



• **SKID STEER LOADER**

Skid Steer Loader Operator

QP Code: IES/Q0126

NSQF Level: 4

Infrastructure Equipment Skill Council || Infrastructure Equipment Skill Council, Avik Royale-First Floor
(Next of Vijaya Bank), No.6, 50 feet Main Road, Avalahalli Extension, Girinagar
Bengaluru 560026

Qualification Pack

Contents

| | |
|---|----|
| IES/Q0126: Skid Steer Loader Operator | 3 |
| <i>Brief Job Description</i> | 3 |
| Applicable National Occupational Standards (NOS) | 3 |
| <i>Compulsory NOS</i> | 3 |
| <i>Qualification Pack (QP) Parameters</i> | 3 |
| IES/N0176: Carry out pre-operation checks on skid steer loader | 5 |
| IES/N0177: Operate a skid steer loader | 11 |
| IES/N0178: Carry out maintenance and troubleshooting of a skid steer loader | 17 |
| IES/N7601: Comply with worksite health and safety guidelines | 23 |
| Assessment Guidelines and Weightage | 28 |
| <i>Assessment Guidelines</i> | 28 |
| <i>Assessment Weightage</i> | 28 |
| Acronyms | 29 |
| Glossary | 30 |

Qualification Pack

IES/Q0126: Skid Steer Loader Operator

Brief Job Description

A skid steer loader operator drives and controls skid steer equipment. He uses the controls in the machine to dig, lift and dump construction materials above the base level of the machine. He is required to drive safely, regulate the speed and move the load from one place to another in compact places.

Personal Attributes

The job requires an individual to be physically agile, strong and have good eye sight. He should maintain constant alertness to the multiple concurrent activities at the construction site. He should have good hand, eye and leg coordination and should have flexibility to move the equipment on uneven surfaces.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [IES/N0176: Carry out pre-operation checks on skid steer loader](#)
2. [IES/N0177: Operate a skid steer loader](#)
3. [IES/N0178: Carry out maintenance and troubleshooting of a skid steer loader](#)
4. [IES/N7601: Comply with worksite health and safety guidelines](#)

Qualification Pack (QP) Parameters

| | |
|---|--|
| Sector | Infrastructure Equipment |
| Sub-Sector | Equipment Operations |
| Occupation | Operator |
| Country | India |
| NSQF Level | 4 |
| Aligned to NCO/ISCO/ISIC Code | NCO-2015/8342.2101 |
| Minimum Educational Qualification & Experience | 8th Class with 1-2 Years of experience in material handling equipment operations |
| Minimum Level of Education for Training in School | |
| Pre-Requisite License or Training | NA |

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| | |
|------------------------------|------------|
| Minimum Job Entry Age | 18 Years |
| Last Reviewed On | 20/12/2017 |
| Next Review Date | 26/12/2020 |
| NSQC Approval Date | 19/12/2018 |
| Version | 1.0 |

Qualification Pack

IES/N0176: Carry out pre-operation checks on skid steer loader

Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that need to be carried out to conduct pre-operational checks on skid steer loader and prepare for the shift.

Scope

This unit/task covers the following: Pre-operation checks Documentation and reporting

Elements and Performance Criteria

Pre Operation Checks

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

- PC1.** inspect the body components for cracks and bearing wear
- PC2.** check the inflation pressure of the tyres as per the prescribed norms/ the requirement of the ground
- PC3.** examine the machine for loose or missing nuts and bolts, loose guards, connectors and pivot pins
- PC4.** check conditions of parking brake, main horn, reverse horn, and head light
- PC5.** ensure footplates, grab irons, hand holds and steps are clean and free from mud, dirt and oil to reduce skidding risks
- PC6.** check electrical and hydraulic lines, hoses for damages and leaks
- PC7.** ensure oil levels of engine transmission, radiator coolant, battery electrolyte level are as per the required levels
- PC8.** drain water and sediment from the fuel tank if required
- PC9.** check that all protection and safety devices such as controls locking lever, loading arm locking pin and operator post rotation locking pin are in the right position as per the equipment manual
- PC10.** check the various controls, gauges, warning lamp, fan belt tension, terminal tightness and other safety devices
- PC11.** inspect pins and keepers of bucket for any damages and connections for leakages
- PC12.** check and if required, adjust the seat height, tilt and distance from pedals

Documentation and reporting

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

- PC13.** report defects precisely to the supervisor if beyond scope
- PC14.** maintain a checking/maintenance logbook to record all activities performed before starting the skid steer loader

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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- KU1.** the organization operations, maintenance and safety related guidelines
- KU2.** the operational standards & procedures followed in the company in timeframe in which the complaint/problem should be resolved
- KU3.** reporting structure of the company
- KU4.** location of specialized tools and the equipment
- KU5.** location and process for storage and disposal of waste material
- KU6.** overview of types of skid steer loaders and the general applications with respect to each equipment
- KU7.** technical specifications, features and performance of different types of skid steer loaders
- KU8.** components of skid steer loader and its functioning
- KU9.** attachments for skid steer loaders and their uses
- KU10.** basics of engine and sub systems; fuel, lubrication and cooling systems
- KU11.** basics of transmission, auto-electrical functioning and repairs
- KU12.** different types of hydraulic mechanisms, and principles of friction
- KU13.** steering mechanisms and correct way of steering on slopes
- KU14.** basics of electrical systems including control panel
- KU15.** controls, levers and switches in order to operate the skid steer loader
- KU16.** procedure of topping up fuel, lube oil and coolant in the machine
- KU17.** optimal working parameters- engine oil pressure, hydraulic oil pressure and temperatures
- KU18.** different types of machine guards for equipment
- KU19.** manufacturers specifications for tools and supplies

Generic Skills (GS)

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

- GS1.** record information/observations on activities/incidents as per the prescribed norms
- GS2.** read and comprehend basic signs, symbols, diagrams, charts and decals on the equipment & at work site
- GS3.** read and understand the applicable relevant aspects of the equipment operation & maintenance manuals
- GS4.** use correct technical terms/phrases while interacting with other coworkers & supervisor
- GS5.** explain/instruct other team members effectively in a clear and concise manner
- GS6.** listen attentively and understand the queries /comments raised by other team members
- GS7.** decide when to escalate and seek assistance if the problem is beyond scope
- GS8.** prioritize and schedule maintenance activity on equipment to support operational needs
- GS9.** plan and organise the work schedule in coordination with other team members & supervisor
- GS10.** execute the tasks efficiently within the time frame allotted and prescribed quality norms; with minimal supervision
- GS11.** ensure quality service is delivered as committed to achieve high levels of customer satisfaction
- GS12.** evaluate the possible solutions and initiate appropriate remedial measures and actions



Qualification Pack

- GS13.** apply common sense and reasoning skills to identify the cause of delays and difficulties in execution
- GS14.** apply knowledge and judgement acquired through experience and awareness to execute tasks efficiently

Qualification Pack

Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Pre Operation Checks</i> | 6 | 20 | - | - |
| PC1. inspect the body components for cracks and bearing wear | 0.5 | 1 | - | - |
| PC2. check the inflation pressure of the tyres as per the prescribed norms/ the requirement of the ground | 0.5 | 1 | - | - |
| PC3. examine the machine for loose or missing nuts and bolts, loose guards, connectors and pivot pins | 0.5 | 1 | - | - |
| PC4. check conditions of parking brake, main horn, reverse horn, and head light | 0.5 | 1 | - | - |
| PC5. ensure footplates, grab irons, hand holds and steps are clean and free from mud, dirt and oil to reduce skidding risks | 0.5 | 2 | - | - |
| PC6. check electrical and hydraulic lines, hoses for damages and leaks | 0.5 | 2 | - | - |
| PC7. ensure oil levels of engine transmission, radiator coolant, battery electrolyte level are as per the required levels | 0.5 | 2 | - | - |
| PC8. drain water and sediment from the fuel tank if required | 0.5 | 2 | - | - |
| PC9. check that all protection and safety devices such as controls locking lever, loading arm locking pin and operator post rotation locking pin are in the right position as per the equipment manual | 0.5 | 2 | - | - |
| PC10. check the various controls, gauges, warning lamp, fan belt tension, terminal tightness and other safety devices | 0.5 | 2 | - | - |
| PC11. inspect pins and keepers of bucket for any damages and connections for leakages | 0.5 | 2 | - | - |
| PC12. check and if required, adjust the seat height, tilt and distance from pedals | 0.5 | 2 | - | - |

Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Documentation and reporting</i> | 1 | 3 | - | - |
| PC13. report defects precisely to the supervisor if beyond scope | 0.5 | 2 | - | - |
| PC14. maintain a checking/maintenance logbook to record all activities performed before starting the skid steer loader | 0.5 | 1 | - | - |
| NOS Total | 7 | 23 | - | - |

Qualification Pack

National Occupational Standards (NOS) Parameters

| | |
|----------------------------|---|
| NOS Code | IES/N0176 |
| NOS Name | Carry out pre-operation checks on skid steer loader |
| Sector | Infrastructure Equipment |
| Sub-Sector | Equipment Operations |
| Occupation | Operator |
| NSQF Level | 4 |
| Credits | TBD |
| Version | 1.0 |
| Last Reviewed Date | 20/12/2017 |
| Next Review Date | 26/12/2020 |
| NSQC Clearance Date | 19/12/2018 |

Qualification Pack

IES/N0177: Operate a skid steer loader

Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are required for starting and drive the skid steer loader

Scope

This unit/task covers the following:

- Starting and driving the skid steer
- Loading and unloading
- Shut down procedures

Elements and Performance Criteria

Starting and driving the Skid steer loader

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

- PC1.** ensure the joystick controls are in neutral position before starting the skid steer loader
- PC2.** enter the cabin of the skid steer loader only with the engine off, lift arms down and attachments on the ground and by using steps and grab bars
- PC3.** wear seat belt and adjust seat position as per ones comfort and safety
- PC4.** lower the safety/restraining bar
- PC5.** start the engine using the starting key and test all controls- steering, forward reverse, raise and lower lift arms, etc.
- PC6.** start the machine by unlocking the controls using toggle switch near the instrument panel

Loading and unloading

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

- PC7.** steer the loader by moving the left and right arm controls together
- PC8.** check that skid steer loader load, operating speed and direction of machine are within limits
- PC9.** lift and lower the bucket through foot control and pedals as per the loading/unloading requirement
- PC10.** operate all the attachments in a skid steer loader as per the requirement and the operational manual
- PC11.** drive forward to engage and collect load
- PC12.** stop the machine just before you get to the pile of material, and lower the bucket to the ground with the front edge sitting level
- PC13.** drive forward, pushing the bucket into the load until the tyres spin, then press the left pedal down with heel while still attempting to drive forward
- PC14.** push the right pedal with heel to tilt the bucket back for driving, back up, and raise the bucket to a safe carrying height
- PC15.** drive to the spot, press the right pedal with toe to tilt the bucket down and dump the load
- PC16.** ensure completion of work within defined time

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PC17. determine and keep a safe distance from other objects vehicles

Shut down procedures

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

PC18. ensure that skid steer loader is always in a stationary position when parked with arms pulled and controls cut off

PC19. set the parking brake and controls to relieve hydraulic pressure

PC20. ensure the engine is turned off as per the manufacturers instructions

PC21. ensure the controls are locked and remove the ignition key

PC22. unbuckle the safety belt, raise the safety bar and exit as per the manufacturers instruction

PC23. ensure the tyres are in static position to avoid the vehicle moving forward or backward

PC24. report to the supervisor of any problems while operating the skid steer loader

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the organization operations, maintenance and safety related guidelines

KU2. the operational standards & procedures followed in the company in timeframe in which the complaint/problem should be resolved

KU3. reporting structure of the company

KU4. location of specialized tools and the equipment

KU5. location and process for storage and disposal of waste material

KU6. contact person/area in case of emergency

KU7. technical specifications, features and performance of different types of skid steer loaders

KU8. load chart reading and balancing of weight

KU9. radius requirements and set up requirements

KU10. factors that affect equipment stability, such as ground and supporting conditions

KU11. controls, levers and switches in order to operate the skid steer loader

KU12. actual and potential hazards, such as overhead utilities and guide wires, other equipment, personnel and vehicular traffic

KU13. safety controls and equipment such as automatic limit switches, overload limit devices and fire extinguishers

KU14. safety measures to be followed at the time of emergencies to avoid damage

KU15. roles of personnel on site, such as supervisor and others

Generic Skills (GS)

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

GS1. record information/observations on activities/incidents as per the prescribed norms

GS2. read and comprehend basic signs, symbols, diagrams, charts and decals on the equipment & at work site

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- GS3.** read and understand the applicable relevant aspects of the equipment operation & maintenance manuals
- GS4.** use correct technical terms/phrases while interacting with other coworkers & supervisor
- GS5.** explain/instruct other team members effectively in a clear and concise manner
- GS6.** listen attentively and understand the queries /comments raised by other team members
- GS7.** decide when to escalate and seek assistance if the problem is beyond scope
- GS8.** prioritize and schedule maintenance activity on equipment to support operational needs
- GS9.** plan and organise the work schedule in coordination with other team members & supervisor
- GS10.** execute the tasks efficiently within the time frame allotted and prescribed quality norms; with minimal supervision
- GS11.** ensure quality service is delivered as committed to achieve high levels of customer satisfaction
- GS12.** evaluate the possible solutions and initiate appropriate remedial measures and actions
- GS13.** apply common sense and reasoning skills to identify the cause of delays and difficulties in execution
- GS14.** apply knowledge and judgement acquired through experience and awareness to execute tasks efficiently

Qualification Pack

Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Starting and driving the Skid steer loader</i> | 3 | 6 | - | - |
| PC1. ensure the joystick controls are in neutral position before starting the skid steer loader | 0.5 | 1 | - | - |
| PC2. enter the cabin of the skid steer loader only with the engine off, lift arms down and attachments on the ground and by using steps and grab bars | 0.5 | 1 | - | - |
| PC3. wear seat belt and adjust seat position as per ones comfort and safety | 0.5 | 1 | - | - |
| PC4. lower the safety/restraining bar | 0.5 | 1 | - | - |
| PC5. start the engine using the starting key and test all controls- steering, forward reverse, raise and lower lift arms, etc. | 0.5 | 1 | - | - |
| PC6. start the machine by unlocking the controls using toggle switch near the instrument panel | 0.5 | 1 | - | - |
| <i>Loading and unloading</i> | 5.5 | 11 | - | - |
| PC7. steer the loader by moving the left and right arm controls together | 0.5 | 1 | - | - |
| PC8. check that skid steer loader load, operating speed and direction of machine are within limits | 0.5 | 1 | - | - |
| PC9. lift and lower the bucket through foot control and pedals as per the loading/unloading requirement | 0.5 | 1 | - | - |
| PC10. operate all the attachments in a skid steer loader as per the requirement and the operational manual | 0.5 | 1 | - | - |
| PC11. drive forward to engage and collect load | 0.5 | 1 | - | - |
| PC12. stop the machine just before you get to the pile of material, and lower the bucket to the ground with the front edge sitting level | 0.5 | 1 | - | - |

Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| PC13. drive forward, pushing the bucket into the load until the tyres spin, then press the left pedal down with heel while still attempting to drive forward | 0.5 | 1 | - | - |
| PC14. push the right pedal with heel to tilt the bucket back for driving, back up, and raise the bucket to a safe carrying height | 0.5 | 1 | - | - |
| PC15. drive to the spot, press the right pedal with toe to tilt the bucket down and dump the load | 0.5 | 1 | - | - |
| PC16. ensure completion of work within defined time | 0.5 | 1 | - | - |
| PC17. determine and keep a safe distance from other objects vehicles | 0.5 | 1 | - | - |
| <i>Shut down procedures</i> | 3.5 | 6 | - | - |
| PC18. ensure that skid steer loader is always in a stationary position when parked with arms pulled and controls cut off | 0.5 | 1 | - | - |
| PC19. set the parking brake and controls to relieve hydraulic pressure | 0.5 | 1 | - | - |
| PC20. ensure the engine is turned off as per the manufacturers instructions | 0.5 | 0.5 | - | - |
| PC21. ensure the controls are locked and remove the ignition key | 0.5 | 1 | - | - |
| PC22. unbuckle the safety belt, raise the safety bar and exit as per the manufacturers instruction | 0.5 | 1 | - | - |
| PC23. ensure the tyres are in static position to avoid the vehicle moving forward or backward | 0.5 | 1 | - | - |
| PC24. report to the supervisor of any problems while operating the skid steer loader | 0.5 | 0.5 | - | - |
| NOS Total | 12 | 23 | - | - |

Qualification Pack

National Occupational Standards (NOS) Parameters

| | |
|----------------------------|-----------------------------|
| NOS Code | IES/N0177 |
| NOS Name | Operate a skid steer loader |
| Sector | Infrastructure Equipment |
| Sub-Sector | Equipment Operations |
| Occupation | Operator |
| NSQF Level | 4 |
| Credits | TBD |
| Version | 1.0 |
| Last Reviewed Date | 20/12/2017 |
| Next Review Date | 26/12/2020 |
| NSQC Clearance Date | 19/12/2018 |

Qualification Pack

IES/N0178: Carry out maintenance and troubleshooting of a skid steer loader

Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are required for performing routine maintenance and troubleshooting on the skid steer loader

Scope

This unit/task covers the following:

- Preventive maintenance
- Basic diagnostics and troubleshooting
- Documentation and Reporting

Elements and Performance Criteria

Preventive maintenance

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

- PC1.** determine the right service schedule by tracking machine operating hours
- PC2.** check if all plates are attached into the vehicle
- PC3.** clean air filter dust bowls, footplates, pedals and steps free from mud, dirt, ice and snow at regular intervals and drain water and sediment/ fuel separators
- PC4.** check and maintain the tire rims, air pressure, wheel nuts and treads as per manufacturers indicators
- PC5.** replenish coolants, lubricants and fluids as per the running of the machine or as per the schedule
- PC6.** grease all greasing pins and pivot points regularly as per the usage of the machine
- PC7.** check battery levels and condition of the terminals and carry out minor adjustments if required
- PC8.** ensure all the tools are kept in the designated place after usage

Basic diagnostics and troubleshooting

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

- PC9.** ensure the main power is turned off from panel completely before carrying out maintenance work
- PC10.** ensure that bucket arm is lowered before any maintenance operations
- PC11.** ensure that no maintenance task on the engine is performed when running or still hot
- PC12.** ensure that appropriate tools are used while troubleshooting
- PC13.** diagnose the problem and identify appropriate repair procedures
- PC14.** report defects precisely to the supervisor if beyond scope of role
- PC15.** dispose waste as per the guidelines of the site/ organisation

Documentation and Reporting

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

Qualification Pack

- PC16.** follow reporting procedures as laid down by the employer
- PC17.** determine and keep a safe distance from other objects vehicles

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organization operations, maintenance and safety related guidelines
- KU2.** the operational standards & procedures followed in the company in timeframe in which the complaint/problem should be resolved
- KU3.** reporting structure of the company
- KU4.** location of specialized tools and the equipment
- KU5.** location and process for storage and disposal of waste material
- KU6.** maintenance schedule of the equipment
- KU7.** basics of engine and sub systems; fuel, lubrication and cooling systems
- KU8.** basics of transmission, auto-electrical functioning and repairs
- KU9.** different types of hydraulic mechanisms, and principles of friction
- KU10.** basics of electrical systems including control panel
- KU11.** control and switches needed to operate the skid steer loader appropriately
- KU12.** common defects and general causes of breakdown
- KU13.** spill kit procedures

Generic Skills (GS)

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

- GS1.** record information/observations on activities/incidents as per the prescribed norms
- GS2.** read and comprehend basic signs, symbols, diagrams, charts and decals on the equipment & at work site
- GS3.** read and understand the applicable relevant aspects of the equipment operation & maintenance manuals
- GS4.** use correct technical terms/phrases while interacting with other coworkers & supervisor
- GS5.** explain/instruct other team members effectively in a clear and concise manner
- GS6.** listen attentively and understand the queries /comments raised by other team members
- GS7.** decide when to escalate and seek assistance if the problem is beyond scope
- GS8.** prioritize and schedule maintenance activity on equipment to support operational needs
- GS9.** plan and organise the work schedule in coordination with other team members & supervisor
- GS10.** execute the tasks efficiently within the time frame allotted and prescribed quality norms; with minimal supervision
- GS11.** ensure quality service is delivered as committed to achieve high levels of customer satisfaction
- GS12.** evaluate the possible solutions and initiate appropriate remedial measures and actions



Qualification Pack

- GS13.** apply common sense and reasoning skills to identify the cause of delays and difficulties in execution
- GS14.** apply knowledge and judgement acquired through experience and awareness to execute tasks efficiently

Qualification Pack

Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Preventive maintenance</i> | 3 | 7 | - | - |
| PC1. determine the right service schedule by tracking machine operating hours | 0.5 | 1 | - | - |
| PC2. check if all plates are attached into the vehicle | 0.5 | 1 | - | - |
| PC3. clean air filter dust bowls, footplates, pedals and steps free from mud, dirt, ice and snow at regular intervals and drain water and sediment/ fuel separators | - | 1 | - | - |
| PC4. check and maintain the tire rims, air pressure, wheel nuts and treads as per manufacturers indicators | 0.5 | 1 | - | - |
| PC5. replenish coolants, lubricants and fluids as per the running of the machine or as per the schedule | 0.5 | 1 | - | - |
| PC6. grease all greasing pins and pivot points regularly as per the usage of the machine | - | 1 | - | - |
| PC7. check battery levels and condition of the terminals and carry out minor adjustments if required | 0.5 | 0.5 | - | - |
| PC8. ensure all the tools are kept in the designated place after usage | 0.5 | 0.5 | - | - |
| <i>Basic diagnostics and troubleshooting</i> | 3 | 5 | - | - |
| PC9. ensure the main power is turned off from panel completely before carrying out maintenance work | 0.5 | 0.5 | - | - |
| PC10. ensure that bucket arm is lowered before any maintenance operations | 0.5 | 0.5 | - | - |
| PC11. ensure that no maintenance task on the engine is performed when running or still hot | 0.5 | 0.5 | - | - |
| PC12. ensure that appropriate tools are used while troubleshooting | - | 1 | - | - |

Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| PC13. diagnose the problem and identify appropriate repair procedures | 0.5 | 1 | - | - |
| PC14. report defects precisely to the supervisor if beyond scope of role | 0.5 | 0.5 | - | - |
| PC15. dispose waste as per the guidelines of the site/ organisation | 0.5 | 1 | - | - |
| <i>Documentation and Reporting</i> | 1 | 1 | - | - |
| PC16. follow reporting procedures as laid down by the employer | 0.5 | 0.5 | - | - |
| PC17. determine and keep a safe distance from other objects vehicles | 0.5 | 0.5 | - | - |
| NOS Total | 7 | 13 | - | - |

Qualification Pack

National Occupational Standards (NOS) Parameters

| | |
|----------------------------|--|
| NOS Code | IES/N0178 |
| NOS Name | Carry out maintenance and troubleshooting of a skid steer loader |
| Sector | Infrastructure Equipment |
| Sub-Sector | Equipment Operations |
| Occupation | Operator |
| NSQF Level | 4 |
| Credits | TBD |
| Version | 1.0 |
| Last Reviewed Date | 20/12/2017 |
| Next Review Date | 26/12/2020 |
| NSQC Clearance Date | 19/12/2018 |

Qualification Pack

IES/N7601: Comply with worksite health and safety guidelines

Description

This unit is about adhering to health and safety requirements at the worksite during equipment operations.

Scope

This unit/task covers the following: Worksite health and safety

Elements and Performance Criteria

Worksite health and safety

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

- PC1.** comply with safety, health, security and environment related regulations/ guidelines at the work site
- PC2.** use personal protective equipment (ppe) and other safety gear such as seat belt, body protection, respiratory protection, eye protection, ear protection and hand protection
- PC3.** follow safety measures during operations to ensure that the health and safety of self or others (including members of the public) is not at risk
- PC4.** carry out operations as per the manufacturers and worksite related health and safety guidelines
- PC5.** handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines
- PC6.** follow safety regulations and procedures with regard to worksite hazards and risks
- PC7.** operate various grades of fire extinguishers, as applicable
- PC8.** support in administering basic first aid and report to concerned team members, as required, in case of an accident
- PC9.** respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** health, safety, environmental (hse) and security related policies/ guidelines of the organization and the worksite
- KU2.** the importance of complying with health, safety, environmental and security guidelines at the worksite and during operations
- KU3.** contact details of personnel responsible for health, safety and environment (hse) related matters
- KU4.** location of worksite storage, site team and safe assembly points
- KU5.** concerned personnel to reach out in case of emergencies and accidents/ incidents
- KU6.** reporting and documentation procedures for hse and security matters
- KU7.** manufacturers guidelines related to health and safety requirements

Qualification Pack

- KU8.** common types of health, safety, environment and security risks related to the worksite and operations
- KU9.** types, use and importance of personal protective equipment (ppe) and other safety gear
- KU10.** safe working practices to avoid common hazards and risks
- KU11.** guidelines for transport, storage and disposal of hazardous materials and waste
- KU12.** types of common hazards and risks at the worksite including fire, electrical, gas emergencies, accidents, incidents, structure collapse, machine breakdown
- KU13.** knowledge of safe lockdown/ stop of machinery use in case of emergencies and incidents/ accidents
- KU14.** types of fire extinguishers and their use
- KU15.** common injuries and appropriate basic first aid treatment eg. electrical shock, bleeding, wounds, fractures, minor burns, eye injuries

Generic Skills (GS)

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

- GS1.** document and report any health and safety related incidents/ accidents
- GS2.** read and comprehend basic english to read manuals of operations
- GS3.** read all organizational and equipment related health and safety manuals and documents
- GS4.** read instructions, guidelines/procedures/rules related to the worksite and equipment operations
- GS5.** give clear instructions to co-workers, subordinates and other personnel
- GS6.** use correct technical terms while interacting with supervisor
- GS7.** make an appropriate timely decision in responding to emergencies/accidents in line with organizational/ worksite guidelines
- GS8.** use correct ppe and other safety gear while at the worksite
- GS9.** work with supervisors/ team mates to carry out work related tasks
- GS10.** plan work according to the required schedule and location
- GS11.** build and maintain positive and effective relationships with colleagues and customers
- GS12.** seek appropriate assistance from other sources to resolve problems
- GS13.** assess the intensity of the fire accident and operate fire extinguishers
- GS14.** analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently
- GS15.** document and report any health and safety related incidents/ accidents
- GS16.** read and comprehend basic english to read manuals of operations
- GS17.** read all organizational and equipment related health and safety manuals and documents
- GS18.** read instructions, guidelines/procedures/rules related to the worksite and equipment operations
- GS19.** give clear instructions to co-workers, subordinates and other personnel
- GS20.** use correct technical terms while interacting with supervisor
- GS21.** make an appropriate timely decision in responding to emergencies/accidents in line with organizational/ worksite guidelines

Qualification Pack

- GS22.** use correct ppe and other safety gear while at the worksite
- GS23.** work with supervisors/ team mates to carry out work related tasks
- GS24.** plan work according to the required schedule and location
- GS25.** build and maintain positive and effective relationships with colleagues and customers
- GS26.** seek appropriate assistance from other sources to resolve problems
- GS27.** assess the intensity of the fire accident and operate fire extinguishers
- GS28.** analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

Qualification Pack

Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Worksite health and safety</i> | 6 | 24 | - | - |
| PC1. comply with safety, health, security and environment related regulations/ guidelines at the work site | - | 2 | - | - |
| PC2. use personal protective equipment (ppe) and other safety gear such as seat belt, body protection, respiratory protection, eye protection, ear protection and hand protection | 1 | 3 | - | - |
| PC3. follow safety measures during operations to ensure that the health and safety of self or others (including members of the public) is not at risk | 1 | 3 | - | - |
| PC4. carry out operations as per the manufacturers and worksite related health and safety guidelines | 1 | 2 | - | - |
| PC5. handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines | 1 | 3 | - | - |
| PC6. follow safety regulations and procedures with regard to worksite hazards and risks | 1 | 2 | - | - |
| PC7. operate various grades of fire extinguishers, as applicable | - | 3 | - | - |
| PC8. support in administering basic first aid and report to concerned team members, as required, in case of an accident | 1 | 3 | - | - |
| PC9. respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility | - | 3 | - | - |
| NOS Total | 6 | 24 | - | - |

Qualification Pack

National Occupational Standards (NOS) Parameters

| | |
|----------------------------|---|
| NOS Code | IES/N7601 |
| NOS Name | Comply with worksite health and safety guidelines |
| Sector | Infrastructure Equipment |
| Sub-Sector | Equipment Operations |
| Occupation | Operator |
| NSQF Level | 4 |
| Credits | TBD |
| Version | 1.0 |
| Last Reviewed Date | 31/03/2015 |
| Next Review Date | 31/03/2017 |
| NSQC Clearance Date | 18/06/2015 |

Qualification Pack

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) (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 these criteria.
5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

Recommended Pass % : 70

Assessment Weightage

Compulsory NOS

| National Occupational Standards | Theory Marks | Practical Marks | Project Marks | Viva Marks | Total Marks | Weightage |
|--|--------------|-----------------|---------------|------------|-------------|------------|
| IES/N0176.Carry out pre-operation checks on skid steer loader | 7 | 23 | - | - | 30 | 26 |
| IES/N0177.Operate a skid steer loader | 12 | 23 | - | - | 35 | 31 |
| IES/N0178.Carry out maintenance and troubleshooting of a skid steer loader | 7 | 13 | - | - | 20 | 17 |
| IES/N7601.Comply with worksite health and safety guidelines | 6 | 24 | - | - | 30 | 26 |
| Total | 32 | 83 | - | - | 115 | 100 |

Acronyms

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

Qualification Pack

Glossary

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| 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. |

Qualification Pack

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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. |