Training Standard

Telescopic handler – suspended loads Non-Rough Terrain (Novice)

Learning outcomes

Including additional guidance to support training delivery and final assessment

The delegate will be able to:

prepare the telescopic handler for movement

Delivery to include:

- revision on machine preparation activities including use of seat belts, full pre-start and running checks and ensuring all visibility aids are adjusted for maximum visibility

Assessment criteria:

- demonstrate that the seatbelt is worn correctly, and seating position and mirrors are adjusted correctly prior to any machine movement - *this should be observed during practical assessment*
- check all applicable warning lamps, safety and stability systems and visions 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*
- describe why effective vision is extremely important
- give an example of how and where issues can arise when vision is limited during operation
- conduct all chassis and loader component functional checks
- describe function and information of inclinometer, chassis tilt mechanism, rated capacity indicator (RCI) / longitudinal load moment indicator (LLMI) / load moment indicator (LMI) / load moment control (LMC) / limiters and so forth.
- wear the correct PPE - *this should be observed during practical assessment*
- describe the requirements and limitations for travelling on the public highway
- explain how tyre condition, pressures, sizes, ratings and repairs and so forth can affect machine stability and safety

fit, adjust, and remove suspended load attachments

Delivery to include:

- authorised attachment and non-authorised types
- function, use and precautions
- attachment and removal procedures
- machine configuration and positioning
- securing requirements and essential pre-use checks

Assessment criteria:

- explain why only manufacturer's approved suspended load attachments can be used
- describe the function, use and precautions of using suspended load attachments
- explain securing requirements and essential pre-use checks
- attach and detach an approved suspended load attachment to and from the machine following required procedures – *this should be observed during practical assessment*

- configure and position the machine for attaching/detaching activities – *this should be observed during practical assessment* secure the attachment and carry out all pre-use checks – *this should be observed during practical assessment*

manoeuvre, prepare and configure the machine to pick up a range of suspended loads

Delivery to include:

- authorisation/approval by the manufacturer and the appointed lift planner for travelling with suspended loads
- rated capacity of the machine for travelling with suspended loads in various configurations to include derating requirements
- the importance of maintaining good visibility
- the correct use of all loader hydraulic controls including boom raise/lower, extension and carriage tilt
- correct machine configuration for different types of suspended loads
- why all lifts must be planned, supervised, and carried out safely
- load charts, load centres/centres of gravity, lifting capacities relevant to reach and height
- use of stabilisers and levelling systems for the lifting and placing of suspended loads
- ensuring ground conditions can support the machine and load weight
- determining the total weight to be lifted for the height and reach using manufacturers data
- methods of establishing weight of various types of loads
- factors that can impact the lateral and longitudinal stability including with raised boom, overloading, ground, and levelling requirements
- prior confirmation on where each suspended load needs to be transported to and where to be placed
- effects and changes on stability when deploying and not deploying stabilisers
- authorised lifting points/accessories to attach suspended loads to machine
- ensuring the load size does not foul the machine when being lifted
- communication requirements and protocol with load handler
- rated capacity plate/s load charts specific to handling of suspended loads
- types of lifting accessories including suitable and non-suitable types for telehandler operations
- types of lifting accessories relevant to telehandler suspended load operations
- use of recognition sensors for load capacities the selection of approved lifting attachments and associated load charts to manufactures specification

Assessment criteria:

- explain why all lifts should be planned, by whom and factors to be taken into account when lifts using telescopic handlers are being planned
- explain why manufacturer's approval is required for the moving of suspended loads
- explain the type and level of information that would be contained within the manufacturer's issued load/lift capacity chart

• explain why all lifts must be supervised and carried out safely • explain the roles involved in lifting operations • explain what the legal requirement for rating plates and what information is should be displayed • demonstrate the correct use and application of steering, transmission, and braking controls – *this should be observed during practical assessment* • explain the importance of maintaining good visibility • demonstrate the correct machine configuration for different suspended load types – *this should be observed during practical assessment* • state the need for a lift plan and what typical information is contained within the plan • state the use of load charts and what information they provide • explain the need to know the load centre and the centre of gravity of a load and the effect on safe lifting capacities • demonstrate correct use of stabilisers and levelling systems (if fitted) – *this should be observed during practical assessment* • explain how recognition sensors can automatically reduce load capacities to the working limit of attachments • explain methods of establishing weight of loads • explain how load sizes can foul the machine when being lifted • explain the factors that can impact the lateral and longitudinal stability • explain methods of communication, radio protocol, hand signals and so forth. • state the different types of relevant lifting accessories applicable to telehandler suspended load activities • travel to various locations for lifting of pre-set loads – *this should be observed during practical assessment* • demonstrate how to configure, set, and prepare the machine (including fork spacing) to lift a suspended load - *this should be observed during practical assessment* • demonstrate that all around visibility is maintained during manoeuvring activities – *this should be observed during practical assessment* • check that ground conditions can support the machine's total weight for the working height and reach – *this should be observed during practical assessment* • establish the weight of load against rated capacity charts for intended height and reach – *this should be observed during practical assessment*
lift, transfer and place suspended loads accurately and safely *Delivery to include*: • keeping within designated travel routes • dangers of travelling with suspended loads including slinger/signaller/load handler positioning • maintaining full observation • executing full turns to the left and right carrying a suspended load • lateral stability issues when cornering with a suspended load • why suspended load should not be carried up, down or across any incline

- carrying out trial lifts and reasons for
- lifting and placing of a suspended load when the load is partially or fully out-of-sight of the operator
- reasons for smooth use of all hydraulic controls when lifting and placing suspended loads
- methods of controlling load movement/swing and maintaining load security
- how environmental factors can induce load swing
- factors that affect safe and effective transportation of suspended loads
- factors and examples that determine where suspended loads can and cannot be placed
- methods of communication, radio protocol, hand signals and so forth.
- why suspended loads should not be left unattended
- visibility requirements when travelling with a suspended load and dangers of losing sight of the slinger/signaller/load handler
- definition of dynamic stability and the causes and effects of instability
- how and why load swing must be minimised
- how load shapes, size, weight, length, centre of gravity and securing arrangements affect load security and safe movement of suspended loads
- how typical site terrain such as, uneven ground can affect machine stability
- definition of dynamic stability and the causes and effects of

Assessment criteria:

- keep within designated travel routes *this should be observed during practical assessment*
- explain the dangers of travelling with suspended loads, why slinger/signaller/load handler positioning is important and dangers of losing sight of the slinger/signaller/load handler during travel
- maintain full observation – *this should be observed during practical assessment*
- describe the reasons for smooth use of all hydraulic controls, particularly at height
- explain the reasons for the carrying out of a trial lift
- explain the factors and give examples that determine where suspended loads can and cannot be placed
- ensure travel speeds do not exceed terrain type, load type and clear of any route hazards – *this should be observed during practical assessment*
- attach and lift 1 x suspended load that is not less than 50% of machine rated capacity – *this should be observed during practical assessment*
- lift a suspended load for travel and reverse with the suspended load for a minimum of 20 metres – *this should be observed during practical assessment*
- place suspended loads accurately at given predetermined points – *this should be observed during practical assessment*
- blind lift and place a suspended load – *this should be observed during practical assessment*
- follow given signals and instructions – *this should be observed during practical assessment*
- maintain machine stability and ensure safe parameters are not exceeded on a lift – *this should be observed during practical assessment*
- demonstrate full turns to the left and right in forward and reverse – *this should be observed during practical assessment*

- explain what is meant by dynamic stability and the potential causes and effects of instability
- explain how load swing is increased during travel and cornering and how it can be minimised
- explain why suspended loads should not be left unattended
- explain what procedures should be followed if a suspended load needs to be left unattended
- explain how load shapes, size, weight, length, centre of gravity and securing arrangements affect load security and safe movement of suspended loads
- explain how typical site terrain such as, uneven ground and inclines can affect machine stability
- describe how load swing can affect load security and how including environmental factors can cause load swing
- outline how moisture content within a load can affect stability
- explain the need for effective visibility when travelling with a suspended load and dangers if visibility is low during travel
- explain how load weights, sizes and the working ranges of the machine can affect stability when lifting and travelling with suspended load