<table>
<thead>
<tr>
<th>TSC Category</th>
<th>Cargo Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSC</td>
<td>Lashing</td>
</tr>
<tr>
<td>TSC Description</td>
<td>Carry out lashing operations with proper adherence to Workplace Safety and Health (WSH) requirements and coordination of lashing teams</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>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>
</tr>
</thead>
<tbody>
<tr>
<td>TSC Proficiency Description</td>
<td>STP-CGO-1005-1.1</td>
<td>STP-CGO-2005-1.1</td>
<td>STP-CGO-3005-1.1</td>
<td>STP-CGO-3005-1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform ship operations and lashing operations</td>
<td>Coordinate advanced lashing operations</td>
<td>Supervise lashing operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Knowledge**

- Types of lashing operations performed on-board ship or at ship wharf side
- Types and usage of lashing tools and equipment
- Risks and hazards in lashing operations
- Workplace Safety and Health requirements and procedures relating to ship and lashing operations
- Types of personal protective equipment (PPE) relating to ship and lashing operations
- Means of access to and from ships and containers
- Types of weather codes
- Ship and lashing operations personnel
- Common accidents and operational problems relating to lashing operations and the factors contributing to them
- Workplace Safety and Health (WSH) requirements and procedures relating to ship operations and lashing operations
- Crane sequences, discharging and loading lists
- Types of functional tests for lashing tools and equipment
- Number of workers and type of tools and equipment required for various lashing tasks
- Concepts relating to ships and lashing operations:
  - Types of containers
  - Types of hatch covers
  - Types of ship operations
  - Ship nomenclature
  - Types of weather codes
  - Types of access to and from the ship
- Radio functional tests, communication protocol and terminology
- Types and usage of lashing tools and equipment
- Workplace Safety and Health (WSH) requirements and procedures relating to lashing operations
- Organisational risk assessment protocol
- Types of access to and from the ship
- Ship characteristics
- Common operational problems relating to lashing operations
- Organisational standard operating procedures relating to lashing operations
### Abilities

- **Terminology associated with changes to work plans**
- **Common accidents, operational problems or hazards related to on-board operations**
- **Hand-over procedures**

### Check for presence and condition of personal protective equipment (PPE), radio sets, lashing tools and equipment
- **Identify and remove any hazards during pre-operations checks**
- **Pre-plan and organise lashing and unlashing work according to crane sequences and work plans provided by lashing supervisor or ship officers**
- **Plan and supervise lashing operations for the assigned bays on-board the ship for discharging and loading operations:**
  - **Quay crane operators and lashing specialists for different type of containers, hatch and ship operations:**
    - **Identify exceptions for loading operations**
    - **Identify exceptions for discharging operations**
    - **Report accidents, operational problems**
- **Identify duties and responsibilities of lashing supervisors**
- **Deploy workers and equipment according to organisational operational needs**
- **Facilitate equipment and tools necessary for daily work plans with personnel involved in lashing operations**
- **Conduct risk assessments for lashing operations**
- **Conduct toolbox briefings on safety measures relating to lashing operations**
- **Conduct safety inspections relating to lashing operations**
- **Apply conflict management techniques to resolve workplace disputes between workers**
- **Adopt correct standard operating procedures to rectify operational issues relating to lashing operations**
- **Apply correct procedures for injury and accident cases arising from lashing operations**

- **Identify duties and responsibilities of employees in accordance with organisational WSH procedures and WSH legislative requirements**
- **Identify hazards in lashing operations according to organisational WSH procedures and WSH legislative requirements**
- **Identify duties and responsibilities of lashing specialists**
- **Apply safety measures according to codes of practice relating to ship and lashing operations, relating to:**
  - Use of quay crane spreaders for lashing operations
  - Working at vessel edge for lashing operations
- **Clarify exceptional issues relating to lashing equipment, personnel and locations according to organisational procedures**
- **Check weather and lighting conditions inhibitory to lashing**
- **Check for presence and condition of personal protective equipment (PPE), radio sets, lashing tools and equipment**
- **Identify and remove any hazards during pre-operations checks**
- **Pre-plan and organise lashing and unlashing work according to crane sequences and work plans provided by lashing supervisor or ship officers**
- **Plan and supervise lashing operations for the assigned bays on-board the ship for discharging and loading operations:**
  - **Quay crane operators and lashing specialists for different type of containers, hatch and ship operations:**
    - **Identify exceptions for loading operations**
    - **Identify exceptions for discharging operations**
    - **Report accidents, operational problems**
- **Identify duties and responsibilities of lashing supervisors**
- **Deploy workers and equipment according to organisational operational needs**
- **Facilitate equipment and tools necessary for daily work plans with personnel involved in lashing operations**
- **Conduct risk assessments for lashing operations**
- **Conduct toolbox briefings on safety measures relating to lashing operations**
- **Conduct safety inspections relating to lashing operations**
- **Apply conflict management techniques to resolve workplace disputes between workers**
- **Adopt correct standard operating procedures to rectify operational issues relating to lashing operations**
- **Apply correct procedures for injury and accident cases arising from lashing operations**

©SkillsFuture Singapore
Effective date: April 2017, Version 1.1
Page 2 of 3
<table>
<thead>
<tr>
<th>Operations according to organisational procedures</th>
<th>or hazards to supervisors in accordance with organisational procedures</th>
<th>Report exceptional issues and necessary follow-up actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Report to supervisor of any non-conformances or inability to carry out the lashing operations</td>
<td>• Use established communications protocol to convey instructions clearly over radio sets</td>
<td>• Conduct functional tests for radio set in accordance with user manual</td>
</tr>
<tr>
<td>• Conduct hand-over of duties and documents during shift change-over, including updates on work done, hazards and work methods employed</td>
<td>• Account for all members of lashing team at end of shift or upon completion of ship operations</td>
<td>• Accompany supervisor to do final quality checks of lashing work done before ship’s estimated time of departure</td>
</tr>
</tbody>
</table>