

Qualification Pack



Crane Operator - Port Terminals/CFS/ICD

Electives: Rail Mounted Quay (RMQ) Crane / Grab Ship Unloader (GSU) Crane / Rubber Tyre Gantry (RTG) Crane

QP Code: LSC/Q3702

Version: 1.0

NSQF Level: 4

Logistics Sector Skill Council || No. 480 A, 7th Floor, Khivraj Complex II, Anna Salai, Nandanam



Qualification Pack

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LSC/Q3702: Crane Operator - Port Terminals/CFS/ICD

Brief Job Description

Crane Operator - Port terminals/CFS/ICD operates MHE to move, load/unload cargo in a port/ CFS/ ICD. She/he also performs basic maintenance of the MHE equipment.

Personal Attributes

The job holder should be physically fit, judge distance and should have good eye-hand-foot coordination to drive MHE continuously for long hours. She/he must be able to prioritize and execute tasks within scheduled time limits. She/he should have English and Vernacular language proficiency, demonstrable in all written and oral communication.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [LSC/N3701: Perform cargo handling at ports](#)
2. [LSC/N3702: Perform preventive and first-line maintenance of MHE at ports](#)
3. [LSC/N3706: Operate Reach Stacker](#)
4. [LSC/N9904: Maintain integrity and ethics in operation](#)
5. [LSC/N9905: Follow health, safety and security procedures.](#)
6. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Electives(mandatory to select at least one):

Elective 1: Rail Mounted Quay (RMQ) Crane

The unit is about operating Rail Mounted Quay (RMQ) crane at a port terminal, CFS and ICD

1. [LSC/N3703: Operate Rail Mounted Quay \(RMQ\) crane](#)

Elective 2: Grab Ship Unloader (GSU) Crane

The unit is about operating Grab Ship Unloader (GSU) crane at a port terminal, CFS and ICD

1. [LSC/N3704: Operate Grab Ship Unloader \(GSU\) crane](#)

Elective 3: Rubber Tyre Gantry (RTG) Crane

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The unit is about operating Rubber Tyre Gantry (RTG) crane at a port terminal, CFS and ICD

1. [LSC/N3705: Operate Rubber Tyre Gantry \(RTG\) crane](#)

Qualification Pack (QP) Parameters

Sector	Logistics
Sub-Sector	Port Terminals, ICD and CFS
Occupation	Crane/Material Handling Equipment (MHE) operation
Country	India
NSQF Level	4
Credits	20
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8343, 8344
Minimum Educational Qualification & Experience	12th grade Pass OR Completed 2nd year of the 3-year diploma after 10 OR 10th grade pass (with 2 years of ITI) OR 10th grade pass with 3 Years of experience in port operations OR Previous relevant Qualification of NSQF Level (3) with 3 Years of experience in port operations
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	Light Motor Vehicle (LMV) license
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	30/05/2027
NSQF Approval Date	30/05/2024
Version	1.0
Reference code on NQR	QG-04-TW-02623-2024-V1-LSC



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NQR Version	1.0
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LSC/N3701: Perform cargo handling at ports

Description

This unit is about preparing and performing mechanised cargo handling at ports.

Scope

The scope covers the following :

- Obtain information and inspect condition of equipment
- Operate crane/ Material Handling Equipment (MHE)
- Report and document

Elements and Performance Criteria

Obtain information and inspect condition of equipment

To be competent, the user/individual on the job must be able to:

- PC1.** obtain details of cargo to be loaded/ unloaded, deck and yard layout and any other specific instruction from the yard supervisor
- PC2.** engage with the ship and yard supervisor and the rigging staff, and finalise the type of crane to use and techniques for lifting
- PC3.** finalise the path for movement of the cargo in coordination with lifting supervisor, yard supervisor and rigging staff
- PC4.** wear the required PPEs and carry the communication device
- PC5.** check the crane/ MHEs controls for fitness of operation including breaking tests, boom operation, spreader movement
- PC6.** test drive the trolley and check that all hydraulic systems to operate hoisting system, flippers, and emergency controls etc. before operation
- PC7.** escalate any issues to the supervisor

Operate crane/ Material Handling Equipment (MHE)

To be competent, the user/individual on the job must be able to:

- PC8.** check for clear visibility from the control unit platform to vessel, yard and the spreaders
- PC9.** check for weather condition and factor those in while operations
- PC10.** follow the SOP during the cargo handling process
- PC11.** follow the hand signals and Very High Frequency (VHF) communications from the signalman to move the crane and cargo
- PC12.** place cargo/ container at the assigned location in coordination with the instruction of the signalman to ensure zero damage
- PC13.** verify that the containers are properly locked before moving, based on system input and rigger confirmation
- PC14.** monitor the container and spreader movement during operations, to ensure safe limits
- PC15.** take necessary precautions while handling dangerous and hazardous goods

Report and document

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To be competent, the user/individual on the job must be able to:

- PC16.** fill the post operation checklist on completion of activity
- PC17.** report on delays, damages, accidents and other incidents to the supervisor and prepare necessary documentation for insurance claims if any
- PC18.** report on the condition of the crane/ MHE and any maintenance activity or replacement that may be required to the supervisor

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of documentation used in organization and importance of the same
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** records to be maintained and implications of non-maintenance of the same
- KU4.** knowledge of security procedures e.g. secure storage of inventory
- KU5.** rules and regulations of shop floor as per standard operating procedure (SOP)
- KU6.** risk and impact of not following safety procedures
- KU7.** escalation matrix for reporting identified problems
- KU8.** cost of equipment and loss for the company that results from damage of equipment
- KU9.** implications of delays in process to the company
- KU10.** appropriate crane to be used based on cargo type
- KU11.** controls and switches used to operate the crane/MHE
- KU12.** basic technicalities associated with the MHE
- KU13.** various signs and signals used for operations and emergencies at the port
- KU14.** SOP for handling hazardous goods
- KU15.** response to emergencies e.g. fire
- KU16.** pre-operation checklist and post operation checklists
- KU17.** safety regulations while operating the crane/MHE
- KU18.** optimal working condition at the port and various precautions to be taken because of weather
- KU19.** the control systems, greasing and other technical requirement for the crane/ MHE
- KU20.** various crane/ MHE components and their functions
- KU21.** how to test and safely carry out maintenance tasks on the crane/MHE
- KU22.** how to identify deviations from normal operations
- KU23.** basics of port and yard layouts
- KU24.** type of vessels and SOPs for cargo movement in each type

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** labels and codes as per company procedures

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- GS2.** various signals and flags in port and vessel operations
- GS3.** handling instructions/company log books and records
- GS4.** SOPs and safety manuals and safety signs at the port
- GS5.** instructions and orders
- GS6.** cargo stowage plans
- GS7.** fill out checklists, maintenance logbooks detailing maintenance activities conducted
- GS8.** prepare detailed technical reports
- GS9.** note down condition of crane/MHE and any maintenance or repair that was carried out on a daily basis
- GS10.** fill out any complaint/ insurance related forms for damaged goods
- GS11.** communicate clearly with supervisors and ground staff
- GS12.** communicate over VHF and through hand and flag signals
- GS13.** provide advice and guidance to peers and juniors
- GS14.** decide if the weather conditions are appropriate for operations
- GS15.** decide if the crane/ MHE is in functional condition based on pre-operative checks
- GS16.** decide the power required to move cargo based on weight and size of cargo
- GS17.** decide the appropriate route for movement of cargo
- GS18.** adjust according to volume, capacity and manpower needs during peak and non-peak hours
- GS19.** clearly coordinate with ground staff for smooth operations
- GS20.** prioritize and execute tasks within the scheduled time limits
- GS21.** maintain schedules and punctuality
- GS22.** avoid absenteeism
- GS23.** be a team player and achieve joint goals.
- GS24.** adhere to the timelines and ensure that they are met
- GS25.** handle the cargo/ containers with proper care so as to avoid damage or spillage while moving
- GS26.** handle difficult weather conditions by making appropriate adjustment for operations
- GS27.** resolve basic technical issues with the equipment through preventive and first-line maintenance
- GS28.** suggest methods to streamline pick and drop operations
- GS29.** assess the condition of crane and suggest for maintenance/ servicing if required
- GS30.** clearly follow instructions and coordinate with ground staff
- GS31.** take go-aheads/ green signals from ground staff before moving cargo using crane/ MHE
- GS32.** identify the area of operation and take necessary precautions

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Obtain information and inspect condition of equipment</i>	13	28	-	4
PC1. obtain details of cargo to be loaded/unloaded, deck and yard layout and any other specific instruction from the yard supervisor	2	4	-	-
PC2. engage with the ship and yard supervisor and the rigging staff, and finalise the type of crane to use and techniques for lifting	2	4	-	1
PC3. finalise the path for movement of the cargo in coordination with lifting supervisor, yard supervisor and rigging staff	2	4	-	1
PC4. wear the required PPEs and carry the communication device	2	4	-	1
PC5. check the crane/ MHEs controls for fitness of operation including breaking tests, boom operation, spreader movement	2	4	-	-
PC6. test drive the trolley and check that all hydraulic systems to operate hoisting system, flippers, and emergency controls etc. before operation	2	4	-	-
PC7. escalate any issues to the supervisor	1	4	-	1
<i>Operate crane/ Material Handling Equipment (MHE)</i>	13	26	-	4
PC8. check for clear visibility from the control unit platform to vessel, yard and the spreaders	1	4	-	-
PC9. check for weather condition and factor those in while operations	1	4	-	-
PC10. follow the SOP during the cargo handling process	2	4	-	1
PC11. follow the hand signals and Very High Frequency (VHF) communications from the signalman to move the crane and cargo	1	2	-	1

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. place cargo/ container at the assigned location in coordination with the instruction of the signalman to ensure zero damage	2	4	-	-
PC13. verify that the containers are properly locked before moving, based on system input and rigger confirmation	2	2	-	1
PC14. monitor the container and spreader movement during operations, to ensure safe limits	2	4	-	1
PC15. take necessary precautions while handling dangerous and hazardous goods	2	2	-	-
<i>Report and document</i>	4	6	-	2
PC16. fill the post operation checklist on completion of activity	1	2	-	-
PC17. report on delays, damages, accidents and other incidents to the supervisor and prepare necessary documentation for insurance claims if any	2	2	-	1
PC18. report on the condition of the crane/ MHE and any maintenance activity or replacement that may be required to the supervisor	1	2	-	1
NOS Total	30	60	-	10

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National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3701
NOS Name	Perform cargo handling at ports
Sector	Logistics
Sub-Sector	Port Terminals, ICD and CFS
Occupation	Crane/Material Handling Equipment (MHE) operation
NSQF Level	4
Credits	2
Version	2.0
Last Reviewed Date	30/05/2024
Next Review Date	30/05/2027
NSQC Clearance Date	30/05/2024

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LSC/N3702: Perform preventive and first-line maintenance of MHE at ports

Description

This unit is about performing preventive and first-line maintenance checks for cranes/ MHEs in port operations.

Scope

The scope covers the following :

- Perform preventive maintenance
- Perform first-line maintenance

Elements and Performance Criteria

Perform preventive maintenance

To be competent, the user/individual on the job must be able to:

- PC1.** • perform basic maintenance checks such as:
- a. check for accidental damages on the body of the MHE
 - b. check that the spreader, quay, control unit, etc. are operating as per the specified norms
 - c. check for any irregular noise during operation and troubleshoot
 - d. check that all controls and communication systems are functional
 - e. check for damage in tyres, rails, parking brake, main horn, reverse horn, warning lamp, etc.
- PC2.** check fluid levels of engine, transmission, differential, hydraulic, radiator coolant and brake oil and top up any fluids as required
- PC3.** identify any requirement for painting, greasing, welding, part replacement, etc. to the supervisor
- PC4.** perform preventive maintenance for faults like fractures, corrosion, missing paint, etc. on the body of the crane/ MHE as per schedule in accordance to checklist
- PC5.** test the crane/ MHE for all controls as per the checklist to see that it is fully functional and safe for use
- PC6.** update maintenance card and report

Perform first-line maintenance

To be competent, the user/individual on the job must be able to:

- PC7.** report to supervisors and request technical support in case of any abnormalities in operation, damage, repair requirement, etc.
- PC8.** lookout for basic aberrations such as irregular noise, blockages, error in operations, and identify the source of issue
- PC9.** perform basic first-line repairs like greasing, painting, oiling, removing of stuck objects, changing of fuse, making severed electrical connections, etc. and check if the problem is resolved
- PC10.** check the parts to assess damage, repair requirements, electrical faults, faulty control systems, etc.
- PC11.** escalate the problems to supervisor and request technical support if required

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Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of documentation used in organization and importance of the same
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** records to be maintained and implications of non-maintenance of the same
- KU4.** knowledge of security procedures e.g. secure storage of inventory
- KU5.** rules and regulations of shop floor as per standard operating procedure (SOP)
- KU6.** risk and impact of not following safety procedures
- KU7.** escalation matrix for reporting identified problems
- KU8.** cost of equipment and loss for the company that results from damage of equipment
- KU9.** implications of delays in process to the company
- KU10.** controls and switches used to operate the crane/MHE
- KU11.** basic technicalities associated with the MHE
- KU12.** various signs and signals used for operations and emergencies at the port
- KU13.** sops for handling hazardous goods
- KU14.** response to emergencies e.g. fire
- KU15.** safety regulations while operating the crane/MHE
- KU16.** optimal working condition at the port and various precautions to be taken because of weather
- KU17.** the control systems, greasing and other technical requirement for the crane/ MHE
- KU18.** various crane/ MHE components and their functions
- KU19.** how to test and safely carry out maintenance tasks on the crane/MHE
- KU20.** how to identify deviations from normal operations
- KU21.** basics of port and yard layouts
- KU22.** type of vessels and sops for cargo movement in each type

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** labels and codes as per company procedures
- GS2.** various signals and flags in port and vessel operations
- GS3.** handling instructions/company log books and records
- GS4.** SOPs and safety manuals and safety signs at the port
- GS5.** instructions and orders
- GS6.** cargo stowage plans
- GS7.** fill out checklists, maintenance logbooks detailing maintenance activities conducted
- GS8.** prepare detailed technical reports
- GS9.** note down condition of crane/MHE and any maintenance or repair that was carried out on a daily basis

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- GS10.** fill out any complaint/ insurance related forms for damaged goods
- GS11.** communicate clearly with supervisors and ground staff
- GS12.** communicate over VHF and through hand and flag signals
- GS13.** provide advice and guidance to peers and juniors
- GS14.** decide if the weather conditions are appropriate for operations
- GS15.** decide if the crane/ MHE is in functional condition based on pre-operative checks
- GS16.** decide the power required to move cargo based on weight and size of cargo
- GS17.** decide the appropriate route for movement of cargo
- GS18.** adjust according to volume, capacity and manpower needs during peak and non-peak hours
- GS19.** clearly coordinate with ground staff for smooth operations
- GS20.** prioritize and execute tasks within the scheduled time limits
- GS21.** maintain schedules and punctuality
- GS22.** avoid absenteeism
- GS23.** be a team player and achieve joint goals
- GS24.** adhere to the timelines and ensure that they are met
- GS25.** handle the cargo/ containers with proper care so as to avoid damage or spillage while moving
- GS26.** handle difficult weather conditions by making appropriate adjustment for operations
- GS27.** resolve basic technical issues with the equipment through preventive and first-line maintenance
- GS28.** suggest methods to streamline pick and drop operations
- GS29.** assess the condition of crane and suggest for maintenance/ servicing if required
- GS30.** clearly follow instructions and coordinate with ground staff
- GS31.** take go-aheads/ green signals from ground staff before moving cargo using crane/ MHE
- GS32.** identify the area of operation and take necessary precautions

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform preventive maintenance</i>	15	33	-	6
PC1. <ul style="list-style-type: none"> perform basic maintenance checks such as: <ul style="list-style-type: none"> a. check for accidental damages on the body of the MHE b. check that the spreader, quay, control unit, etc. are operating as per the specified norms c. check for any irregular noise during operation and troubleshoot d. check that all controls and communication systems are functional e. check for damage in tyres, rails, parking brake, main horn, reverse horn, warning lamp, etc. 	3	6	-	1
PC2. check fluid levels of engine, transmission, differential, hydraulic, radiator coolant and brake oil and top up any fluids as required	2	5	-	1
PC3. identify any requirement for painting, greasing, welding, part replacement, etc. to the supervisor	2	5	-	-
PC4. perform preventive maintenance for faults like fractures, corrosion, missing paint, etc. on the body of the crane/ MHE as per schedule in accordance to checklist	3	6	-	2
PC5. test the crane/ MHE for all controls as per the checklist to see that it is fully functional and safe for use	3	6	-	1
PC6. update maintenance card and report	2	5	-	1
<i>Perform first-line maintenance</i>	15	27	-	4
PC7. report to supervisors and request technical support in case of any abnormalities in operation, damage, repair requirement, etc.	3	6	-	-
PC8. lookout for basic aberrations such as irregular noise, blockages, error in operations, and identify the source of issue	3	5	-	1

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC9. perform basic first-line repairs like greasing, painting, oiling, removing of stuck objects, changing of fuse, making severed electrical connections, etc. and check if the problem is resolved	3	6	-	1
PC10. check the parts to assess damage, repair requirements, electrical faults, faulty control systems, etc.	3	5	-	1
PC11. escalate the problems to supervisor and request technical support if required	3	5	-	1
NOS Total	30	60	-	10

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National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3702
NOS Name	Perform preventive and first-line maintenance of MHE at ports
Sector	Logistics
Sub-Sector	Port Terminals, ICD and CFS
Occupation	Crane/Material Handling Equipment (MHE) operation
NSQF Level	4
Credits	2
Version	2.0
Last Reviewed Date	30/05/2024
Next Review Date	30/05/2027
NSQC Clearance Date	30/05/2024

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LSC/N3706: Operate Reach Stacker

Description

This unit is about operating reach stacker in the port terminal, ICD and CFS to move containers.

Scope

The scope covers the following :

- Operate Reach Stacker

Elements and Performance Criteria

Operate reach stacker

To be competent, the user/individual on the job must be able to:

- PC1.** check for clear visibility of quay, containers, vessel and ground movement
- PC2.** establish clear communication lines and inform the signalman regarding blind spots
- PC3.** select appropriate lifting gear/equipment including slings, ropes, shackles, eye bolts, and spreaders based on safety charts for safe working load (SWL)/working load limit (WLL), and assemble and check them for serviceability
- PC4.** ensure appropriate hazard prevention/control measures have been taken
- PC5.** move the reach stacker to the work location and set the spreader as per requirement
- PC6.** identify the container and move spreader and lock as per directions from the signalman
- PC7.** check that the spreader is locked onto the container
- PC8.** lift the container and move it considering the defined pathways, speed and sway of container with directions from signalman
- PC9.** place the container at the drop location/ vehicle and uncouple the locks
- PC10.** ensure slinging attachments are released from load without damage to personnel or workspace
- PC11.** take necessary precautions while handling hazardous goods
- PC12.** conduct post operations check for the reach stacker as per SOP
- PC13.** record and report any damages, incidents, equipment failure, and other necessary information as per SOP

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of documentation used in organization and importance of the same
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** records to be maintained and implications of non-maintenance of the same
- KU4.** knowledge of security procedures e.g. secure storage of inventory
- KU5.** rules and regulations of shop floor as per standard operating procedure (SOP)

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- KU6.** risk and impact of not following safety procedures
- KU7.** escalation matrix for reporting identified problems
- KU8.** cost of equipment and loss for the company that results from damage of equipment
- KU9.** implications of delays in process to the company
- KU10.** controls and switches used to operate the reach stacker
- KU11.** basic technicalities associated with the reach stacker
- KU12.** various signs and signals used for operations and emergencies at the port
- KU13.** SOPs for handling hazardous goods
- KU14.** response to emergencies e.g. fire
- KU15.** pre-operation checklist and post operation checklists
- KU16.** safety regulations while operating the reach stacker
- KU17.** optimal working condition at the port and various precautions to be taken because of weather
- KU18.** the control systems, greasing and other technical requirement for the reach stacker
- KU19.** various reach stacker components and their functions
- KU20.** how to test and safely carry out maintenance tasks on the reach stacker
- KU21.** how to identify deviations from normal operations
- KU22.** basics of port and yard layouts
- KU23.** type of vessels and SOPs for cargo movement in each type

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** labels and codes as per company procedures
- GS2.** various signals and flags in port and vessel operations
- GS3.** handling instructions/company log books and records
- GS4.** SOPs and safety manuals and safety signs at the port
- GS5.** instructions and orders
- GS6.** cargo stowage plans
- GS7.** fill out checklists, maintenance logbooks detailing maintenance activities conducted
- GS8.** prepare detailed technical reports
- GS9.** note down condition of crane/MHE and any maintenance or repair that was carried out on a daily basis
- GS10.** fill out any complaint/ insurance related forms for damaged goods
- GS11.** communicate clearly with supervisors and ground staff
- GS12.** communicate over VHF and through hand and flag signals
- GS13.** provide advice and guidance to peers and juniors
- GS14.** decide if the weather conditions are appropriate for operations
- GS15.** decide if the crane/ MHE is in functional condition based on pre-operative checks
- GS16.** decide the power required to move cargo based on weight and size of cargo

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- GS17.** decide the appropriate route for movement of cargo
- GS18.** adjust according to volume, capacity and manpower needs during peak and non-peak hours
- GS19.** clearly coordinate with ground staff for smooth operations
- GS20.** prioritize and execute tasks within the scheduled time limits
- GS21.** maintain schedules and punctuality
- GS22.** avoid absenteeism
- GS23.** be a team player and achieve joint goals
- GS24.** adhere to the timelines and ensure that they are met
- GS25.** handle the cargo/ containers with proper care so as to avoid damage or spillage while moving
- GS26.** handle difficult weather conditions by making appropriate adjustment for operations
- GS27.** suggest methods to streamline pick and drop operations
- GS28.** assess the condition of crane and suggest for maintenance/ servicing if required
- GS29.** assess the condition of crane and suggest for maintenance/ servicing if required
- GS30.** clearly follow instructions and coordinate with ground staff
- GS31.** take go-aheads/ green signals from ground staff before moving cargo using crane/ MHE
- GS32.** identify the area of operation and take necessary precautions

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Operate reach stacker</i>	30	60	-	10
PC1. check for clear visibility of quay, containers, vessel and ground movement	3	5	-	1
PC2. establish clear communication lines and inform the signalman regarding blind spots	3	4	-	1
PC3. select appropriate lifting gear/equipment including slings, ropes, shackles, eye bolts, and spreaders based on safety charts for safe working load (SWL)/working load limit (WLL), and assemble and check them for serviceability	3	5	-	-
PC4. ensure appropriate hazard prevention/control measures have been taken	2	4	-	1
PC5. move the reach stacker to the work location and set the spreader as per requirement	2	5	-	1
PC6. identify the container and move spreader and lock as per directions from the signalman	2	5	-	-
PC7. check that the spreader is locked onto the container	2	5	-	1
PC8. lift the container and move it considering the defined pathways, speed and sway of container with directions from signalman	2	4	-	1
PC9. place the container at the drop location/ vehicle and uncouple the locks	2	4	-	1
PC10. ensure slinging attachments are released from load without damage to personnel or workspace	2	5	-	-
PC11. take necessary precautions while handling hazardous goods	2	4	-	1
PC12. conduct post operations check for the reach stacker as per SOP	3	5	-	1



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. record and report any damages, incidents, equipment failure, and other necessary information as per SOP	2	5	-	1
NOS Total	30	60	-	10

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National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3706
NOS Name	Operate Reach Stacker
Sector	Logistics
Sub-Sector	Port Terminals, ICD and CFS
Occupation	Crane/Material Handling Equipment (MHE) operation
NSQF Level	4
Credits	3
Version	2.0
Last Reviewed Date	30/05/2024
Next Review Date	30/05/2027
NSQF Clearance Date	30/05/2024

Qualification Pack

LSC/N9904: Maintain integrity and ethics in operation

Description

This unit is about maintaining integrity, ensuring data security, and professional and ethical practices

Scope

The scope covers the following :

- Maintain integrity and ensure data security
- Professional and ethical practices
- Ensure regulatory compliance

Elements and Performance Criteria

Maintain integrity ensuring data security

To be competent, the user/individual on the job must be able to:

- PC1.** refrain from indulging in corrupt practices.
- PC2.** avoid using company's funds, property or resources for undertaking personal activities
- PC3.** protect customer's information and ensure it is not misused
- PC4.** protect data and information related to business or commercial decisions
- PC5.** avoid acceptance of cash or kind from vendors for support or contract negotiations
- PC6.** demonstrate and practice ethics in day-to-day processes and dealings with customers and colleagues
- PC7.** avoid nepotism
- PC8.** consult supervisor or senior management when in situations that may require differentiating between ethical and unethical
- PC9.** report promptly all violations of code of ethics
- PC10.** dress up and conduct in a professional manner
- PC11.** communicate with clients and stakeholders in a soft and polite manner
- PC12.** follow etiquettes in accordance to the place
- PC13.** check for regulatory documentation and compliances for the shop floor as per information from the supervisor
- PC14.** perform activities considering the regulatory requirements
- PC15.** use Personal Protective Equipment (PPEs) in accordance to regulatory requirements
- PC16.** identify the different types of dangerous goods and handling methodologies
- PC17.** follow the SOP for handling of different types of dangerous goods
- PC18.** consult supervisor or senior management when in situations that may require differentiating between ethical and unethical
- PC19.** promptly report all regulatory violations

Knowledge and Understanding (KU)

Qualification Pack

The individual on the job needs to know and understand:

- KU1.** company's policies on use of language
- KU2.** company's Human Resources policies
- KU3.** company's code of ethics
- KU4.** company's whistle blower policy
- KU5.** company's rules related to sexual harassment
- KU6.** company's reporting structure
- KU7.** company's documentation policy
- KU8.** principles of code of ethics and business ethics
- KU9.** various regulatory requirements
- KU10.** documentary compliance for various regulations
- KU11.** different dangerous shipment
- KU12.** regulations with regard to w.r.t dangerous shipment

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** read company policy documents and work related documents
- GS2.** read emails and written instructions
- GS3.** fill documentation pertaining to ethics and regulatory requirement
- GS4.** communicate with team members to work efficiently
- GS5.** communicate with peers and subordinates about information security and building trust
- GS6.** identify a shipment as dangerous goods
- GS7.** assess if the situation needs to be reported regarding regulations
- GS8.** plan and organise actions as per companys guidelines
- GS9.** prevent company and customer information leakage
- GS10.** advise colleagues regarding sensitive issues pertaining to conduct and regulations
- GS11.** provide professional services diligently and with integrity
- GS12.** avoid defaming companys name by indulging into pilferage or fiddling with quality or quantity of shipment
- GS13.** be fair and reasonable in profession and disclose conflict of interests

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain integrity ensuring data security</i>	40	60	-	-
PC1. refrain from indulging in corrupt practices.	3	3	-	-
PC2. avoid using company's funds, property or resources for undertaking personal activities	3	3	-	-
PC3. protect customer's information and ensure it is not misused	2	4	-	-
PC4. protect data and information related to business or commercial decisions	2	4	-	-
PC5. avoid acceptance of cash or kind from vendors for support or contract negotiations	2	4	-	-
PC6. demonstrate and practice ethics in day-to-day processes and dealings with customers and colleagues	2	3	-	-
PC7. avoid nepotism	2	3	-	-
PC8. consult supervisor or senior management when in situations that may require differentiating between ethical and unethical	2	3	-	-
PC9. report promptly all violations of code of ethics	2	3	-	-
PC10. dress up and conduct in a professional manner	2	3	-	-
PC11. communicate with clients and stakeholders in a soft and polite manner	2	3	-	-
PC12. follow etiquettes in accordance to the place	2	3	-	-
PC13. check for regulatory documentation and compliances for the shop floor as per information from the supervisor	2	3	-	-
PC14. perform activities considering the regulatory requirements	2	3	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. use Personal Protective Equipment (PPEs) in accordance to regulatory requirements	2	3	-	-
PC16. identify the different types of dangerous goods and handling methodologies	2	3	-	-
PC17. follow the SOP for handling of different types of dangerous goods	2	3	-	-
PC18. consult supervisor or senior management when in situations that may require differentiating between ethical and unethical	2	3	-	-
PC19. promptly report all regulatory violations	2	3	-	-
NOS Total	40	60	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9904
NOS Name	Maintain integrity and ethics in operation
Sector	Logistics
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	1
Version	2.0
Last Reviewed Date	30/05/2024
Next Review Date	30/05/2027
NSQF Clearance Date	30/05/2024

Qualification Pack

LSC/N9905: Follow health, safety and security procedures.

Description

This unit is about ensuring compliance with health, safety and security procedures at the workplace

Scope

The scope covers the following :

- Follow health, safety and security procedures
- Ensure compliance to health, safety and security

Elements and Performance Criteria

Follow health, safety and security procedures

To be competent, the user/individual on the job must be able to:

- PC1.** make note of all safety processes in different location (cargo loading area, ramp operation area, etc.) with reference to area of operation
- PC2.** wear all PPE such as goggles, ear plugs, helmet, mask, shoes, etc. as applicable in the cargo movement area
- PC3.** follow standard driving practice to ensure safety of life and material
- PC4.** follow organizational protocol to deploy action in case of signs of any emergency situation or accident or breach of safety
- PC5.** undertake periodical preventive health check ups
- PC6.** follow necessary Standard Operating Procedure (SOP) and precautions while handling dangerous and hazardous goods
- PC7.** follow security procedures like green gate in port, customs area, factory security, etc.
- PC8.** comply with data safety regulations of the organisation
- PC9.** follow standard safety procedures while handling hazardous / fragile cargo and walk only on the designated pathway

Ensure compliance to health, safety and security

To be competent, the user/individual on the job must be able to:

- PC10.** recognise unsafe conditions and safety practices at the workplace and report it to concerned authority
- PC11.** inspect the activity area and equipment for appropriate and safe condition
- PC12.** check if stacking is done at defined height and is not on the walk way
- PC13.** check if walk way is free from grease/ oil
- PC14.** check if emergency fire alarms, water sprinklers and smoke detectors are installed at all places
- PC15.** participate in fire drills
- PC16.** check if standard material handling procedure are being followed
- PC17.** check if hold ladders, platforms and hand rails to be in a sound and safe condition
- PC18.** check if all the safety and security related tags, labels and signage are placed in the cargo

Qualification Pack

- PC19.** check if loading instrument is certified and operational
- PC20.** implement 5S at workplace
- PC21.** check if cargo has passed security checks and report in case of any violation

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** health, safety and security policies and procedures
- KU2.** special instructions for hazardous cargo handling
- KU3.** defined standard operating procedures
- KU4.** risk and impact of not following defined procedures/work instructions with reference to health, safety and security operations
- KU5.** escalation matrix for reporting identified problem
- KU6.** basics of Occupational Safety and Health Administration (OSHA)
- KU7.** 5S implementation and practice
- KU8.** necessary security procedures for airport, customs area, etc.
- KU9.** tools and equipment for material handling
- KU10.** standard material handling procedures while handling cargo
- KU11.** safety and security signage and their functions
- KU12.** different security tags, labels and signage
- KU13.** handling procedure for hazardous / fragile cargo
- KU14.** security procedures for dangerous / hazardous shipment
- KU15.** different PPE, their usage and purpose
- KU16.** safe driving techniques

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** read SOP's and safety precautions for different ground operations and handling cargo
- GS2.** read different documents related to security and movement of cargo
- GS3.** fill forms related to health, safety and security procedures
- GS4.** communicate clearly with colleagues regarding safety procedures
- GS5.** share experience and guide peers
- GS6.** decide how to avoid any damage / accident to personal health / cargo handled, whenever required
- GS7.** act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations
- GS8.** plan clearance of cargo in manner that it does hamper the safety of the cargo and the loader/unloader
- GS9.** prioritize and execute tasks within the schedule time limits



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- GS10.** plan and drive based on traffic and road condition using radio links/navigation aids wherever available
- GS11.** ensure safe and secure movement of shipments, cargos etc.
- GS12.** identify any threats on personal health, safety, security, etc. and take appropriate actions
- GS13.** identify risks at the workplace and address them
- GS14.** analyse past mistakes and address them to avoid mishap in the future
- GS15.** check that right safety measures and procedures are in place

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow health, safety and security procedures</i>	19	33	-	-
PC1. make note of all safety processes in different location (cargo loading area, ramp operation area, etc.) with reference to area of operation	3	4	-	-
PC2. wear all PPE such as goggles, ear plugs, helmet, mask, shoes, etc. as applicable in the cargo movement area	3	4	-	-
PC3. follow standard driving practice to ensure safety of life and material	3	4	-	-
PC4. follow organizational protocol to deploy action in case of signs of any emergency situation or accident or breach of safety	2	4	-	-
PC5. undertake periodical preventive health check ups	2	4	-	-
PC6. follow necessary Standard Operating Procedure (SOP) and precautions while handling dangerous and hazardous goods	2	4	-	-
PC7. follow security procedures like green gate in port, customs area, factory security, etc.	2	3	-	-
PC8. comply with data safety regulations of the organisation	1	3	-	-
PC9. follow standard safety procedures while handling hazardous / fragile cargo and walk only on the designated pathway	1	3	-	-
<i>Ensure compliance to health, safety and security</i>	21	27	-	-
PC10. recognise unsafe conditions and safety practices at the workplace and report it to concerned authority	1	3	-	-
PC11. inspect the activity area and equipment for appropriate and safe condition	1	3	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. check if stacking is done at defined height and is not on the walk way	1	3	-	-
PC13. check if walk way is free from grease/ oil	2	2	-	-
PC14. check if emergency fire alarms, water sprinklers and smoke detectors are installed at all places	2	2	-	-
PC15. participate in fire drills	2	2	-	-
PC16. check if standard material handling procedure are being followed	2	2	-	-
PC17. check if hold ladders, platforms and hand rails to be in a sound and safe condition	2	2	-	-
PC18. check if all the safety and security related tags, labels and signage are placed in the cargo	2	2	-	-
PC19. check if loading instrument is certified and operational	2	2	-	-
PC20. implement 5S at workplace	2	2	-	-
PC21. check if cargo has passed security checks and report in case of any violation	2	2	-	-
NOS Total	40	60	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N9905
NOS Name	Follow health, safety and security procedures.
Sector	Logistics
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	1
Version	2.0
Last Reviewed Date	30/05/2024
Next Review Date	30/05/2027
NSQC Clearance Date	30/05/2024

Qualification Pack

DGT/VSQ/N0102: Employability Skills (60 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

- PC1.** identify employability skills required for jobs in various industries
- PC2.** identify and explore learning and employability portals

Constitutional values - Citizenship

To be competent, the user/individual on the job must be able to:

- PC3.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC4.** follow environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

- PC5.** recognize the significance of 21st Century Skills for employment
- PC6.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

Basic English Skills

To be competent, the user/individual on the job must be able to:

Qualification Pack

- PC7.** use basic English for everyday conversation in different contexts, in person and over the telephone
- PC8.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- PC9.** write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

To be competent, the user/individual on the job must be able to:

- PC10.** understand the difference between job and career
- PC11.** prepare a career development plan with short- and long-term goals, based on aptitude

Communication Skills

To be competent, the user/individual on the job must be able to:

- PC12.** follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- PC13.** work collaboratively with others in a team

Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

- PC14.** communicate and behave appropriately with all genders and PwD
- PC15.** escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

- PC16.** select financial institutions, products and services as per requirement
- PC17.** carry out offline and online financial transactions, safely and securely
- PC18.** identify common components of salary and compute income, expenses, taxes, investments etc
- PC19.** identify relevant rights and laws and use legal aids to fight against legal exploitation

Essential Digital Skills

To be competent, the user/individual on the job must be able to:

- PC20.** operate digital devices and carry out basic internet operations securely and safely
- PC21.** use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22.** use basic features of word processor, spreadsheets, and presentations

Entrepreneurship

To be competent, the user/individual on the job must be able to:

- PC23.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- PC24.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- PC25.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

To be competent, the user/individual on the job must be able to:

- PC26.** identify different types of customers
- PC27.** identify and respond to customer requests and needs in a professional manner.

Qualification Pack

PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

PC29. create a professional Curriculum vitae (Résumé)

PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

PC31. apply to identified job openings using offline /online methods as per requirement

PC32. answer questions politely, with clarity and confidence, during recruitment and selection

PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills and different learning and employability related portals

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up

KU6. importance of career development and setting long- and short-term goals

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

KU10. different types of financial institutes, products, and services

KU11. how to compute income and expenditure

KU12. importance of maintaining safety and security in offline and online financial transactions

KU13. different legal rights and laws

KU14. different types of digital devices and the procedure to operate them safely and securely

KU15. how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.

KU16. how to identify business opportunities

KU17. types and needs of customers

KU18. how to apply for a job and prepare for an interview

KU19. apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read and write different types of documents/instructions/correspondence

GS2. communicate effectively using appropriate language in formal and informal settings



Qualification Pack

- GS3.** behave politely and appropriately with all
- GS4.** how to work in a virtual mode
- GS5.** perform calculations efficiently
- GS6.** solve problems effectively
- GS7.** pay attention to details
- GS8.** manage time efficiently
- GS9.** maintain hygiene and sanitization to avoid infection

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
<i>Constitutional values - Citizenship</i>	1	1	-	-
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Entrepreneurship</i>	2	3	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	27/08/2024
Next Review Date	27/08/2027
NSQC Clearance Date	27/08/2024

Qualification Pack

LSC/N3703: Operate Rail Mounted Quay (RMQ) crane

Description

This unit is about operating Rail mounted quay (RMQ) crane for loading/unloading/ movement of cargo/ container.

Scope

The scope covers the following :

- Operate RMQ crane

Elements and Performance Criteria

Operate RMQ crane

To be competent, the user/individual on the job must be able to:

- PC1.** ensure the rail lines of the crane are clear from any obstruction
- PC2.** check elevating work platform for damages or defects as per SOP
- PC3.** check for clear visibility of quay, containers, vessel and ground movement
- PC4.** establish clear communication lines and inform the signaller regarding blind spots
- PC5.** select appropriate lifting gear/equipment including slings, ropes, shackles, eye bolts, and spreaders based on safety charts for safe working load (SWL)/working load limit (WLL), and assemble and check them for serviceability
- PC6.** ensure appropriate hazard prevention/control measures have been taken
- PC7.** start and operate the RMQ crane as per the defined SOP
- PC8.** move the crane to the desired location and identify the correct lifting/anchorage points
- PC9.** set spreader to the desired location, set the width as per requirement for picking one or multiple containers
- PC10.** confirm the spreader is locked before movement, lift the load and check it is appropriately rigged and secured
- PC11.** move the cargo as per plan and as per direction from signaller
- PC12.** monitor operations on screen controlling the speed of the quay and trolley
- PC13.** place the cargo/ container at the destination coordinates considering the speed and wind effect to avoid any damage
- PC14.** ensure slinging attachments are released from load without damage to personnel or workspace
- PC15.** take necessary precautions while handling hazardous goods
- PC16.** load the cargo as per the cargo stowage plan in coordination with signaller
- PC17.** conduct post operations check for the RMQ crane as per SOP
- PC18.** egress from elevated platform and shutdown platform as per SOP
- PC19.** record and report any damages, incidents, equipment failure, and other necessary information as per SOP

Qualification Pack

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of documentation used in organization and importance of the same
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** records to be maintained and implications of non-maintenance of the same
- KU4.** knowledge of security procedures e.g. secure storage of inventory
- KU5.** rules and regulations of shop floor as per standard operating procedure (SOP)
- KU6.** risk and impact of not following safety procedures
- KU7.** escalation matrix for reporting identified problems
- KU8.** cost of equipment and loss for the company that results from damage of equipment
- KU9.** implications of delays in process to the company
- KU10.** controls and switches used to operate the GSU crane
- KU11.** basic technicalities associated with the RMQ crane
- KU12.** various signs and signals used for operations and emergencies at the port
- KU13.** SOPs for handling hazardous goods
- KU14.** response to emergencies e.g. fire
- KU15.** pre-operation checklist and post operation checklists
- KU16.** safety regulations while operating the crane/MHE
- KU17.** optimal working condition at the port and various precautions to be taken because of weather
- KU18.** the control systems, greasing and other technical requirement for the RMQ crane
- KU19.** various RMQ crane components and their functions
- KU20.** how to test and safely carry out maintenance tasks on the crane/ Material Handling Equipment (MHE)
- KU21.** how to identify deviations from normal operations
- KU22.** basics of port and yard layouts
- KU23.** type of vessels and sops for cargo movement in each type

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** labels and codes as per company procedures
- GS2.** various signals and flags in port and vessel operations
- GS3.** handling instructions/company log books and records
- GS4.** SOPs and safety manuals and safety signs at the port
- GS5.** instructions and orders
- GS6.** cargo stowage plans
- GS7.** fill out checklists, maintenance logbooks detailing maintenance activities conducted
- GS8.** prepare detailed technical reports

Qualification Pack

- GS9.** note down condition of crane/MHE and any maintenance or repair that was carried out on a daily basis
- GS10.** fill out any complaint/ insurance related forms for damaged goods
- GS11.** communicate clearly with supervisors and ground staff
- GS12.** communicate over Very High Frequency (VHF) and through hand and flag signals
- GS13.** provide advice and guidance to peers and juniors
- GS14.** decide if the weather conditions are appropriate for operations
- GS15.** decide if the crane/ MHE is in functional condition based on pre-operative checks
- GS16.** decide the power required to move cargo based on weight and size of cargo
- GS17.** decide the appropriate route for movement of cargo
- GS18.** adjust according to volume, capacity and manpower needs during peak and non-peak hours
- GS19.** clearly coordinate with ground staff for smooth operations
- GS20.** prioritize and execute tasks within the scheduled time limits
- GS21.** maintain schedules and punctuality
- GS22.** avoid absenteeism
- GS23.** be a team player and achieve joint goals
- GS24.** adhere to the timelines and ensure that they are met
- GS25.** handle the cargo/ containers with proper care so as to avoid damage or spillage while moving
- GS26.** handle difficult weather conditions by making appropriate adjustment for operations
- GS27.** resolve basic technical issues with the equipment through preventive and first-line maintenance
- GS28.** suggest methods to streamline pick and drop operations
- GS29.** assess the condition of crane and suggest for maintenance/ servicing if required
- GS30.** clearly follow instructions and coordinate with ground staff
- GS31.** take go-aheads/ green signals from ground staff before moving cargo using crane/ MHE
- GS32.** identify the area of operation and take necessary precautions

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Operate RMQ crane</i>	30	60	-	10
PC1. ensure the rail lines of the crane are clear from any obstruction	2	3	-	-
PC2. check elevating work platform for damages of defects as per SOP	2	3	-	-
PC3. check for clear visibility of quay, containers, vessel and ground movement	2	3	-	-
PC4. establish clear communication lines and inform the signalman regarding blind spots	2	3	-	-
PC5. select appropriate lifting gear/equipment including slings, ropes, shackles, eye bolts, and spreaders based on safety charts for safe working load (SWL)/working load limit (WLL), and assemble and check them for serviceability	2	3	-	-
PC6. ensure appropriate hazard prevention/control measures have been taken	2	3	-	-
PC7. start and operate the RMQ crane as per the defined SOP	2	3	-	1
PC8. move the crane to the desired location and identify the correct lifting/anchorage points	2	3	-	1
PC9. set spreader to the desired location, set the width as per requirement for picking one or multiple containers	2	3	-	1
PC10. confirm the spreader is locked before movement, lift the load and check it is appropriately rigged and secured	1	3	-	-
PC11. move the cargo as per plan and as per direction from signalman	1	4	-	1
PC12. monitor operations on screen controlling the speed of the quay and trolley	2	4	-	1

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. place the cargo/ container at the destination coordinates considering the speed and wind effect to avoid any damage	1	4	-	-
PC14. ensure slinging attachments are released from load without damage to personnel or workspace	1	3	-	-
PC15. take necessary precautions while handling hazardous goods	1	4	-	1
PC16. load the cargo as per the cargo stowage plan in coordination with signalman	2	3	-	1
PC17. conduct post operations check for the RMQ crane as per SOP	1	3	-	1
PC18. egress from elevated platform and shutdown platform as per SOP	1	3	-	1
PC19. record and report any damages, incidents, equipment failure, and other necessary information as per SOP	1	2	-	1
NOS Total	30	60	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3703
NOS Name	Operate Rail Mounted Quay (RMQ) crane
Sector	Logistics
Sub-Sector	Port Terminals, ICD and CFS
Occupation	Crane/Material Handling Equipment (MHE) operation
NSQF Level	4
Credits	2
Version	2.0
Last Reviewed Date	30/05/2024
Next Review Date	30/05/2027
NSQC Clearance Date	30/05/2024

Qualification Pack

LSC/N3704: Operate Grab Ship Unloader (GSU) crane

Description

This unit is about operating grab ship unloader (GSU) crane for loading/unloading/ movement of cargo.

Scope

The scope covers the following :

- Operate GSU crane

Elements and Performance Criteria

Operate GSU crane

To be competent, the user/individual on the job must be able to:

- PC1.** coordinate with ground staff to check if the drop zone and pickup zone is ready for operations, conveyors are functional, etc. and get a green signal for operations
- PC2.** check if the right type of bucket is attached to the GSU crane as per the cargo unloading plan
- PC3.** check for clear visibility of vessel, pickup and drop zones, grab bucket, vessel and ground movement, and inform signalman regarding blind spots
- PC4.** ensure appropriate hazard prevention/control measures have been taken
- PC5.** check elevating work platform for damages of defects as per SOP
- PC6.** start and operate the GSU crane as per the defined SOP
- PC7.** move the crane to the right spot for operations and anchor
- PC8.** move the grab to the vessel/ pickup zone to pick cargo using the grab as per instructions from the signal man
- PC9.** monitor operation on the screen and make adjustment for weather and wind conditions
- PC10.** control the swing of the hoist while grabbing and moving cargo
- PC11.** move and release the cargo once loaded to the unloading zone/ hopper and unload
- PC12.** take necessary precaution when handling hazardous goods
- PC13.** conduct post operations check for the GSU crane as per SOP
- PC14.** egress from elevated platform and shutdown platform as per SOP
- PC15.** record and report any damages, incidents, equipment failure, and other necessary information as per SOP

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of documentation used in organization and importance of the same
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** records to be maintained and implications of non-maintenance of the same

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- KU4.** knowledge of security procedures e.g. secure storage of inventory
- KU5.** rules and regulations of shop floor as per standard operating procedure (SOP)
- KU6.** risk and impact of not following safety procedures
- KU7.** escalation matrix for reporting identified problems
- KU8.** cost of equipment and loss for the company that results from damage of equipment
- KU9.** implications of delays in process to the company
- KU10.** controls and switches used to operate the GSU crane
- KU11.** basic technicalities associated with the Material Handling Equipment (MHE)
- KU12.** basics of hopper and conveyor operations
- KU13.** various signs and signals used for operations and emergencies at the port
- KU14.** SOPs for handling hazardous goods
- KU15.** response to emergencies e.g. fire
- KU16.** pre-operation checklist and post operation checklists
- KU17.** safety regulations while operating the GSU crane
- KU18.** optimal working condition at the port and various precautions to be taken because of weather
- KU19.** the control systems, greasing and other technical requirement for the GSU crane
- KU20.** various GSU crane components and their functions
- KU21.** how to test and safely carry out maintenance tasks on the crane/MHE
- KU22.** how to identify deviations from normal operations
- KU23.** basics of port and yard layouts
- KU24.** type of vessels and sops for cargo movement in each type

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** labels and codes as per company procedures
- GS2.** various signals and flags in port and vessel operations
- GS3.** handling instructions/company log books and records
- GS4.** SOPs and safety manuals and safety signs at the port
- GS5.** instructions and orders
- GS6.** cargo stowage plans
- GS7.** fill out checklists, maintenance logbooks detailing maintenance activities conducted
- GS8.** prepare detailed technical reports
- GS9.** note down condition of crane/MHE and any maintenance or repair that was carried out on a daily basis
- GS10.** fill out any complaint/ insurance related forms for damaged goods
- GS11.** communicate clearly with supervisors and ground staff
- GS12.** communicate over VHF and through hand and flag signals
- GS13.** provide advice and guidance to peers and juniors

Qualification Pack

- GS14.** decide if the weather conditions are appropriate for operations
- GS15.** decide if the crane/ MHE is in functional condition based on pre-operative checks
- GS16.** decide the power required to move cargo based on weight and size of cargo
- GS17.** decide the appropriate route for movement of cargo
- GS18.** adjust according to volume, capacity and manpower needs during peak and non-peak hours
- GS19.** clearly coordinate with ground staff for smooth operations
- GS20.** prioritize and execute tasks within the scheduled time limits
- GS21.** maintain schedules and punctuality
- GS22.** avoid absenteeism
- GS23.** be a team player and achieve joint goals
- GS24.** adhere to the timelines and ensure that they are met
- GS25.** handle the cargo/ containers with proper care so as to avoid damage or spillage while moving
- GS26.** handle difficult weather conditions by making appropriate adjustment for operations
- GS27.** suggest methods to streamline pick and drop operations
- GS28.** assess the condition of crane and suggest for maintenance/ servicing if required
- GS29.** assess the condition of crane and suggest for maintenance/ servicing if required
- GS30.** clearly follow instructions and coordinate with ground staff
- GS31.** take go-aheads/ green signals from ground staff before moving cargo using crane/ MHE
- GS32.** identify the area of operation and take necessary precautions

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Operate GSU crane</i>	30	60	-	10
PC1. coordinate with ground staff to check if the drop zone and pickup zone is ready for operations, conveyors are functional, etc. and get a green signal for operations	2	4	-	1
PC2. check if the right type of bucket is attached to the GSU crane as per the cargo unloading plan	2	4	-	-
PC3. check for clear visibility of vessel, pickup and drop zones, grab bucket, vessel and ground movement, and inform signalman regarding blind spots	2	4	-	-
PC4. ensure appropriate hazard prevention/control measures have been taken	2	4	-	1
PC5. check elevating work platform for damages of defects as per SOP	2	4	-	-
PC6. start and operate the GSU crane as per the defined SOP	2	4	-	1
PC7. move the crane to the right spot for operations and anchor	2	4	-	1
PC8. move the grab to the vessel/ pickup zone to pick cargo using the grab as per instructions from the signal man	2	4	-	-
PC9. monitor operation on the screen and make adjustment for weather and wind conditions	2	4	-	1
PC10. control the swing of the hoist while grabbing and moving cargo	2	4	-	1
PC11. move and release the cargo once loaded to the unloading zone/ hopper and unload	2	4	-	-
PC12. take necessary precaution when handling hazardous goods	2	4	-	1
PC13. conduct post operations check for the GSU crane as per SOP	2	4	-	1

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. egress from elevated platform and shutdown platform as per SOP	2	4	-	1
PC15. record and report any damages, incidents, equipment failure, and other necessary information as per SOP	2	4	-	1
NOS Total	30	60	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3704
NOS Name	Operate Grab Ship Unloader (GSU) crane
Sector	Logistics
Sub-Sector	Port Terminals, ICD and CFS
Occupation	Crane/Material Handling Equipment (MHE) operation
NSQF Level	4
Credits	2
Version	2.0
Last Reviewed Date	30/05/2024
Next Review Date	30/05/2027
NSQC Clearance Date	30/05/2024

Qualification Pack

LSC/N3705: Operate Rubber Tyre Gantry (RTG) crane

Description

This unit is about operating Rubber tyre gantry (RTG) cranes for loading/unloading/ movement of cargo/container.

Scope

The scope covers the following :

- Operate RTG crane

Elements and Performance Criteria

Operate RTG crane

To be competent, the user/individual on the job must be able to:

- PC1.** check elevating work platform for damages or defects as per SOP
- PC2.** check for clear visibility of quay, containers, vessel and ground movement
- PC3.** establish clear communication lines and inform the signalman regarding blind spots
- PC4.** check tyre pressure and if the engine and propelling components of RTG are working and braking properly as per SOP
- PC5.** select appropriate lifting gear/equipment including slings, ropes, shackles, eye bolts, and spreaders based on safety charts for safe working load (SWL)/working load limit (WLL), and assemble and check them for serviceability
- PC6.** ensure appropriate hazard prevention/control measures have been taken
- PC7.** start and operate the RTG crane as per the defined SOP
- PC8.** move the crane to the desired location and identify the correct lifting/anchorage points
- PC9.** set spreader to the desired location, set the width as per requirement for picking one or multiple containers
- PC10.** confirm the spreader is locked before movement, lift the load and check it is appropriately rigged and secured
- PC11.** move the RTG and cargo as per plan and as per direction from signalman
- PC12.** monitor operations on screen controlling the speed of the quay and trolley
- PC13.** place the cargo/ container at the destination coordinates considering the speed and wind effect to avoid any damage
- PC14.** ensure slinging attachments are released from load without damage to personnel or workspace
- PC15.** take necessary precautions while handling hazardous goods
- PC16.** load the cargo as per the cargo stowage plan in coordination with signalman
- PC17.** conduct post operations check for the RTG crane as per SOP
- PC18.** egress from elevated platform and shutdown platform as per SOP
- PC19.** record and report any damages, incidents, equipment failure, and other necessary information as per SOP

Qualification Pack

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of documentation used in organization and importance of the same
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** records to be maintained and implications of non-maintenance of the same
- KU4.** knowledge of security procedures e.g. secure storage of inventory
- KU5.** rules and regulations of shop floor as per standard operating procedure (SOP)
- KU6.** risk and impact of not following safety procedures
- KU7.** escalation matrix for reporting identified problems
- KU8.** cost of equipment and loss for the company that results from damage of equipment
- KU9.** implications of delays in process to the company
- KU10.** controls and switches used to operate the RTG crane
- KU11.** basic technicalities associated with the RTG crane
- KU12.** various signs and signals used for operations and emergencies at the port
- KU13.** SOPs for handling hazardous goods
- KU14.** response to emergencies e.g. fire
- KU15.** pre-operation checklist and post operation checklists
- KU16.** safety regulations while operating the RTG crane
- KU17.** optimal working condition at the port and various precautions to be taken because of weather
- KU18.** the control systems, greasing and other technical requirement for the RTG crane
- KU19.** various RTG crane components and their functions
- KU20.** how to test and safely carry out maintenance tasks on the crane/ material handling equipment (MHE)
- KU21.** how to identify deviations from normal operations
- KU22.** basics of port and yard layouts
- KU23.** type of vessels and sops for cargo movement in each type

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** labels and codes as per company procedures
- GS2.** various signals and flags in port and vessel operations
- GS3.** handling instructions/company log books and records
- GS4.** SOPs and safety manuals and safety signs at the port
- GS5.** instructions and orders
- GS6.** cargo stowage plans
- GS7.** fill out checklists, maintenance logbooks detailing maintenance activities conducted
- GS8.** prepare detailed technical reports

Qualification Pack

- GS9.** note down condition of crane/MHE and any maintenance or repair that was carried out on a daily basis
- GS10.** fill out any complaint/ insurance related forms for damaged goods
- GS11.** communicate clearly with supervisors and ground staff
- GS12.** Communicate over VHF and through hand and flag signals
- GS13.** provide advice and guidance to peers and juniors
- GS14.** decide if the weather conditions are appropriate for operations
- GS15.** decide if the crane/ MHE is in functional condition based on pre-operative checks
- GS16.** decide the power required to move cargo based on weight and size of cargo
- GS17.** decide the appropriate route for movement of cargo
- GS18.** adjust according to volume, capacity and manpower needs during peak and non-peak hours
- GS19.** clearly coordinate with ground staff for smooth operations
- GS20.** prioritize and execute tasks within the scheduled time limits
- GS21.** maintain schedules and punctuality
- GS22.** avoid absenteeism
- GS23.** be a team player and achieve joint goals
- GS24.** adhere to the timelines and ensure that they are met
- GS25.** handle the cargo/ containers with proper care so as to avoid damage or spillage while moving
- GS26.** handle difficult weather conditions by making appropriate adjustment for operations
- GS27.** suggest methods to streamline pick and drop operations
- GS28.** assess the condition of crane and suggest for maintenance/ servicing if required
- GS29.** assess the condition of crane and suggest for maintenance/ servicing if required
- GS30.** clearly follow instructions and coordinate with ground staff
- GS31.** take go-aheads/ green signals from ground staff before moving cargo using crane/ MHE
- GS32.** identify the area of operation and take necessary precautions

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Operate RTG crane</i>	30	60	-	10
PC1. check elevating work platform for damages of defects as per SOP	2	4	-	-
PC2. check for clear visibility of quay, containers, vessel and ground movement	2	4	-	-
PC3. establish clear communication lines and inform the signalman regarding blind spots	2	3	-	-
PC4. check tyre pressure and if the engine and propelling components of RTG are working and braking properly as per SOP	2	3	-	1
PC5. select appropriate lifting gear/equipment including slings, ropes, shackles, eye bolts, and spreaders based on safety charts for safe working load (SWL)/working load limit (WLL), and assemble and check them for serviceability	2	4	-	1
PC6. ensure appropriate hazard prevention/control measures have been taken	2	3	-	-
PC7. start and operate the RTG crane as per the defined SOP	2	3	-	1
PC8. move the crane to the desired location and identify the correct lifting/anchorage points	2	3	-	1
PC9. set spreader to the desired location, set the width as per requirement for picking one or multiple containers	2	3	-	1
PC10. confirm the spreader is locked before movement, lift the load and check it is appropriately rigged and secured	1	2	-	1
PC11. move the RTG and cargo as per plan and as per direction from signalman	1	4	-	-
PC12. monitor operations on screen controlling the speed of the quay and trolley	2	3	-	1

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. place the cargo/ container at the destination coordinates considering the speed and wind effect to avoid any damage	1	3	-	-
PC14. ensure slinging attachments are released from load without damage to personnel or workspace	1	3	-	-
PC15. take necessary precautions while handling hazardous goods	1	4	-	1
PC16. load the cargo as per the cargo stowage plan in coordination with signalman	2	4	-	1
PC17. conduct post operations check for the RTG crane as per SOP	1	2	-	-
PC18. egress from elevated platform and shutdown platform as per SOP	1	2	-	-
PC19. record and report any damages, incidents, equipment failure, and other necessary information as per SOP	1	3	-	1
NOS Total	30	60	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	LSC/N3705
NOS Name	Operate Rubber Tyre Gantry (RTG) crane
Sector	Logistics
Sub-Sector	Port Terminals, ICD and CFS
Occupation	Crane/Material Handling Equipment (MHE) operation
NSQF Level	4
Credits	2
Version	2.0
Last Reviewed Date	30/05/2024
Next Review Date	30/05/2027
NSQC Clearance Date	30/05/2024

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

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 part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion
5. To pass the Qualification Pack, every trainee should score a minimum of 70% for NSQF level 4 & above job roles and 50% for NSQF level 1 to 3 job roles
6. In case of unsuccessful completion, the trainee may seek re-assessment on the Qualification Pack

Minimum Aggregate Passing % at QP Level : 70

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(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Minimum Passing % at NOS Level: 50

(Please note: A Trainee must score the minimum percentage for each NOS separately as well as on the QP as a whole.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N3701.Perform cargo handling at ports	30	60	0	10	100	20
LSC/N3702.Perform preventive and first-line maintenance of MHE at ports	30	60	0	10	100	20
LSC/N3706.Operate Reach Stacker	30	60	0	10	100	20
LSC/N9904.Maintain integrity and ethics in operation	40	60	-	-	100	10
LSC/N9905.Follow health, safety and security procedures.	40	60	-	-	100	15
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	5
Total	190	330	-	30	550	90

Elective: 1 Rail Mounted Quay (RMQ) Crane

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N3703.Operate Rail Mounted Quay (RMQ) crane	30	60	0	10	100	10
Total	30	60	-	10	100	10

Qualification Pack

Elective: 2 Grab Ship Unloader (GSU) Crane

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N3704. Operate Grab Ship Unloader (GSU) crane	30	60	0	10	100	10
Total	30	60	-	10	100	10

Elective: 3 Rubber Tyre Gantry (RTG) Crane

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
LSC/N3705. Operate Rubber Tyre Gantry (RTG) crane	30	60	0	10	100	10
Total	30	60	-	10	100	10



Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Qualification Pack

Glossary

Sector	Sector is a conglomeration of different business operations having similar business 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.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (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 (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications 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.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.

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Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation 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 specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.