



# QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR LOGISTICS INDUSTRY

# What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the understanding

## Contact Us:

LOGISTICS SKILLS COUNCIL IIT Madras Research Park Unit "E", 10th floor Kanagam road Taramani Chennai- 600113

Email:

headnos@lsc-india.com





# Contents

1.	Introduction and Contacts	.1
2.	Qualifications Pack	2.
3.	OS UnitsF	.2
4.	Glossary of Key TermsP	.3

# Introduction

# Qualifications Pack – Material Handling Equipment (MHE) Maintenance Technician

**SECTOR:** LOGISTICS

SUB-SECTOR: Warehousing Storage, Warehouse Packaging

**OCCUPATION:** MHE Maintenance Technician

**REFERENCE ID: LSC/Q2315** 

ALIGNED TO: NCO-2004/7231.90

Brief Job Description: Material Handling Equipment (MHE) Maintenance Technician in the Logistics industry is also known as MHE Maintenance Associate. Individuals in this role are responsible for the smooth functioning of MHE. Individuals are responsible for picking items according to an inventory list. They are required to carry out preventive and breakdown maintenance to ensure that the MHE are consinuously available. Additional responsibilities include maintaining records pf maintenance activities carried out and preparing detailed reports.

**Personal Attributes:** This job requires the individual to work well individually and with his/her team and achieve joint goals. The individual must be able to prioritize and execute tasks within scheduled time limits. The individual should be able to maintain high concentration levels throughout his/her shift.







Qualifications Pack Code		LSC/Q2315	
Job Role	MHE Maintenance Technician		
Credits (NSQF)	TBD	Version number	1.0
Sector	Logistics	Drafted on	02/02/2015
Sub-sector	Warehousing Storage, Warehouse Packaging	Last reviewed on	25/02/2015
Occupation	MHE Maintenance Technician	Next review date	02/08/2016

Job Role	MHE Maintenance Technician (MHE Maintenance Associate)	
Role Description	Carry out maintenance activities on MHE to ensure availability.	
NSQF level	4	
Minimum Educational Qualifications*	Class X	
Maximum Educational Qualifications* Graduate (Engineering)		
Training (Suggested but not mandatory)	Trained in operating and maintaining MHE	
Experience	No experience necessary	
Applicable National Occupational Standards (NOS)	Compulsory:  1. LSC/N2321 (Prepare For maintenance)  2. LSC/N2322 (Perform maintenance operations)  3. LSC/N2323 (Perform post maintenance activities)  4. LSC/N2330 (Maintain Health, Safety and Security measures for carrying out maintenance activities on MHE)  Optional:  Not Applicable	
Performance Criteria	As described in the relevant OS units	





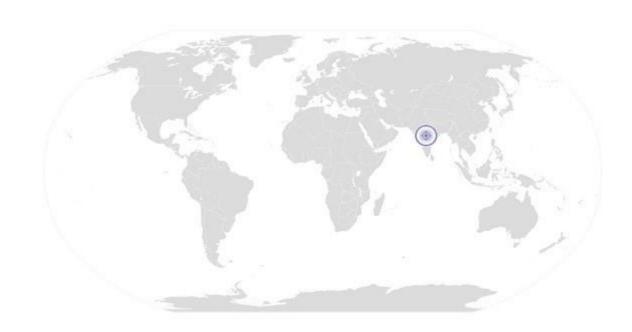
Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the
	economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the
	characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/related set of
	functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the
	sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Job Role	Job role defines a unique set of functions that together form a unique
JOB ROIC	employment opportunity in an organization.
OS	OS specify the standards of performance an individual must achieve
	when carrying out a function in the workplace, together with the
	knowledge and understanding they need to meet that standard
	consistently. Occupational Standards are applicable both in the Indian
	and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard
3 6	of performance required when carrying out a task.
NOS	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack	Qualifications Pack Code is a unique reference code that identifies a
Code	qualifications pack.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the
1	educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an Occupational Standard , which is denoted by an 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Knowledge and	Knowledge and Understanding are statements which together specify the
Understanding	technical, generic, professional and organizational specific knowledge
ŭ	that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured
-	and how it operates, including the extent of operative knowledge
	managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish
ŭ	specific designated responsibilities.







# National Occupational Standard



# **Overview**

This unit is about preparing to carry out maintenance activities on MHE.







Unit Code	LSC/N2321
Unit Title (Task)	Prepare for maintenance
Description	This unit is about preparing for maintenance.
Scope	<ul> <li>This OS unit/task covers the following:</li> <li>Obtain information and checklists</li> <li>Collect necessary tools and supplies</li> </ul>
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria

Element	Performance Criteria		
Obtain information and checklists	To be competent, the user/individual on the job must be able to:  PC1. Collect the daily maintenance checklist from the supervisor.  PC2. Find out from the supervisor if there is any breakdown or problems in any of the Material Handling Equipment (MHE) and collect the special maintenance checklist.  PC3. In case of special maintenance, understand which particular machine(s) are to be checked and where they are located.  PC4. Understand which is the critical MHE and attend to it first so as to minimize losses to the company.  PC5. Find and read up on maintenance history from previous reports of the specific equipment if required.  PC6. Plan the sequence in which the maintenance would be carried out so as to optimize time and travel distance.		
Collect necessary tools and supplies	<ul> <li>PC7. Collect and wear all the necessary Personal Protective Equipment (PPE).</li> <li>PC8. Assess the tooling requirement and collect the necessary tools from the tool crib/storage racks.</li> <li>PC9. Collect any grease, lubricants, fluids or replacement parts that would be used from the store area.</li> <li>PC10. Fill out any forms required by the store after receiving the supplies.</li> </ul>		







# **Prepare For Maintenance**

<b>Knowledge and Unders</b>	tanding (K)
A. Organizational	The user/individual on the job needs to know and understand:
Context (Knowledge of the company / organization and its processes)	<ul> <li>KA1. Types of documentation used in organization e.g. daily maintenance checklist and importance of the same</li> <li>KA2. Risk and impact of not following defined procedures/work instructions</li> <li>KA3. Records to be maintained and implications of non-maintenance of the same</li> <li>KA4. Knowledge of security procedures e.g. secure storage of inventory</li> </ul>
its processes)	<ul> <li>KA4. Knowledge of security procedures e.g. secure storage of inventory</li> <li>KA5. Rules and regulations of shop floor as per company's standard operating procedure (SOP)</li> <li>KA6. Risk and impact of not following safety procedures</li> <li>KA7. Escalation matrix for reporting identified problems</li> <li>KA8. Cost of equipment and loss for the company that results from damage of equipment</li> <li>KA9. Implications of delays in process to the company</li> </ul>
B. Technical Knowledge	The user/individual on the job needs to know and understand:  KB1. Controls and switches used to operate the MHE properly  KB2. Basic physics and mechanics associated with the MHE  KB3. Road signs, factory signs and other safety and emergency signals  KB4. Ability to understand the hazard labels for the supplies being used.  KB5. Correct maintenance procedures for MHE.  KB6. Response to emergencies e.g. fire  KB7. Safety regulations while operating the MHE  KB8. Optimal working condition of MHE and their components.  KB9. Optimal levels of fluids and lubricants.  KB10. MHE Components and particular areas that require greasing.  KB11. Knowledge of all the MHE components and their functions  KB12. Ability to handle MHE such as forklifts, pallet trucks, cages and lifts.  KB13. Ability to test and safely carry out maintenance tasks on the MHE.  KB14. Ability to identify deviations from normal operations, diagnose and repair MHE.
Skills (S)	
A. Core Skills/	Writing Skills
Generic Skills	The user/ individual on the job needs to know and understand how to:  SA1. Fill out checklists, maintenance logbooks detailing maintenance activities conducted  SA2. Ability to prepare detailed technical reports.  Reading Skills  The user/individual on the job needs to know and understand how to:  SA3. Read labels to identify product and its associated hazard.







# **Prepare For Maintenance**

	Prepare For Maintenance		
	SA4. Read and understand instructions from checklists /company log books and records		
	SA5. Read safety manuals and safety signs on the warehouse floor		
	Oral Communication (Listening and Speaking skills)		
	The user/individual on the job needs to know and understand how to:		
	SA6.Communicate clearly with supervisors and peers		
	SA7.Regularly communicate with all employees in the chain of activities on the shop		
	floor to ensure activities are running smoothly		
	SA8.Provide advice and guidance to peers and juniors		
B. Professional Skills	Decision Making		
	The user/individual on the job needs to know and understand how to:		
	SB1. Act objectively, rather than impulsively or emotionally when faced with		
	difficult/stressful or emotional situations		
	SB2. Ability to make a judgment as to whether the MHE are in good condition or		
	not.		
	Plan and organize		
	The user/individual on the job needs to know and understand how to:		
	SB3. Adjust according to volume, capacity and manpower needs during peak and		
	non-peak hours		
	SB4. Prioritize and execute tasks within the scheduled time limits		
	SB5. Maintain schedules and punctuality. Avoid absenteeism.		
	SB6. Be a team player and achieve joint goals.		
	SB7. Flexibility to re-assess schedule in case of delays/additional orders.		
	Customer centricity		
	The user/individual on the job needs to know and understand how to:		
	SB8. Understand the internal customer requirements and ensure that they are met.		
	Problem solving		
	The user/individual on the job needs to know and understand how to:		
	SB9. Identify trends/common causes for errors and suggest possible solutions to		
	the supervisor		
	SB10. Handle day to day problems like delays, staffing shortage, etc.		
	Analytical Skills		
	The user/individual on the job needs to know and understand how to:		
	SB11. Suggest methods to streamline the maintenance process.		
	SB12. Ability to assess the condition of each MHE.		
	Critical Thinking Skills		
	The user/individual on the job needs to know and understand how to:		
	SB13. Ability to concentrate on task at hand and complete it without errors		
	4		







# **NOS Version Control**

NOS Code	LSC/N2321		
Credits(NSQF)	TBD	Version number	1.0
Industry	Logistics	Drafted on	02/02/2015
Industry Sub-sector	Warehousing Storage, Warehouse Packaging	Last reviewed on	25/02/2015
Occupation	MHE Maintenance Technician	Next review date	02/08/2016

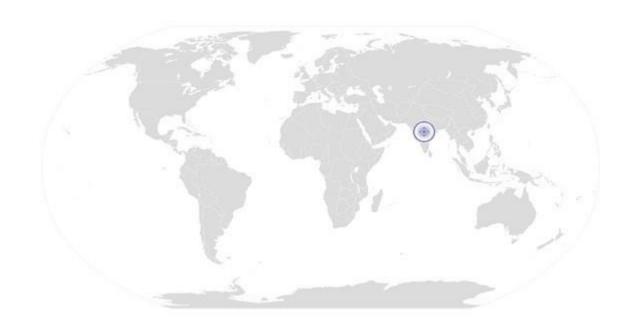








# National Occupational Standard



# **Overview**

This unit is about performing maintenance operations.



# National Occupational Standards



# **Perform Maintenance Operations**

Unit Code	LSC/N2322		
Unit Title (Task)	Perform Maintenance Operations		
Description	This OS unit is about performing maintenance operations.		
Scope	The unit/ task covers the following:  Carry out preventive maintenance  Carry out breakdown maintenance		
Performance Criteria	(PC)		
Element	Performance Criteria		
Carry out preventive maintenance	<ul> <li>PC1. Observe the overall functioning of the MHE to identify problems if any.</li> <li>PC2. Make any minor adjustments in settings or parameters if required to ensure smooth functioning.</li> <li>PC3. In case of a machine overhaul, plan well in advance and perform it during holidays or non peak hours.</li> <li>PC4. Check for damage in tyres, parking break, main horn, reverse horn, warning lamp, etc.</li> <li>PC5. Check fluid levels of engine, transmission, differential, hydraulic, radiator coolant and brake oil and top up any fluids as required.</li> <li>PC6. Apply grease and lubricants where required.</li> <li>PC7. Replace any parts that have worn out at the times specified by the manufacturer.</li> <li>PC8. Complete and check off all the line items in the preventive maintenance checklist.</li> <li>PC9. Test the MHE to ensure that it is fully functional and safe for use.</li> <li>PC10. Assess the MHE and escalate to supervisor if there is a likelihood of future problems or replacement is required.</li> <li>PC11. Conduct regular awareness on battery charging and safety methods to all operators</li> </ul>		
	PC12. Regularly maintain spare batteries and ensure they are fully charged PC13. Prepare health card for every MHE.		







# LSC/N2322

# **Perform Maintenance Operations**

22	Perform Maintenance Operations
Carry out breakdown maintenance	<ul> <li>PC14. Examine the MHE to determine the source of the problem.</li> <li>PC15. Determine if the problem could be resolved using existing skills or if it requires the attention of a specialized technician from the manufacturing company.</li> <li>PC16. If the problem could be resolved, determine whether the part could be repaired or if replacement is necessary.</li> <li>PC17. If the part could be repaired, carry out repairs using available machine shop equipment.</li> <li>PC18. If part cannot be repaired or if replacement is required, obtain the required parts from the store (if available) or inform inventory clerk to place orders.</li> <li>PC19. Receive required parts and change the parts as per manufacturer's guidelines.</li> <li>PC20. Check fluid levels of engine, transmission, differential, hydraulic, radiator coolant and brake oil and top up any fluids as required.</li> <li>PC21. Apply grease and lubricants where required.</li> <li>PC22. Complete and check off all the line items in the breakdown maintenance checklist.</li> </ul>
	parts from the store (if available) or inform inventory clerk to place orders.  PC19. Receive required parts and change the parts as per manufacturer's guidelines.  PC20. Check fluid levels of engine, transmission, differential, hydraulic, radiator coolant and brake oil and top up any fluids as required.  PC21. Apply grease and lubricants where required.  PC22. Complete and check off all the line items in the breakdown maintenance
	. 10 (10)
Knowledge and Unders	standing (K)
A. Organizational Context (Knowledge of the company / organization and	The user/individual on the job needs to know and understand: KA1. Types of documentation used in organization e.g. daily maintenance checklist and importance of the same KA2. Risk and impact of not following defined procedures/work instructions
its processes)	<ul> <li>KA3. Records to be maintained and implications of non-maintenance of the same</li> <li>KA4. Knowledge of security procedures e.g. secure storage of inventory</li> <li>KA5. Rules and regulations of shop floor as per company's standard operating procedure (SOP)</li> <li>KA6. Risk and impact of not following safety procedures</li> <li>KA7. Escalation matrix for reporting identified problems</li> <li>KA8. Cost of equipment and loss for the company that results from damage of equipment</li> <li>KA9. Implications of delays in process to the company</li> </ul>
B. Technical	<ul> <li>KA4. Knowledge of security procedures e.g. secure storage of inventory</li> <li>KA5. Rules and regulations of shop floor as per company's standard operating procedure (SOP)</li> <li>KA6. Risk and impact of not following safety procedures</li> <li>KA7. Escalation matrix for reporting identified problems</li> <li>KA8. Cost of equipment and loss for the company that results from damage of equipment</li> </ul>
	<ul> <li>KA4. Knowledge of security procedures e.g. secure storage of inventory</li> <li>KA5. Rules and regulations of shop floor as per company's standard operating procedure (SOP)</li> <li>KA6. Risk and impact of not following safety procedures</li> <li>KA7. Escalation matrix for reporting identified problems</li> <li>KA8. Cost of equipment and loss for the company that results from damage of equipment</li> <li>KA9. Implications of delays in process to the company</li> </ul>
B. Technical	<ul> <li>KA4. Knowledge of security procedures e.g. secure storage of inventory</li> <li>KA5. Rules and regulations of shop floor as per company's standard operating procedure (SOP)</li> <li>KA6. Risk and impact of not following safety procedures</li> <li>KA7. Escalation matrix for reporting identified problems</li> <li>KA8. Cost of equipment and loss for the company that results from damage of equipment</li> <li>KA9. Implications of delays in process to the company</li> <li>The user/individual on the job needs to know and understand:</li> <li>KB1. Controls and switches used to operate the MHE properly</li> </ul>
B. Technical	<ul> <li>KA4. Knowledge of security procedures e.g. secure storage of inventory</li> <li>KA5. Rules and regulations of shop floor as per company's standard operating procedure (SOP)</li> <li>KA6. Risk and impact of not following safety procedures</li> <li>KA7. Escalation matrix for reporting identified problems</li> <li>KA8. Cost of equipment and loss for the company that results from damage of equipment</li> <li>KA9. Implications of delays in process to the company</li> <li>The user/individual on the job needs to know and understand:</li> <li>KB1. Controls and switches used to operate the MHE properly</li> <li>KB2. Basic physics and mechanics associated with the MHE</li> </ul>
B. Technical	<ul> <li>KA4. Knowledge of security procedures e.g. secure storage of inventory</li> <li>KA5. Rules and regulations of shop floor as per company's standard operating procedure (SOP)</li> <li>KA6. Risk and impact of not following safety procedures</li> <li>KA7. Escalation matrix for reporting identified problems</li> <li>KA8. Cost of equipment and loss for the company that results from damage of equipment</li> <li>KA9. Implications of delays in process to the company</li> <li>The user/individual on the job needs to know and understand:</li> <li>KB1. Controls and switches used to operate the MHE properly</li> </ul>







# Perform Maintenance Operations

	KB6. Response to emergencies e.g. fire
	KB7. Safety regulations while operating the MHE
	KB8. Optimal working condition of MHE and their components.
	KB9. Optimal levels of fluids and lubricants.
	KB10. MHE Components and particular areas that require greasing.
	KB11. Knowledge of all the MHE components and their functions
	KB12. Ability to handle MHE such as forklifts, pallet trucks, cages and lifts.
	KB13. Ability to test and safely carry out maintenance tasks on the MHE.
	KB14. Ability to identify deviations from normal operations, diagnose and repair
	MHE.
Skills (S)	
A. Core Skills/	Writing Skills
Generic Skills	The user/ individual on the job needs to know and understand how to:
	SA1. Fill out checklists, maintenance logbooks detailing maintenance activities conducted
	SA2. Ability to prepare detailed technical reports.
	Reading Skills
	The user/individual on the job needs to know and understand how to:
	SA3. Read labels to identify product and its associated hazard.
	SA4. Read and understand instructions from checklists /company log books and
	records
	SA5. Read safety manuals and safety signs on the warehouse floor
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to:
	SA6. Communicate clearly with supervisors and peers
	SA7. Regularly communicate with all employees in the chain of activities on the
	shop floor to ensure activities are running smoothly
	SA8. Provide advice and guidance to peers and juniors
B. Professional	Decision Making
Skills	The user/individual on the job needs to know and understand how to:
	SB1. Act objectively , rather than impulsively or emotionally when faced with
	difficult/stressful or emotional situations
	SB2. Ability to make a judgment as to whether the MHE are in good condition or
	not.







# **Perform Maintenance Operations**

Plan and	l Organize	
----------	------------	--

The user/individual on the job needs to know and understand how to:

- SB3. Adjust according to volume, capacity and manpower needs during peak and non-peak hours
- SB4. Prioritize and execute tasks within the scheduled time limits
- SB5. Maintain schedules and punctuality. Avoid absenteeism.
- SB6. Be a team player and achieve joint goals
- SB7. Flexibility to re-assess schedule in case of delays/additional orders

### **Customer Centricity**

The user/individual on the job needs to know and understand how to:

SB8. Understand the internal customer requirements and ensure that they are met.

### **Problem Solving**

The user/individual on the job needs to know and understand how to:

- SB9. Identify trends/common causes for errors and suggest possible solutions to the supervisor
- SB10. Handle day to day problems like delays, staffing shortage, etc.

## **Analytical Skills**

The user/individual on the job needs to know and understand how to:

- SB11. Suggest methods to streamline the maintenance process.
- SB12. Ability to assess the condition of each MHE.

## **Critical Thinking Skills**

The user/individual on the job needs to know and understand how to:

SB13. Ability to concentrate on task at hand and complete it without errors







# **NOS Version Control**

NOS Code	LSC/N2322		
Credits(NSQF)	тво	Version number	1.0
Industry	Logistics	Drafted on	02/02/2015
Industry Sub-sector	Warehousing Storage, Warehouse Package	Last reviewed on	25/02/2015
Occupation	MHE Maintenance Technician	Next review date	02/08/2016

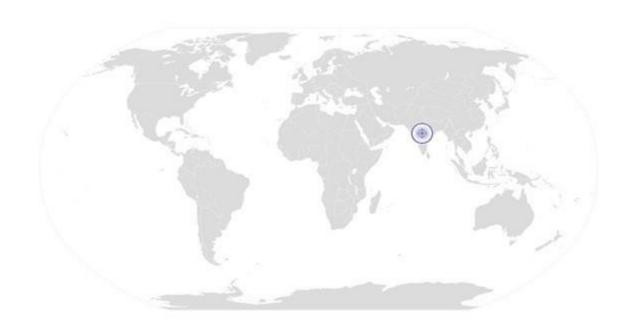








# National Occupational Standard



# **Overview**

This unit is about performing post maintenance activities.



# NOS lational Occupational Standards



# **Perform Post-Maintenance Activities**

4	Unit Code	LSC/N2323
	Unit Title (Task)	Perform Post-Maintenance Activities
	Description	This unit is about performing post maintenance activities
	Scope	The OS unit/task covers the following:  Carry out housekeeping Reporting and documentation
	Performance Criteria (F	PC) w.r.t. the Scope
İ	Element	Performance Criteria
	Carry out housekeeping	To be competent, the user/individual on the job must be able to:  PC1. Dispose any damaged/worn out components and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective storage racks.
	Reporting and documentation	<ul> <li>PC7. Escalate to supervisor if parts have not been received or any other reasons which would increase the downtime.</li> <li>PC8. Notify supervisor regarding any concerns faced during the day.</li> <li>PC9. Provide daily report to manager regarding condition of equipment, damage if any,etc.</li> <li>PC10. Complete any forms as required by the store and by management.</li> <li>PC11. Log any maintenance activity undertaken.</li> <li>PC12. Update MHE condition in the appropriate health card and the next review dates in the maintenance schedules</li> <li>PC13. Prepare a detailed report explaining the cause for the problem, solution, expected lifespan and suggested replacement dates.</li> </ul>







LSC/N2323

# **Perform Post-Maintenance Activities**

Knowledge and Unders	standing (K)
A. Organizational	The user/individual on the job needs to know and understand:
Context	KA1. Types of documentation used in organization e.g. daily maintenance checklist
(Knowledge of the	and importance of the same
company /	KA2. Risk and impact of not following defined procedures/work instructions
organization and	KA3. Records to be maintained and implications of non-maintenance of the same
its processes)	KA4. Knowledge of security procedures e.g. secure storage of inventory
	KA5. Rules and regulations of shop floor as per company's standard operating procedure (SOP)
	KA6. Risk and impact of not following safety procedures
	KA7. Escalation matrix for reporting identified problems
	KA8. Cost of equipment and loss for the company that results from damage of
	equipment
	KA9. Implications of delays in process to the company
B. Technical	
Knowledge	KB1. Controls and switches used to operate the MHE properly
	KB2. Basic physics and mechanics associated with the MHE
	KB3. Road signs, factory signs and other safety and emergency signals
	KB4. Ability to understand the hazard labels for the supplies being used.
	KB5. Correct maintenance procedures for MHE.
	KB6. Response to emergencies e.g. fire
	KB7. Safety regulations while operating the MHE
	KB8. Optimal working condition of MHE and their components.
	KB9. Optimal levels of fluids and lubricants.
	KB10. MHE Components and particular areas that require greasing.
	KB11. Knowledge of all the MHE components and their functions
	KB12. Ability to handle MHE such as forklifts, pallet trucks, cages and lifts.
	KB13. Ability to test and safely carry out maintenance tasks on the MHE.
	KB14. Ability to identify deviations from normal operations, diagnose and repair MHE.
	WITE.







# **Perform Post-Maintenance Activities**

<u> </u>		Perform Post-Iviaintenance Activities
Ski	lls (S)	
A.	Core Skills/	Writing Skills
	Generic Skills	The user/ individual on the job needs to know and understand how to:
		SA1. Fill out checklists, maintenance logbooks detailing maintenance activities
		conducted
		SA2. Ability to prepare detailed technical reports.
		Reading Skills
		The user/individual on the job needs to know and understand how to:
		SA3. Read labels to identify product and its associated hazard.
		SA4. Read and understand instructions from checklists /company log books and
		records
		SA5. Read safety manuals and safety signs on the warehouse floor
		Oral Communication (Listening and Speaking skills)
		The user/individual on the job needs to know and understand how to:
		SA6. Communicate clearly with supervisors and peers
		SA7. Regularly communicate with all employees in the chain of activities on the
		shop floor to ensure activities are running smoothly
		SA8. Provide advice and guidance to peers and juniors
В.	Professional Skills	Decision Making
		The user/individual on the job needs to know and understand how to:
		SB1. Act objectively , rather than impulsively or emotionally when faced with
		difficult/stressful or emotional situations
		SB2. Ability to make a judgment as to whether the MHE are in good condition or
		not.
		Plan and organize
		The user/individual on the job needs to know and understand how to:
		SB3. Adjust according to volume, capacity and manpower needs during peak and
		non-peak hours
		SB4. Prioritize and execute tasks within the scheduled time limits
		SB5. Maintain schedules and punctuality. Avoid absenteeism.
		SB6. Be a team player and achieve joint goals
		SB7. Flexibility to re-assess schedule in case of delays/additional orders
		Customer Centricity
		The user/individual on the job needs to know and understand how to:
		SB8. Understand the internal customer requirements and ensure that they are met.







## SC/N2323 Perform Post-Maintenance Activities

# **Problem Solving**

The user/individual on the job needs to know and understand how to:

SB9. Identify trends/common causes for errors and suggest possible solutions to the supervisor

SB10. Handle day to day problems like delays, staffing shortage, etc.

## **Analytical Skills**

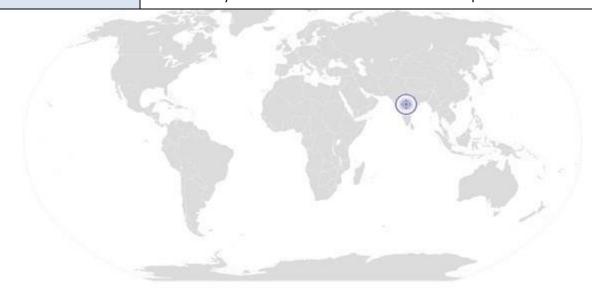
The user/individual on the job needs to know and understand how to:

SB11. Suggest methods to streamline the maintenance process.

SB12. Ability to assess the condition of each MHE.

# **Critical Thinking Skills**

The user/individual on the job needs to know and understand how to: SB13. Ability to concentrate on task at hand and complete it without errors









# **NOS Version Control**

NOS Code	LSC/N2323		
Credits(NSQF)	TBD	Version number	1.0
Industry	Logistics	Drafted on	02/02/2015
Industry Sub-sector	Warehousing Storage, Warehouse Packaging	Last reviewed on	25/02/2015
Occupation	MHE Maintenance Technician	Next review date	02/08/2016

Back to QP







# National Occupational Standard



# **Overview**

This unit is about maintaining Health, Safety and Security measures for carrying out maintenance activities on MHE







# LSC/N2330 Maintain Health, Safety and Security Measures for carrying out maintenance activities on MHE

Unit Code	LSC/N2330
Unit Title (Task)	Maintain Health, Safety and Security measures for carrying out maintenance activities on MHE
Description	This unit is about Health, Safety and Security measures
Scope	This OS unit/task covers the following:  • Maintain Health, Safety and Security measures during all activities
Performance Criteria(PC)	w.r.t. the Scope
Element	Performance Criteria
Maintain health, safety and security measures during all activities	<ul> <li>To be competent, the user/individual on the job must be able to:</li> <li>PC1. Comply with safety regulations and procedures in case of fire hazards, biohazards, etc.</li> <li>PC2. Wear all safety equipment including protective gear, helmets etc. when checking inbound/outbound consignments.</li> <li>PC3. Follow organization procedures with respect to documentation.</li> <li>PC4. Recognize and report unsafe conditions and practices.</li> <li>PC5. In case of signs of any emergency situation or accident or breach of safety immediately follow organizational protocol to deploy action</li> <li>PC6. Identify reasons for occurrence of incident</li> <li>PC7. Capture reasons and response/action taken into incident report/note to manager</li> <li>PC8. Report any deviations from standard protocol along with reasons (if any)</li> <li>PC9. Visually inspect the activity area and equipment for appropriate and safe condition.</li> <li>PC10. Ensure appropriate protocol is followed in case of any incident by all relevant staff</li> </ul>
Knowledge and Understa	5,7
A. Organizational  Context (Knowledge	The user/individual on the job needs to know and understand:  KA1. Knowledge of organizational products and procedures
of the company /	KA2. Procedures for dealing with loss or damage to goods
organization and its	KA3. Risk and impact of not following defined procedures/work instructions
processes)	KA4. Knowledge of computer systems used for documentation in the organization.
	KA5. Knowledge of all relevant safety and security procedures







# LSC/N2330 Maintain Health, Safety and Security Measures for carrying out maintenance activities on MHE

30 Maintain Health, Safet	ty and Security Measures for carrying out maintenance activities on MHE
	KA6. Knowledge of Standard Operating Procedures (SOPs) and how to react in
	emergencies.
	KA7. Knowledge of how to prepare the required documents and the number of copies needed.
	·
	KA8. Knowledge of transport companies the organization works with and their processes
B. Technical Knowledge	The user/individual on the job needs to know and understand:
	KB1. Knowledge of processes involved in inbound and outbound transport.
	KB2. Knowledge of legal requirements, rules and regulations to be followed while preparing forms and documents.
	KB3. Knowledge of each form required for inbound/outbound transport.
	KB4. Knowledge of details to be filled into each form.
	KB5. Knowledge to use the computer for electronic documentation
	KB6. Types of workplace hazards that one can encounter on the job and safe
	operating practices.
	KB7. Knowledge of possible difficulties in documentation.
Skills (S)	
A. Core Skills/ Generic	Writing Skills
Skills	The user/individual on the job needs to know and understand how to:
	SA1. Note down details regarding documentation for each inbound and outbound consignment.
	SA2. Fill out forms, inspection checklists for inbound and outbound
	consignments.
	SA3. Prepare detailed reports for management.
	Ship Trepare detailed reports for management
	Reading Skills
	The user/individual on the job needs to know and understand how to:
	SA4. Read and follow instructions in the checklists
	SA5. Read and understand details required in the forms.
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to:
	SA6. Communicate clearly with managers and peers
	SA7. Regularly communicate with all employees to ensure activities are running smoothly
	SA8. Provide advice and guidance to peers and juniors







gistics skills Council	National Occupational Standards  Safety and Security Measures for carrying out maintenance activities on MHE
B. Professional Skill	
	The user/individual on the job needs to know and understand how to:
	SB1. Act objectively , rather than impulsively or emotionally when faced with
	difficult/stressful or emotional situations
	Plan and organize
	The user/individual on the job needs to know and understand how to:
	SB2. Adjust according to volume, capacity and manpower needs during peak and
	non-peak hours
	SB3. Prioritize and execute tasks within the scheduled time limits
	SB4. Maintain schedules and punctuality. Avoid absenteeism.
	SB5. Be a team player and achieve joint goals
	SB6. Flexibility to re-assess schedule in case of delays/additional orders
	Customer centricity
	The user/individual on the job needs to know and understand how to:  SB7. Understand the customer requirements and ensure that they are met.
	Problem Solving
	(e)
	The user/individual on the job needs to know and understand how to:
	SB8. Identify trends/common causes for errors and suggest possible solutions to
	the transport manager.
	SB9. Help resolve any documentation issues faced by the truck drivers en route.  SB10. Handle day to day problems like delays, staffing shortage, etc.
	Analytical Skills
	The user/individual on the job needs to know and understand how to:
	SB11. Suggest methods to streamline the documentation process.
	SB12. Ability to check that all the forms required in the checklist have been filled out and are ready.
	Critical Thinking Skills
	The user/individual on the job needs to know and understand how to:
	The user/individual on the job freeds to know and understand now to:

SB13. Ability to concentrate on task at hand and complete it without errors







LSC/N2330 Maintain Health, Safety and Security Measures for carrying out maintenance activities on MHE

# **NOS Version Control**

NOS Code	LSC/N2330		
Credits(NSQF)	TBD	Version number	1.0
Industry	Warehousing Storage, Warehouse Packaging	Drafted on	25/02/2015
Industry Sub-sector	MHE Maintenance Technician	Last reviewed on	25/02/2015
Occupation	Warehousing Storage, Warehouse Packaging	Next review date	25/08/2016

Back to QP



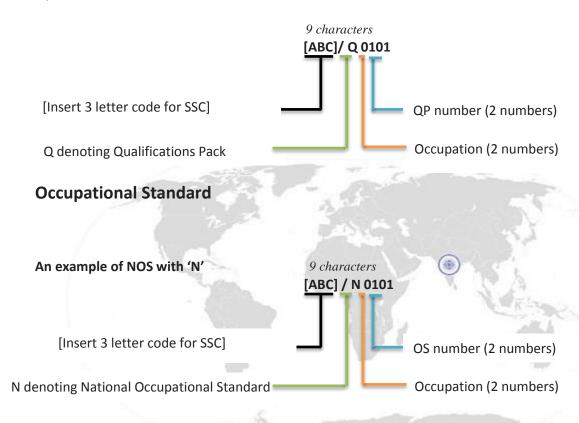




# **Annexure**

# Nomenclature for QP and NOS

# **Qualifications Pack**







The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
Warehousing Storage	21,23
Warehouse Packaging	22,23
Land Transportation	11,14
Shipping Transportation	12,14
Air Transportation	13
Courier	30

Sequence	Description	Example
Three letters	Industry name	LSC
Slash	İ	
Next letter	Whether <b>Q</b> P or <b>N</b> OS	N
ext two numbers	Occupation code	01
lext two numbers	OS number	01





# **PERFORMANCE CRITERIA**

Job Role: MHE Maintenance Technician

Qualification Pack: LSC/Q2315

Sector Skill Council: LSC

- 1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
- 2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
- 3. Individual assessment agencies will create unique question papers for theory and skill practical part for each candidate at each examination/training center.
- 4. To pass the Qualification Pack , every trainee should score a minimum of 40% in every NOS overall 50% pass percentage.
- 5. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

			2.2	Marks Allocation	
		Total Marks	Out of	Theory	Skills Practical
1. LSC/N2321 (Prepare for Maintenance )	PC1. Collect the daily maintenance checklist from the supervisor.	100	8	2	6
	PC2. Find out from the supervisor if there is any breakdown or problems in any of the Material Handling Equipment (MHE) and collect the special maintenance checklist.		12	2	10
	PC3. In case of special maintenance, understand which particular machine(s) are to be checked and where they are located.		14	4	10
	PC4. Understand which is the critical MHE and attend to it first so as to minimize losses to the company.		6	2	4
	PC5. Find and read up on maintenance history from previous reports of the specific equipment if required.		8	6	2
	PC6. Plan the sequence in which the maintenance would be carried out so as to optimize time and travel distance.		12	4	8
	PC7. Collect and wear all the necessary Personal Protective Equipment (PPE).		9	2	7





		_		Marks Allocation		
		Total Out of		Theory	Skills	
		Marks			Practical	
	PC8. Assess the tooling requirement and collect					
	the necessary tools from the tool crib/storage		11	3	8	
	racks.					
	PC9. Collect any grease, lubricants, fluids or					
	replacement parts that would be used from the		10	2	8	
	store area.					
	PC10. Fill out any forms required by the store after		10	3	7	
	receiving the supplies.		10	,	,	
		Total	100	30	70	
2.LSC/N2322	PC1. Observe the overall functioning of the MHE to					
(Perform	identify problems if any.		_	_	2	
Maintenance			5	2	3	
Operations)		Distance.				
1	PC2. Make any minor adjustments in settings or		0.00	90		
	parameters if required to ensure smooth		5	1	4	
/ /	functioning.		1	1.7%		
1	PC3. In case of a machine overhaul, plan well in		Contract of the Party of the Pa			
1/10/19	advance and perform it during holidays or non		5	2	3	
1 2	peak hours.	75	5		Λ	
	PC4. Check for damage in tyres, parking break,	1) 4	1	1	2	
	main horn, reverse horn, warning lamp, etc.	16.00	4	1	3	
	PC5. Check fluid levels of engine, transmission,		المكام		¥	
")	differential, hydraulic, radiator coolant and brake	- 6	5	1	4	
No.	oil and top up any fluids as required.			242		
	PC6. Apply grease and lubricants where required.		4	1	3	
	PC7. Replace any parts that have worn out at the		4	1	3	
	times specified by the manufacturer.	100	4	1	3	
	PC8. Complete and check off all the line items in		5	1	4	
	the preventive maintenance checklist.		3	1	4	
	PC9. Test the MHE to ensure that it is fully		5	2	3	
	functional and safe for use.			2	3	
	PC10. Assess the MHE and escalate to supervisor if					
	there is a likelihood of future problems or		3	1	2	
	replacement is required.					
	PC11. Conduct regular awareness on battery		5	1	4	
	charging and safety methods to all operators			1	4	
	PC12. Regularly maintain spare batteries and		2	1	1	
	ensure they are fully charged				1	
	PC13. Prepare health card for every MHE.		3	2	1	
	PC14. Examine the MHE to determine the source		4	1	3	
	of the problem.		7	_	,	
	PC15. Determine if the problem could be resolved					
	using existing skills or if it requires the attention of		4	1	3	
	a specialized technician from the manufacturing		7	1	,	
	company.					





	Qualifications Pack For MHE Maintenance Tec	_		Marks Al	larks Allocation	
		Total	Out of	Theory	Skills	
	DC16. If the problem could be received, determine	Marks			Practical	
	PC16. If the problem could be resolved, determine		2	1	1	
	whether the part could be repaired or if		2	1	1	
	replacement is necessary.					
	PC17. If the part could be repaired, carry out		4	2	2	
	repairs using available machine shop equipment.					
	PC18. If part cannot be repaired or if replacement					
	is required, obtain the required parts from the		5	1	4	
	store (if available) or inform inventory clerk to					
	place orders.					
	PC19. Receive required parts and change the parts		5	2	3	
	as per manufacturer's guidelines.					
	PC20. Check fluid levels of engine, transmission,		_			
	differential, hydraulic, radiator coolant and brake		5	1	4	
	oil and top up any fluids as required.					
	PC21. Apply grease and lubricants where required.	-	4	1	3	
	PC22. Complete and check off all the line items in		4	1	3	
	the breakdown maintenance checklist.		10	_		
	PC23. Test the MHE to ensure that it is fully		4	1	3	
	functional and safe for use.		Sept.	_	,	
31	PC24. Escalate to supervisor in case of delays or if a		100		N.	
	specialized technician from the manufacturing	796	4	1	3	
	company is required to solve the problem.	1/10	3			
	· 2000	6.00	627	23		
		Total	100	30	70	
3. LSC/N2323	DC1 Diagram and demand developed to a management	- 6		1000	10	
3. LSC/N2323 (Post Maintenance	PC1. Dispose any damaged/worn out components		10	100		
(Post Maintenance	and used up fluids appropriately as per company		10	1	9	
		1	10	1	9	
(Post Maintenance	and used up fluids appropriately as per company policy.					
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back		10	1	9	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.					
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of	E	7	1	6	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were					
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.	P	7 8	1	6	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any	R	7	1	6	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.	R	7 8 6	1 2 1	6 6 5	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage	100	7 8	1 2	6	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.	100	7 8 6 9	1 2 1 2	6 6 5 7	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective	100	7 8 6	1 2 1	6 6 5	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective storage racks.	100	7 8 6 9	1 2 1 2	6 6 5 7	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective storage racks.  PC7. Escalate to supervisor if parts have not been	100	7 8 6 9 8	1 2 1 2 2	6 6 5 7 6	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective storage racks.  PC7. Escalate to supervisor if parts have not been received or any other reasons which would	100	7 8 6 9	1 2 1 2	6 6 5 7	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective storage racks.  PC7. Escalate to supervisor if parts have not been received or any other reasons which would increase the downtime.	100	7 8 6 9 8	1 2 1 2 2	6 6 5 7 6	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective storage racks.  PC7. Escalate to supervisor if parts have not been received or any other reasons which would increase the downtime.  PC8. Notify supervisor regarding any concerns	100	7 8 6 9 8	1 2 1 2 2	6 6 5 7 6	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective storage racks.  PC7. Escalate to supervisor if parts have not been received or any other reasons which would increase the downtime.  PC8. Notify supervisor regarding any concerns faced during the day.	100	7 8 6 9 8	1 2 1 2 2 3	6 6 5 7 6	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective storage racks.  PC7. Escalate to supervisor if parts have not been received or any other reasons which would increase the downtime.  PC8. Notify supervisor regarding any concerns faced during the day.  PC9. Provide daily report to manager regarding	100	7 8 6 9 8	1 2 1 2 2 3	6 6 5 7 6	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective storage racks.  PC7. Escalate to supervisor if parts have not been received or any other reasons which would increase the downtime.  PC8. Notify supervisor regarding any concerns faced during the day.  PC9. Provide daily report to manager regarding condition of equipment, damage if any,etc.	100	7 8 6 9 8 10	1 2 1 2 2 3 2 2	6 6 5 7 6	
(Post Maintenance	and used up fluids appropriately as per company policy.  PC2. Return any unused fluids or components back to the store.  PC3. Carry out a basic visual safety inspection of the work area where maintenance activities were carried out.  PC4. Remove any sharp objects and clean up any spills in the work area.  PC5. Return any tools used to the tool crib/storage racks.  PC6. Return any PPE used to their respective storage racks.  PC7. Escalate to supervisor if parts have not been received or any other reasons which would increase the downtime.  PC8. Notify supervisor regarding any concerns faced during the day.  PC9. Provide daily report to manager regarding	100	7 8 6 9 8 10	1 2 1 2 2 3 2 2	6 6 5 7 6	





				Marks Al	location
		Total Marks	Out of	Theory	Skills Practical
	PC11. Log any maintenance activity undertaken.		6	2	4
	PC12. Update MHE condition and the next review dates in the maintenance schedules		7	3	4
	PC13. Prepare a detailed report explaining the cause for the problem, solution, expected lifespan and suggested replacement dates.		8	2	6
		Total	100	25	75
4. LSC/N2330 (Maintain Health, Safety and Security Measures measures for carrying out maintenance activities on MHE)	PC1. Comply with safety regulations and procedures in case of fire hazards, bio-hazards, etc.		10	3	7
	PC2. Wear all safety equipment including protective gear, helmets etc. when checking inbound/outbound consignments.		10	3	7
	PC3. Follow organization procedures with respect to documentation.		10	3	7
	PC4. Recognize and report unsafe conditions and practices.	100	10	3	7
	PC5. In case of signs of any emergency situation or accident or breach of safety immediately follow organizational protocol to deploy action		10	3	7
	PC6. Identify reasons for occurrence of incident	-	10	3	7
	PC7. Capture reasons and response/action taken into incident report/note to manager		10	3	7
	PC8. Report any deviations from standard protocol along with reasons (if any)	1	10	3	7
	PC9. Visually inspect the activity area and equipment for appropriate and safe condition.		10	3	7
	PC10. Ensure appropriate protocol is followed in case of any incident by all relevant staff		10	3	7
		Total	100	30	70

Back to QP