

# Training Standard

Title	Telescopic Handler A17 (All Endorsements) Novice and Experienced
<p><b>Novice Durations</b></p>	<p><b>Total Duration of Training (excluding testing):</b></p> <ul style="list-style-type: none"> <li>• 1 Person – 19 hours</li> <li>• 2 Persons – 27 hours</li> <li>• 3 Persons – 35 hours</li> </ul> <p><b>Minimum Practical Engagement Time (per person):</b></p> <ul style="list-style-type: none"> <li>• 8 hours</li> </ul> <p><b>Instructor: Candidate: Machine Ratio's</b></p> <ul style="list-style-type: none"> <li>• 1 Instructor: 3 Candidates: 1 Machine</li> </ul> <p>Delegates must cover all learning outcomes of the standard in full.</p> <p><i><b>Note:</b> The total duration must be met along with the minimum seat time per individual, the theory time can be flexed based on the needs of the delegates where some may need more practical time.</i></p>
<p><b>Experienced Durations</b></p>	<p><b>Total Duration of Training (excluding testing):</b></p> <ul style="list-style-type: none"> <li>• 14 hours</li> </ul> <p><b>Minimum Practical Engagement Time (per person):</b></p> <ul style="list-style-type: none"> <li>• 4 hours</li> </ul> <p><b>Instructor: Candidate: Machine Ratio's</b></p> <ul style="list-style-type: none"> <li>• 1 Instructor: 3 Candidates: No Machine Set</li> </ul> <p>Delegates must cover all learning outcomes of the standard in full.</p> <p><i><b>Note:</b> The total duration must be met along with the minimum seat time per individual, the theory time can be flexed based on the needs of the delegates where some may need more practical time.</i></p>
<p><b>Purpose/ Scope</b></p>	<p>The Purpose and Scope of this standard is to provide the delegate with the skills and knowledge to support the following:</p> <ul style="list-style-type: none"> <li>• An understanding of the industry, how safe working can be established and their responsibilities as a telescopic handler operator</li> <li>• Identify, extract and apply a range of information from manufacturers' handbook and other relevant sources</li> <li>• Be able to locate and identify the major components of the machine, including steering, braking and lifting controls and explain their functions</li> <li>• Conduct all pre-operational checks in accordance with manufacturers and regulative requirements</li> <li>• Configure the machine for travel and manoeuvre it safely laden and unladen, over varying terrain, rough ground, inclines, in open and confined areas</li> <li>• Manoeuvre the machine to the work area, conduct all necessary checks and correctly configure in readiness to carry out lifting and load handling tasks</li> <li>• Lift and transfer a range of loads of various weights and sizes, including suspended loads, accurately and safely at different locations</li> </ul>

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	<ul style="list-style-type: none"> <li>• Fitting and detaching a range of relevant attachments</li> <li>• Explain loading and unloading procedures for machine transportation</li> <li>• Carry out all shut down and isolation procedures.</li> </ul>
<b>Occupational Relevance</b>	<p>Training delivered against this standard would be relevant to the following occupational group(s):</p> <ul style="list-style-type: none"> <li>• Operative and craft.</li> </ul>
<b>Candidates pre-requisites</b>	<p><b>Profiling:</b> The trainer will demonstrate and document their decisions for choosing either the Novice or Experienced route based on the delegates knowledge and skills through documented profiling.</p> <p><b>Novice:</b> The Novice training course is for candidates who have limited or no demonstrable practical experience of operating the category of plant in a construction environment.</p> <p><b>Experienced:</b> The Experienced training course is for candidates who hold a current industry recognised red card within the plant category or has equivalent experience.</p>
<b>Instructor Requirements</b>	<p>As a minimum, course instructors must be able to demonstrate that, in relation to this standard, they have:</p> <p>Essential:</p> <ul style="list-style-type: none"> <li>• Either             <ol style="list-style-type: none"> <li>a) A current card issued by one of the CPCS partner plant schemes at instructor/trainer/assessor level bearing the category of telescopic handler.</li> <li>or</li> <li>b) A current card issued by one of the CPCS partner plant schemes at operator level bearing the category of telescopic handler.</li> </ol> </li> <li>• Level 3 Award in Education and Training or equivalent qualification listed in Appendix 3 of the Requirements for Approved Training Organisations</li> <li>• Health and safety qualification at or equivalent to construction site management level such as:             <ul style="list-style-type: none"> <li>– Site Safety Plus Site Management Safety Training Scheme (SMSTS)</li> <li>– Site Safety Plus Site Supervision Safety Training Scheme (SSSTS)</li> <li>– IOSH Managing Safely in Construction</li> <li>– IOSH Safety, Health &amp; Environment for Construction Site Managers</li> <li>– 5-day CISRS Managers course</li> <li>– 5-day CCDO Demolition Managers course and end test</li> <li>– 5-day NPORS Construction Site Safety Manager</li> </ul> </li> <li>• In addition to the required qualifications, the trainer must be able to demonstrate 'operational' experience of operating the telescopic handler</li> </ul>

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	<p>relating to the training they are delivering. This can be demonstrated with a minimum of 2 years' experience.</p> <p>Desirable:</p> <ul style="list-style-type: none"> <li>• SCQF Level 5/NVQ Level 2 Plant Operations in the specific category being trained</li> <li>• Level 3 Certificate in Assessing Vocational Achievement.</li> </ul>
<b>Delivery</b>	<p>Training and assessment may be delivered in an on or off-site environment</p> <p>Where training and assessment takes place within a working construction site environment, training must be segregated from productive work within a prescribed training area, which has been risk assessed and has appropriate control measures in place as required by current legislation and regulations.</p> <p>All equipment required for the training must be set aside specifically for the training session and be available for the entire training duration. Equipment is not to be shared with the working construction site.</p> <p>Welfare facilities must be provided wherever training and assessment takes place, and this should meet relevant legislation.</p> <p>All materials and equipment must be of a suitable quality and quantity for delegates to achieve the learning outcomes delivery and assessment criteria, and must comply with relevant legislation, regulations and industry agreed requirements.</p> <p><b>Novice:</b></p> <p>The class size and delegate/ trainer ratio must allow training to be delivered in a safe manner and enable delegates to achieve the learning outcomes.</p> <p>This must not exceed 3 delegates: 1 machine: 1 trainer</p> <p><b>Experienced:</b></p> <p>The class size and delegate/ trainer ratio must allow training to be delivered in a safe manner and enable delegates to achieve the learning outcomes.</p> <p>This must not exceed 1 delegate: 1 machine: 1 trainer</p> <p>Irrespective of the number of delegates, effective learning must be maintained for all delegates.</p> <p>The following training delivery methods may be used in the delivery of this standard:</p> <ul style="list-style-type: none"> <li>• Face to face learning environment (such as a classroom/workshop/site office) for theoretical learning and assessment</li> <li>• On or off the job site environment for practical learning and assessment</li> <li>• Simulator for practical training.</li> </ul> <p><b>Note:</b> <i>If a simulator is used, it can only comprise of a total of 20% of overall practical training and must not be used in any assessment.</i></p> <p>This standard is considered to contain 70% or more practical training.</p>

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<b>Assessment</b>	<p>For the successful completion of training, candidates must complete an end of course practical test.</p> <p>The test used must be the standard CPCS Theory and Practical Test.</p>
<b>Quality Assurance</b>	<p>CPCS will quality assure against this standard and ensure that all Learning Outcomes have been met. The centre must retain evidence that the learning outcomes are referenced and achieved. This must be held by the training centre for a minimum of six years.</p> <p>CPCS will undertake un-announced or announced quality assurance visits of the training to ensure compliance with the Scheme of Works and the requirements of the Tester and Trainer Scheme Booklet.</p> <p>To ensure that compliance checks are effective, NOCN Job Cards Quality Assurance personnel must be given unrestricted access to all activities associated with the delivery of the Training Standards.</p> <p>Further quality assurance requirements are set out in the Test Centre Scheme Booklet.</p>
<b>Approval Date</b>	<i>September 2022</i>
<b>Review Cycle</b>	On request or 5 years from approval date.

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<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<b>Explain the factors that help maintain a safe working environment in the construction industry, and their responsibilities as a telescopic handler operator</b>		
<ul style="list-style-type: none"> <li>• Why the industry has many hazards and why safe working practices must be adopted and maintained</li> <li>• 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.</li> <li>• Health &amp; Safety at Work Act 1974, Provision and Use of Work Equipment Regulations (PUWER), Management of Health and Safety of Work (MHSW) Regulations, Construction (Design &amp; Management) Regulations (CDM), Vibration at Work Regulations, Road Traffic Act, HSG144, LOLER, HSG46, L117 etc. in accordance with risk assessments, method statements, codes of practice and other relevant legislation, regulations, and industry good practice</li> <li>• Operators’ moral obligations, legal obligations, and environmental obligations</li> <li>• Reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)</li> <li>• Previous incidences involving relevant plant and pedestrians</li> </ul>	<p>Describe the nature of the sector of industry and their role and responsibilities as a plant operator:</p> <ul style="list-style-type: none"> <li>• Industry type</li> <li>• Sector contribution</li> <li>• Actions required for hazards:               <ol style="list-style-type: none"> <li>1. <i>Noise</i></li> <li>2. <i>Vibration</i></li> <li>3. <i>Underground and Overhead Services.</i></li> </ol> </li> <li>• Safe working practices</li> <li>• Effects of hazards:               <ol style="list-style-type: none"> <li>1. <i>Lost time</i></li> <li>2. <i>Lost income</i></li> <li>3. <i>Expense for the employer</i></li> <li>4. <i>Fines</i></li> <li>5. <i>Custodial sentences.</i></li> </ol> </li> <li>• Legislation, Regulations and Guidance:               <ol style="list-style-type: none"> <li>1. <i>Health and Safety at Work Act</i></li> <li>2. <i>Provision and Use of Work Equipment Regulations (PUWER)</i></li> <li>3. <i>Management of Health and Safety of Work (MHSW) Regulations</i></li> <li>4. <i>Construction (Design and Management) Regulations</i></li> <li>5. <i>Vibration at Work Regulations</i></li> <li>6. <i>Road Traffic Act</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Identify common hazards on a construction site</li> <li>• Explain safe working practices relevant to the role of the telescopic handler operator</li> <li>• Explain personal health and safety relevant to the role of telescopic handler operator</li> <li>• Identify aspects of legislation, regulations, and industry good practice relevant to the role of telescopic handler operator</li> <li>• Describe reporting structures and the importance of good communication on site</li> <li>• Explain the responsibilities of a telescopic handler operator.</li> </ul>

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<ul style="list-style-type: none"> <li>Working with other related roles e.g., marshallers, supervisors, other plant operatives, other occupations, and support workers</li> </ul>	<ul style="list-style-type: none"> <li>7. HSG114</li> <li>8. HSG46.</li> <li>Risk Assessments, Method Statements and Permit to Work</li> <li>Social Responsibilities</li> <li>Environmental issues</li> <li>Reporting structures</li> <li>Operator Role</li> <li>Communication with colleagues/ management/ other trades</li> <li>Customer/ Client needs</li> <li>Accident Statistics.</li> </ul>	
<b>Identify and extract information from the manufacturers' handbook/ operator's manual, and other information sources including digital</b>		
<ul style="list-style-type: none"> <li>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</li> <li>Types of information sources including machine control systems.</li> </ul>	<p>Conform with manufacturer's requirement as per the operator's handbook, other types of information source and relevant regulations and legislation:</p> <ul style="list-style-type: none"> <li>Operator's Manual               <ol style="list-style-type: none"> <li>Safety Information</li> <li>Operation</li> <li>Maintenance.</li> </ol> </li> <li>Codes of practice</li> <li>Site plans/ drawings</li> <li>Risk Assessments and Method Statements</li> <li>COSHH               <ol style="list-style-type: none"> <li>Safety Data Sheets.</li> </ol> </li> <li>Load/ tare sheets</li> </ul>	<ul style="list-style-type: none"> <li>Identify and extract key elements for the preparation and safe use of the machine using various sources.</li> </ul>

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	<ul style="list-style-type: none"> <li>• Inspection and reporting forms/ procedures.</li> </ul>	
<b>Locate and identify the major components, signs and decals and all controls of the telescopic handler and explain their functions</b>		
<ul style="list-style-type: none"> <li>• The purpose of principal components, the basic construction, controls, and terminology</li> <li>• 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</li> <li>• Purposes of Roll Over Protection Systems (ROPS) and Falling Objects Protection Systems (FOPS) and other protection systems.</li> </ul>	Name and explain the purpose of principal components, the basic construction, controls and terminology: <ul style="list-style-type: none"> <li>• Differing types of machines</li> <li>• Functions and applications</li> <li>• Braking system</li> <li>• Tyres and wheels</li> <li>• Cooling system</li> <li>• Fuel system</li> <li>• Transmission</li> <li>• Hydraulic system</li> <li>• Electrical system</li> <li>• ROPS</li> <li>• FOPS</li> <li>• Optional attachments.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and explain the function of all controls and warning systems</li> <li>• Explain why the correct and sympathetic use of controls aids efficiency, longevity, and safety</li> <li>• State the purposes of ROPS and FOPS and other protection systems</li> <li>• Locate and identify the major components, signs, decals, and controls of the machine.</li> </ul>
<b>Conduct all pre-operational checks in accordance with manufacturers and legislative requirements</b>		
<ul style="list-style-type: none"> <li>• Complete all pre-start and running checks before any activity takes place, including visual checks for damage, functionality, and effectiveness</li> <li>• Checking all componentry systems are fully functional, including mechanical, hydraulic, pneumatic, electrical and electronic etc.</li> </ul>	Undertake pre-use checks: <ul style="list-style-type: none"> <li>• Regular and non-scheduled maintenance procedures:               <ol style="list-style-type: none"> <li>1. <i>Engine oil level</i></li> <li>2. <i>Fuel system</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Explain the procedure for defect reporting and why it's important.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p>

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<ul style="list-style-type: none"> <li>• Replenish fuels, fluids and lubricants, and undertake grease-based lubrication activities</li> <li>• Manufacturers periodic checks and operator level maintenance requirements</li> <li>• Defect reporting requirements</li> <li>• Carry out routine adjustments</li> <li>• Safety systems functions including emergency stop</li> <li>• Health and safety requirements when undertaking basic maintenance activities including personal protection equipment (PPE)</li> <li>• Check condition and function of seatbelt and any other restraining equipment</li> <li>• Check condition and function of any lighting and warning systems</li> <li>• Requirements for dealing with fluid spills including prevention and clean-up methods</li> </ul>	<ol style="list-style-type: none"> <li>3. <i>Coolant level</i></li> <li>4. <i>Transmission oil level</i></li> <li>5. <i>Tyre pressures/ condition</i></li> <li>6. <i>Brake system</i></li> <li>7. <i>Mirrors condition and security</i></li> <li>8. <i>ROPS/ FOPS structure</i></li> <li>9. <i>Windscreen washer fluid level.</i></li> </ol> <p>Check the following functions:</p> <ul style="list-style-type: none"> <li>• Brakes:               <ol style="list-style-type: none"> <li>1. <i>Foot brake pedal for firm feel</i></li> <li>2. <i>Parking brake.</i></li> </ol> </li> <li>• Steering:               <ol style="list-style-type: none"> <li>1. <i>Rotate steering wheel left to right – right to left.</i></li> </ol> </li> <li>• Electrics:               <ol style="list-style-type: none"> <li>1. <i>Horn sounds</i></li> <li>2. <i>Reverse alarm sounds</i></li> <li>3. <i>Beacon flashes</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Conduct all pre-operational checks as above in accordance with manufacturer guidance and legislative requirements.  <b>Note:</b> <i>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.</i></li> </ul>



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	<ul style="list-style-type: none"> <li>4. <i>Lights – side, main, stop, indicators, hazards.</i></li> <li>• <b>Hydraulics</b> <ul style="list-style-type: none"> <li>1. <i>Operation of all services</i></li> </ul> </li> <li>• <b>Defect Reporting Requirements:</b> <ul style="list-style-type: none"> <li>1. <i>All checks and inspections to be recorded and reported to relevant person</i></li> </ul> </li> <li>• <b>Health and Safety Requirements including Personal Protection Equipment (PPE):</b> <ul style="list-style-type: none"> <li>1. <i>Head protection</i></li> <li>2. <i>Foot protection</i></li> <li>3. <i>High-visibility clothing</i></li> <li>4. <i>Weather-appropriate clothing</i></li> <li>5. <i>Hearing protection</i></li> <li>6. <i>Eye protection</i></li> <li>7. <i>Gloves.</i></li> </ul> </li> </ul>	
<b>Identify and maintain personal protective equipment (PPE) and appropriate safety control equipment for a telescopic handler operator use</b>		

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<ul style="list-style-type: none"> <li>• 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.</li> <li>• Appropriate use of local exhaust ventilation (LEV), i.e., in confined spaces</li> <li>• Why weather conditions, including heat and cold, can determine what PPE is worn when using specific machine and the personal effects of incorrect equipment.</li> </ul>	<p>Identify and maintain personal protective equipment (PPE) and appropriate safety control equipment:</p> <ul style="list-style-type: none"> <li>• Head protection</li> <li>• Foot protection</li> <li>• High-visibility clothing</li> <li>• Weather-appropriate clothing</li> <li>• Hearing protection</li> <li>• Eye protection</li> <li>• Gloves</li> <li>• Respiratory protective equipment.</li> </ul> <p>Local exhaust ventilation (LEV):</p> <ul style="list-style-type: none"> <li>• Pre-use checks and regular maintenance</li> <li>• Defects in local exhaust ventilation systems must be reported and promptly rectified.</li> </ul> <p>Weather conditions including heat and cold:</p> <ul style="list-style-type: none"> <li>• Supplying suitable PPE:               <ol style="list-style-type: none"> <li>1. <i>Appropriate for the risks involved and the conditions of exposure</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Describe what forms of PPE and RPE must be worn for site operations</li> <li>• Explain why PPE and RPE must be worn for site operations</li> <li>• Give an example of when use of LEV would be appropriate</li> <li>• State how severe weather can affect safety and health with insufficient equipment.</li> </ul>

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	<ol style="list-style-type: none"> <li>2. <i>It takes account of the ergonomic requirements and state of health of the user</i></li> <li>3. <i>It can fit the wearer properly</i></li> <li>4. <i>Effectively prevents or adequately controls exposure to risk</i></li> <li>5. <i>Complies with any relevant UK or European Regulation or Directive.</i></li> </ol>	
<b>Safely get into and out of the telescopic handler</b>		
<ul style="list-style-type: none"> <li>• Working at height requirements</li> <li>• Safe use of all hand holds and steps</li> <li>• Facing the machine when getting in to and out of the telescopic handler for operational and maintenance purposes</li> <li>• Effects of continually getting in to and out of the telescopic handler e.g., fatigue, increased risk of falling etc.</li> <li>• Safe areas to get in to/out of the telescopic handler e.g., ground location, other vehicle movements etc.</li> <li>• Procedures for accessing the telescopic handler when carrying out adjustment and maintenance activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Use grabrails and footsteps provided to reach machine seat:               <ol style="list-style-type: none"> <li>1. <i>Mount and dismount facing machine.</i></li> </ol> </li> <li>• Working at height requirements</li> <li>• Pedestrian routes should be established and segregated from mobile plant and vehicles</li> <li>• Traffic routes should be planned in order to minimise congestion and risk of collision</li> <li>• Appropriate speed limits</li> <li>• Parking place designated for vehicles</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the effects of not using correct procedures to get in and out of the machine including when carrying out adjustment and maintenance activities</li> <li>• Explain the areas for safely getting in and out of the telescopic handler.</li> </ul> <p><b>The following should be observed during practical activities:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate the correct procedures as listed above.</li> </ul>

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	<ul style="list-style-type: none"> <li>• Operators must be informed of proximity hazards</li> <li>• Ground conditions should be stable and sufficiently level for the operations being carried out.</li> <li>• Plant safe zones.</li> </ul> <p>Medical Fitness:</p> <ul style="list-style-type: none"> <li>• Ensure that operators are medically fit to operate</li> <li>• Employee is physically and mentally capable of undertaking the tasks they are required to carry out.</li> </ul> <p>Adjustment and maintenance activities:</p> <ul style="list-style-type: none"> <li>• Working under raised retracted boom:               <ol style="list-style-type: none"> <li>1. <i>Raise the boom just far enough to install the strut</i></li> <li>2. <i>Stop engine, make sure the parking brake is engaged and the transmission is in neutral</i></li> <li>3. <i>Remove the starter key</i></li> <li>4. <i>Placed the strut.</i></li> </ol> </li> </ul>	

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<b>Prepare the telescopic handler for movement</b>		
<ul style="list-style-type: none"> <li>• Use of seatbelts and other restraining equipment</li> <li>• Adjustment of seating position and mirrors</li> <li>• Checks on steering (including multi-directional steering modes), braking, transmission, loader components e.g., boom, extension and carriage tilt checks, loader control lock-out systems, stabilisers, chassis levelling</li> <li>• Longitudinal stability aids check e.g., rated capacity indicator (RCI) / load movement indicator (LMI) / load movement control (LMC)/limiters etc. and how information is supplied</li> <li>• Starting procedures</li> <li>• Types of visibility aids and what factors can affect clear, all-round vision</li> <li>• Where and why effective vision, including mirror positioning is extremely important</li> <li>• How and where issues can arise when vision is limited during operation</li> <li>• Warning beacons and other safety systems/lights are operable</li> <li>• Legislative requirements for travelling on the public highway</li> <li>• Carrying of passengers/non-authorized personnel</li> </ul>	<ul style="list-style-type: none"> <li>• Check controls:               <ol style="list-style-type: none"> <li>1. <i>Seat – adjust for comfort/ reach</i></li> <li>2. <i>Wear seatbelt – adjust</i></li> <li>3. <i>Steering including multi-directional steering modes</i></li> <li>4. <i>Braking</i></li> <li>5. <i>Transmission</i></li> <li>6. <i>Boom extension and carriage tilt</i></li> <li>7. <i>Loader control lock-out systems</i></li> <li>8. <i>Stabilisers</i></li> <li>9. <i>Chassis levelling.</i></li> </ol> </li> <li>• <i>Longitudinal stability aids check:</i> <ol style="list-style-type: none"> <li>1. <i>Rated capacity indicator (RCI)</i></li> <li>2. <i>Load movement indicator (LMI)</i></li> <li>3. <i>Load movement control (LMC).</i></li> </ol> </li> <li>• Starting procedures</li> <li>• Visibility aids:               <ol style="list-style-type: none"> <li>1. <i>Mirrors</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Describe why effective vision is extremely important</li> <li>• Give an example of how and where issues can arise when vision is limited during operation</li> <li>• Conduct all chassis and loader component functional checks</li> <li>• Describe function and information of rated capacity indicator (RCI) / load movement indicator (LMI) / load movement control (LMC)/limiters etc.</li> <li>• Wear the correct PPE during practical assessment</li> <li>• Describe the requirements and limitations for travelling on the public highway</li> <li>• Explain how tyre condition, pressures, sizes and ratings etc. can affect machine stability.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate that the seatbelt is worn correctly, and seating position and mirrors are adjusted correctly prior to any machine movement</li> <li>• Check all applicable warning lamps, safety and stability systems and visions systems are in place, clear and functional</li> </ul>

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<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>How tyre condition, pressures, sizes and ratings etc. can affect machine stability.</li> </ul>	<ol style="list-style-type: none"> <li><i>Proximity warning systems.</i></li> </ol> <ul style="list-style-type: none"> <li>Safety zones               <ol style="list-style-type: none"> <li><i>Yellow zone – line of sight of operator and out of danger</i></li> <li><i>Amber zone – machine immobilised, and personnel must gain permission from the telescopic handler operator</i></li> <li><i>Red zone – machine must be immobilised, and permission gained from the telescopic handler operator.</i></li> </ol> </li> <li>Seat belt wearing indicators:               <ol style="list-style-type: none"> <li><i>Rotating green beacon which is activated when the seat belt clasp is engaged</i></li> <li><i>Road Vehicle Lighting Regulations specifies that green lights are reserved for medical emergency vehicles – green beacon not to be illuminated when travelling on public highway.</i></li> </ol> </li> <li>Flashing beacon</li> <li>Travelling on the public highway:</li> </ul>	<ul style="list-style-type: none"> <li>Conduct all-round visibility checks before moving away.</li> </ul>

# Training Standard

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ol style="list-style-type: none"> <li>1. <i>Use the chassis levelling (sway) switch, (if fitted) to set body of the machine square to the axles</i></li> <li>2. <i>Ensure both stabiliser legs, (if fitted) are fully raised and isolated</i></li> <li>3. <i>Fully retract the boom, lower boom (approx. 100 – 150 mm above the ground), tilt carriage back</i></li> <li>4. <i>Fold forks back and fit retention brackets</i></li> <li>5. <i>Select 2-wheel steer</i></li> <li>6. <i>Move the rear light cluster to the horizontal position (if required)</i></li> <li>7. <i>Switch on Smooth Ride System (if fitted)</i></li> <li>8. <i>The driver must hold a full car (category B) licence.</i></li> </ol> <ul style="list-style-type: none"> <li>• Do not carry passengers.</li> </ul>	
<b>Travel and manoeuvre the telescopic handler across varying terrain and inclines, laden and unladen</b>		
<ul style="list-style-type: none"> <li>• How travel speeds and gear selection affect working efficiency, stability, safety, and emissions</li> </ul>	<ul style="list-style-type: none"> <li>• Telescopic Handler Stability:               <ol style="list-style-type: none"> <li>1. <i>Ground failure</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• How travel speeds and gear selection affect working efficiency, stability, safety, and emissions</li> </ul>

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<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• Issues which can occur if departing from designated travel routes and work areas/restricted zones</li> <li>• Types of underground services and the effects of travelling loaded machines near to/over services</li> <li>• Effects of travelling close to embankments and trenches</li> <li>• Travelling over various types of terrain, replicating typical site-type surfaces (loaded and unloaded)</li> <li>• Travelling up, down on inclines (loaded and unloaded) including lateral and longitudinal stability</li> <li>• How certain types of surfaces can affect traction, particularly on inclines</li> <li>• Machine configuration when travelling on steep inclines</li> <li>• How travelling on uneven and uncompacted surfaces affect stability</li> <li>• Impact of changes to centre of gravity (loaded and unloaded) when travelling up, down and across inclines</li> <li>• Dangers of travelling across inclines</li> <li>• Effects of travelling with a raised boom</li> <li>• Load integrity and security whilst travelling</li> <li>• Giving way to loaded machines</li> <li>• Travelling with large surface-area loads and wide loads</li> <li>• Precautions and obstructions on travel routes including overhead utilities etc.</li> </ul>	<ol style="list-style-type: none"> <li>2. <i>Uneven ground</i></li> <li>3. <i>Travelling on slopes that exceed the limits set by the telescopic handler manufacturer</i></li> <li>4. <i>Underinflated tyres</i></li> <li>5. <i>Inappropriate driving style</i></li> <li>6. <i>Inappropriate movement of the load during loading and unloading</i></li> <li>7. <i>Never operate the boom while travelling</i></li> <li>8. <i>Never operate the chassis levelling (sway) control when the boom is above the horizontal position</i></li> <li>9. <i>Never operate chassis levelling (sway) when the machine is moving</i></li> <li>10. <i>The use of stabilisers increases the stability of the machine when lifting.</i></li> </ol> <ul style="list-style-type: none"> <li>• Ground conditions</li> <li>• Ground assessment</li> <li>• Ground related hazards:               <ol style="list-style-type: none"> <li>1. <i>Soft ground</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Describe issues which can occur if departing from designated travel routes and work areas/restricted zones</li> <li>• Describe how certain types of surfaces can affect traction, particularly on inclines</li> <li>• List the types of underground services and the effects of travelling near to/over services</li> <li>• Describe the effects of travelling close to embankments and trenches</li> <li>• Looking at the direction of travel and effective use of mirrors.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate safe travel over rough, undulating ground, steep inclines and level surfaces</li> <li>• Demonstrate how to travel up and down a gradient</li> <li>• Demonstrate how to stop and start on the gradient whilst travelling uphill</li> <li>• Demonstrate how to stop and start on the gradient whilst travelling downhill</li> <li>• Demonstrate how to reverse the telescopic handler in a straight line and through a restriction, both un-laden and laden.</li> </ul> <p>Assessment requirement:</p>



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<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• Regulative requirements for travelling near to or under overhead power lines</li> <li>• Awareness of other machines and workers.</li> </ul>	<ol style="list-style-type: none"> <li>2. <i>Voids</i></li> <li>3. <i>Underground services</i></li> <li>4. <i>Lack of maintenance of running surfaces</i></li> <li>5. <i>Excavations</i></li> <li>6. <i>Open or steep sided edges</i></li> <li>7. <i>Slopes</i></li> <li>8. <i>Excessive travel speed</i></li> <li>9. <i>Wet ground</i></li> <li>10. <i>Environmental constraints such as habitat protection</i></li> <li>11. <i>Dry and dusty roads – visibility issues.</i></li> </ol> <ul style="list-style-type: none"> <li>• Ground improvement</li> <li>• Vehicle routes</li> <li>• Working on gradients:               <ol style="list-style-type: none"> <li>1. <i>Do not exceed maximum stated gradients</i></li> <li>2. <i>Do not turn across gradients</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• The slope must have an incline of 18% (1:5.5) with sufficient manoeuvring area at the top, or a straight ramp with an up and down route with a flat area at the summit</li> <li>• The reversing exercise must be for a minimum 20 metres</li> <li>• The restriction clearance for the reversing exercise must not be more than 300mm or 10% of the machine width (whichever is the greater) between the machine and the restriction sides.</li> </ul>



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	<ol style="list-style-type: none"> <li>3. <i>Do not brake suddenly in wet, muddy, icy conditions or when operating on loose surfaces</i></li> <li>4. <i>Do not run downhill with controls in neutral</i></li> <li>5. <i>Travel straight up, down, or along a gradient</i></li> <li>6. <i>Operate in first gear on hillsides</i></li> <li>7. <i>When applicable keep all attachments low to the ground</i></li> <li>8. <i>Always engage parking brake when stopped on sloping ground and in addition chock wheels securely when leaving the machine unattended to prevent movement</i></li> <li>9. <i>If laden drive uphill</i></li> <li>10. <i>If laden reverse downhill</i></li> <li>11. <i>If unladen reverse uphill</i></li> <li>12. <i>If unladen drive downhill.</i></li> </ol>	
<b>Conduct all necessary safety checks at the loading and unloading areas</b>		

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<ul style="list-style-type: none"> <li>• Safety checks that must be carried out to ensure the loading area and unloading area are clear of hazards</li> <li>• Loading and unloading in an area which is segregated from other activities including restricted zone requirements</li> <li>• Requirements for sufficient manoeuvring area for the machine with a load</li> <li>• How different types of ground conditions may affect the stability to support the telescopic handler and load weight, to maintain machine stability</li> <li>• Communication requirements and methods with slinger/signallers</li> <li>• Working in hours of darkness and lighting requirements</li> <li>• People/plant interface, procedures and dangers of allowing others near to a working machine.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential hazards identified at the loading and unloading area:               <ol style="list-style-type: none"> <li>1. <i>Ground conditions</i></li> <li>2. <i>The route to be traversed</i></li> <li>3. <i>Weather</i></li> <li>4. <i>Other vehicles</i></li> <li>5. <i>Site personnel</i></li> <li>6. <i>Proximity hazards – obstacles, debris, excavations, over-head power lines.</i></li> </ol> </li> <li>• Pedestrian routes should be segregated from mobile plant and vehicles</li> <li>• Traffic routes should be planned in order to minimise congestion and risk of collision. These routes should be kept free of obstructions and properly maintained, with access points restricted and clearly marked</li> <li>• Ground conditions should be stable and sufficiently level for the operations being carried out and the equipment being used</li> <li>• Where equipment fitted with outriggers or stabilisers is used, the load-bearing capacity of the ground should be assessed</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the issues of working in the hours of darkness and low lighting levels</li> <li>• Explain the importance of being aware of other machines, vehicles and workers</li> <li>• Explain the procedures and dangers of allowing others near to a working machine</li> <li>• Ensure ground conditions are suitable for loading and unloading activities</li> <li>• Ensure the integrity of restricted zones</li> <li>• How to establish that there is sufficient manoeuvring area for the machine with a load</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Identify and use designated loading area entry and exit locations</li> <li>• Ensure loading areas are clear of hazards</li> <li>• Establish communication methods with slinger/signallers.</li> </ul>

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	<p>so that the imposed loads do not exceed this capacity</p> <ul style="list-style-type: none"> <li>• When working in the hours of darkness or in reduced visibility, lights must be fitted and used to enable the work area to be adequately illuminated</li> <li>• Plant safe zones:               <ol style="list-style-type: none"> <li>1. <i>Always signal the operator and receive a positive response before entering Zone 1</i></li> <li>2. <i>Keep out of Zone 2 at all times.</i></li> </ol> </li> </ul>	
<b>Manoeuvre, prepare, and configure the machine to pick up a range of loads</b>		
<ul style="list-style-type: none"> <li>• The correct use and application of steering, transmission and braking controls</li> <li>• The importance of maintaining good visibility</li> <li>• The correct use of all loaders hydraulic controls including boom raise/lower, extension and carriage tilt</li> <li>• Correct machine configuration for different load types</li> <li>• What is a lift plan and typical information detailed in the plan</li> <li>• Load charts, load centres/centres of gravity, lifting capacities relevant to reach and height</li> </ul>	<ul style="list-style-type: none"> <li>• Correct use and application of steering, transmission, and braking controls:               <ol style="list-style-type: none"> <li>1. <i>Two-wheel steer</i></li> <li>2. <i>Four-wheel steer</i></li> <li>3. <i>Crab-steer.</i></li> </ol> </li> <li>• Selecting Visibility Aids               <ol style="list-style-type: none"> <li>1. <i>Wide angle convex mirrors</i></li> <li>2. <i>Closed Circuit Television</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Explain the importance of maintaining good visibility</li> <li>• State the use of load charts and what information they provide</li> <li>• Explain the need to know the load centre and the centre of gravity of a load and the effect on safe lifting capacities</li> <li>• State the need for a lift plan and what typical information is contained within the plan</li> <li>• Explain methods of establishing weight of loads</li> </ul>

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<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• Use of stabilisers and levelling systems</li> <li>• Checking ground conditions to support the machine</li> <li>• Determining the total weight to be lifted for the height and reach</li> <li>• Methods of establishing weight of loads</li> <li>• Factors that can impact the lateral and longitudinal stability including with raised boom, overloading, ground, and levelling requirements</li> <li>• The correct fork spacing to equally support loads</li> <li>• Requirements and restrictions with the use of working platforms including integrated and non-integrated types</li> <li>• Prior confirmation on where each load needs to be transported to and where to be placed</li> <li>• How stabilisers and increase stability</li> <li>• Aligning and entering accurately to prevent damage to a load.</li> </ul>	<p>3. <i>Sensing Aids.</i></p> <p>Handling Palletted Loads:</p> <ul style="list-style-type: none"> <li>• Load and unload on firm, level ground</li> <li>• Make sure the weight of the load is known before lifting or placing it</li> <li>• Do not exceed the safe working load of the machine</li> <li>• Fork spacing to suit the load</li> <li>• Forks in the horizontal position, boom fully retracted</li> <li>• Approach the load straight-on, with all wheels straight</li> <li>• Engage the parking brake, put transmission in neutral</li> <li>• Extend boom, or drive the machine, to insert the forks under the load</li> <li>• Raise the load slightly, tilt carriage back, retract boom fully and lower into the travel position.</li> </ul> <p>Uneven Loads:</p> <ul style="list-style-type: none"> <li>• Find the load's Centre of Gravity</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the factors that can impact the lateral and longitudinal stability</li> <li>• State the requirements and restrictions with the use of working platforms including integrated and non-integrated types</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate the correct use and application of steering, transmission and braking controls</li> <li>• Demonstrate the correct machine configuration for different load types</li> <li>• Demonstrate correct use of stabilisers and levelling systems</li> <li>• Demonstrate the correct fork spacing to equally support loads</li> <li>• Travel to various locations for placing of pre-set loads</li> <li>• Demonstrate how to configure, set and prepare the machine to lift a range of loads including palletted, non-palletted, wide, heavy, large surface area and those that can be stacked</li> <li>• Demonstrate that full visibility is maintained during manoeuvring activities</li> </ul>

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	<ul style="list-style-type: none"> <li>• Make trail lifts at different positions until load is stable on the forks.</li> </ul> <p>Lifting Operations on Gradients:</p> <ul style="list-style-type: none"> <li>• Lifting operations should not be taken on gradients unless the machine is level across its width (laterally level)</li> <li>• Longitudinal and lateral stability are two important safety factors that must be considered if the boom is to be extended, or raised by more than 500mm above the ground with the machine on a gradient</li> <li>• Longitudinal (forward) stability is measured and shown by the Safe Load Indicator (SLI) or Load Moment Indicator (LMI).</li> </ul> <p>Recording the method in a lift plan:</p> <ul style="list-style-type: none"> <li>• Description of the load</li> <li>• Weight:               <ol style="list-style-type: none"> <li>1. <i>The manufacturer's data plate</i></li> <li>2. <i>Markings on the load</i></li> <li>3. <i>Manufacturer's data sheets or instructions</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Check that ground conditions can support the machine's total weight for the working height and reach</li> <li>• Establish the weight of load against rated capacity charts for intended height and reach.</li> </ul>

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<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ol style="list-style-type: none"> <li>4. <i>Drawings</i></li> <li>5. <i>Shipping documents</i></li> <li>6. <i>Weighting the load.</i></li> </ol> <ul style="list-style-type: none"> <li>• Dimensions</li> <li>• Lifting points and method of attachment</li> <li>• Configuration of machine</li> <li>• Picking up and landing locations referenced to the site plan.</li> </ul> <p>Use of Telehandlers for the Lifting of Persons:</p> <ul style="list-style-type: none"> <li>• Integrated working platform provides a higher level of safety than a non-integrated type and should be used for the lifting of persons on construction sites</li> <li>• Non-integrated platform attachments must not be used for planned tasks on construction sites.</li> </ul>	
<b>Lift and transfer unit-type load accurately and safely at different locations</b>		
<ul style="list-style-type: none"> <li>• Keeping within designated travel routes</li> <li>• Maintaining full observation</li> <li>• Executing full turns to the left and right</li> <li>• Lateral stability issues when cornering with a load</li> </ul>	<ul style="list-style-type: none"> <li>• Traffic management:               <ol style="list-style-type: none"> <li>1. <i>Pedestrian only areas from which vehicles are completely excluded</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Keep within designated travel routes</li> <li>• Maintain full observation</li> <li>• Explain the process for the lifting of unit-type loads including palletted and un-palletted</li> </ul>

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<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
<ul style="list-style-type: none"> <li>• Procedures for stacking of loads</li> <li>• Lifting of unit-type loads including palleted and un-palleted</li> <li>• Undercutting when lifting and placing loads</li> <li>• Reasons for smooth use of all hydraulic controls, particularly at height</li> <li>• Factors that affect safe and effective transportation of loads</li> <li>• Loading-out tower requirements</li> <li>• Factors and examples that determine where loads can and cannot be placed</li> <li>• Explain methods of communication, radio protocol, hand signals etc for unit loads</li> <li>• Use of stabilisers.</li> </ul>	<ol style="list-style-type: none"> <li>2. <i>Safe designated pedestrian routes to work locations</i></li> <li>3. <i>Vehicle only areas, especially where space is limited, or traffic is heavy</i></li> <li>4. <i>Safe vehicle routes around the site.</i></li> </ol> <ul style="list-style-type: none"> <li>• Ground conditions</li> <li>• Site housekeeping</li> <li>• Roads, Access Ways and Entrances.</li> </ul> <p>Handling Unit-type loads:</p> <ul style="list-style-type: none"> <li>• Load and unload on firm, level ground</li> <li>• Make sure the weight of the load is known before lifting or placing it</li> <li>• Do not exceed the safe working load of the machine</li> <li>• Fork spacing to suit the load</li> <li>• Forks in the horizontal position, boom fully retracted</li> <li>• Approach the load straight-on, with all wheels straight</li> <li>• Engage the parking brake, put transmission in neutral</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the undercutting when lifting and placing loads</li> <li>• Describe the reasons for smooth use of all hydraulic controls, particularly at height</li> <li>• Explain the factors that can affect the safe and effective transportation of loads</li> <li>• Explain loading-out tower requirements</li> <li>• Explain the factors and give examples that determine where loads can and cannot be placed</li> <li>• Explain methods of communication, radio protocol, hand signals etc for unit loads</li> <li>• Explain lateral stability issues when cornering with a load.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Align and enter accurately to prevent damage to a load</li> <li>• Demonstrate correct use of stabilisers</li> <li>• Ensure travel speeds do not exceed terrain type, load type and clear of any route hazards</li> <li>• Lift 1 x load that is not less than 50% of machine rated capacity onto a loading-out tower</li> </ul>



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<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ul style="list-style-type: none"> <li>• Extent boom, or drive the machine, to insert the forks under the load</li> <li>• Raise the load slightly, tilt carriage back, retract boom fully and lower into the travel position.</li> </ul> <p>Undercutting when lifting and placing loads:</p> <ul style="list-style-type: none"> <li>• The load is lifted on the ends of the forks</li> <li>• This will reduce the rated capacity of the telehandler</li> <li>• May affect the stability of the load as its centre of gravity may be near or beyond the end of the forks.</li> </ul> <p>Loading Towers and Scaffolds:</p> <ul style="list-style-type: none"> <li>• The scaffolding or designed loading tower should be of suitable load bearing capacity</li> <li>• Ensure the telehandler frame is level</li> <li>• Forks are parallel to the surface of the scaffolding or loading tower</li> <li>• People should not be on the loading platform when material is being placed or removed.</li> </ul> <p>Signalling methods:</p>	<ul style="list-style-type: none"> <li>• Retrieve a load at height (not less than 50% of machine rated capacity from a loading-out tower) and lower to ground level</li> <li>• Lift a load for travel and reverse with the load for a minimum of 20 metres</li> <li>• Place all loads accurately at given predetermined points</li> <li>• Stack 3 x loads of equal dimensions that are suitable for stacking</li> <li>• Unstack 3 x stacked loads and place them next to each other on the ground</li> <li>• Lift a load weighing less than the machine lift capacity at full horizontal reach and place the load at ground level using the full horizontal reach of the machine</li> <li>• Follow given signals and instructions</li> <li>• Maintain machine stability and ensure safe parameters are not exceeded on a lift</li> <li>• Execute full turns to the left and right.</li> </ul> <p>Assessment requirement:</p> <ul style="list-style-type: none"> <li>• When de-stacking 3 x loads, there must be no more than 75mm clearance between them</li> </ul>

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<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ul style="list-style-type: none"> <li>• Recognised hand signals:               <ol style="list-style-type: none"> <li>1. <i>Signaller should stand in a secure position</i></li> <li>2. <i>Distinct and clear signals.</i></li> </ol> </li> <li>• Radio communication systems</li> <li>• If communication is lost during a lifting operation, the operator must stop immediately until communication is regained.</li> </ul>	<ul style="list-style-type: none"> <li>• The loading-out tower must be at least 75% of the machine maximum working height for the load weight.</li> </ul>
<b>Place and remove loads from a vehicle</b>		
<ul style="list-style-type: none"> <li>• Different types of vehicle/trailers</li> <li>• Vehicle capacities</li> <li>• Weight distribution</li> <li>• Communication with vehicle driver</li> <li>• Loading and unloading sequences</li> <li>• Undercut loads when lifting and placing of loads</li> <li>• Proximity hazards including ground hazards, overhead hazards and those on the transporting vehicle due to the condition of the vehicle bed.</li> </ul>	<p>Choice of Vehicle:</p> <ul style="list-style-type: none"> <li>• Suitable vehicles and securing equipment</li> <li>• Design and construction of the vehicle and its bodywork should be suitable for the loads.</li> </ul> <p>Arrangement of Loads:</p> <ul style="list-style-type: none"> <li>• Checked to ensure that the load platform, bodywork, and anchorage points, are</li> </ul>	<ul style="list-style-type: none"> <li>• Outline the different types of vehicle / trailers used to deliver loads to site</li> <li>• State how vehicle capacities are established and the importance of weight distribution for vehicle stability.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Establish communication with vehicle driver</li> <li>• Demonstrate undercut of loads when lifting and placing loads</li> </ul>

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<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<p>appropriate for the load, and are in a sound and serviceable condition</p> <ul style="list-style-type: none"> <li>• The load should be placed in contact with a headboard</li> <li>• The load should be spread to give an even weight distribution over the whole floor area</li> <li>• When a load is stacked the larger and heavier items should be placed at the bottom</li> <li>• The heavier items should be placed nearer to the centre line of the vehicle and the lighter ones towards the sides</li> <li>• Loading should always be carried out with unloading in mind</li> <li>• Vehicles should always be loaded from the front or as directed by the vehicle driver, working from side to side and distributing the load evenly</li> <li>• When loading uncoupled articulated trailers, the first part of the load should be placed over the rear axle before loading from the front of the trailer</li> </ul>	<ul style="list-style-type: none"> <li>• Check for proximity hazards including ground hazards, overhead hazards and those on the transporting vehicle due to the condition of the vehicle bed</li> <li>• Place 3 x loads of equal dimensions on to a vehicle bed that has a headboard, following required sequence</li> <li>• Retrieve 3 pre-placed loads from a vehicle bed following the required sequence.</li> </ul>

# Training Standard

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ul style="list-style-type: none"> <li>• Undercutting is often used when the load is to be placed adjacent to a wall or another item</li> <li>• Proximity hazards including ground hazards and those on the transporting vehicle due to the condition of the vehicle bed.</li> </ul>	
<b>Fit, adjust and remove attachments</b>		
<ul style="list-style-type: none"> <li>• Typical attachment types and function</li> <li>• Function, use and precautions for quick-hitch systems</li> <li>• Attachment and removal procedures</li> <li>• Machine configuration and positioning</li> <li>• Securing requirements and essential pre-use checks.</li> </ul>	<ul style="list-style-type: none"> <li>• Attachment types and functions:               <ol style="list-style-type: none"> <li>1. <i>Crane hook</i></li> <li>2. <i>Extension jib</i></li> <li>3. <i>General purpose shovel</i></li> <li>4. <i>Truss jib</i></li> <li>5. <i>Sweeper brush</i></li> <li>6. <i>Integrated work platform.</i></li> </ol> </li> <li>• Flat face quick release couplings allow the operator to remove and install attachments swiftly and efficiently:               <ol style="list-style-type: none"> <li>1. <i>Remove any residual hydraulic pressure trapped in the service line hose</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Describe the function, use and precautions for quick-hitch systems</li> <li>• Explain securing requirements and essential pre-use checks</li> <li>• Outline the types and function of various construction-based attachments.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Attach and detach a typical attachment to and from the boom-head following required procedures</li> <li>• Configure and position the machine for attaching/detaching activities</li> <li>• Secure the attachment and carry out all pre-use checks.</li> </ul>

# Training Standard

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ol style="list-style-type: none"> <li>2. <i>Wipe couplings and make sure they are clean</i></li> <li>3. <i>Fit the couplings, make sure that they snap into place</i></li> <li>4. <i>Pull back sleeve to release the coupling.</i></li> </ol> <ul style="list-style-type: none"> <li>• <b>Installing attachments:</b> <ol style="list-style-type: none"> <li>1. <i>Park the machine on firm level ground, apply the parking brake and select the forward/ reverse to neutral</i></li> <li>2. <i>Lower the boom to the ground. Remove any attachment previously fitted</i></li> <li>3. <i>Using controls engage the carriage into the hook plates on the attachment. Ensure that both hook plates are engaged equally</i></li> <li>4. <i>Lift and tilt the carriage back, to line up the locking holes in the carriage with those in the attachment</i></li> <li>5. <i>Engage the locking pins.</i></li> </ol> </li> <li>• <b>Before raising the telescopic handler boom and attachment the operator should ensure that any locking device (this will</b></li> </ul>	

# Training Standard

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	depend on the type and make of quick hitch) is in place and secure.	
<b>Explain environmental considerations of machine use</b>		
<ul style="list-style-type: none"> <li>• Health and social reasons to reduce machine emissions</li> <li>• Government industry zero emission initiatives</li> <li>• What ‘tailpipe’ emissions are caused by IC (diesel) engines</li> <li>• Air quality and the component gases of air</li> <li>• How engine emissions, including particulate matter, affect air quality and the effects on human and environmental wellbeing</li> <li>• Measures to reduce emissions during operations including alternative/low emission fuels, fuel treatments and particulate filtration systems etc.</li> <li>• Efficient use of the machine and when and how minimising engine use can aid air quality and fuel savings</li> <li>• Eco-friendly oils, fluids and lubricants</li> <li>• Fuel-saving techniques for specific item of plant</li> <li>• Appropriate disposal of waste</li> <li>• Spillage procedures.</li> </ul>	<p>Air Pollution:</p> <ul style="list-style-type: none"> <li>• Common construction activities that contribute to air pollution include:               <ol style="list-style-type: none"> <li>1. <i>Use of plant and vehicles on site</i></li> <li>2. <i>Land clearing and demolition</i></li> <li>3. <i>Chemicals.</i></li> </ol> </li> <li>• Consequences of air pollution:               <ol style="list-style-type: none"> <li>1. <i>Employees</i></li> <li>2. <i>Local Residents</i></li> <li>3. <i>Environmental.</i></li> </ol> </li> </ul> <p>Water Pollution:</p> <ul style="list-style-type: none"> <li>• Common construction sources that contribute to air pollution include:               <ol style="list-style-type: none"> <li>1. <i>Diesel and oil</i></li> <li>2. <i>Cement</i></li> <li>3. <i>Other toxic chemicals.</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Explain the health and social reasons for reducing machine emissions</li> <li>• Discuss government industry zero emission initiatives</li> <li>• List two or more effects on human and environmental wellbeing as a result of engine emissions</li> <li>• Identify measures to reduce emissions on site</li> <li>• Explain appropriate disposal of waste</li> <li>• Explain spillage procedures</li> <li>• Describe the need to keep engine speed and load to a minimum whilst maintaining working efficiency.</li> </ul>

# Training Standard

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	<ul style="list-style-type: none"> <li>• Consequences of water pollution:               <ol style="list-style-type: none"> <li>1. <i>People</i></li> <li>2. <i>Environmental – water contamination.</i></li> </ol> </li> <li>Noise Pollution:</li> <li>• Effects of noise pollution:               <ol style="list-style-type: none"> <li>1. <i>Potential hearing loss.</i></li> </ol> </li> <li>Pollution Prevention Strategies:</li> <li>• Air pollution:               <ol style="list-style-type: none"> <li>1. <i>Adopt hybrid technology</i></li> <li>2. <i>Use low sulphur diesel</i></li> <li>3. <i>Improve existing equipment</i></li> <li>4. <i>Wear appropriate PPE.</i></li> </ol> </li> <li>• Water pollution:               <ol style="list-style-type: none"> <li>1. <i>Monitor and improve your management and disposal of site waste</i></li> <li>2. <i>Keep materials secure</i></li> <li>3. <i>Cover up all drains</i></li> </ol> </li> </ul>	

# Training Standard

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	<ol style="list-style-type: none"> <li>4. <i>Keep the road and footpath to the site clean</i></li> <li>5. <i>Properly treat any chemical spillages</i></li> <li>6. <i>Ensure plant and equipment is properly maintained and operated.</i></li> </ol> <ul style="list-style-type: none"> <li>• Noise pollution:               <ol style="list-style-type: none"> <li>1. <i>Use quiet equipment</i></li> <li>2. <i>Schedule work during sociable hours</i></li> <li>3. <i>Put acoustic (movable noise) barriers in place</i></li> <li>4. <i>Ensure plant and equipment is properly maintained and operated</i></li> <li>5. <i>Switch off plant when it's not in use</i></li> <li>6. <i>Ensure employees wear the correct PPE.</i></li> </ol> </li> </ul>	
<b>Explain loading/ unloading procedures for machine transportation</b>		
<ul style="list-style-type: none"> <li>• Procedures for preparing the machine for loading onto a transporter</li> <li>• Traction and surface preparation requirements</li> <li>• Understanding of agreed methods of communication between the plant operator and others</li> </ul>	Loading and unloading areas should be: <ul style="list-style-type: none"> <li>• Clear of other traffic, pedestrians, and people</li> <li>• Clear of overhead electric cables</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the preparation required of both machine and transporter for loading and unloading of the machine</li> <li>• Explain the precautions to be taken when driving the machine onto and off the transporter bed</li> </ul>



# Training Standard

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<ul style="list-style-type: none"> <li>Working at height requirements when driving onto or off a transporter bed.</li> </ul>	<ul style="list-style-type: none"> <li>Level, to maintain stability, trailers should be parked on firm level ground</li> <li>Ensure the vehicle or trailer has its brakes applied and all stabilisers are used</li> <li>Working at height to be considered</li> <li>Always check the floor or deck of the transportation.</li> </ul> <p>Loading Procedure:</p> <ol style="list-style-type: none"> <li><i>Make sure the ramps are correctly in place and secure</i></li> <li><i>Carefully drive the machine onto the trailer</i></li> <li><i>When the machine is safely in position, engage the parking brake and set the drive to neutral</i></li> <li><i>Lower the carriage onto the trailer</i></li> <li><i>Secure the stabilisers in the raised position</i></li> <li><i>Switch off the engine and remove starter key. Secure the cab</i></li> <li><i>Ensure legal load (height/ weight)</i></li> </ol>	<ul style="list-style-type: none"> <li>State the methods of communication between the plant operator and others</li> <li>Describe the dangers of and requirements for working at height when on the vehicle bed.</li> </ul>

# Training Standard

<b>Learning outcomes</b> <i>Delivery to include and the candidate will be able to:</i>	<b>Additional guidance to support learning outcome</b> <i>Training Content to contain the following as a minimum:</i>	<b>Assessment Criteria</b>
	8. <i>Anchor the machine to the trailer with chains as per manufacturer guidelines.</i>	
<b>Carry out all end of work and shut down procedures</b>		
<ul style="list-style-type: none"> <li>• Types of safe locations, areas, and ground/terrain types where machine may be parked and should not be parked</li> <li>• Reasons for ensuring safe parking and unintentional movement and ground support requirements</li> <li>• Carrying out parking, shut down and isolation requirements according to manufacturer’s instructions</li> <li>• Reasons for machine isolation including security and non-authorized use by others</li> <li>• Use of anti-vandalism equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• Shut down procedures:               <ol style="list-style-type: none"> <li>1. <i>If turbo is fitted, you must run down the engine, failing to do this will result in shortening the life of the turbo</i></li> <li>2. <i>Handbrake applied</i></li> <li>3. <i>Set the forward/ reverse lever to neutral</i></li> <li>4. <i>Retract and lower the boom, rest the forks flat on the ground</i></li> <li>5. <i>All switches are set to off</i></li> <li>6. <i>Remove the starter key</i></li> <li>7. <i>Latch all windows and lock the door</i></li> <li>8. <i>Remove the battery isolator key.</i></li> </ol> </li> <li>• Security:               <ol style="list-style-type: none"> <li>1. <i>Ensure that all vehicles are securely immobilised whenever the site is unoccupied</i></li> <li>2. <i>Anti – vandalism equipment fitted (if required).</i></li> </ol> </li> <li>• When parking the machine at the end of the shift ensure the machine is not parked:               <ol style="list-style-type: none"> <li>1. <i>Site roads</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Describe the use of anti-vandalism equipment</li> <li>• Apply brake systems effectively.</li> </ul> <p><b>The following should be observed during the practical assessment:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate and explain safe parking of the machine - machine is parked in a safe, designated location, clear of hazards on level, firm ground</li> <li>• Demonstrate how to isolate and secure the machine to prevent non-authorized use and explain why this is important.</li> </ul>



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	<ol style="list-style-type: none"><li>2. <i>Pedestrian routes</i></li><li>3. <i>Soft/ wet/ steep ground</i></li><li>4. <i>Access/ egress routes from buildings.</i></li></ol> <ul style="list-style-type: none"><li>• Describe the use of anti-vandalism equipment</li></ul>	

## Additional information About this Standard

### Emphasis to be placed on the following topics:

- Quick-hitch attachment systems - Manufacturer's procedures must be strictly adhered to, Security of attachments are to be fully checked (physically) prior to use, Guidance issued by the Health and Safety Executive (HSE), The Construction Plant-hire Association (CPA) and the Off-highway and Plant Equipment Research Centre (OPERC) should be followed and recommended to candidates
- Travel Speed – Appropriate speed in proportion to the conditions, particularly when carrying a load. Travel speeds around corners and on uneven ground. Appreciation of centres of gravity. Mandatory wearing of seatbelt
- Manoeuvring - Facing the direction of travel and no reversing unless authorised by a nominated vehicle marshaller
- Machine isolation - When exiting the cab, attachment must be grounded and machine switched off with the key removed before exiting the cab at any time
- Working/ danger/hazard zone - Ensuring that all personnel are out of the machine's working radius whilst hydraulically active (unless hydraulic-operated restrictors are fitted and active) Controls must be isolated when loads are being attached/detached
- Travelling on inclines – Understanding of travelling and steering up, down and across inclines
- Weight transfer – Reduced carrying capacity with extending masts.

**Note:** The listed training content should not be considered exhaustive and subjects may be added to reflect the individuals' working environment.

To identify a machine within this category, a typical telescopic handler would normally have the listed features and be used within the described characteristics:

### Category features:

- Multi axled wheeled chassis
- Side-mounted operating position, power, hydraulic, electrical units and counterweight components
- Extending multi sectioned boom with a tilting carriage allowing attachments to be fitted, all hydraulically operated.

### Category characteristics:

- Able to travel in forward and reverse and change direction during travel with most types having all-wheel steering and drive
- Most types can travel and operate on uneven and loose ground and slopes
- Carry out lifting, transfer and placing duties with loads mounted on forks, from ground level to maximum operating height and reach by raising and extending the boom as stated in the machine's manufacturers manual
- Carry out lifting, transfer and placing duties with loads suspended from the carriage and connected to the machine using a lifting accessory as stated in the machine's manufacturers manual.

### Theory Resource:

- PUWER 1998 Regulations
- LOLER 1998 Regulations

# Training Standard

- HSE GS6
- Codes of Practice
- Operator's manual
- Specifications for types of telescopic handler
- Site traffic management requirements
- Industry Guidance
- Copies of various types of load rating charts.

## Measure of this training standard

The candidate is required to pass the following tests:

### **CPCS Theory Test: Telescopic Handler (All endorsements)**

- Course Instructors can use the published CPCS Theory Questions during training to confirm that the learner is able to demonstrate the required knowledge understanding and retention to undertake the CPCS Standard Technical Theory Test.

### **CPCS Practical Test: Telescopic Handler (Specific Endorsement)**

- Course Instructors can use the published CPCS Practical Test criteria during training to confirm that the learner is able to demonstrate the required practical ability and understanding to undertake the CPCS Standard Technical Practical Test.

**Note** - Course Instructors can find the current versions of the CPCS Technical Test Theory Questions and CPCS Technical Practical Test NOCN Job Cards website and are subject to review, ensure you are using the most current version as printed versions are uncontrolled.

[www.nocnjobcards.org](http://www.nocnjobcards.org)