Course Objectives
C010 Telescopic Handler up to 9 metres (experienced)

It is envisaged that by the end of this course of training the trainee operator will be able to answer questions on and perform the following:

- explain the factors that help maintain a safe working environment in the construction industry, and their responsibilities as a telescopic handler operator
- identify and extract information from the manufacturers' handbook/operator's manual, and other information sources including digital
- locate and identify the major components, signs and decals and all controls of the telescopic handler and explain their functions
- conduct all pre-operational checks in accordance with manufacturers and legislative requirements
- identify and maintain personal protective equipment (PPE) and appropriate safety control equipment for a telescopic handler operator use
- safely get in to and out of the telescopic handler
- prepare the telescopic handler for movement
- travel and manoeuvre the telescopic handler across varying terrain and inclines, laden and unladen
- conduct all necessary safety checks at the loading and unloading areas
- manoeuvre, prepare and configure the machine to pick up a range of loads
- lift and transfer fork mounted loads accurately and safely at different locations
- place and remove loads from a vehicle
- fit, adjust and remove attachments
- explain environmental considerations of machine use
- explain loading/unloading procedures for machine transportation
- carry out all end of work and shut down procedures

Learning Outcomes for C010
Telescopic Handler up to 9 metres experienced

Learning Outcome	Instructor Notes
Explain the factors that help maintain a safe working environment in the construction industry, and their responsibilities as a telescopic handler operator	• 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, L117 and so forth. in accordance with risk assessments, method statements, codes of practice and other relevant legislation, regulations, and industry good practice • Operators' moral obligations, 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 such as, marshallers, supervisors, other plant operatives, other occupations, and support workers
Identify and extract information from the manufacturers' handbook/operator's manual, and other information sources including digital	• 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 • Types of information sources including machine control systems
Locate and identify the major components, signs and decals and all controls of the telescopic handler and explain their functions	• The purpose of principal components, the basic construction, controls, and terminology • 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
Conduct all pre-operational checks in accordance with manufacturers and legislative requirements	• Complete all pre-start and running checks 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 and so forth • Replenish fuels, fluids and lubricants, and undertake grease-based lubrication activities • Manufacturers periodic checks and operator level maintenance requirements • Defect reporting requirements • Carry out routine adjustments • Safety systems functions including emergency stop • Health and safety requirements when undertaking basic maintenance activities including personal protection equipment (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

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Identify and maintain personal protective equipment (PPE) and appropriate safety control equipment for a telescopic handler operator use	• 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. • Appropriate use of local exhaust ventilation (LEV), for example, 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
Safely get in to and out of the telescopic handler	• Working at height requirements • Safe use of all hand holds and steps • Facing the machine when getting in to and out of the telescopic handler for operational and maintenance purposes • Effects of continually getting in to and out of the telescopic handler such as, fatigue, increased risk of falling and so forth • Safe areas to get in to/out of the telescopic handler such as, ground location, other vehicle movements and so forth • Procedures for accessing the telescopic handler when carrying out adjustment and maintenance activities
Prepare the telescopic handler for movement	• Use of seatbelts and other restraining equipment • Adjustment of seating position and mirrors • Checks on steering (including multi-directional steering modes), braking, transmission, loader components such as, boom, extension and carriage tilt checks, loader control lock-out systems, stabilisers, chassis levelling (if fitted) • Lateral and longitudinal stability aids checks, such as, inclinometer, chassis tilt mechanism (if fitted), rated capacity indicator (RCI) / longitudinal load movement indicator (LLMIs) / load moment indicator (LMI) / load moment control (LMC) / limiters and so forth. and how this information is supplied • Starting procedures inc. cold starting procedures and isolation devices • Types of visibility aids and what factors can affect clear, all-round vision • where and why effective vision, including mirror positioning is extremely important • how and where issues can arise when vision is limited during operation • warning beacons and other safety systems/lights are operable • legislative requirements for travelling on the public highway • carrying of passengers/non-authorised personnel • how tyre condition, pressures, sizes, ratings and repairs and so forth. can affect machine stability and safety

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Travel and manoeuvre the telescopic handler across varying terrain and inclines, laden and unladen	• How travel speeds and gear selection affect working efficiency, stability, safety, and emissions • issues which can occur if departing from designated travel routes and work areas/restricted zones • types of underground services and the effects of travelling loaded machines near to/over services • effects of travelling close to embankments and trenches • travelling over various types of terrain, replicating typical site-type surfaces (loaded and unloaded) • travelling up, down on inclines (loaded and unloaded) including lateral and longitudinal stability • how certain types of surfaces can affect traction, particularly on inclines • machine configuration when travelling on steep inclines • how travelling on uneven and uncompacted surfaces affect stability • impact of changes to centre of gravity (loaded and unloaded) when travelling up, down and across inclines • dangers of travelling across inclines • effects of travelling with a raised boom • load integrity and security whilst travelling • giving way to loaded machines • travelling with large surface-area loads and wide loads • precautions and obstructions on travel routes including overhead utilities and so forth • regulative requirements for travelling near to or under overhead power lines • awareness of other machines and workers
Conduct all necessary safety checks at the loading and unloading areas	• Safety checks that must be carried out to ensure the loading area and unloading area are clear of hazards • loading and unloading in an area which is segregated from other activities including restricted zone requirements • requirements for sufficient manoeuvring area for the machine with a load • how different types of ground conditions may affect the stability to support the telescopic handler and load weight, to maintain machine stability • communication requirements and methods with slinger/signallers • working in hours of darkness and lighting requirements • people/plant interface, procedures and dangers of allowing others near to a working machine • collision mitigation systems
Manoeuvre, prepare and configure the machine to pick up a range of loads	• The correct use and application of steering, transmission and braking controls • the importance of maintaining good visibility• how visibility is affected by a partially raised boom • the correct use of all loaders hydraulic controls including boom raise/lower, side shift applications (if fitted), extension and fork carriage tilt and any safety features • correct machine configuration for different load types • what is a lift plan and typical information detailed in the plan • load charts, load centres/centres of gravity, lifting capacities relevant to reach and height • use of stabilisers and levelling systems (if fitted) • checking ground conditions to support the machine • determining the total weight to be lifted for the height and reach • methods of establishing weight of loads • procedure of reporting when handling loads of unknown weight • factors that can impact the lateral and longitudinal stability including with raised boom, overloading, ground, and levelling requirements • the correct fork spacing to equally support loads • requirements and restrictions with the use of working platforms

	including integrated and non-integrated types • prior confirmation on where each load needs to be transported to and where to be placed • how stabilisers increase stability • aligning and entering accurately to prevent damage to a load
Lift and transfer fork mounted loads accurately and safely at different locations	• Keeping within designated travel routes • maintaining full observation • procedures for travelling with large surface area-type loads • executing full turns to the left and right • lateral stability issues when cornering with a load • procedures for stacking of loads • lifting of unit-type loads including palleted and un-palleted • undercutting when lifting and placing loads • reasons for smooth use of all hydraulic controls, particularly at height • factors that affect safe and effective transportation of loads • handling of irregular shaped loads • loading-out tower requirements • factors and examples that determine where loads can and cannot be placed • methods of communication, radio protocol, hand signals and so forth. for unit loads • use of stabilisers
Place and remove loads from a vehicle	• Different types of vehicle/trailers • vehicle capacities • weight distribution and sequence/positioning of loads • communication with vehicle driver • loading and unloading sequences • moving a load tight to the headboard • undercut loads when lifting and placing of loads • proximity hazards including ground hazards, overhead hazards and those on the transporting vehicle due to the condition of the vehicle bed • loading procedures that prevent damage when placing/retrieving loads in close proximity to each other
Fit, adjust and remove attachments	• Typical attachment types and function • importance of limitations of certain attachments • function, use and precautions for quick-hitch systems • attachment and removal procedures including hydraulic systems • machine configuration and positioning • securing requirements and essential pre-use checks • matching attachments with load commodity being lifted • how the fitting of an attachment might affect the rated capacity of the lift truck and implication of extended load centres
Explain environmental considerations of machine use	• Health and social reasons to reduce machine emissions • government industry zero emission initiatives • what ‘tailpipe’ emissions are caused by IC (diesel) engines • 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 and so forth • 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

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Explain loading/unloading procedures for machine transportation	• Procedures for preparing the machine for loading onto a transporter • traction and surface preparation requirements • understanding of agreed methods of communication between the plant operator and others • working at height requirements when driving onto or off a transporter bed
Carry out all end of work and shut down procedures	• Types of safe locations, areas, and ground/terrain types where machine 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 • reasons for machine isolation including security and non-authorised use by others • use of anti-vandalism equipment

The learning outcomes listed should not be considered in isolation and may be added to in order to accurately reflect the learner's duties and working environment