

Date Revised:	April 2019	Overall Task Risk Rating: <b>B</b>
Description:	Activities that require the use of equipment, tools, and machinery, for the purposes of hoisting and rigging various items.	
Location(s):	Shop, Asphalt Plant & Construction Projects	
Associated Documents: Working at Heights WTS, Overhead Hazards WTS, Hazardous Energy Control WTS		

**RED FLAGS (HOLD WORK UNTIL CORRECTED):**

Note:

- If you are not familiar with the safe use of the equipment, ask your foreman / superintendent for assistance prior to starting

PERSONAL PROTECTIVE EQUIPMENT (CSA APPROVED)									
Head Protection	Foot Protection	High-Vis Protection	Hearing Protection	Hand Protection	Eye Protection	Respiratory Protection	Skin Protection	Face Protection	Fall Protection
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note:

- When in the Shop one must adhere to the minimum Shop PPE Requirements: Safety Boots
- When onsite one must adhere to the minimum site requirements (i.e. Safety Boots, Hard Hat & High Visibility Protection. Safety Glasses when necessary)

## SAFE WORK PRACTICES (SWP)

General Hoisting and Rigging Practices:

- If you are not familiar with the safe use of any machinery or equipment, ask your foreman / superintendent for assistance prior to starting
- Do not exceed the rated load capacity or lifting limitations of equipment
- All loads must be secure during hoisting
- All hoisting and rigging hooks will be equipped with safety latches
- Ensure that all outriggers of the hoisting equipment are on a solid surface and that the hoisting equipment is level
- Keep clear of pinch points
- Maintain control of loads/equipment being raised/ lowered, use tag lines if necessary
- Do not attempt to make adjustments or clear jammed machinery without first shutting off power
- All equipment must be maintained and operated in a condition that does not endanger a worker

Cranes and Operations:

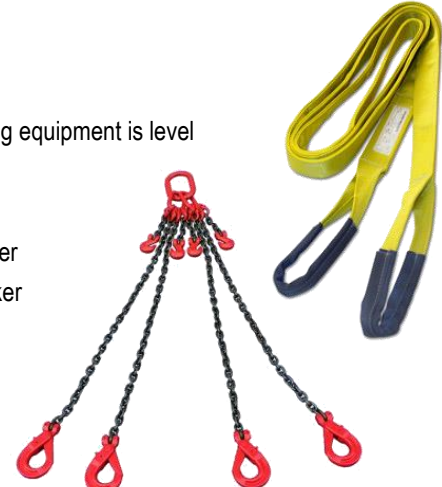
- All cranes must be erected and dismantled in accordance to the manufacturer's instructions
- Crane must be adequately anchored in accordance to the manufacturer's instructions
- Crane must be grounded and all electrical connections secured

Suspended Loads:

- Suspended loads are not to be passed over workers - it is the responsibility of both the operator and the workers
- Operators shall not leave any raised loads unattended

Signs and Barriers:

- Appropriate warning signage must be posted to indicate that overhead work is being performed in the area
- Hoisting areas must be secured with a barrier to prevent public access
- Ground spotters shall be used when loads are being raised



**Housekeeping:**

- Keep machines and equipment clean and report any leaks or other noticeable defects

**Signal Person:**

- Two-way communication must be established between the ground signaler and the crane operator
- Make sure all signals are understood and communicated clearly and concisely
- Full visibility must be obtained by the operator of the hoisting equipment at all times
- If communication is lost between the operator and the signal person, the operator must stop until communication is restored
- Signal persons must only perform signalling duties during hoisting

**Powerline and Overhead Safety:**

- Always check for overhead power lines and observe minimum distances from overhead power lines
- When unsure, always assume that electrical power lines are live
- Refer to Overhead Hazards WTS for more information

**Environmental Considerations:**

- Take weather conditions into account before attempting any hoisting and rigging operations
- All electrical connections must be sealed against rain

**Inspection:**

- Daily pre-operational inspection will be performed where required for specific pieces of equipment (i.e. on cranes and rigging gear)
- All hoisting and rigging equipment will be visually inspected for wear, cracks, severe corrosion, kinks, bird-caging, broken strands, burn marks, chemical damage, deformation or other signs of obvious damage
- Do not use defective equipment or machinery, inform your foreman / superintendent - they will arrange for the equipment to be serviced
- All exposed moving or rotating parts must be adequately guarded - no one is to make any protective guarding ineffective
- Ensure that all material and equipment is in good condition and will meet the requirements of the lift
- Ensure that any item of the rigging hardware that requires an engineered diagram has one
- The area of the lift will be assessed for possible hazards and all hazards will be removed or controlled before the lift occurs

**Training:**

- Employee Orientations (including roles, responsibilities, applicable workplace task standards, WHMIS, etc.)
- Only trained, authorized personnel are allowed to operate machinery or equipment (i.e. cranes & hoisting devices)
- Only trained, authorized personnel are allowed to perform maintenance / repairs

**Personal Protective Equipment:**

- Workers on construction projects must wear, at a minimum, head, foot and high visibility protection. Eye protection when necessary
- Eye protection is required when completing tasks that may cause debris / objects to dislodge or become airborne

<b>JOB HAZARD AND RISK ANALYSIS</b>		<b>RISK RATING SYSTEM</b>	<span style="color: red;">A</span> High risk of injury or equipment / property damage. <span style="color: yellow;">B</span> Medium risk of injury or equipment / property damage. <span style="color: green;">C</span> Low risk of injury or equipment / property damage.
TASK HAZARDS	TASK CONTROLS	RATING	
<ul style="list-style-type: none"> <li>• Lack of Inspection</li> </ul>	<ul style="list-style-type: none"> <li>• The operator shall perform &amp; record a daily inspection of their hoist equipment prior to use</li> <li>• Equipment must not be used if any defects are identified - inform your superintendent / foreman</li> </ul>	<b>C</b>	
<ul style="list-style-type: none"> <li>• Equipment Failure, Improper Crane use</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment must be used in accordance with manufacturer's instructions &amp; related legislature</li> </ul>	<b>C</b>	
<ul style="list-style-type: none"> <li>• Equipment Overload</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment must not be loaded in excess of their load ratings</li> <li>• Inspect chains, hooks and clamps for damage daily</li> </ul>	<b>B</b>	
<ul style="list-style-type: none"> <li>• Electrical Overhead Hazards</li> </ul>	<ul style="list-style-type: none"> <li>• Overhead electrical hazards must be identified and avoided</li> <li>• Implement Overhead Hazards WTS</li> </ul>	<b>B</b>	

<ul style="list-style-type: none"> <li>Lack of Maintenance</li> </ul>	<ul style="list-style-type: none"> <li>Equipment shall be operated and maintained as per the manufacturer's instructions</li> </ul>	C
<ul style="list-style-type: none"> <li>Lack of Training</li> </ul>	<ul style="list-style-type: none"> <li>Only trained, authorized personnel are allowed to operate machinery or equipment (i.e. cranes &amp; hoisting devices)</li> <li>Only trained, authorized personnel are allowed to perform maintenance / repairs</li> </ul>	C
<ul style="list-style-type: none"> <li>Lack of Planning</li> </ul>	<ul style="list-style-type: none"> <li>Do not operate within legislated safe approach distances of energized overhead electrical hazards (wires)</li> <li>Remain aware of other workers in close proximity</li> <li>Make sure all signals are clear, concise and understood</li> </ul>	C
<ul style="list-style-type: none"> <li>Falling Objects</li> </ul>	<ul style="list-style-type: none"> <li>Have complete control of the load (use a tag line as needed)</li> <li>The load must be evenly balance when lifted</li> <li>Do not pass raised loads over workers</li> </ul>	B
<ul style="list-style-type: none"> <li>Improper Setup</li> </ul>	<ul style="list-style-type: none"> <li>Determine the weight of the load and ensure that it does not exceed the Safe Work Load of any of the components</li> <li>Take weather conditions into account</li> </ul>	B

## SAFE JOB PROCEDURES (SJP)

<p><b><u>Pre-Task Commencement:</u></b></p> <ol style="list-style-type: none"> <li>1. Gather and wear the required PPE for the task - on construction sites, all must wear head, foot and high visibility protection. Eye protection when necessary</li> <li>2. Ensure the site-specific workplace violence assessment is complete</li> <li>3. Complete the Daily GAZZ Card and review with all workers the shift's tasks with any associated hazards and control strategies</li> <li>4. Ensure all workers understand the GAZZ Card contents, and sign off in acknowledgement</li> <li>5. Ensure controls are in place prior to commencing work so risks are mitigated / eliminated</li> <li>6. Determine what equipment / machinery / tools and material, are required for the completion of the task</li> <li>7. Inspect all equipment / machinery / tools prior to use and document the inspections on appropriate forms when required</li> <li>8. Ensure preventative maintenance activities have been completed where required, prior to using equipment / machinery / tools</li> <li>9. If equipment / machinery / tools are observed to be damaged, remove it from use and notify the Foreman / Superintendent</li> <li>10. Post signage where needed</li> <li>11. Select hoisting/rigging equipment based on manufacturer's specifications, rated load carrying capacity and site-specific conditions</li> <li>12. Determine if hoisting and rigging equipment will require structural engineering drawings and the approval of a structural engineer</li> <li>13. Ensure hoisting/rigging operator has appropriate training for relevant equipment in use</li> <li>14. Develop a communication plan with a spotter</li> <li>15. Implement Overhead Hazards WTS controls if applicable</li> </ol>
<p><b><u>During Task:</u></b></p> <ol style="list-style-type: none"> <li>1. Setup hoisting and rigging equipment (must be a competent worker with appropriate training)</li> <li>2. The operator shall perform and record a daily inspection of his or her hoisting and rigging equipment prior to use</li> <li>3. Ensure hoisting and rigging components are capable of lifting the weight of the intended load</li> <li>4. Rig material, and inspect connections/components prior to hoisting</li> <li>5. Hoist and rig material</li> <li>6. Hoisting operators who cannot maintain full visibility of the load and the intended path must have appropriate spotters</li> <li>7. Contain work area, using appropriate barricading and danger (warning) signage. Loads being hoisted must not pass over anyone</li> <li>8. Operate equipment machinery and/or tools as per manufacturer's instructions</li> </ol>
<p><b><u>Task Completion:</u></b></p> <ol style="list-style-type: none"> <li>1. Ensure all equipment / machinery / tools are maintained and stored appropriately in the designated locations</li> </ol>



2. Implement any housekeeping or maintenance as required