limiting devices, sweep guards, alarm signal systems, etc.) • Determination of the personal protective equipment required for safe operation (e.g. steel toed boots, hard hat, etc.) and handling of materials • Aware of any applicable safety bulletins made available to employees for review (e.g. posted on health and safety boards, notice attached to pay stubs, etc.)
SK.4 – Operational Safety	<ul style="list-style-type: none"> • Aware of the responsibilities of operators when operating equipment • Knowledgeable of how to identify, report, and take corrective action in order to address job, equipment, and workplace hazards • Familiar with any limitations to work station crane operation

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	<ul style="list-style-type: none"> • Familiar with load charts and determining lifting capacities • Familiar with hand signals (both use and interpretation), specifically the code of signals for hoisting operations • Knowledgeable of proper load handling (e.g. selection, security, integrity, pickup, positioning, suspension, load turning, and placement) • Aware of the need for and safe use of tag lines for controlling loads • Aware of the use and applicability of safe lifting devices, such as a rigging, attachments, lifting hardware, positive stops, sweep guards, and limit switches • Knowledge of general safety for operating the work station crane and conducting material handling activities, including: <ul style="list-style-type: none"> ✓ observance of company material handling, emergency, and accident reporting procedures ✓ recognition of different brands of work station cranes, and potential manufacturer specific operation and safety features ✓ awareness of work station crane operational limitations ✓ knowledge of safe operating procedures • Knowledge of safety considerations, such as taking out load swing, turning of loads, pedestrian and worker safety during work station crane operation, etc. • Familiar with containers approved for hoisting, including knowledge of the container design purpose, maximum load rating, and any associated hazards with utilizing the container
SK.5 - Maintenance, Inspection and Repair	<ul style="list-style-type: none"> • Aware of applicable shutdown procedures to be followed prior to maintenance, inspection, and/or repair • Knowledgeable of the application of basic equipment inspection techniques, including the frequency of inspection • Able to identify when specialized personnel are required for maintenance, inspection, and/or repair activities • Familiarity with the manufacturer recommended or company defined inspection and planned maintenance program
SK.6 – Power Source	<ul style="list-style-type: none"> • Aware of the potential need for trained personnel to utilize power source refueling equipment, or recharging and replacement equipment • Familiarity with material safety data sheets (MSDS) applicable to the power source, including information on potential hazards, and on the use, storage and handling and emergency procedures related to the power source hazards • Knowledge of power source start up and shut down procedures • Knowledge of inspection techniques for work station cranes with a

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	<p>power source (e.g. electric or pneumatic power source) and power drive kits</p> <ul style="list-style-type: none"> • Awareness of manufacturer's safety manual instructions
General Material Handling Knowledge	Knowledge of health and safety procedures, standards and regulations, public safety and security, customer service, basic mathematics, English language, and other languages as required.
Specific Skills for Work Station Crane Operators	(Safety, Equipment Operation, and Equipment Care) Based on CSA B167-08 and CANCSA-Z150-98, available at http://www.shopcsa.ca .
SS.1 - Safety	<ul style="list-style-type: none"> • Review and maintain work station crane log book • Check the work station crane's engineering certificate to make sure the crane has been engineered, inspected and that it meets code • Conduct equipment safety inspections, including inspections of all critical equipment components, rigging, hitches, and accessories such as casters, swivel locks, limit switches, end stops, etc. • Identify, avoid, and correct hazards related to the material handling task, equipment, and/or work environment in which the work station crane is being used (e.g. overhead hazards) • Apply general safety practices (e.g. suspended loads never left unattended) and follow applicable traffic rules for portable work station cranes during operation and relocation • Communicate using hand signals (both use and interpretation) or other means of two way communication
SS.2 – Equipment Operation	<ul style="list-style-type: none"> • Operate, maintain, and practice good housekeeping to ensure stability of work station crane and to prevent tipping • Operate equipment responsibly given the work station crane limitations • Use tag lines in order to safely control loads • Interpret load charts and accurately determine the weight of the load to be lifted (load weight) • Establish a safe work/area corridor during work station crane operation (e.g. area cordoned off, sounding horns when moving, surrounding staff aware when a hoist is occurring, etc.) • Implement extra care procedures based on the environment in which the work station crane is used (e.g., overhead lighting fixtures when operating adjustable height cranes, changing grades, etc.) and in the event of a critical pick • Maneuver work station crane in tight spaces or on uneven surfaces • Safely operate work station crane when swinging or turning loads • Adjust height of work station crane if required • Implement start up and shut down procedures for work station

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	cranes with a power source
SS.3 – Equipment Care	<ul style="list-style-type: none"> Recognize when maintenance of the work station crane is necessary, and how to apply basic preventative maintenance techniques Assemble or disassemble portable work station cranes as required for transport or maintenance Inspect work station crane and accessories for damage or breakage
General Material Handling Skills	A Material Handler should have the following skill sets: active listening, reading comprehension, instructing, coordination, and time management.
Personal Attributes	(Abilities, Work Values, Work Styles)
Abilities	The following abilities are important to a Work Station Crane Operator: strength, multi-limb coordination, oral expression and comprehension, written comprehension, control precision, manual dexterity, confidence working at various heights, and arm-hand steadiness.
Work Values	Individuals who will succeed in this position value providing service to others, working with co-workers in a friendly environment, and contributing to a safety conscious working environment.
Work Styles	The following work styles are attributable to a Work Station Crane Operator: attention to detail, accuracy, dependability, integrity, cooperation, self control, confidence, stress tolerance, adaptability/flexibility, initiative, creative problem solver, and social orientation.
Essential Skills Profile:	Essential Skills are the skills needed for work, learning and life. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change. For more detailed essential skills profiles please refer to the HRSDC website: http://www.hrsdc.gc.ca/eng/workplaceskills/LES/index.shtml
Reading Text	<ul style="list-style-type: none"> Frequently read equipment manuals, supervisor instructions, storage and handling recommendations, standard operating procedures, and health and safety policies and procedures
Document Use	<ul style="list-style-type: none"> Utilize, complete and/or read inspection forms, manufacturer bulletins, warning and direction signs, work schedules, weight charts, site maps, assembly drawings, schematic drawings, etc.
Writing Skills	<ul style="list-style-type: none"> Write notes to supervisors Write reports (e.g. incident, accident, inspection, maintenance, etc.) Complete activity logs to record tasks completed
Numeracy	<ul style="list-style-type: none"> Apply scheduling, budgeting and accounting math Apply measurement and calculation math

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	<ul style="list-style-type: none"> Utilize numerical estimation
Oral Communication	<ul style="list-style-type: none"> Discuss and co-ordinate tasks with coworkers Interact with supervisors to get direction and to problem solve Speak with other specialized staff regarding equipment repairs
Thinking Skills	(Problem Solving, Decision Making, Job Task Planning and Organizing, Significant Use of Memory, Finding Information)
Problem Solving	<ul style="list-style-type: none"> Find creative solutions to spatial challenges when moving materials Find creative solutions to address work load challenges
Decision Making	<ul style="list-style-type: none"> Participate in decision making on how to position a load so its weight will be distributed Participate in decision making regarding how to move items in the most efficient way
Job Task Planning and Organizing	Work Station Crane Operators receive assignments from supervisors and plan sequencing of tasks to meet deadlines. Most activities are routine and follow established procedures. Some liaison with co-workers may be needed to co-ordinate the movement of goods.
Significant Use of Memory	<ul style="list-style-type: none"> Remember operating features such as how to adjust crane height, attach accessories, and effective use of slings Remember hand signals and safe operating guidelines Remember legal responsibilities of the operator Remember applicable legislation and standards
Finding Information	<ul style="list-style-type: none"> May consult co-workers, supervisors and suppliers when seeking information May refer to operating manuals, maintenance manuals, parts manuals, and/or repair manuals
Working with Others	Work Station Crane Operators are generally self-directed. Partnering is important when moving heavy or awkward materials, or when other material handling health and safety considerations demand it.
Continuous Learning	Work Station Crane Operators gain experience on the job, however operator refresher training is considered best practice. In addition, they may receive training in first aid, pedestrian safety, hazard identification, transportation of dangerous goods, etc. Annual health and safety training is strongly recommended for the reduction in the numbers of workplace injuries.
Additional Information	(Physical Aspects, Attitudes)
Physical Aspects	Work Station Crane Operators may need to adapt to multi-temperature work environments and stand and walk to carry out their tasks. They may also bend, stoop, kneel and crouch to lift and move objects.

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Attitudes	Work Station Crane Operators should be safety conscious, well organized, have a positive attitude, service oriented, patient, confident, and industrious.
Future Trends Affecting Essential Skills:	As the focus on safety in the workplace increases, Work Station Crane Operators will be required to learn more about safety regulations.

Government of Canada Defined - Related NOC Code & Description	7452 – Material Handlers This unit group includes workers who handle, move, load and unload materials by hand or using a variety of material handling equipment. They are employed by transportation, storage and moving companies, and by a variety of manufacturing and processing companies and retail and wholesale warehouses.
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Document Management:				
Activity #	Activity Type*	Replaces	New Version Name	Responsible Individual
1	Document Created	Not Applicable	January 16, 2009	C. Sellar (CSA)
2	Document Modified	Jan 16, 2009	February 4, 2009	C. Sellar (CSA)
3	Document Modified	Feb 4, 2009	February 27, 1009	C. Sellar (CSA)
4	Document Updated	Feb 27, 2009	June 15, 2009	M. Hébert (CSA)
5	Document Modified	June 15, 2009	June 17, 2009	C. Sellar (CSA)
6	Document Modified	June 17, 2009	June 29, 2009	C. Sellar (CSA)
7	Document Modified	June 29, 2009	August 12, 2009	C. Sellar (CSA)
8	Document Updated	August 12, 2009	September 22, 2009	C. Sellar (CSA)
9	Document Modified	Sept 22, 2009	October 6, 2009	C. Sellar (CSA)
10	Document Modified	October 6, 2009	April 30, 2011	B. Myers (CSCSC)

***Activity Types:**

- ✓ Document Created
- ✓ Document Modified (Minor Corrections & Editorial Changes)
- ✓ Document Updated (Complete Review)
- ✓ Document Finalized
- ✓ Document Retired

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