

# Training Standard

Skid Steer Loader (novice)

## Learning outcomes

Including additional guidance to support training delivery and final assessment

*The learner will be able to:*

explain the factors that help maintain a safe working environment in the construction industry, and their responsibilities as a skid steer loader operator

*Delivery to include:*

- why the industry has many hazards and why safe working practices must be adopted and maintained
- why personal health and safety is not just physical injury and can include the effects of noise and vibration. All of which can lead to lost time, lost income, expense for the employer, fines, custodial sentences etc.
- Health & Safety at Work Act 1974, Provision and Use of Work Equipment Regulations (PUWER), Management of Health and Safety of Work (MHSW) Regulations, Construction (Design & Management) Regulations (CDM), Vibration at Work Regulations, Road Traffic Act, HSG144, LOLER, HSG47, GS6 etc. in accordance with risk assessments, method statements, codes of practice and other relevant legislation, regulations, and industry good practice
- operators' duty of care to others, legal obligations, and environmental obligations
- reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
- previous incidences involving relevant plant and pedestrians
- working with other related roles e.g., marshalls, banksmen, supervisors, other plant operatives, other occupations, and support workers
- awareness of the limits to their personal knowledge, skills, and experience and when situations exceed these limits the need to stop and seek further advice from supervisors
- understand the risks of "lone working" on plant and machinery

*Assessment criteria:*

- identify common hazards on a construction site
- explain safe working practices relevant to the role of the skid steer loader operator
- explain personal health and safety relevant to the role of the skid steer loader operator
- identify aspects of legislation, regulations, and industry good practice relevant to the role of the skid steer loader operator
- describe reporting structures and the importance of good communication on site
- explain the responsibilities of a skid steer loader operator
- explain practical control measures for those lone working on plant and machinery

identify and extract information from the manufacturers' handbook/operator's manual, and other information sources including digital

*Delivery to include:*

- use of the operator's manual (for the specific machine) during the practical elements of training to identify key preparation, operational and safety aspects of the machine

# Training Standard

- types of information sources including machine control systems

*Assessment criteria:*

- identify and extract key elements for the preparation and safe use of the machine using various sources

locate and identify the major components, signs and decals and all controls of the skid steer loader and explain their functions

*Delivery to include:*

- the purpose of principal components, the basic construction, controls, and terminology including hydraulic systems (pump, lines, valves, and couplers) which power lift arms and attachments
- how correct and sympathetic use of the controls can ensure efficiency and safety of the machine and help prolong machine life by reducing wear and tear
- purposes of Roll Over Protection Systems (ROPS) and Falling Objects Protection Systems (FOPS) and other protection systems
- machine control systems – efficiencies, Global Positioning System (GPS)

*Assessment criteria:*

- identify and explain the function of all controls and warning systems
- explain why the correct and sympathetic use of controls aids efficiency, longevity, and safety
- state the purposes of ROPS and FOPS and other protection systems
- locate and identify the major components, signs, decals, and controls of the machine
- outline the purpose, types and function of machine control systems and electronic aids

conduct all pre-operational checks in accordance with manufacturers and legislative requirements

*Delivery to include:*

- complete all pre-start and running checks at the start of each shift and at each change of operator, before any activity takes place, including visual checks for damage, functionality, and effectiveness
- checking all componentry systems are fully functional, including mechanical, hydraulic, pneumatic, electrical, and electronic systems
- replenish fuels, fluids, and lubricants, and undertake grease-based lubrication activities
- manufacturer periodic checks and operator level maintenance requirements
- defect reporting requirements
- carry out routine adjustments within the operator's remit
- check condition of tyres or tracks (where fitted), including damage, wear, security, and correct pressures or tension in accordance with manufacturer guidance
- ensure tyre inflation/deflation activities (where required) are completed using safe systems of work, from a safe position, with unauthorised personnel excluded from the work area
- check quick couplers and attachment locking systems (where fitted) for condition, security, and correct operation
- check hydraulic hoses/lines/couplings for leaks, abrasion, and security

# Training Standard

- safety systems functions including emergency stop (where fitted), operator restraint system/seat belt interlocks (where fitted), and warning systems
- health and safety requirements when undertaking basic maintenance activities including appropriate PPE
- check condition and function of seatbelt and any other restraining equipment
- check condition and function of any lighting and warning systems
- requirements for dealing with fluid spills including prevention and clean-up methods
- 

## Assessment criteria:

- conduct all pre-operational checks as above in accordance with manufacturer guidance and legislative requirements (note: verbal description to the instructor of specific pre-start checks will be acceptable if the machine is hot where they cannot be done safely e.g. engine fluids) – this should be observed during practical assessment
- explain safe systems of work for checking and maintaining tyres or tracks (where applicable) in accordance with the operator's manual and site controls
- explain the procedure for defect reporting and why it's important
- identify common defects or damage that would render the machine or attachment unsafe to use and the action to take
- explain how couplers/attachment locking systems and hydraulic connections should be checked prior to use and why this is important
- explain spill prevention and reporting requirements and the action to take in the event of a spill

identify and maintain personal protective equipment (PPE) and appropriate safety control equipment for skid steer loader use

## *Delivery to include:*

- what safety control equipment/PPE should be worn/used for machine operations and include the following: suitable safety footwear, ear defenders, face/eye protection, dust mask, suitable gloves, overalls, hard hat, respiratory protective equipment (RPE), protective clothing etc.
- method of seat adjustment and safety belt restraint
- appropriate use of Local Exhaust Ventilation (LEV), i.e., in confined spaces
- why weather conditions, including heat and cold, can determine what PPE is worn when using specific machine and the personal effects of incorrect equipment

## *Assessment criteria:*

- describe what forms of PPE and RPE must be worn for site operations
- explain why seat belt must be worn when operating the skid steer loader and give example of risk assessed scenario where seat belt use might not be authorised in exceptional site circumstances
- explain why PPE and RPE must be worn for site operations
- give an example of when use of LEV would be appropriate
- state how severe weather can affect safety and health with insufficient equipment

# Training Standard

safe access and egress for the skid steer loader

*Delivery to include:*

- working at height requirements
- all failsafe procedures for access and egress in accordance with manufacturer's instructions
- safe use of all hand holds and steps and awareness of correct methods of getting access and egress
- effects of bad weather and potential hazards when accessing and egressing the machine
- facing the machine when accessing and egressing the skid steer loader cab for operational and maintenance purposes
- effects of continually getting in to and out of the skid steer loader for example, fatigue, increased risk of falling and other related risks
- safe areas to get into and out of the skid steer loader for example, ground location, other vehicle movements and other related hazards
- procedures for accessing the skid steer loader when carrying out adjustment and maintenance activities
- procedures for emergency exit

*Assessment criteria:*

- explain the effects of not using correct procedures to get in and out of the skid steer loader cab including when carrying out adjustment and maintenance activities
- explain safety failsafe's as per manufacturer's instructions
- demonstrate the correct procedures as listed above – *this should be observed during practical activities*
- explain the areas for safely getting in and out the skid steer loader cab and how they can save injury downtime and operational time
- explain the procedures for emergency exit

Prepare and configure the skid steer loader for site travel

*Delivery to include:*

- use of seatbelts and other operator restraint systems
- adjustment of seating position, mirrors, and control ergonomics
- establish being able to look 180 over both shoulders
- safety-critical checks including tyre or track condition, fluid levels, and hydraulic connections
- isolation controls and emergency stop systems
- starting and stopping procedures, including cold start protocols and turbocharger considerations (if applicable)
- procedural requirements for exhaust particulate filter regeneration (where fitted).
- types of visibility aids and what factors can affect visibility
- importance of effective vision, especially in confined areas and during reversing
- ensuring all warning and safety systems are functional
- legislative requirements for being on a public highway

# Training Standard

- configuration of the skid steer loader for site travel, including attachment positioning and travel mode
- prohibition of carrying passengers or non-authorised personnel
- use of steering, braking, transmission controls, and speed settings
- use of steering modes

## Assessment Criteria:

- explain why the use of seatbelts and other restraining equipment should be worn at all times subject to risk assessment
- explain the safety features that indicate that the seat belt is not being worn by the operator
- describe the types and function of isolation systems
- explain the importance of carrying out chassis-based checks
- explain the impact of not following starting and stopping procedures of turbocharged engines
- describe the reasons for exhaust particulate filter cleansing activities
- describe types of visibility aids and what factors can affect effective vision
- explain where and why effective vision is extremely important, particularly when reversing
- give examples of where poor visibility can arise and the issues this can cause
- explain why the warning, and other safety systems, are important
- outline the legal requirements for being on the public highway
- state the function of selectable steering modes and when they should be used
- ensure the seatbelt is worn correctly prior to any machine movement – *this should be observed during practical assessment*
- identify and confirm that functional checks for all warning and safety systems have been carried out – *this should be observed during practical assessment*
- ensure that vision systems are in place, clear and functional – *this should be observed during practical assessment*
- conduct all-round visibility checks before moving away – *this should be observed during practical assessment*

travel and manoeuvre the skid steer loader safely across varying terrain and inclines

## Delivery to include:

- how travel speeds affect skid steer loader stability, safety, and fuel/emission efficiency
- issues that can occur when departing from designated travel routes or restricted zones
- setting up with hand throttles (if applicable)
- types of underground services and risks associated with travelling near or over them
- effects of travelling close to edges, embankments, structures, and trenches
- travelling over various terrain types with correct positioning of the attachment (e.g., bucket) during movement
- machine configuration when travelling up, down, across inclines and slopes
- how certain types of surfaces can affect steering and traction, particularly on inclines
- how uncompacted surfaces and inclines affect machine stability

# Training Standard

- precautions when working on stockpiled materials
- effects due to changes of centre of gravity when on inclines
- direction of travel
- precautions and obstructions on travel routes including overhead utilities
- regulative requirements for travelling near to or under overhead power lines
- understand the definition of balance point and its importance in maintaining stability

## Assessment Criteria:

- explain how uncompacted surfaces affect skid steer loader stability
- describe what a stockpile is and why precautions should be taken when travelling and working on them
- explain how to set up with hand throttles (if applicable)
- explain how and when the centre of gravity alters on a machine and the effects on its stability (lateral and longitudinal)
- describe how certain types of surfaces can affect steering and traction, particularly on inclines
- state how travel speeds affect skid steer loader stability, safety, and emissions
- describe issues which can occur if departing from designated travel routes and work areas/restricted zones
- describe types of underground services and the effects of travelling near to/over services
- explain the effects of travelling close to edges, embankments, structures, and trenches
- demonstrate safe travel over rough, undulating ground, inclines, batters, and level surfaces – *this should be observed during practical assessment*
- demonstrate safe travel speeds in accordance with terrain– *this should be observed during practical assessment*
- face the direction of travel – *this should be observed during practical assessment*
- travel up and down an incline – *this should be observed during practical assessment*
- travel through a chicane which requires left- and right-hand turns in both *forwards and reverse* – *this should be observed during practical assessment*
- travel over rough, undulating ground, inclines, level surfaces with correct positioning of the bucket whilst traveling – *this should be observed during practical assessment*
- maintain full visibility and look at or face direction of travel – *this should be observed during practical assessment*
- avoiding contact with structures and objects - *this should be observed during practical assessment*

## Assessment Requirements:

- when travelling through the chicane and restriction, there must be minimal clearance to ensure accuracy of steering

travel and manoeuvre in areas of restricted space

## Delivery to include:

- precautions to be taken when manoeuvring in areas of restricted space

# Training Standard

- requirements when working alongside highways, railways, and public areas
- checking machine size including height, width and working radius relevant to working area
- lighting requirements and issues that may occur due to poor light

## Assessment criteria:

- describe typical proximity hazards when in enclosed/restricted areas
- explain the factors to consider before entering areas of restricted space
- explain the factors to consider when setting up to work next to highways, footpaths, areas of public movement, railways
- describe how poor lighting can affect overall safety

conduct all necessary safety checks at the work area

## Delivery to include:

- safety checks that must be carried out to ensure the excavation area is clear of hazards
- communication and relationship requirements and methods with other machine operators and support workers
- requirements for sufficient manoeuvring area for manoeuvring between work areas
- ground conditions for excavating and maintaining stability
- overhead obstructions and nearby proximity hazards
- awareness of other machines and workers
- restricted, segregation and exclusion zoning requirements
- people/plant interface, procedures, and dangers of allowing others near to a working machine
- danger zones of a working skid steer loader
- working in hours of darkness and lighting requirements

## Assessment criteria:

- explain the need for restricted, exclusion and segregation zones and how they are determined
- describe the safety checks that must be carried out to ensure the excavation/levelling area is clear of hazards
- describe the types of ground conditions including seasonal that can affect safe operations
- describe the methods of preventing contact with overhead lines
- describe the need for having sufficient manoeuvring space within the work area
- explain the importance of being aware of other machines, vehicles, and workers
- explain the procedures and dangers of allowing others near to a working machine
- identify the danger zones around the working machine for others
- ensure ground conditions and batters are suitable for excavating and maintaining stability – *this should be observed during practical assessment*
- identify any overhead obstructions and nearby proximity hazards – *this should be observed during practical assessment*
- ensure the integrity of restricted zones – *this should be observed during practical assessment*

# Training Standard

- explain procedures for working in hours of darkness and lighting requirements
- identify and use designated excavation area entry and exit locations – *this should be observed during practical assessment*
- ensure loading areas are clear of hazards – *this should be observed during practical assessment*
- establish communication methods with supporting workers – *this should be observed during practical assessment*

configure and set-up for loading duties

Delivery to Include:

- prepare and configure the skid steer loader for safe and efficient loading operations
- select and fit the appropriate bucket or attachment for the loading task
- position the machine and assess the task area for safety, visibility, and operational suitability
- understand how to interpret loading instructions from various sources
- apply correct loading sequences and maintain control throughout the cycle
- operate on temporary or raised platforms in accordance with safety requirements
- identify correct material placement areas and maintain segregation of materials
- required machine configuration for the specific loading task
- efficient and safe loading cycles, including approach, fill, lift, and dump techniques
- methods of interpreting and relaying loading specifications
- use of visual reference points to guide accurate loading
- temporary works requirements when operating on raised or non-permanent platforms
- identification of appropriate and inappropriate spoil placement areas
- importance of maintaining segregation of different material types (if required)
- correct positioning of the skid steer loader and vehicles for safe and efficient loading
- disengagement of ride control or smooth-ride systems (if fitted) during loading operations
- selection of the appropriate bucket or attachment mode to meet the task requirements
- use of automatic bucket levelling systems (if fitted) to support consistent loading

Assessment Criteria:

- explain how to determine the working range of the skid steer loader for a given task
- explain the safe and efficient sequence of operations to maximise productivity
- describe communication methods used to convey loading instructions (e.g., hand signals, radios, site briefings)
- outline regulatory and safety requirements for working on temporary or raised platforms
- explain why materials are segregated and how stockpiles are organised
- position and set up the skid steer loader for a specified loading task – *this should be observed during practical assessment*
- describe how automatic bucket levelling (if fitted) supports consistent and efficient loading
- select and use the appropriate bucket or attachment – *this should be observed during practical assessment*

# Training Standard

- demonstrate correct loading cycle techniques – *this should be observed during practical assessment*
- load into designated areas without cross-contaminating materials – *this should be observed during practical assessment*

explain actions required for hazards, underground and overhead services

*Delivery to include:*

- regulatory requirements for working near to or under overhead services
- types of services, including buried and surface laid, and the various methods on how they are identified
- emergency and reporting procedures if contact is made with services
- minimum clearances when near to services
- permit to break ground requirements

*Assessment criteria:*

- explain regulative distances that machines should be kept from different types of overhead services
- describe the types of services that may be encountered on site
- explain the emergency and evacuation procedures if contact is made with services on site
- state the minimum distances to be kept from buried and surface laid services
- explain methods and hierarchy of establishing buried services within the work area
- explain how and why contact to services must be reported
- explain why permits to break ground are required, who issues them and on what basis

extract and manage materials from stockpiles safely and efficiently

*Delivery to include:*

- typical types of material extraction performed with a skid steer loader
- correct bucket loading techniques to avoid spillage, maintain balance, and prevent overloading
- struck vs heaped capacity and why this matters to stability and productivity
- how material type and stockpile condition (granular/cohesive, wet/dry, compacted/uncompacted) influences extraction methods
- causes, indicators, and prevention of stockpile instability (including unsafe undercutting and shear face collapse)
- safe face extraction methods and approach angles
- methods to minimise spillage during extraction and travel
- segregation of materials, including contamination control and drainage requirements
- best practices for maintaining a clean, stable, well-drained stockpile area
- techniques for constructing temporary upward ramps using extracted material, including gradient, stability checks, and safe travel method

*Assessment criteria:*

- describe common types and purposes of construction-related material extraction

# Training Standard

- explain struck and heaped bucket capacities and why overloading should be avoided
- explain how extraction methods vary depending on material type and stockpile condition
- explain how extraction/loading specifications are communicated to the operator
- explain the importance of material segregation and how contaminated materials are controlled
- demonstrate extraction of a load from a stockpile using correct technique – observed during practical assessment
- form a stockpile of segregated materials – observed during practical assessment
- construct a temporary upward ramp using extracted material – observed during practical assessment
- explain how to maintain a safe stockpile area, including drainage and surface levelling

## Assessment requirements

- the temporary upward ramp must have a minimum vertical height of 1 metre and be constructed to a safe and stable gradient appropriate to the machine, material type, and manufacturer guidance

sort, place, and distribute materials into transporting vehicles and hoppers

## Delivery to Include:

- safe and efficient methods for loading materials into transporting vehicles and hoppers
- correct positioning of skid steer loader and vehicles for loading
- communication methods during loading operations
- loading sequences to ensure even distribution and prevent overloading
- safe backfilling techniques, including compaction and void prevention
- spreading and levelling methods for ground preparation and material distribution
- maintaining bucket position during travel for stability and visibility

## Assessment Criteria:

- explain correct loading sequences and positioning for different vehicle types
- describe risks associated with overloading and poor ground conditions
- explain safe backfilling and levelling techniques
- load material into a transporting vehicle to capacity – *this should be observed during practical assessment*
- spread and level material to specified tolerances – *this should be observed during practical assessment*

explain environmental considerations of machine use

## Delivery to include:

- health and social reasons to reduce machine emissions
- shutting down engine procedures
- what 'tailpipe' emissions are caused by CI Compression Ignition (diesel) engines

# Training Standard

- impacts of idling engine
- air quality and the component gases of air
- how engine emissions, including particulate matter, affect air quality and the effects on human and environmental wellbeing
- measures to reduce emissions during operations including alternative/low emission fuels, fuel treatments and particulate filtration systems
- efficient use of the machine and when and how minimising engine use can aid air quality and fuel savings
- eco-friendly oils, fluids, and lubricants
- fuel-saving techniques for specific item of plant
- appropriate disposal of waste
- spillage procedures

## *Assessment criteria:*

- explain the health and social reasons for reducing machine emissions
- discuss government industry zero emission initiatives
- demonstrate importance of shutdown procedures when equipment not in use
- list two or more effects on human and environmental wellbeing as a result of engine emissions
- identify the risks of excessive idling, including effects on engine performance, fuel efficiency and emissions
- explain appropriate disposal of waste
- explain spillage procedures
- describe the need to keep engine speed and load to a minimum whilst maintaining working efficiency

explain loading/unloading procedures for machine transportation

## *Delivery to include:*

- procedures for preparing the machine for loading onto a transporter
- traction and surface preparation requirements
- understand types of anchorage points on transporter
- understanding of agreed methods of communication between the plant operator and others
- working at height requirements when driving onto or off a transporter bed
- ramp angle and ramp type and understand how weather conditions can affect the loading and unloading procedures

## *Assessment criteria:*

- describe the preparation required of both machine and transporter for loading and unloading of the machine
- explain the precautions to be taken when driving the machine onto and off the transporter bed
- explain the configuration of machine and load restraint for method/s lashings/chains

# Training Standard

- state the methods of communication between the plant operator and others
- describe the dangers of and requirements for working at height when on the vehicle bed

carry out all end of work and shut down procedures

*Delivery to include:*

- types of safe locations, areas, and ground/terrain types where a skid steer loader and attachments may be parked and should not be parked
- reasons for ensuring safe parking and unintentional movement and ground support requirements
- carrying out parking, shut down and isolation requirements according to manufacturer's instructions and observance of need to run engine on low idle when turbo charger fitted
- reasons for machine isolation including security and non-authorized use by others
- use of anti-vandalism equipment
- reasons the isolator is not disconnected until ad blue purge is complete

*Assessment criteria:*

- demonstrate and explain safe parking of the machine - machine is parked in a safe, designated location, clear of hazards on level, firm ground - *this should be observed during practical assessment*
- apply brake systems effectively
- demonstrate how to isolate and secure the skid steer loader to prevent unauthorised use and explain why this is important - *this should be observed during practical assessment*
- demonstrate engine shutdown when turbo charger fitted as per manufacturers guidance
- describe the use of anti-vandalism equipment
- ensuring the isolator is not disconnected until ad blue purge is complete