<table>
<thead>
<tr>
<th>TSC Category</th>
<th>Rail Systems Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSC</td>
<td>Heavy Lifting Machinery Operation</td>
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<tr>
<td>TSC Description</td>
<td>Operate heavy lifting machinery and the appropriate deployment of machinery for maintenance activities</td>
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</tbody>
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<thead>
<tr>
<th>TSC TSC Proficiency Description</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
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</thead>
<tbody>
<tr>
<td>• Operate various types of heavy lifting machinery required for rail maintenance activities</td>
<td>PTP-RSM-1014-1.1</td>
<td>PTP-RSM-2014-1.1</td>
<td>Support the deployment and usage of heavy lifting machinery</td>
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### Knowledge
- Types of heavy lifting machinery used in rail maintenance activities
- Operating principles and functions of heavy lifting machinery
- Techniques used to position, stabilise and release load
- Conditions which may impact structural and load stability when operating heavy lifting machinery
- Procedures on handling unanticipated situations during machinery operation
- Safety tools and equipment used at work site while operating heavy lifting machinery
- Safety procedures in operating heavy lifting machinery
- Job plan designs
- Types of heavy lifting machinery used in rail maintenance activities
- Operating principles and functions of heavy lifting machinery
- Calculations of payload safety factor for the appropriate deployment of heavy lifting machinery
- Types of maintenance activities that required heavy lifting machinery
- Types of hazards and dangers at work site
- Safe work site planning
- Safety tools and equipment used at work site while operating heavy lifting machinery
- Safety procedures in operating heavy lifting machinery

### Abilities
- Operate heavy lifting machinery in accordance to job assignment requirements and safety protocols
- Handle heavy lifting machinery in confined spaces
- Interpret job plan and amount of resources required for rail maintenance activities
- Allocate the appropriate heavy lifting machinery to the appropriate payload required by the maintenance activities
- Use appropriate techniques to safely hoist, stabilise and release load when operating heavy lifting machinery
- Identify conditions which may impact structural and load stability during rail maintenance activities
- Respond to site incidents by shutting down heavy lifting machinery with the correct sequence of procedures
- Adhere to safety procedures when operating heavy lifting machinery

- Conform to appropriate usage of the heavy lifting machinery at the worksite
- Ensure the safe deployment of heavy lifting machinery at the worksite