

## OPERATE MATERIAL HANDLING EQUIPMENT

**UNIT CODE:** ENG/OS/IPO/CR/O5/4/A

### UNIT DESCRIPTION

This unit describes competencies required to operate material handling equipment. It involves apply industrial material handling equipment safety procedures, identifying industrial MHE for particular use and MHE system components, running and monitoring industrial material handling equipment, performing industrial material handling equipment basic maintenance and generating industrial MHE system operation reports.

### ELEMENTS AND PERFORMANCE CRITERIA

<b>Element</b> These describe the key outcomes which make up workplace function	<b>Performance Criteria</b> These are assessable statements which specify the required level of performance for each of the elements.  <i><b>Bold and italicized terms are elaborated in the Range</b></i>
1. Apply Industrial Material Handling Equipment Safety Procedures	1.1 Prescribed personal safety gear is worn as per rules and regulations of the <i><b>Occupational Safety and Health Act (OSHA)</b></i> 1.2 Safety measures for the operation of the hydraulic systems are applied as per the rules and regulations of the <i><b>Occupational Safety and Health Act (OSHA)</b></i> 1.3 Work environment safety rules and regulations are observed as per the <i><b>Occupational Safety Act</b></i> 1.4 <i><b>Potential, workplace employee and equipment hazards,</b></i> and their <i><b>risk</b></i> control measures are identified as per OSHA to ensure the safety of personnel and equipment
2. Identify Industrial MHE For Particular Use and MHE System Components	2.1 To be competent, the user/individual on the job must be able to 2.2 <i><b>Identify different Types of material handling equipment</b></i> 2.3 Appropriate material handling equipment for conveying <i><b>particular material</b></i> are selected 2.4 Parts of material handling equipment are identified

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3. Run and Monitor Industrial Material Handling Equipment	3.1 Tools <i><b>and equipment</b></i> for the operation of pneumatic systems are identified 3.2 <i><b>Material</b></i> handling equipment is tested as per SOPs 3.3 Material handling equipment is operated as per the SOPs 3.4 Material handling equipment in monitored for proper functionality and daily check chart updated
4. Perform Industrial Material Handling Equipment Basic Maintenance	4.1 Basic Maintenance requirements are identified according to SOPs 4.2 Lubrication of parts is carried out as per SOPs 4.3 Periodic checks of parts is conducted as per SOPs
5. Generate Industrial MHE System Operation Reports	5.1 Equipment faults and/or incidents as applicable are reported in a timely manner 5.2 Daily check charts and logs are updated

## RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

<b>Variable</b>	<b>Range</b>
<ul style="list-style-type: none"> <li>• <i>Types of Material Handling Equipment</i> may include but not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• Hand tools and equipment</li> <li>• Hand tracks</li> <li>• Dolly</li> <li>• Flat Belt Conveyor</li> <li>• Troughed Belt Conveyor</li> <li>• Slat belt</li> <li>• Vibrating screeners</li> <li>• Chute Conveyor</li> <li>• Chain Conveyor</li> <li>• Bucket Elevators</li> <li>• Screw Conveyor</li> <li>• Pallet truck and Pallet Jacks</li> </ul>

Variable	Range
	<ul style="list-style-type: none"> <li>• Walkie Stackers</li> <li>• Gantry Cranes</li> <li>• Fork Lifts</li> <li>• Mobile Cranes</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Material</i> may include but not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• Loose material</li> <li>• Packaged material</li> <li>• Palletized material</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Tests</i> may include but not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• Visual inspection</li> <li>• Audio inspection</li> <li>• Test run</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Correct Operational Response</i> may include but not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity rating</li> <li>• Type of material</li> <li>• Conveyor speed</li> <li>• Operating environment</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Abnormalities</i> may include but not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• Wobbling belts/Chains</li> <li>• Slackened belt/chain</li> <li>• Vibrations</li> <li>• Defective lifting equipment</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Appropriate Personnel</i> may include but not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance personnel</li> <li>• Supervisors and managers</li> <li>• Operators</li> <li>• Off-loaders</li> <li>• Suppliers</li> <li>• Colleagues</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Appropriate Authority</i> may include but not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• International and local regulations</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Documentation</i> may include but not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• Test certificates and reports</li> <li>• Manufacturers documentation</li> </ul>
<ul style="list-style-type: none"> <li>• <i>PPE</i> may include but not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• Hand and forearm protection, such as gloves</li> <li>• Eye protection</li> <li>• Steel-toed safety shoes or boots</li> <li>• Metal, fiber, or plastic metatarsal guards</li> <li>• Ear muffs and Nose masks</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Hazards</i> may include but not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• Falling objects</li> </ul>

Variable	Range
	<ul style="list-style-type: none"> <li>• Improperly stacked materials</li> <li>• Twisting and turning</li> <li>• Bending</li> <li>• Strains and sprains from lifting loads improperly</li> <li>• Fractures and bruises caused by being struck by materials</li> <li>• Cuts and bruises caused by falling materials</li> <li>• Inhalations risks</li> <li>• Sight impairment</li> </ul>

## REQUIRED KNOWLEDGE AND UNDERSTANDING

This section describes the skills and knowledge required for this unit of competency.

### Required Skills

- Relevant environmental, occupational health and safety legislation and regulations
- Personal protective equipment (PPE) and safety equipment.
- Types of material handling equipment
- Parts and accessories of material handling equipment
- Assess potential hazards.
- Uses documentation.
- Completes daily equipment logbook.
- Communicate effectively
- Basic First aid

### Required Skills

The trainee needs to demonstrate the following fundamental skills

- |  |                           |
|--|---------------------------|
| • Communication skills                     | • Environmental Literacy  |
| • Numeracy skills                          | • Employability skills    |
| • Digital literacy skills                  | • Entrepreneurship skills |
| • Occupational health safety and Practices |                           |

## EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

1. Critical Aspects of Competency	1.1 Observed safety at workplace and sound housekeeping 1.2 Identified different types of material handling equipment 1.3 Identified components and attachments of material handling equipment 1.4 Selected and correctly use material handling equipment 1.5 Operated and monitored the equipment 1.6 Conducted basic First Aid and Emergency evacuation
2. Resource Implications	2.1 Different types of material handling equipment 2.2 Material handling simulation 2.3 Relevant legislations, e.g. OSHA, Environmental Act; and regulations 2.4 Workshop tools and equipment 2.5 Material handling equipment manuals
3. Methods of Assessment	Competency may be assessed through: 3.1 Observed behavior of the learners at workplace 3.2 Inspection of written operation procedures 3.3 Inspection of log books
4. Context of Assessment	Competency will be assessed individually in the actual workplace or through accredited institution
5. Guidance information for Assessment	Holistic assessment of other units relevant to the industry sector, workplace and job role is recommended