Vehicle Loading Cranes

Warning
You cannot undertake this activity in the rail corridor unless you have completed a pre work brief and work site protection plan. Reference should also be made to the Protocol for Entering the ARTC Rail Corridor and the Business Rules for Working in the ARTC Rail Corridor. Minimum Personal Protective Equipment (PPE) must also be met in line with the Personal Protective Equipment (PPE) Work Instruction.

<table>
<thead>
<tr>
<th>Work Activity: Vehicle Loading Cranes</th>
<th>WMS No: WHS-WI-400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage: ARTC employees, and contractors directly managed by ARTC</td>
<td>Version No: 4.0</td>
</tr>
<tr>
<td>Developed by: Corporate Work Health and Safety Manager</td>
<td>Approved by: Executive General Manager Enterprise Services</td>
</tr>
<tr>
<td></td>
<td>Date Approved: 7 May 2016</td>
</tr>
</tbody>
</table>

- Position Vehicle
  - Unstable ground
  - Obstructions to lifting crane.
  - Unintended vehicle movement
  - Rail and/or Road Traffic

- Plan the lift
  - Unsafe lifting method attempted

What are the tasks involved?
What are the hazards and risks?
What are the control measures?
Related Documents

Position vehicle on stable, level ground.
Ensure the ground can support the vehicles total potential weight. (consider the vehicle, its attachments, and the loads to be lifted)
Check for potential crane obstructions. (such as signals, power lines, rail and/or road traffic)
Secure vehicle against unintended movement. (apply brakes, and if necessary chock the wheels)
Ensure appropriate traffic control measures are in place. (restrict movement of rail and/or road traffic near the vehicle)

Determine the lifting method that will best ensure that:
- the stability of the vehicle and crane will be maintained
- load movements will be as slow, smooth and level as possible
- any load restraints will remain in place and be effective
- the load will be delivered to a level and stable surface

Operating Manual and/or Safe Use Instructions (for the vehicle loading crane)

Relevant lifting chart (to confirm the lifting attachment and slinging method is suitable)
<table>
<thead>
<tr>
<th>What are the tasks involved?</th>
<th>What are the hazards and risks?</th>
<th>What are the control measures?</th>
<th>Related Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set up the site for the lift</td>
<td>Impact on other objects / workers</td>
<td>Set up an appropriate exclusion zone (use warning tape, witches hats and/or a spotter)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electrocution</td>
<td>Ensure you will maintain a separation distance of 3 metres from power line for voltages up to 132KV and 8 metres for voltages greater than 132KV unless you have a suitable permit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instability</td>
<td>Deploy stabilisers and install outrigger foot plates where required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unsafe equipment and/or set up</td>
<td>Check the vehicle and crane are level</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Complete a visual inspection of the vehicle and set up (do not continue if unsafe. &quot;Tag Out&quot; faulty equipment if needed)</td>
<td></td>
</tr>
<tr>
<td>Prepare the load for the lift</td>
<td>Unsafe load</td>
<td>Ensure the load is safely slung.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proceeding with a lift that is not safe</td>
<td>Check that the load is securely restrained.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Test the load for stability and load restraint (slowly lift the load slightly above its initial position)</td>
<td></td>
</tr>
<tr>
<td>Move the load</td>
<td>Uncontrolled movements</td>
<td>Lift, move and lower the load slowly and smoothly.</td>
<td>Do not travel the load over a person</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure the load is placed securely on a level and stable surface.</td>
<td></td>
</tr>
<tr>
<td>Complete the work</td>
<td>Vehicle loads not secured before leaving</td>
<td>Remove lifting attachments and store securely.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Objects / Materials left on site.</td>
<td>Return the crane to the confines of the vehicle.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Turn off the equipment and secure the crane to prevent movement.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Remove the exclusion zone (and remove any wheel chocks, if used)</td>
<td></td>
</tr>
</tbody>
</table>
## References

**Standards, Codes of Practice, Guidance:**
- Commonwealth Work Health and Safety Regulation (Regulation 81, 82, 83, 85, and Schedule 3)
- National Transport Commission – Load Restraint Guide
- Australian Standard – AS 2550 Cranes, Hoists and Winches, AS 4991 Lifting Devices
- Operating Manual and/or Safe Use Instructions (for the vehicle loading crane)

Relevant vehicle loading crane:
- chain sling working load limit chart
- vehicle loading crane lifting chart

**Plant / Equipment / Tools:**
- Vehicle Loading Crane

Additional PPE requirements to be determined, such as:
- gloves
- hardhats

Use as needed:
- lifting attachments
- vehicle load restraints
- warning tags – Danger, and Do not Operate
- warning tape and/or witches hats

**Training Requirements:**
Check whether high-risk licenses are required and if so that workers have these.

The Work Health and Safety Regulation, **Schedule 3**, requires high-risk work licences for work including operating a vehicle loading crane with a capacity of ten metre tonnes or greater.

Depending on the complexity of a load to be moved, high risk work licenses in dogging or rigging may also be considered.

A specific competency unit is available for operating a vehicle-mounted loading crane.

**Inspection / Testing requirements:**
Before use, check:
- Crane is operational and fit for purpose, including any remote controls
- Lifting attachments are fit for purpose with a current inspection tag
- PPE has been correctly selected and adjusted