



# Model Curriculum

**QP Name: Material Handling Equipment (MHE) Operator and Technician**

**QP Code: LSC/Q0401**

**QP Version: 2.0**

**NSQF Level: 4**

**Model Curriculum Version: 2.0**

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## Training Parameters

|   |  |
|---|--|
| <b>Sector</b>   | Logistics  |
| <b>Sub-Sector</b>                                       | WAREHOUSING (STORAGE AND PACKAGING)  |
| <b>Occupation</b>                                       | ENGINEERING/ MAINTENANCE   |
| <b>Country</b>  | India  |
| <b>NSQF Level</b>                                       | 4  |
| <b>Aligned to NCO/ISCO/ISIC Code</b>                    | NCO-2015/ 8334 and ISCO-08/8334  |
| <b>Minimum Educational Qualification and Experience</b> | 12th grade pass<br>Or<br>Completed 2nd year of 3-year diploma (after 10th) and pursuing regular diploma<br>Or<br>10th grade pass and pursuing continuous schooling<br>Or<br>10th grade Pass + ITI (2 years after Class 10th)<br>Or<br>10th Grade Pass + 2 year relevant experience<br>Or<br>Previous relevant Qualification of NSQF Level 3.0 (Warehouse Associate/ Warehouse Binner/ Warehouse Picker/ Warehouse Packer) with minimum education as 8th Grade pass + 3 year relevant experience (in warehouse) |
| <b>Pre-Requisite License or Training</b>                | NA   |
| <b>Minimum Job Entry Age</b>                            | 18   |
| <b>Last Reviewed On</b>                                 | 28/02/2023   |
| <b>Next Review Date</b>                                 | 28/02/2026   |
| <b>NSQC Approval Date</b>                               | 28/02/2023   |
| <b>QP Version</b>                                       | 2.0  |
| <b>Model Curriculum Creation Date</b>                   | 07/10/2022   |
| <b>Model Curriculum Valid Up to Date</b>                | 28/02/2026   |
| <b>Model Curriculum Version</b>                         | 2.0  |
| <b>Minimum Duration of the Course</b>                   | 450 hrs  |
| <b>Maximum Duration of the Course</b>                   | 690 hrs  |

# Program Overview

This section summarizes the end objectives of the program along with its duration.

## Training Outcomes

At the end of the program, the learner will be able to:

- Execute safe loading, unloading and movement of cargo using MHE and associate equipment
- Perform preventive and first line maintenance of MHE
- Comply to work place integrity, ethical and regulatory practices
- Manage workplace for safe and healthy work environment by following and ensuring compliance to regulatory and safety norms

## Electives:

- Operate various MHE such as Battery-Operated Pallet Truck, Forklift, Reach Truck, Order Picker to load/unload and move goods

## Options:

- Manage safe loading, unloading, receiving and despatch activities

## Compulsory Modules

The table lists the modules, their duration and mode of delivery.

| NOS and Module Details  | Theory Duration | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
|---|-----------------|--------------------|--|--|----------------|
| <b>Bridge Module</b>  | <b>20</b>       | <b>10</b>          |  |  | <b>30</b>      |
| Module 1: Introduction to Material Handling Equipment operations  | 20              | 10                 |  |  | 30             |
| <b>LSC/N0401 – Perform material handling activities<br/>NOS Version 1.0<br/>NSQF Level 4</b>                | <b>20</b>       | <b>60</b>          | <b>10</b>                                |  | <b>90</b>      |
| Module 2: Material handling using MHE   | 20              | 60                 | 10                                       |  | 90             |
| <b>LSC/N0402 – Perform preventive and first line maintenance check<br/>NOS Version 1.0<br/>NSQF Level 4</b> | <b>20</b>       | <b>60</b>          | <b>10</b>                                |  | <b>90</b>      |
| Module 3: Route planning and vendor coordination  | 20              | 60                 | 10                                       |  | 90             |

|   |            |            |           |  |            |
|---|------------|------------|-----------|--|------------|
| <b>LSC/N9904 – Maintain integrity and ethics in operations<br/>NOS Version 1.0<br/>NSQF Level 4</b>     | <b>20</b>  | <b>35</b>  | <b>5</b>  |  | <b>60</b>  |
| Module 4: Guidelines on integrity and ethics  | 20         | 35         | 5         |  | 60         |
| <b>LSC/N9905 - Maintain health, safety and security procedures<br/>NOS Version 1.0<br/>NSQF Level 4</b> | <b>20</b>  | <b>35</b>  | <b>5</b>  |  | <b>60</b>  |
| Module 5: Follow health safety and security procedures  | 20         | 35         | 5         |  | 60         |
| <b>Employability Skills<br/>DGT/VSQ/N0102,<br/>NOS Version 1.0<br/>NSQF Level 4</b>                     | <b>30</b>  | <b>30</b>  |           |  | <b>60</b>  |
| <b>Total Duration</b>   | <b>130</b> | <b>230</b> | <b>30</b> |  | <b>390</b> |

## ELECTIVES (Mandatory to select at least one)

The table lists the Electives, their duration and mode of delivery.

### ELECTIVE 1: Battery operated pallet truck

| NOS and Module Details  | Theory Duration | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
|---|-----------------|--------------------|--|--|----------------|
| <b>LSC/N0403 - Operate Battery Operated Pallet truck</b><br>NOS Version 1.0<br>NSQF Level 4 | 30              | 30                 |  |  | 60             |
| Module 6: Operating battery operated pallet truck   | 30              | 30                 |  |  | 60             |
| <b>Total Duration</b>   | <b>30</b>       | <b>30</b>          |  |  | <b>60</b>      |

### ELECTIVE 2: Reach truck

| NOS and Module Details               | Theory Duration | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
|--------------------------------------|-----------------|--------------------|--|--|----------------|
| <b>LSC/N0404 Operate Reach truck</b> | 30              | 30                 |  |  | 60             |
| Module 7: Operating Reach truck      | 30              | 30                 |  |  | 60             |
| <b>Total Duration</b>                | <b>30</b>       | <b>30</b>          |  |  | <b>60</b>      |

### ELECTIVE 3: Forklift

| NOS and Module Details   | Theory Duration | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
|--|-----------------|--------------------|--|--|----------------|
| <b>LSC/N0405 Operate Forklift</b><br>NOS Version 1.0<br>NSQF Level 4 | 30              | 30                 |  |  | 60             |
| Module 8: Operating Forklift   | 30              | 30                 |  |  | 60             |
| <b>Total Duration</b>  | <b>30</b>       | <b>30</b>          |  |  | <b>60</b>      |

## ELECTIVE 4: Order Picker

| NOS and Module Details   | Theory Duration | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
|--|-----------------|--------------------|--|--|----------------|
| <b>LSC/N0406 Operate order picker<br/>NOS Version 1.0<br/>NSQF Level 4</b> | <b>30</b>       | <b>30</b>          |  |  | <b>60</b>      |
| Module 9: Operating order picker   | 30              | 30                 |  |  | 60             |
| <b>Total Duration</b>  | <b>30</b>       | <b>30</b>          |  |  | <b>60</b>      |

## Optional Modules

The table lists the option modules, their duration and mode of delivery.

### Option 1: Supervise receiving & dispatch

| NOS and Module Details  | Theory Duration | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
|---|-----------------|--------------------|--|--|----------------|
| <b>LSC/N0120 Supervise receiving and dispatch activities<br/>NOS Version 1.0<br/>NSQF Level 4</b> | <b>30</b>       | <b>30</b>          |  |  | <b>60</b>      |
| Module 10: Receiving and dispatch operations  | 30              | 30                 |  |  | 60             |
| <b>Total Duration</b>   | <b>30</b>       | <b>30</b>          |  |  | <b>60</b>      |

# Module Details

## Module 1: Introduction to (MHE) Operator and Technician

### Mapped to Bridge Module

#### Terminal Outcomes:

- Describe the basic structure and functions of (MHE) Operator and warehousing
- Demonstrate operating and handling MHE.

| <b>Duration: 20:00</b>  | <b>Duration: 10:00</b>   |
|---|--|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Describe the components used in supply chain and logistics sector</li> <li>• Explain the job roles found in warehousing</li> <li>• Detail your job role as Material Handling Equipment (MHE) operator and technician and its interface with other job roles</li> <li>• Describe the various MHEs and equipment used in warehouses</li> <li>• Discuss the documentation requirements in warehousing operations</li> </ul> | <ul style="list-style-type: none"> <li>• Classify the components of supply chain and logistics sector</li> <li>• Detail the various sub-sectors and the opportunities in them</li> <li>• Identify various activities in warehouse, port yard, land, ship and air transportation</li> <li>• Demonstrate as Material Handling Equipment (MHE) operator and technician and illustrate how it's involved with other job roles</li> <li>• Prepare the documents used in warehousing operations</li> </ul> |
| <b>Classroom Aids</b>   |  |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser  |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| Teaching board, computer, projector, video player or TV   |  |



## Module 2: Material handling using MHE

Mapped to LSC/N0401, v1.0

### Terminal Outcomes:

- Detail the steps involved in operating MHE
- Describe reporting and maintenance activities of MHE.

| <b>Duration:</b> 20:00  | <b>Duration:</b> 60:00   |
|---|--|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Explain the different components of a picklist</li> <li>• Detail the processes undertaken during picking, movement, stock counting, quality inspection etc.</li> <li>• Describe the importance of using PPE for operating various types of MHEs</li> <li>• Detail the tools and tackles required for securing the cargo/product</li> <li>• Prepare forms for goods damages, and insurance claim</li> </ul> | <ul style="list-style-type: none"> <li>• Prepare a picklist and check the components</li> <li>• Plan sequence of operations to minimise time and distance travelled</li> <li>• List the inspections to be done on various types of MHE before starting operations</li> <li>• Inspect the condition of PPE to be used, for operating various types of MHEs</li> <li>• Operate MHE to move the pallet to the specified location</li> <li>• Operate MHE to move damaged/spilled goods to quarantine area</li> <li>• Report breakages, spillages, count mismatch, packaging defects etc.</li> <li>• Demonstrate safe parking of MHE</li> <li>• Report MHE maintenance activity and other maintenance requirements</li> <li>• Prepare forms for goods damages, and insurance claim</li> </ul> |
| <b>Classroom Aids</b>   |  |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser  |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| Personal Protective Equipment (PPEs), Forklift, Reach stacker, pallet truck, pallet jacks, hand trucks, side loader, order picker, walkie, stacker, etc.  |  |

## Module 3: Preventive and first line maintenance of MHE

*Mapped to LSC/N0402, V1.0*

### Terminal Outcomes:

- Detail the steps to be followed in MHE maintenance
- Discuss the reporting process of inspection and repairs.

| <b>Duration: 20:00</b>  | <b>Duration: 60:00</b>  |
|---|---|
| <p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Explain preventive, maintenance procedures to be followed.</li> <li>• Detail the components found in maintenance log</li> <li>• List the PPE required for undertaking first line maintenance of MHE</li> <li>• List the typical complaints in MHE operation and their corresponding inspection methods</li> <li>• Describe the checks to be done for inspection report.</li> <li>• Detail the maintenance reporting process through AMC/ OEM/ specialist if required</li> </ul> | <p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Prepare maintenance log of activities during shift.</li> <li>• Demonstrate inspection of damage in tyres, parking break, main horn, reverse horn, warning lamp, etc.</li> <li>• Inspect MHE for fluid levels of engine, transmission, differential, hydraulic, radiator coolant and brake oil to top up any fluids as required</li> <li>• Identify wear and tear and the replacement requirement of spares in MHE</li> <li>• Perform part replacement/ repair and test for smooth operations of MHE</li> <li>• Perform periodic maintenance of batteries to ensure it charges as per design</li> <li>• Assess the fault in MHE to identify the root cause of problem</li> <li>• Identify repair requirements by inspecting the components of MHE</li> <li>• Perform first line repair of MHE with equipment</li> <li>• Escalate maintenance requirement through AMC/ OEM/ specialist if required</li> <li>• Record the parts and spares that needs to be replaced.</li> <li>• Record repairs undertaken in MHE and update in health card</li> <li>• Report reason for the problem, solution, expected lifespan and suggested part replacement dates</li> </ul> |
| <b>Classroom Aids</b>   |   |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser  |   |
| <b>Tools, Equipment and Other Requirements</b>  |   |
| truck, pallet jacks, hand trucks, order picker, tools and tackles, maintenance kit etc.   |   |

## Module 4: Guidelines on integrity and ethics

Mapped to LSC/N9904, v1.0

### Terminal Outcomes:

- Explain the concepts of integrity and ethics
- Detail the various regulatory requirements related to logistics industry

| <b>Duration: 20:00</b>   | <b>Duration: 35:00</b>   |
|--|--|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Describe the concepts of integrity, ethics</li> <li>• Detail the various regulatory requirements related to logistics industry</li> <li>• Explain data and information security practices</li> <li>• Detail the procedure for documenting all integrity and ethics violations</li> <li>• Explain escalation matrix for reporting deviation</li> </ul> | <ul style="list-style-type: none"> <li>• Practice the principles of integrity and ethics</li> <li>• Follow the various regulatory requirements related to logistics industry</li> <li>• Perform data and information security practices</li> <li>• Discuss on methods to identify and avoid corrupt practices</li> <li>• Discuss regulatory requirements, code of conduct and etiquettes</li> <li>• Comply to regulatory requirements of the company</li> <li>• Practice code of conduct and etiquettes on all aspects</li> <li>• Document all integrity and ethics violations</li> <li>• Report deviation as per the escalation matrix</li> </ul> |
| <b>Classroom Aids</b>  |  |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser   |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| SOP, Teaching board, computer, projector, video player, stationery, worksheets and TV  |  |

## Module 5: Compliance to health safety and security norms

Mapped to LSC/N9905, v1.0

### Terminal Outcomes:

- Describe health, safety, and security procedures in warehouse
- Demonstrate the inspection procedure to ensure appropriate and safe conditions of activity area and equipment
- Illustrate the standard protocol to be followed during emergency situations, accidents and breach of safety

| <b>Duration: 20:00</b>   | <b>Duration: 35:00</b>   |
|--|--|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Detail health, safety and security procedures in warehouse</li> <li>• Describe the 5S to be followed at workplace</li> <li>• Explain the inspection procedure to ensure appropriate and safe conditions of activity area and equipment</li> <li>• Discuss unsafe working conditions in operations</li> <li>• Describe the inspection procedure to check safe handling of hazardous goods</li> <li>• Discuss the standard protocol to be followed during emergency situations, accidents and breach of safety</li> <li>• Document health, safety and security violations</li> <li>• Explain the escalation matrix for reporting deviation</li> </ul> | <ul style="list-style-type: none"> <li>• Follow health, safety and security procedures in warehouse</li> <li>• Practice 5S at the allocated workplace</li> <li>• Inspect the activity area and equipment, for appropriate and safe conditions</li> <li>• Identify unsafe working conditions</li> <li>• Inspect adherence to standard operating procedures (SOP) while handling dangerous and hazardous goods</li> <li>• Implement standard protocol in case of emergency situations, accidents, and breach of safety</li> <li>• Prepare report on health, safety and security violations</li> <li>• Report deviation as per the escalation matrix</li> </ul> |
| <b>Classroom Aids</b>  |  |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser   |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| PPEs, MHEs like Forklift, reach stacker, pallet truck, barcode scanner, packaging devices, packing material, markers and stationery, etc   |  |

## Module 6: Employability Skills

Mapped to DGT/VSQ/N0102, v1.0

### Terminal Outcomes:

- Discuss the Employability Skills required for jobs in various industries
- Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
- Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan

| <b>Duration: 30:00</b>   | <b>Duration: 30:00</b>  |
|--|---|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Discuss the Employability Skills required for jobs in various industries</li> <li>• List different learning and employability related GOI and private portals and their usage</li> <li>• Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen</li> <li>• Discuss importance of relevant 21st century skills.</li> <li>• Describe the benefits of continuous learning.</li> <li>• Explain the importance of active listening for effective communication</li> <li>• Discuss the significance of working collaboratively with others in a team</li> <li>• Discuss the significance of escalating sexual harassment issues as per POSH act.</li> <li>• List the common components of salary and compute income, expenditure, taxes, investments etc.</li> <li>• Discuss the legal rights, laws, and aids</li> <li>• Describe the role of digital technology in today's life</li> <li>• Discuss the significance of displaying responsible online behaviour while browsing, using various social media platforms, e-mails, etc., safely and securely</li> <li>• Explain the types of entrepreneurship and enterprises</li> <li>• Discuss how to identify opportunities for potential business, sources of funding and</li> </ul> | <ul style="list-style-type: none"> <li>• Practice different environmentally sustainable practices.</li> <li>• Exhibit 21st century skills like Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.</li> <li>• Demonstrate to use basic English sentences for everyday conversation in different contexts, in person and over the telephone</li> <li>• Read and interpret text written in basic English</li> <li>• Write a short note/paragraph / letter/e - mail using basic English</li> <li>• Create a career development plan with well-defined short- and long-term goals</li> <li>• Communicate effectively using verbal and nonverbal communication etiquette.</li> <li>• Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD</li> <li>• Outline the importance of selecting the right financial institution, product, and service</li> <li>• Demonstrate how to carry out offline and online financial transactions, safely and securely</li> <li>• Operate digital devices and use the associated applications and features, safely and securely</li> <li>• Create sample word documents, excel sheets and presentations using basic features</li> </ul> |

|   |  |
|---|--|
| <p>associated financial and legal risks with its mitigation plan</p> <ul style="list-style-type: none"> <li>• Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement</li> <li>• Detail the significance of analyzing different types and needs of customers</li> <li>• Explain the significance of identifying customer needs and responding to them in a professional manner.</li> <li>• Discuss the significance of maintaining hygiene and dressing appropriately</li> <li>• Explain the significance of maintaining hygiene and confidence during an interview</li> <li>• List the steps for searching and registering for apprenticeship opportunities</li> </ul> | <ul style="list-style-type: none"> <li>• Utilize virtual collaboration tools to work effectively</li> <li>• Devise a sample business plan, for the selected business opportunity</li> <li>• Create a professional Curriculum Vitae (CV)</li> <li>• Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively</li> <li>• Perform a mock interview</li> </ul> |
| <p><b>Classroom Aids</b></p>  |  |
| <p>Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser, UPS, LCD Projector, Computer Tables &amp; chairs</p>   |  |
| <p><b>Tools, Equipment and Other Requirements</b></p>   |  |
| <p>Computer (PC) with latest configurations – and Internet connection with standard operating system and standard word processor and worksheet software (Licensed) (all software should either be latest version or one/two version below), Scanner cum Printer</p>   |  |

## Module 7: Battery operated pallet truck

*Mapped to LSC/N0403, v1.0*

### Terminal Outcomes:

- Operating BOPT errorfree.
- Detail the inventory reports preparation

|   |   |
|---|---|
| <b>Duration: 30:00</b>  | <b>Duration: 30:00</b>  |
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• List the prechecks to be performed in a BOPT before starting operations</li> <li>• Detail inventory list preparation and damaged goods segregation process.</li> <li>• Prepare end of operations report</li> </ul> | <ul style="list-style-type: none"> <li>• Perform pre checks on battery operated pallet jacks to ensure that they are in proper working order</li> <li>• Operate BOPT to load/unload and move goods to the assigned location</li> <li>• Perform inventory count of goods</li> <li>• Perform damaged goods segregation</li> <li>• Report unusual incidents, accidents, spillages and breakages</li> <li>• Demonstrate safe parking of BOPT</li> </ul> |
| <b>Classroom Aids</b>   |   |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser  |   |
| <b>Tools, Equipment and Other Requirements</b>  |   |
| BOPT, pallet jacks, Standard operating procedures (SOP), reporting forms, Personal protective equipment (PPE), bins, crates, pallets, etc.  |   |

## Module 8: Reach truck

*Mapped to LSC/ N0404, v1.0*

### Terminal Outcomes:

- Describe inspection and maintenance of Reach Truck on daily basis
- Demonstrate how to operate Reach Truck

| <b>Duration: 30:00</b>  | <b>Duration: 30:00</b>   |
|---|--|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Detail the components of a picklist</li> <li>• Describe the procedure for daily inspection.</li> <li>• Explain how to calculate safe loading limits of Reach Truck to operate within limits</li> <li>• Discuss the escalation process for reporting major repairs and part replacement requirements</li> </ul> | <ul style="list-style-type: none"> <li>• Prepare a picklist with all required components</li> <li>• Inspect the Reach Truck as per daily inspection checklist</li> <li>• Test all hydraulic/mechanical/electrical systems and information gauges to ensure that they are functioning properly</li> <li>• Demonstrate safe placement of cargo on pallet</li> <li>• Operate Reach Truck to move pallet to the assigned location</li> <li>• Operate Reach Truck to retrieve goods from its location</li> <li>• Compute safe loading limits of Reach Truck to operate within limits</li> <li>• Perform minor repairs in Reach Truck</li> <li>• Escalate major repairs and part replacement requirements</li> </ul> |
| <b>Classroom Aids</b>   |  |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser  |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| Personal protective equipment (PPEs), Reach truck, pallets, SOP, sample goods, documentation, etc.  |  |



## Module 9: Forklift

*Mapped to LSC/N0405, v1.0*

### Terminal Outcomes:

- Describe inspection and maintenance of Forklift on daily basis
- Demonstrate how to operate Forklift

| <b>Duration: 30:00</b>   | <b>Duration: 30:00</b>  |
|--|---|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Describe the process to be followed and the inspections to be done before starting fork lift.</li> <li>• Detail the forklift position to be maintained while operating with and without loads</li> <li>• Discuss the process for calculating safe load as per the limits of the forklift</li> <li>• Explain the escalation process for reporting major repairs and part replacement requirements</li> </ul> | <ul style="list-style-type: none"> <li>• Inspect the forklift for fully charged battery, exposed wires, fluid leak, battery plug connections not loose, worn or dirty; vent caps not clogged etc.</li> <li>• Check bolts, nuts, guards, chains, or hydraulic hose reels are not damaged, missing or loose</li> <li>• Inspect forks for damages/ cracks and working condition of latches and associated parts</li> <li>• Inspect fluid levels of engine, transmission, differential, hydraulic, radiator coolant and brake oil and top up any fluids as required</li> <li>• Inspect lift mechanism, tilt mechanism, foot brake, clutch, gearshift operation</li> <li>• Compute safe loading as per the limits of the forklift</li> <li>• Perform safe loading, movement and unloading of pallets, bins, and crates</li> <li>• Demonstrate safe parking of forklift</li> <li>• Perform minor repairs in forklift</li> <li>• Escalate major repairs and part replacement requirements</li> </ul> |
| <b>Classroom Aids</b>  |   |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser   |   |
| <b>Tools, Equipment and Other Requirements</b>   |   |
| MS office, ERP, stationery, worksheets, computer, projector, GST guidelines etc.   |   |

## Module 10: Order Picker

Mapped to LSC/N0406, v1.0

### Terminal Outcomes:

- Demonstrate the duties of Order Picker
- Describe the Reporting Processes.

|   |   |
|---|---|
| <b>Duration:</b> 30:00  | <b>Duration:</b> 30:00  |
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• List the items to be checked from pick list.</li> <li>• Detail the PPE requirement for operation of Order Picker</li> <li>• Discuss the retrieving goods process of Order Picker as per the picklist</li> <li>• Explain the inspection procedure to be followed.</li> <li>• Prepare damaged goods and packaging report.</li> <li>• Prepare reports for accidents, damages, spillages etc.</li> </ul> | <ul style="list-style-type: none"> <li>• Check labels with picklist items for any errors/changes</li> <li>• Inspect the order picker for suitability for work in terms of greasing, availability of fuel, tyre pressure, etc.</li> <li>• Assess correct usage of PPE by the picker</li> <li>• Operate Order Picker to retrieve the goods as per the picklist</li> <li>• Inspect picked items for appropriate labelling and packaging as per delivery requirements</li> <li>• Report damaged goods and packaging</li> <li>• Report accidents, damages, spillages etc.</li> </ul> |
| <b>Classroom Aids</b>   |   |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser  |   |
| <b>Tools, Equipment and Other Requirements</b>  |   |
| Order picker, Personal protective equipment (PPE), Standard operating procedures (SOP), reporting formats, bins, crates, pallets, bar code scanner etc.   |   |

## Module 11: Supervise receiving & dispatch

*Mapped to LSC/N0120, v1.0*

### Terminal Outcomes:

- Detail the various inspection and recording processes.
- Describe damaged goods handling.

| <b>Duration: 30:00</b>  | <b>Duration: 30:00</b>   |
|---|--|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Prepare a plan of staging area for loading/unloading of goods</li> <li>• Describe the recording process for spillage/breakage during loading/unloading</li> <li>• Detail the mandatory documentation to be checked before and after loading/unloading</li> <li>• Describe quarantine and safe disposal procedure for damaged goods</li> <li>• Explain the documentation procedure for goods damaged during transit, loading/unloading and handling</li> <li>• Describe stowage plan and stacking procedure</li> <li>• List appropriate storage methods for different types of products</li> <li>• Describe inventory counting process</li> </ul> | <ul style="list-style-type: none"> <li>• Record spillage/breakage during loading/unloading</li> <li>• Perform visual inspection of goods</li> <li>• Check the mandatory documents before and after loading/ unloading goods.</li> <li>• Demonstrate quarantine and safe disposal for damaged goods</li> <li>• Prepare documentation for goods damaged during transit, loading/unloading and handling</li> <li>• Inspect despatch process for compliance to SOP</li> <li>• Perform inventory counting as per process</li> <li>• Illustrate inventory reconciliation procedure</li> <li>• Prepare daily/weekly/monthly/periodic reports on receipt and dispatch performance, pending activities, worker productivity, inventory status etc.</li> </ul> |
| <b>Classroom Aids</b>   |  |
| Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser  |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| SOP, worksheets, stationery, markers, PPEs, ERP, computer, printers, safety equipment etc.  |  |

# Annexure

## Trainer Requirements

| Trainer Prerequisites             |                |                              |                             |                     |                             |         |
|-----------------------------------|----------------|------------------------------|-----------------------------|---------------------|-----------------------------|---------|
| Minimum Educational Qualification | Specialization | Relevant Industry Experience |                             | Training Experience |                             | Remarks |
|                                   |                | Years                        | Specialization              | Years               | Specialization              |         |
| Graduate                          |                | 2                            | ENGINEERING/<br>MAINTENANCE | 1                   | ENGINEERING/<br>MAINTENANCE |         |

| Trainer Certification  |   |
|--|---|
| Domain Certification   | Platform Certification  |
| Certified for Job Role: “Material Handling Equipment (MHE) Operator and Technician” mapped to QP: “LSC/Q0401, v2.0”. Minimum accepted score is 80% | Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q2601”. Minimum accepted score is 80% |

## Assessor Requirements

| Assessor Prerequisites            |                |                              |                          |                                |                          |         |
|-----------------------------------|----------------|------------------------------|--------------------------|--------------------------------|--------------------------|---------|
| Minimum Educational Qualification | Specialization | Relevant Industry Experience |                          | Training/Assessment Experience |                          | Remarks |
|                                   |                | Years                        | Specialization           | Years                          | Specialization           |         |
| Graduate                          |                | 2                            | ENGINEERING/ MAINTENANCE | 1                              | ENGINEERING/ MAINTENANCE |         |

| Assessor Certification   |   |
|--|---|
| Domain Certification   | Platform Certification  |
| Certified for Job Role: “Material Handling Equipment (MHE) Operator and Technician” mapped to QP: “LSC/Q0401, v2.0”. Minimum accepted score is 80% | Recommended that the Assessor is certified for the Job Role: “Assessor”, mapped to the Qualification Pack: “MEP/Q2601”. Minimum accepted score is 80% |

## Assessment Strategy

The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria. Accordingly, assessment criteria for each job role are set and made available in qualification pack.

The assessment papers for both theory and practical would be developed by Subject Matter Experts (SME) hired by Logistics Sector Skill Council or with the LSC accredited Assessment Agency as per the assessment criteria mentioned in the Qualification Pack. The assessments papers would also be checked for the various outcome-based parameters such as quality, time taken, precision, tools & equipment requirement etc.

Each NOS in the Qualification Pack (QP) is assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Element/Performance Criteria in the NOS is assigned marks on relative importance, criticality of function and training infrastructure.

The following tools would be used for final assessment:

**1. Practical Assessment:** This comprises of a creation of mock environment in the skill lab which is equipped with all equipment required for the qualification pack.

Candidate's soft skills, communication, aptitude, safety consciousness, quality consciousness etc. is ascertained by observation and marked in observation checklist. The outcome is measured against the specified dimensions and standards to gauge the level of their skill achievements.

**2. Viva/Structured Interview:** This tool is used to assess the conceptual understanding and the behavioral aspects with regard to the job role and the specific task at hand. It also includes questions on safety, quality, environment, and equipment etc.

**3. On-Job Training:** OJT would be evaluated based on standard logbook capturing departments worked on, key observations of learner, feedback and remarks of supervisor or mentor.

**4. Written Test:** Question paper consisting of 100 MCQs (Hard:40, Medium:30 and Easy: 30) with questions from each element of each NOS. The written assessment paper is comprised of following types of questions:

- i. True / False Statements
- ii. Multiple Choice Questions
- iii. Matching Type Questions
- iv. Fill in the blanks
- v. Scenario based Questions
- vi. Identification Questions

### QA Regarding Assessors:

Assessors are selected as per the "eligibility criteria" laid down by LSC for assessing each job role. The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to LSC Assessment Framework, competency-based assessments, assessors guide etc. LSC conducts "Training of Assessors" program from time to time for each job role and sensitize assessors regarding assessment process and strategy which is outlined on following mandatory parameters:

- 1) Guidance regarding NSQF
- 2) Qualification Pack Structure
- 3) Guidance for the assessor to conduct theory, practical and viva assessments
- 4) Guidance for trainees to be given by assessor before the start of the assessments.
- 5) Guidance on assessments process, practical brief with steps of operations  
practical observation checklist and mark sheet
- 6) Viva guidance for uniformity and consistency across the batch.
- 7) Mock assessments
- 8) Sample question paper and practical demonstration

## References

## Glossary

| Term                        | Description   |
|-----------------------------|---|
| <b>Key Learning Outcome</b> | Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application). |
| <b>OJT (M)</b>              | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site  |
| <b>OJT (R)</b>              | On-the-job training (Recommended); trainees are recommended the specified hours of training on site   |
| <b>Training Outcome</b>     | Training outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of the training</b> .  |
| <b>Terminal Outcome</b>     | Terminal outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of a module</b> . A set of terminal outcomes help to achieve the training outcome.   |



## Acronyms and Abbreviations

| Term | Description                             |
|------|---|
| QP   | Qualification Pack                      |
| NSQF | National Skills Qualification Framework |
| NSQC | National Skills Qualification Committee |
| NOS  | National Occupational Standards         |