Lift Truck and Construction Category List

Health & Safety Related Courses	
Category Number	**Category**
N132	Plant Mover – Non Operational Duties
N133	Plant Machinery Marshal
N403	Vehicle Marshal
N404	Safe Working at Height
N702A	Confined Spaces – Low Risk
N702B	Confined Spaces – Medium Risk
N702C	Confined Spaces – High Risk
N703	Fire Warden
N704	Manual Handling
N711	Safe Use of Ladders
N723	Harness and Fall Arrest
S001	Safety Awareness

Miscellaneous Equipment	
Category Number	**Category**
N015	Soil Displacement Hammer
N022	Piling Rig Attendant
N026	Roll Crusher – Packer
N130	Horizontal Directional Drilling Rig
N207	Crusher
N208	Screener
N211	Concrete Pump (Mobile)
N221	Piling Rig
N721	Static Concrete Placing Boom

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Learning Outcomes for N132
Plant Mover - Non Operational Duties

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as an operator	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 1974, Restraining systems in accordance with risk assessment, MHSWR, PUWER Regulations, LOLER Regulations, COSHH, Vibration at Work Regulations, CDM Regulations, HSG85, risk assessments, method statements, codes of practice and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular machine to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Be able to locate and identify the major components of the machine and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the machine • Explain power units, fuel tank, guards, stability, hydraulic systems, transmissions, steering, braking, ROPS, FOPS and safety systems etc
Be able to locate and identify key controls and explain their functions	Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety of the machine and help prolong machine life by reducing wear and tear • The importance of emergency stopping procedures • Refer to the manufacturer's handbook, codes of practice, decals etc
Conduct all pre-operational checks in accordance with manufacturer's and legislative requirements	Explain the importance of pre-operational checks and legal implications of using a machine without having checked it • Go through the sequence of checking, use manufacturer's handbook, check sheet, defect reporting procedure etc
Identify and maintain PPE appropriate for plant mover use	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, overalls, hard hat etc

Learning Outcomes for N132
Plant Mover - Non Operational Duties

Learning Outcome	Instructor Notes
Prepare the equipment for use and operate machinery safely and efficiently	Explain and demonstrate all safety procedures to be adopted including: Correct starting procedure • Mount and dismount the machine • Correct operating procedure on slopes / banks • Identify and report any defects • Correct procedure for adjusting / changing different attachments • Follow all safe working procedures • Check electrical safety, overhead / underground services • Integrity of the machine
Conduct all necessary safety checks at the work area	Explain and demonstrate the following fully: Walk the site and highlight or remove any hazards • Confirm that the condition of the site is safe to work in • Importance of ground conditions • Report any hazards that cannot be removed • Set out warning signs and barriers, exclusion zones to warn members of the public and to exclude animals
Environmental considerations	Explain and demonstrate procedures to be adopted including: Clear visibility • Communication system – signals etc • Noise, dust • Vibration • Ground contamination • Ground damage • Fuel spill • Oil spills • Fumes • Flying debris
Storage and transport of machinery attachments	Explain and demonstrate the following: Allow all power driven implements to slow down • Check condition of hydraulic hoses – attachments etc • Correct / secure storage of attachments • Refer to manufacturer's handbook
Demonstrate knowledge and understanding of loading and unloading procedures for machine transportation	Explain procedures to be adopted including: Different types of transport vehicle • Positioning of load on vehicle • Load security • Use of banksman • Environmental conditions
Carry out all end of work and shut down procedures	Explain and demonstrate procedures to be adopted including: Shut down procedures and machine security • Parking procedure • Clean machine thoroughly after use to avoid corrosion, facilitate maintenance, prevent personal contamination • Inspect machine for signs of wear and damage

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

Learning Outcomes for N133
Plant Machinery Marshal

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as a vehicle / plant machinery marshal	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer etc • Explain Health & Safety at Work Act 1974, PUWER Regulations, LOLER Regulations, MHSAWA , CDM Regulations, ROPS, FOPS, Method statements, Risk assessments, Vibration at Work Regulations, Road Traffic Act, Safety Signs and Signals Regulations, GS6 and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular vehicle / machine to be used	Explain the importance of the manufacturer's handbooks and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Have a good understanding of signs and signals, approved hand signals and different forms of communication	Explain the importance of understanding all hand signs signals and legal implications of Guiding a vehicle / machine without having checked both parties understand • Go through the sequence of checking. Hand signals BS7121, BS 6736, use manufacturer's handbook to identify blind spots etc
Identify and maintain PPE appropriate for vehicle / plant machinery marshal	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, overalls, indicators, hard hat, reflectors etc.
Conduct all necessary safety checks at the work area	Explain and demonstrate the following fully: Walk the site and highlight or remove any hazards • Edge protection appropriate size • Overhead cables • Confirm that the condition of the site is safe to work in • Report any hazards that cannot be removed
Set up exclusion zone for loading / unloading	Explain the importance of exclusion zones and the necessity to keep pedestrians and other plant separate • Set out warning signs and barriers, to warn members of the public

Learning Outcomes for N133
Plant Machinery Marshal

Learning Outcome	Instructor Notes
Guide vehicle / machinery in a forward and reverse direction including confined space and blind spots maintaining full visual contact	Explain and demonstrate procedures to be adopted including: How to maintain full visual contact • Steering functions • Slip / trip possibilities • Reversing cameras • Stability and security • Tipping procedure • Safe procedure opening tail gates etc • Starting / stopping procedures
Environmental considerations	Explain and demonstrate procedures to be adopted including: Clear visibility • Communication system – signals etc • Noise • Dust • Vibration • Ground contamination • Ground damage • Fuel spills • Fumes • Flying debris
Carry out all end of work and shut down procedures	Explain and demonstrate procedures to be adopted including: Shut down procedures and machine security • Make safe and secure all attachments landed

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Learning Outcomes for N403
Vehicle Marshal

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as a vehicle marshal	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer etc • Explain Health & Safety at Work Act 1974, PUWER Regulations, LOLER Regulations, MHSAWA, CDM Regulations, Vibration at Work Regulations, Road Traffic Act, Safety Signs and Signals Regulations and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular vehicle / machine to be used	Explain the importance of the manufacturer's handbooks and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Have a good understanding of signs and signals, approved hand signals and different forms of communication	Explain the importance of understanding all signs and signals and legal implications of guiding a vehicle / machine without having checked both party's understand. Go through the sequence of checking. Use manufacturer's handbook to identify blind spots etc
Identify and maintain PPE appropriate for vehicle marshal	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, overalls, indicators, reflectors etc
Conduct all necessary safety checks at the work area	Explain and demonstrate the following fully: • Walk the site and highlight or remove any hazards • Edge protection appropriate size • Overhead cables • Confirm that the condition of the site is safe to work in • Report any hazards that cannot be removed
Set up exclusion zone for unloading	Explain and demonstrate the following fully: • Set out warning signs and barriers to warn members of the public • Explain the importance of exclusion zones and the necessity to keep pedestrians and other vehicles separate

Learning Outcomes for N403
Vehicle Marshal

Learning Outcome	Instructor Notes
Guide vehicle / machinery in a forward and reverse direction including confined spaces and blind spots maintaining full visual contact	Explain and demonstrate procedures to be adopted including: • How to maintain full visual contact • Steering functions • Slip / trip possibilities • Reversing cameras • Stability and security • Tipping procedure • Safe procedure opening tail gates etc • Starting / stopping procedures
Environmental considerations	Explain and demonstrate procedures to be adopted including: • Clear visibility • Communication system – signals etc • Noise • Vibration • Ground contamination • Ground damage • Fuel spills • Fumes • Flying debris
Carry out all end of work and shut down procedures	Explain and demonstrate procedures to be adopted including: • Shut down procedures and machine security • Make safe and secure all loose materials

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Learning Outcomes for N404
Safe Working at Height

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities when working at height	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer etc • Explain Health & Safety at Work Act 1974, PUWER Regs, LOLER Regs, Working at Heights Regulations, ACOP, INDG 401, risk assessments, method statements and other relevant legislation • Remind learners that workers have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Be able to define height work and identify the hazards of work above ground level and outline the general requirements necessary to control them	Explain the term working at height and the duties applies to employers, the self-employed, and any person that controls the work at height Work at height is defined as working at a place from which a person could be injured by falling, regardless of whether it is above or below ground level It also covers obtaining access to, or egress from, any place while at work except by a staircase in a permanent place of work. All work at height must be properly planned and organised
Be able to identify accident causation in work at height	Explain the main cause of accidents when working at height: • Inadequate scaffolding • Lack of edge protection • Unprotected openings in buildings • Dangerous demolition work and use of inappropriate ladders and hoists etc
Have an appreciation of planning and organisation of work at height	Explain the importance of the working at height regulation ensuring; • All work at height is properly planned and organised • Those involved in work at height are competent • The risks from work at height are assessed and appropriate work equipment is selected and used • The risks from fragile surfaces are properly controlled • Equipment for work is properly inspected and maintained

Learning Outcomes for N404
Safe Working at Height

Learning Outcome	Instructor Notes
Set up exclusion zone explaining actions required for emergency actions, identifying any overhead hazards	Explain and demonstrate procedures to be adopted including: • Warning and identification systems • Means of escape / safe decent • Cordon work off area • Minimum distances and clearances • Proximity hazards • Explain exclusion zones for pedestrian and vehicles
Identify and maintain PPE appropriate for safe working at height	Explain procedures to be adopted: Fall restraint and fall arrest systems, safety boots, hard hat, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, overalls
Demonstrate working at height and explain all safety issues that could arise	Explain and demonstrate procedures: • Can working at height could be eliminated and the task be done in another way • Explain that heights can affect candidates in different ways and the need to be profiled before the candidate attempts to be elevated • Explain hand rails, platforms and all safety guards and netting is of paramount importance

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Learning Outcomes for N702
Confined Spaces – Low Risk

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in confined spaces and their responsibilities as an operative	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 1974, Confined Space Regulations (as amended), risk assessments, method statements, ACOP requirements focussing on preventing the need to enter, safe systems of work and emergency / rescue requirements • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
To be able to enter a confined space individually and as part of a team in a trained, competent manner for <u>low risk environments only</u>	Explain that such areas will include loft spaces, under-crofts, and areas less than 3 meters in depth with good and natural ventilation and unobstructed access and any other area of low risk activities
Defining confined spaces	Explain what attributes to the designation of a confined space area • Generating an understanding between an "Enclosed area" and what is meant by a "Specified risk" • Look at different types of space and the difference between "Enclosed" & "Specified risk"
Managing confined spaces	Explain the Management of Health and Safety at Work Regulations • Explain why risk assessments, SWP's and permits are required prior to entry • What information is required within the documents and the format for documenting & reviewing • Emphasise the importance of hazard identification & controlling the works in and around confined space environments
Gas detection – hazardous atmospheres	Explain the effects of O^2 depletion & enrichment, flammable & toxic atmospheres; the requirements for ventilation and performing pre-entry testing of the space "Peak & detailed" results; calibration timescales & 'ATEX; intrinsic safety DSEAR'02; 'top-person' record charts and their importance • Explain the importance of 'WEL's / EH40', why a space must be assessed from entrance to base and demonstrate to delegates the correct use of gas detection & markings

Learning Outcomes for N702 Confined Spaces – Low Risk

Learning Outcome	Instructor Notes
NPORS Classification and applications of the types of categories under their control for low, medium and high risk working	Explain why there is a continuation to training for delegates working in the "Utility Sector" and why they have to conduct a competence assessment
Diseases / Hygiene	Explain the different types of diseases that can be contacted in & around confined space environments, i.e. Weils disease, routes of entry and self-protection levels including advanced hygiene • Explain the category "Simple PPE" and why PPE is the last line of defence. Routes of entry as detailed in 'COSHH' and the importance of welfare
Working at height – harnesses, tripod and winch	To understand the fall protection hierarchy • How to pre-use inspect and wear a safety harness designed for fall arrest / rescue. Inspect and use a tripod, winch, davit-arm and the importance of identifying "Pre-syncope" symptoms • Ensure that the delegates are aware of the direct dangers from working at height and can pre-use check & wear, where appropriate, access & egress equipment • Ensure that the delegates feel comfortable wearing the correct type of RPE in the classroom environment, to make them aware of the importance of a face-seal
Manning levels and communication	How to plan & carry out a sole entry (inclusive of top-person) as well as working in a team • Demonstrate working in close proximity to the "top-person' therefore maintaining verbal / visual communication where the task permits • Points need to be raised as to how a sole & team entry is performed and to address the importance of continuous communications

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Learning Outcomes for N702
Confined Spaces – Medium Risk

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in confined spaces and their responsibilities as an operative	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 1974, Confined Space Regulations (as amended), risk assessments, method statements, ACOP requirements focussing on preventing the need to enter, safe systems of work and emergency / rescue requirements • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
To be able to enter & traverse a confined space individually and as part of a team in a trained, competent manner	Typical environments include unobstructed; Chambers, manholes, wet wells, vertical shafts and tanks / vessels or any area that require horizontal entry
Defining confined spaces	Explain what attributes to the designation of a confined space area • Generating an understanding between an "Enclosed area" and what is meant by a "Specified risk" • Look at different types of space and the difference between "Enclosed" & "Specified risk"
Managing confined spaces	Explain the Management of Health and Safety at Work Regulations • Explain why risk assessments, SWP's and permits are required prior to entry • What information is required within the documents and the format for documenting and reviewing • Emphasise the importance of hazard identification and controlling the works in and around confined space environments
Gas detection – Hazardous atmospheres	Explain the effects of O^2 depletion & enrichment, flammable & toxic atmospheres • The requirements for ventilation and performing pre-entry testing of the space, "Peak & detailed" results, calibration timescales & ATEX, intrinsic safety DSEAR'02, "Top-person" record charts and their importance • Explain the importance of "WEL's / EH40", why a space must be assessed from entrance to base and demonstrate to learners the correct use of gas detection & markings

Learning Outcomes for N702
Confined Spaces – Medium Risk

Learning Outcome	Instructor Notes
NPORS classification and applications of the types of categories under their control for low, medium and high risk working	Explain why there is a continuation to training for learners working in confined spaces and why they have to conduct a competence assessment
Diseases / Hygiene	Explain the different types of diseases that can be contacted in & around confined space environments, i.e. Weils disease • Routes of entry and self-protection levels including advanced hygiene • Explain the category "Simple PPE" & why PPE is the last line of defence • Routes of entry as detailed in "COSHH2 & the importance of welfare
Working at height – Harnesses, tripod and winch	To understand the fall protection hierarchy • How to carry out pre-use inspection and wear a safety harness designed for fall arrest / rescue • Inspect & use a tripod, winch & davit-arm and the importance of identifying "Pre-syncope" symptoms • Ensure that the learners are aware of the direct dangers from working at height and can pre-use check & wear, where appropriate, access & egress equipment
Emergency escape breathing apparatus	Explain the different types • Explain and demonstrate how to inspect & use the "EEBA" focusing on "Donning & doffing" procedures, RPE requirements under COSHH, including face-fit testing advice • Ensure that the learners feel comfortable wearing the correct type of RPE in the classroom environment, to make them aware of the importance of a face-seal
Manning levels and communication	How to plan & carry out a sole entry (inclusive of top-person) as well as working in a team • Demonstrate working in close proximity to the "Top-person" therefore maintaining verbal / visual communication where the task permits • Points need to be raised as to how a sole & team entry is performed and to address the importance of continuous communications

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Learning Outcomes for N702
Confined Spaces – High Risk

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in confined spaces and their responsibilities as an operative	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 1974, Confined Space Regulations (as amended), risk assessments, method statements, ACOP requirements focussing on preventing the need to enter, safe systems of work and emergency / rescue requirements • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
To be able to enter & traverse a confined space individually and as part of a team in a trained, competent manner	Typical environments include unobstructed / obstructed; chambers, vertical shafts, tunnelling, multi-level landings and tanks / vessels that require horizontal entry
Defining confined spaces	Explain what attributes to the designation of a confined space area • Generating an understanding between an "Enclosed area" and what is meant by a "Specified risk" • Look at different types of space and the difference between "Enclosed" & "Specified risk"
Managing confined spaces	Explain the management of Health and Safety at Work Regulations • Explain why risk assessments, SWP's and permits are required prior to entry • What information is required within the documents and the format for documenting and reviewing • Emphasise the importance of hazard identification and controlling the works in / around confined space environments
Gas detection – Hazardous atmospheres	Explain the effects of O^2 depletion and enrichment, flammable and toxic atmospheres. The requirements for ventilation and performing pre-entry testing of the space "Peak & detailed" results, calibration timescales and ATEX, intrinsic safety DSEAR'02; "Top-Person" record charts and their importance. Explain the importance of 'WEL's / EH40', why a space must be assessed from entrance to base and demonstrate to learners the correct use of gas detection & markings
NPORS classification and applications of the types of categories under their control for low, medium and high risk working	Explain why there is a continuation to training for learners working in confined spaces and why they have to conduct a competence assessment

Learning Outcomes for N702
Confined Spaces – High Risk

Learning Outcome	Instructor Notes
Diseases / Hygiene	Explain the different types of diseases that can be contacted in and around confined space environments, i.e. Weils disease, routes of entry and self-protection levels including advanced hygiene • Explain the category "Simple PPE2 & why PPE is the last line of defence • Routes of entry as detailed in "COSHH" and the importance of welfare
Working at height – Harnesses, tripod and winch	To understand the fall protection hierarchy • How to carry out pre-use inspection and wear a safety harness designed for fall arrest / rescue. Inspect & use a tripod, winch, davit-arm and the importance of identifying "Pre-syncope" symptoms • Ensure that the learners are aware of the direct dangers from working at height and can pre-use check & wear, where appropriate access & egress equipment
Emergency escape breathing apparatus	Explain the different types • Explain and demonstrate how to inspect & use the "EEBA" focusing on "Donning & doffing" procedures • RPE requirements under COSHH, including face-fit testing advice • Ensure that the learners feel comfortable wearing the correct type of RPE in the classroom environment, to make them aware of the importance of a face-seal
Manning levels and communication	How to plan & carry out a sole entry (inclusive of top-person) as well as working in a team • Demonstrate working in close proximity to the "Top-person" therefore maintaining verbal / visual communication where the task permits • Points need to be raised as to how a sole & team entry is performed and to address the importance of continuous communications
Self-contained breathing apparatus	Introduce learners to self-contained breathing apparatus • Explain and demonstrate before, pre-use & after use checks • Practical assessment of skills taught, delegates to show a moderate level of competence has been achieved
Traverse procedures	Explain when a task becomes a traverse procedure and the additional changes that are required to allow the operation to be carried out • Emphasise the importance of "Rescue planning" both from a company perspective and liaison with public emergency services

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Learning Outcomes for N703
Fire Warden

Learning Outcome	Instructor Notes
Have a basic understanding of the principles of fire safety	Ultimate responsibility for fire safety in the workplace rests with employers. They must: Provide fire safety equipment • Put in place emergency procedures • Provide training for all staff, and display information for visitors All employees have a legal duty to: Be aware of emergency procedures • Comply with the findings of employer's risk assessments, report any fire risks • Fires are usually avoidable incidents. The most common causes in the workplace are: Arson, careless smoking, electrical faults, and naked flames • Explain that fire is also a major hazard in the home and that 70% of people killed by fire die in private dwellings
What fire is and how it spreads	Explain that fire is a chemical reaction known as combustion which occurs when fuel and oxygen are brought together with sufficient heat to cause ignition. A simple explanation of this process is the fire triangle • Explain that fire can spread very rapidly in 3 ways: Convection, conduction and radiation
Assessing fire risks	Explain that many fires are started deliberately. Waste bins and skips should be away from buildings and be secure • Contractors should have relevant work permits and be aware of escape routes and evacuation procedures • Check for missing fire extinguishers, fire doors being wedged open, combustible materials close to sources of ignition, overloaded electrical sockets • Check escape routes, fire exits must not be obstructed
Fire prevention	Explain the importance of ensuring that sources of heat don't arise from faulty or overloaded electrical equipment • Hot works must be controlled • Smoking should only be allowed in designated smoking areas • Take all precautions against arson • Reduce to a minimum the amount of flammable materials and substances • Ensure a fire risk assessment is carried out by a competent person • Carry out weekly fire alarm tests
Controlling the effects of fire if they start	Explain that a fire may be discovered anywhere by seeing, smelling or hearing it • If a fire is discovered it is important to keep calm and follow the emergency procedure • Contain the fire as far as it is safe and possible to do so and raise the alarm immediately • Many small fires can be extinguished safely, preventing serious injury or damage • Emphasise that fires should only be tackled if it is safe to do so

Learning Outcomes for N703
Fire Warden

Learning Outcome	Instructor Notes
Means of extinguishing fires	Explain the fire triangle and that in most cases removing one of the sides of the triangle will extinguish the fire. One method is to remove the heat; this is done most commonly with water. Another method is to remove the fuel and starve the fire. Thirdly removing or limiting the oxygen supply can extinguish the fire • It is essential that people are trained to know the different uses of fire extinguishers and that they can recognise them
The role of a fire warden	The role of a Fire Warden is to assist the fire safety manager in assessing the risks, spotting and reporting hazards. Taking appropriate action in the event of a fire, first aid fire fighting, ensuring a full and swift evacuation. Accurate records of all personnel working in the area must be kept and updated as necessary. They must know the emergency procedure in the event of a fire, the location of all entrances and exits to the building, the location of portable fire extinguishers, hose reels, alarm call points and fire blankets. Carry out daily, weekly and monthly checks
Emergency procedures and means of escape	Explain and demonstrate and locate the emergency exits, fire escapes and means of escape • Explain that people need to be able to turn away from a fire as they escape, or be able to pass a fire when it is still relatively small. If there are two of more escape route • Explain they need to lead in different directions, they need to be short, and should be wide enough for the volume of people using them • Explain that there should never be obstructions in the escape routes and should be checked on a regular basis. Special arrangements must be made for disables and vulnerable personnel lighting is essential and all routes should be well lit, and all personnel have to be able to get out of the building in 2 to 3 minutes

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Learning Outcomes for N704
Manual Handling

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as an operative	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury • Can be affected by noise • Vibration and can lead to lost time • Lost income • Expense for the employer etc • Explain Health & Safety at Work Act 1974 • Manual Handling Operations Regulations (as amended) • MHASAWR • PUWER Regs • LOLER Regs • COSHH • Codes of practice • L23 • HSG 115 • Remind learners that operators have moral obligations • Legal obligations and environmental obligations • Explain reporting structures • The importance of good communication on site (colleagues, management, and other workers on site)
State the definition of manual handling, the main causes of manual handling injuries and the reasons for manual handling training	Explain the definition of manual handling as stated in the Manual Handling Operations Regulations • Review manual handling injury statistics and the causes of manual handling injuries • Explain the reasons for manual handling training including Humane, Economic and Legal (H.E.L.)
Describe the function and shape of the human spine	Explain that the spine is one of the most important parts of the body as it is the main supporting structure of the body • Explain that the spine is made up of 5 groups of vertebrae, natural curvature, ligaments, muscles etc
Describe the function of the intervertebral discs	Explain the construction of the intervertebral discs, flexible, fibrous, annulus, nucleus, prolapsed discs • Explain the functions of the intervertebral discs, shock absorber, strong connecting link between vertebrae, allow movement between each vertebrae whilst controlling the extent of the movement in conjunction with other ligaments
Understand the effects of static loading and the risks involved in team lifting	Explain the effects of static loading on the body and the dangers of shock loading • Explain good posture and the importance of maintaining good posture. Stress the advantages of team lifting, also the risks involved, reduced lifting capability, sufficient hand holds, communication, noise levels etc

Learning Outcomes for N704
Manual Handling

Learning Outcome	Instructor Notes
Demonstrate an understanding of formal and dynamic risk assessment	Explain • The hierarchy of control in relation to manual handling, avoid, assess, reduce • Avoid – redesign, automate, reduce (R.A.M) • Assess – task, individual capability, load, environment, other factors (T.I.L.E.O) • Reduce – training, supplier information, team lifting, job rotation, adequate rest periods, storage heights of loads • Explain that not all manual handling risk assessments will be written down and that dynamic risk assessment is very important also
Identify and maintain PPE appropriate for manual handling operations	Explain that PPE should include the following: Suitable safety footwear, ear protection, face / eye protection, dust mask, suitable gloves, overalls etc
Conduct all necessary safety checks at the work area	Explain and demonstrate the following fully: • Walk the site and highlight or remove any hazards • Confirm that the condition of the site is safe to work in • Check floor and ground conditions • Report any hazards that cannot be removed, excessive heat and cold
Describe and demonstrate safe handling techniques	Explain the importance of safe lifting and handling techniques and the need to protect the back at all times • Demonstrate a safe kinetic base lift and explain the procedure. Stress that the base lift may not be applicable in all workplace situations • Cover awkward loads, retrieval of loads from different heights in line with the risk assessment filter • Correct pulling and pushing techniques • Load weight assessment prior to lifting • Checking centre of gravity • Live loads etc

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

Learning Outcomes for N711
Safe Use of Stepladders and Ladders

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer etc • Explain Health & Safety at Work Act 1974, PUWER, risk assessments, method statements, ACOP, EN131, INDG402, and Working at Height Regulations, PPE Regulations and Manual Handling Regulations • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular ladder to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Be able to locate and identify the major components of the ladder and explain their functions	Explain the different types of ladders and different components of the ladder • Explain the function of the components and how they all contribute to the safety and operational integrity of the ladder • Explain rungs, stiles, grips, side rails, anti-slip feet, spreader brace, tray, cross brace, fly section, base section, rung locks, gusset, rope and pulley systems etc
Conduct all safety checks in accordance with manufacturer's and legislative requirements	Explain the importance of checks and legal implications of using a ladder without having it checked. Use manufacturer's handbook, check sheet, defect reporting procedure, also check weather conditions, wind speed etc
Select suitable type of ladder relative to the work being undertaken	Explain the different types of ladders that are available, and may be selected dependant on the type of work being conducted, height, location, length of time used etc
Identify and maintain PPE appropriate for ladder use	Explain that PPE should include the following: Hi-vis clothing, overalls, suitable safety boots, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, hard hat etc

Learning Outcomes for N711
Safe Use of Stepladders and Ladders

Learning Outcome	Instructor Notes
Erect dismantle and relocate ladder safely and efficiently	Explain and demonstrate the following fully: • Walk the site and highlight uneven ground, general ground conditions and remove any hazards e.g. works debris • Locate overhead obstructions • Set up and secure exclusion zone and set out warning signs and barriers to warn the workforce and members of the public • Confirm wind speeds and weather conditions are suitable to work safely • Report any hazards that cannot be removed • Confirm ladder is secured, tied and supported • Ensure 4:1 or 75% safe angle for ladder use • Demonstrate correct procedure for dismantling ladders correctly • Demonstrate 3 points of contact at all times
Carry out end of work inspections	Explain and demonstrate procedures to be adopted including: • Place barriers around at ground level to prevent people from walking into the work area • Check condition of ladders, runs, stiles, grips, side rails, anti-slip feet, spreader brace, tray, cross brace, fly section, base section, rung locks, gusset, rope and pulley systems etc
Environmental considerations	Explain and demonstrate procedures to be adopted including: • All round clear visibility • Communication system – signals etc • Wind speeds • Weather conditions • Noise • Vibration • Ground contamination from work debris • Flying debris • Dust
Storage of ladder	Explain and demonstrate the following: Correct / secure storage of ladders as per manufactures recommendations

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Learning Outcomes for N723 – Harness and Fall Arrest

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer etc • Explain Health & Safety at Work Act 1974, PUWER Regs, Risk Assessments, Method Statements, ACOP, INDG 401, BS EN 361, 354, 365, 8437, and Working at Height Regulations, PPE Regulations etc. Remind learners that operators have moral obligations; legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular harness / fall arrest to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Be able to locate and identify the major components of the harness / fall arrest and explain their functions	Explain the different types of harness / fall arrest and different components • Explain the function of the components and how they all contribute to the safety and operational integrity of the harness / fall arrest • Explain harness • Identification tag • CE mark • Lanyard • Stitching • Buckles • Clips • SWL • Labels • Carbines • Anchor points • Selection • Suitability • Inertia reel • Energy absorber lanyard compatibility • All safety systems etc
Conduct all Safety checks in accordance with manufacturer's and legislative requirements	Explain the importance of checks and legal implications of using a harness / fall arrest without having it checked. Use manufacturer's handbook, check sheet, defect reporting procedure, also check weather conditions, wind speed etc
Select suitable type of harness / fall arrest relative to the work being undertaken	Explain the different types of harness / fall arrest that are available, and may be selected dependant on the type of work being conducted, fall prevention, Full body harness, belt harness, height, location, length of time used etc
Identify and maintain PPE appropriate for harness / fall arrest use	Explain that PPE should include the following: Overalls, suitable safety boots, Hi-Viz clothing, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, hard hat with chin strap etc

Learning Outcomes for N723 – Harness and Fall Arrest

Learning Outcome	Instructor Notes
Correctly fit and remove the safety harness / fall arrest and demonstrate correct use	Explain and demonstrate the following fully: • Correctly fit and remove the safety harness / fall arrest • Walk the site and highlight uneven ground, general ground conditions and remove any hazards e.g. works debris • Locate overhead obstructions • Set up and secure exclusion zone and set out warning signs and barriers to warn the workforce and members of the public • Confirm wind speeds and weather conditions are suitable to work safely • Report any hazards that cannot be removed • Confirm anchor point is suitable and secure
Carry out end of work inspections	Explain and demonstrate procedures to be adopted including: • Check condition of harness / fall arrest • Lanyard • Stitching • Buckles • Clips • SWL • Labels • Carbines • Anchor points • Selection • Suitability • Inertia reel • Energy absorber etc
Environmental considerations	Explain and demonstrate procedures to be adopted including: • All round clear visibility • Communication system – signals etc • Wind speeds • Weather conditions • Noise • Vibration • Ground contamination from work debris • Flying debris • Dust
Storage of harness / fall arrest	Explain and demonstrate the following: • Correct / secure storage of harness / fall arrest as per manufactures recommendations

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

Learning Outcomes for S001
Site Safety Awareness

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and the responsibilities of the Employer, Employee and Self-employed	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration, Silica dust that can lead to lost time, lost income, expense for the employer or even death • Explain Health & Safety at Work Act 1974, Management of Health and Safety at Work Regulations, PUWER Regulations, LOLER Regulations, risk assessments, method statements, duties, responsibilities, accident prevention, causes and costs • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a basic understanding of Emergency procedures- First aid and Fire, Health Risks and welfare. Work at height, P.P.E	Explain the importance of understanding the emergency procedures on every site and how to raise the alarm. Causes of fires. Nominated first aiders. Skin diseases and symptoms of ill health. Provision of adequate welfare facilities washing, toilets, heating, accommodation etc. Risks and penalties from Drug and Alcohol use. The Work at Height regulations, risks from work at height and the control measures to be in place. Personal Protective Equipment at Work Regulations the provision of P.P.E and the hierarchy of controls, assessment, maintenance, information instruction and training
Have a basic understanding of Hazardous substances and environmental waste protection and control, manual handling, electrical safety, hand tools and equipment	Explain the COSHH Regulations and the Environmental and Waste Control Environment Protection Act, the risks associated with hazardous substances to users and environment. The Manual Handling Regulations, the need to avoid where practicable or reduce the risk of injury by adopting correct lifting techniques, use of aids etc. The Electricity at Work regulations, the dangers involved and the means of protection. Electric hand tools voltage, inspection and frequency etc

Learning Outcomes for S001
Site Safety Awareness

Have a basic understanding of the effects that noise, vibration and site transport have on individuals and the environment	Explain the Control of Noise at Work Regulations, the long term and irreparable damage that noise can cause if not managed. The effects on health from dust and fumes caused through working activities and site transport taking into account WELs. The Control of Vibration at Work Regulations-covering HAVS and WBV and the precautions to be undertaken. The Confined Space Regulations- definitions of confined spaces the risks and control measures
Have a basic understanding of Excavations, Inspections, transport safety	The CDM Regulations - Ensuring safety of excavations from collapse or fall of any person, material or equipment. Competent persons to carry out inspections and reports of excavations. Traffic routes organised to allow movement of vehicles and pedestrians safely. Health and Safety (signs and signals) Regulations- to cover the rules and best practices for signals when directing traffic

Learning Outcomes for N015
Soil Displacement Hammer

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as an operator	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer etc • Explain Health & Safety at Work Act 1974, PUWER, COSHH, Confined Space Regs, risk assessment, method statements, codes of practice and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular soil displacement hammer to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Be able to locate and identify the major components of the soil displacement hammer and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the soil displacement hammer • Explain power units, compressor, lock pins, clamping plate, guides, hydraulic oil, cutting crown, chisel, hose connections, lubricator, forward and reverse mechanism, starting cradle and alignment tool, sighting staff aiming frame, adjusting bolts, instruments, attachments, safety systems etc
Be able to locate and identify key controls and explain their functions	Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety of the machine and help prolong machine life by reducing wear and tear. Refer to the manufacturer's handbook, codes of practice, decals etc
Demonstrate knowledge and understanding of assembling and dismantling procedures	Explain and demonstrate the following: Tool stability, air hose connections, air pressures, importance of clean and secure hose joints, environmental issues etc
Conduct all pre-operational checks in accordance with manufacturer's and legislative requirements	Explain the importance of pre-operational checks and legal implications of using a soil displacement hammer without having checked it. Go through the sequence of checking. Use manufacturer's handbook, check sheet, defect reporting procedure etc

Learning Outcomes for N015
Soil Displacement Hammer

Learning Outcome	Instructor Notes
Select suitable type of soil displacement hammers and attachments relative to the work being undertaken	Explain different types and attachments are available, and may be selected dependant on the type of work being conducted, location, length, ground type etc. Explain solo boring, pipe pulling, sleeve attachments and pipe replacement
Identify and maintain PPE appropriate for soil displacement hammer use	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, overalls, hard hat etc
Conduct all necessary safety checks at the work area	Explain and demonstrate the following fully • Walk the site and highlight any hazards • Underground services / obstructions, use site drawings, cable location tools, contact utility owners, dig trial holes, confirm that the condition of the site is safe to work in • Report any hazards that cannot be removed • Set out warning signs, safety / protection devices • Explain confined spaces, trench collapse and the use of shoring. Different soil types and their responses
Prepare soil displacement hammer for use	Explain and demonstrate all safety procedures to be adopted including: • Correct starting procedure, boring position and routes • Follow all safe working procedure • Check soil stability, underground cables • Ground conditions • Position of staff, depth etc
Operate soil displacement hammer safely and efficiently	Explain and demonstrate all safety procedures to be adopted including: • Correct starting procedure, confined areas • Correct operating / boring procedure • Anchoring procedure • Identify and report any defects • Correct procedure for signalling • Follow all safe methods of communication • Positioning and angles • Soil type • Maintaining correct angles of bore • Types of boring heads • Productive cycles of operation • Detecting positional devices
Environmental considerations	Explain and demonstrate procedures to be adopted including: • Clear visibility • Noise • Dust • Vibration • Ground contamination • Fuel spills • Fumes • Waste fluids / material
Carry out all end of shift and shut down procedures	Explain and demonstrate procedures to be adopted including: • Shut down procedures and machine security • Clean machine thoroughly after use to avoid corrosion, facilitate maintenance, prevent personal contamination • Inspect machine for signs of wear and damage

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Learning Outcomes for N022
Piling Rig Attendant

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as a piling rig attendant	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 74, PUWER Regs, LOLER Regs, COSHH Regs, RIDDOR Regs, Manual Handling regs, Environmental Regs, Risk assessment, Method statements, Permits, Working platform certs, FPS guidance documents, Safety zones, and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the piling rig to be attended	Explain the importance of having a working knowledge of the Rig and the understanding of the manufacturer's handbook. Explain that it will be used throughout the course and stress that it has to be used in alliance with all relevant legislation • Explain the different types of Piling i.e. CFA – Displacement – Bored etc
Be able to locate and identify the major components of the piling rig and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the machine • Explain Power units, Counterweights, Steering, Hydraulic system, Undercarriage, Wheels, Guards, Kelly bars, Masts, Drive head, Auger, Snorkel, Tracks, Tremie pipes, Hopper, Winch, Lifting equipment, Piling equipment, Pile types, Fuel tank, Guards, Stability, Ground pressure, ROPS, FOPS and Safety systems etc
Be able to locate and identify ancillary equipment and explain their functions	Explain the different ancillary equipment stating their function and purpose • Explain the importance of checking the ancillary equipment for damage and suitability for the given task
Assist in conduct all pre-operational checks in accordance with manufacturer's and legislative requirements	Explain the importance of assisting with the pre-operational checks and the legal implications of using a machine without having checked it. Go through the sequence of checking. Use manufacturer's handbook, check sheet, defect reporting procedure etc

Learning Outcomes for N022
Piling Rig Attendant

Learning Outcome	Instructor Notes
Conduct safety checks of the work area and agree hand signals and verbal commands	Explain what safety checks must be made prior to piling operations starting • Demonstrate how you would brief all personnel involved in the Piling operation, contents of the method statement, risk assessments and permits to work • Identify exclusion and safe zones • Check travel and routes • Check proximity hazards, overhead cables / underground cables etc • Explain the line of communication will be selected dependant on the type of location and work being conducted • Reduce manual handling where applicable
Identify and maintain PPE appropriate for piling rig attendant	Explain that PPE should include the following: Suitable safety boots, ear defenders, face/eye protection, dust mask if appropriate, suitable gloves, overalls, hard hat etc
Assist in rigging-up and prepare ancillary equipment for piling operations	Demonstrate how to assist the operator rigging-up the piling rig and explain the tasks involved. Ensure that resources and materials for the installation of the Piles are in place • Explain and demonstrate how to check the pile layout drawing / design etc • Placement of pumps, compressors, concrete skips, steel work etc
Guide and position rig on piling position and start piling process	Explain and demonstrate all safety procedures to be adopted including: • Guiding the rig over the pile position • Correct siting of the rig • Correct guiding procedures in confined areas • Inspect surrounding ground for deterioration • Maintain pile position using offsets etc • Record completed piles and specifications • Refuelling procedures etc
Environmental considerations	Explain and demonstrate procedures to be adopted including: The removal of surplus spoil • Noise • Dust • Vibration • Ground contamination • Fuel spills • Fumes • Ground deterioration • Concrete spills • Lifting operations • Ground preservation etc
Assist in de-rigging and end of shift and shut down procedures	Explain and demonstrate procedures to be adopted including: • Shut down procedures and machine security • De-rigging procedures • Clean machine thoroughly after use to avoid corrosion, facilitate maintenance, prevent personal contamination • Inspect machine for signs of wear and damage
Demonstrate knowledge of assisting loading and unloading procedures for machine transportation	Explain and demonstrate the following: • Different types of transport vehicle • Positioning of load on vehicle • Load security • Use of banksman • Environmental conditions etc

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Learning Outcomes for N026
Roll Crusher-Packer

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as a roll crusher -packer operator	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer, etc. • Explain Health & Safety at Work Act 1974, PUWER Regs, GS6, RIDDOR Regs, Waste regulations, risk assessments, method statements, ACOPs and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular machine to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Be able to locate and identify the major components of the machine and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the machine • Explain, power units, hydraulic systems, Crushing wheel, Boom undercarriage, Skip mover, control panel, wheels, steering, flashing light, and all safety signs and systems etc
Be able to locate and identify steering, driving controls and explain their functions	Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety and stability of the machine and help prolong machine life by reducing wear and tear. Refer to the manufacturer's handbook, codes of practice and decals
Identify and maintain PPE appropriate for Roll Crusher-packer use	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, overalls, hard hat etc
Conduct all pre-operational and running checks in accordance with manufacturer's and legislative requirements	Explain the importance of pre-operational and running checks and legal implications of using a machine without having checked it • Go through the sequence of checking. Use manufacturer's handbook, check sheet, defect reporting procedure etc
Safely mount and dismount the machine	Explain the following fully: • Correct mounting procedure • Observations • Use of safe hand holds • Correct dismounting procedure

Learning Outcomes for N026
Roll Crusher-Packer

Learning Outcome	Instructor Notes
Configure the machine for travel and manoeuvre it safely in open and confined areas	Explain the following fully: • Safe use of steering • Driving controls, travel position • Good visibility • Skip mover • Travel around site / road
Conduct all necessary safety checks at the work area	Explain how to carry out pre-operation safety checks, including: • Vehicles • Ground conditions • Drains • Manholes • Overhead obstructions • Power lines • Other workers • Types of waste • Site Traffic, Skip contains etc
Manoeuvre the machine to the work area and correctly configure in readiness to carry out Crushing - Packing tasks	Explain all safety procedures to be adopted including: • Observations to be made prior to and during manoeuvring machine • Correct site speed • Check ground type, work specification • Correct signage etc
Carry out Crushing-Packing tasks safely and efficiently	Explain procedures to be adopted including: • Different types of Crushing - Packing methods • Job specifications, method statements, risk assessments, permits • Traffic control • Signage • Alignment • Different Skip Types • Materials etc
Demonstrate knowledge and understanding of Crushing-Packing procedures, dangerous objects, diverse waste, types of hazardous and toxic waste and waste landfill codes	Explain procedures to be adopted including: • Different types and classes of waste • Inert waste • Positioning / safety of vehicle when tipping • Hazardous waste • Cleaning techniques • Codes from European Waste Catalogue e.g. EWC 20-03-01 etc
Environmental considerations	Explain and demonstrate procedures to be adopted including: • Clear visibility, dangerous objects • Communication system – signals etc • Noise • Clearing of compaction wheel • Disposal of waste material • Ground contamination • Fuel spills • Fumes • Hazardous and non-hazardous waste • Dangers of contacting different diseases from waste e.g. Legionnaire's, Weil's, Hepatitis or Tetanus etc
Carry out all end of shift and shut down procedures	Explain and demonstrate procedures to be adopted including: • Safe parking • Shut down procedures • Post stop checks • Machine security

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Learning Outcomes for N130
Horizontal Directional Drilling Rig

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as an operator	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 1974, PUWER Regulations, COSHH, risk assessment, method statements, codes of practice and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular machine to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Be able to locate and identify the major components of the machine and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the machine • Explain power units, counterweights, steering, hydraulic system, undercarriage, drill types, shuttle, anchoring systems, drilling unit, drill frame / head, back reamers, swivels, pulling devices, loading devices, drill rods, pump, transmitter and receiver's transmissions, fuel tank, guards, stability, ground pressure, ROPS, FOPS and safety systems etc
Be able to locate and identify key controls and explain their functions	Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety of the machine and help prolong machine life by reducing wear and tear. Refer to the manufacturer's handbook, codes of practice, decals etc
Conduct all pre-operational checks in accordance with manufacturer's and legislative requirements	Explain the importance of pre-operational checks and legal implications of using a machine without having checked it. Go through the sequence of checking. Use manufacturer's handbook, check sheet, defect reporting procedure etc
Select suitable type of relative to the work being undertaken	Explain different types are available, and may be selected dependant on the type of work being conducted, location, length, ground type etc

Learning Outcomes for N130
Horizontal Directional Drilling Rig

Learning Outcome	Instructor Notes
Identify and maintain PPE appropriate for horizontal directional drilling rig use	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, overalls, hard hat etc
Prepare horizontal directional drilling rig for use	Explain and demonstrate all safety procedures to be adopted including: Correct starting procedure, travel position and routes • Correct Drilling procedure on slopes / inclines • Follow all safe working procedures – direction of travel etc • Check electrical safety, overhead cables / underground cables • ground conditions • Depth • fuel level etc
Conduct all necessary safety checks at the work area	Explain and demonstrate the following fully: Walk the site and highlight any hazards • Underground services / obstructions confirm that the condition of the site is safe to work in • Report any hazards that cannot be removed • Set out warning signs, safety / protection devices
Operate machinery safely and efficiently	Explain and demonstrate all safety procedures to be adopted including: Correct starting procedure, confined areas • Mount and dismount the machine • Correct operating / drilling procedure on slopes / inclines • Anchoring procedure • Identify and report any defects • Correct procedure for signalling, Drill securing / connection • Follow all safe methods of communication • Rig positioning and angles • Soil type • Maintaining correct angles of drill, drill positioning • Types of drill heads • Productive cycles of operation • Detecting positional devices • Correct size reservoir hole for returns waste
Environmental considerations	Explain and demonstrate procedures to be adopted including: Clear visibility • Noise • Dust • Vibration • Ground contamination • Fuel spills • Fumes • Waste fluids / material
Demonstrate knowledge of loading and unloading procedures for machine transportation	Explain and demonstrate the following: Different types of transport vehicle • Positioning of load on vehicle • Load security • Use of banksman • Environmental conditions
Carry out all end of shift and shut down procedures	Explain and demonstrate procedures to be adopted including: Shut down procedures and machine security • De-rigging procedures • Clean machine thoroughly after use to avoid corrosion, facilitate maintenance, prevent personal contamination • Inspect machine for signs of wear and damage

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

Learning Outcomes for N207 Crusher

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as a plant operator	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration, dust and can lead to serious illness, death, lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 1974, PUWER Regs, LOLER Regs, Working at Height Regs, risk assessments, method statements, codes of practice and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular machine to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation, COSHH Assessments
Be able to locate and identify the major components of the machine and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the machine • Explain, power units, hydraulic systems, undercarriage, drive systems, chassis, wheels, tracks, belts, drums, skirts, jaws, hammers, feeder, Emergency stops, stability, ground pressure, safety systems etc
Be able to locate and identify how to use the remote control for steering and driving and explain all their functions	Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety and stability of the machine and help prolong machine life by reducing wear and tear. Refer to the manufacturer's handbook, codes of practice, decals
Conduct all pre-operational checks in accordance with manufacturer's and legislative requirements	Explain the importance of pre-operational checks and legal implications of using a Crusher without having checked it • Go through the sequence of checking, use manufacturer's handbook, check sheet, defect reporting procedure etc
Identify and maintain PPE appropriate for the crusher	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask, Fall prevention systems, suitable gloves, overalls, protective clothing etc
Safely mount and dismount the Crusher	Explain the following fully: Correct mounting procedure, observations, use of safe hand holds • Working at height awareness, slips trips and falls • Correct dismounting procedure • Observations • Use of safe hand holds

Learning Outcomes for N207 Crusher

Learning Outcome	Instructor Notes
Start and stop the Crusher engine, belts, feeder, jaws / hammers safely	Explain and demonstrate the following: Correct starting and stopping procedure in accordance with manufacturer's recommendations • Correct procedure and sequence for starting production
Configure the machine for travel and manoeuvre it safely across varying terrain in open and confined areas	Explain the following fully: Safe use of steering and driving controls, travel position • Position of Drive sprockets and the reasons of importance • Correct procedure for stowing away discharge belts / safety supports used • Good all round visibility • Travel around site, possible road travel
Conduct all necessary safety checks at the work area	Explain how to carry out pre-operation safety checks, including: Vehicles • Ground conditions and confined spaces • Overhead obstructions • Power lines • Buried services • Slopes, inclines, Other workers
Explain different types of crushers, their advantages and dis-advantage of using, and how they produce the desired size material	Explain in detail the differences between: Jaw crusher • Rotary crusher • Cone crusher
Communicate with the loading operator establishing agreed signs, desired product size and production speed	Explain procedures to be adopted including: Different types of processed material sizes • Method statements • Job specifications • Risk assessments • Permits to crush • Reporting procedures • Minimum clearance • Placement or disposal of processed material • Segregation of materials • Weighing techniques and devices • Blockages • Environmental issues
Carry out Emergency Stop and Safety precautions	Explain procedures to be adopted including: Communication system – signals • Stalled crusher permits • Lock off tags • The Pitman motion for jaw crushers • Un- blocking procedures and operator safety
Carry out Crushing tasks	Explain procedures to be adopted including: Product sizes • Different materials • Fines • Crusher run • Type 1 • Job specification • Method statements, Risk assessments, etc
Demonstrate knowledge and understanding of loading and unloading procedures for machine transportation	Explain procedures to be adopted including: Different types of transport vehicle • Positioning of load on vehicle • Load security • Use of banksman • Environmental conditions
Environmental considerations	Explain and demonstrate procedures to be adopted including: Clear visibility • Communication system – signals etc • Noise • Vibration • Ground contamination • Ground damage • Fuel spills • Fumes • Flying debris • Dust
Carry out all end of shift and shut down procedures	Explain and demonstrate procedures to be adopted including: Safe parking • Shut down procedures and machine security

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

Learning Outcomes for N208 Screener

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as a plant operator	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration, dust and can lead to serious illness, death, lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 1974, PUWER Regulations, LOLER regulations, risk assessment, method statement, codes of practice and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular machine to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Be able to locate and identify the major components of the machine and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the machine • Explain, power units, hydraulic systems, undercarriage, chassis, wheels, tracks, drive systems, belts, drums, skirts, screen decks, feeder, emergency stops, stability, ground pressures and safety systems etc
Be able to locate and identify how to use the remote control for steering and driving and explain all their functions	Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety and stability of the machine and help prolong machine life by reducing wear and tear. Refer to the manufacturer's handbook, codes of practice, decals
Conduct all pre-operational checks in accordance with manufacturer's and legislative requirements	Explain the importance of pre-operational checks and legal implications of using a Screener without having checked it • Go through the sequence of checking. Use manufacturer's handbook, check sheet, defect reporting procedure etc
Identify and maintain PPE appropriate for the screener	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask, Fall prevention systems, suitable gloves, overalls, hard hat, protective clothing etc

Learning Outcomes for N208 Screener

Learning Outcome	Instructor Notes
Safely mount and dismount the screener	Explain the following fully: Correct mounting and dismounting procedures, observations, use of safe hand holds • Working at height awareness • slips, trips and falls
Start and stop the screener engine, belts, feeder and screen deck safely	Explain and demonstrate the following: • Correct starting and stopping procedure in accordance with manufacturer's recommendations • Correct procedure and sequence for starting production
Configure the machine for travel and manoeuvre it safely across varying terrain in open and confined areas	Explain the following fully: • Safe use of steering and driving controls, travel position • Position of Drive sprockets and the reasons of importance • Correct procedure for stowing away discharge belts / safety supports used • Good all round visibility, confined spaces, slopes and inclines • Travel around site, access and egress, travel routes
Conduct all necessary safety checks at the work area	Explain how to carry out pre operational safety checks, including: • Vehicles • Ground conditions • Overhead obstructions • Power lines • Buried services • Other workers
Explain different types of screeners, their advantages and dis-advantages, and how they produce the desired size material	Explain in detail the differences between: • Single deck • Double deck • Triple deck • Trommel type screens etc
Communicate with the loading operator establishing agreed signs, desired product size and production speed	Explain procedures to be adopted including: • Different types of processed material sizes • Method statements, job specifications, risk assessments, permits to work • Reporting procedures • minimum clearance • Placement or disposal of processed material, segregation of materials • weighing techniques and devices • environmental issues
Carry out emergency stop and safety precautions	Explain procedures to be adopted including: • Communication system – signals • Lock off tags • Pull lines • Un- blocking procedures
Carry out screening tasks	Explain procedures to be adopted including: • Product sizes • Different materials, Fines • Crusher run • Type 1 Job specification • Method statements, risk assessments, etc

Learning Outcomes for N208 Screener

Learning Outcome	Instructor Notes
Demonstrate knowledge and understanding of loading and unloading procedures for machine transportation	Explain procedures to be adopted including: • Different types of transport vehicle • Positioning of load on vehicle • Load security • Use of banksman
Environmental considerations	Explain and demonstrate procedures to be adopted including: • Clear visibility • Communication system – signals etc. • Noise • Vibration • Ground contamination • Ground damage • Fuel / oil spills • Fumes • Flying debris • Dust
Carry out all end of shift and shut down procedures	Explain and demonstrate procedures to be adopted including: • Safe parking • Shut down procedures and machine security

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

Learning Outcomes for N211 Concrete Pump

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as an operator	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer etc • Explain Health & Safety at Work Act 1974, Restraining systems in accordance with risk assessment, PUWER Regulations, MHSAWR, COSHH Regulations, Noise at work Regulations, Work at Height Regulations, CDM Regulations, Vibration at Work Regulations, Road Traffic Act, HSG150, GS6, CPA Safe use of Concrete Pumps good practice guide, Risk assessments, Method statements, ACOP and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular machine to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Be able to locate and identify the major components of the machine and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the machine • Explain power units • Concrete pump • Safety locking devices and pins • Placing hose • Guards • Compressor • Receiving hopper • Remote control • rams • Delivery hoses • Attachments • Boom • Outriggers • Blanking devices • Sponge / rubber cleaning device • Catching attachments • Different delivery lines i.e. metal single wall / double wall • Flexible rubber type • Interlock switch • Emergency stops and other safety systems etc
Be able to locate and identify key controls and explain their functions	Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety of the machine and help prolong machine life by reducing wear and tear. Refer to the manufacturer's handbook, codes of practice, decals etc
Conduct all pre-operational and running checks in accordance with manufacturer's and legislative requirements	Explain the importance of pre-operational and running checks and legal implications of using a machine without having checked it. Go through the sequence of checking. Use manufacturer's handbook, check sheet, defect reporting procedure, relevant documentation including the Inspection certificate / Certificate of Conformity

Learning Outcomes for N211 Concrete Pump

Learning Outcome	Instructor Notes
Identify and maintain PPE appropriate for concrete pump use	Explain that PPE should include the following: Impervious safety boots, ear defenders, face / eye protection, dust mask if appropriate, impervious gloves / gauntlets, hard hat overalls etc
Conduct all necessary safety checks at the work area	Explain and demonstrate the following fully: • Walk the site and highlight or remove any hazards • Underground Hazards • Overhead cables • Ground conditions • Confirm that the condition of the site is safe to work in • Report any hazards that cannot be removed • Set out warning signs and barriers • Exclusion zones 2x length of delivery hose • Working positions and pumping distances • Eliminate reversing tasks
Prepare the concrete pump for use and operate machinery safely and efficiently	Explain and demonstrate all safety procedures to be adopted including: • Correct starting procedure • Mount and dismount the machine • Grouting up • Correct operating procedure for different pouring distances • Placement of concrete delivery vehicle • Identify and report any defects • Correct loading procedure • Correct pumping procedure • Check for correct pumping pressure • Correct procedure for adjusting / changing different attachments • Follow all safe working procedures • Set up exclusion zone around delivery pipe • Waste disposal arrangements • Check electrical safety, overhead / underground services • Identify maximum outreach and stability • Safe position when concrete vehicle is reversing • Control concrete flow from vehicle • Radio protocol and signals
Safe un-blocking and re-connecting procedures	Explain and demonstrate procedures to be adopted including: • Un-blocking procedures and the potential hazards • Risk assessments • Method statements • Pressurised systems • Explain where the likely areas of blockages would occur • How to locate a blockage and clear safely • Re-connect and Re-prime • Set up exclusion zone around delivery pipe • Safely and efficiently
Prepare concrete pump for cleaning and carry out cleaning tasks safely and efficiently	Explain and demonstrate all safety procedures to be adopted including: • Cleaning delivery lines using procedures using the pump and a sponge wash ball and the dangers of not fitting a ball catcher • The dangers of cleaning delivery lines using compressed air • Fitting of a washout adaptor • PPE • Importance of the last length of the pipe line being straight • Exclusion zones

Learning Outcomes for N211
Concrete Pump

Learning Outcome	Instructor Notes
Environmental considerations	Explain and demonstrate procedures to be adopted including: Designated washout areas / wash out box etc • Clear visibility • Communication system – signals etc • Noise • Vibration • Ground contamination • Ground damage • Concrete spills • Fuel spills • Fumes • Flying debris • Correct disposal of waste material • Correct disposal of waste water etc
Storage and transport of concrete pump attachments	Explain and demonstrate the following: Allow power driven implements to slow down • Check condition of hoses – attachments etc • Correct / secure storage of attachments • Refer to manufacturer's handbook
Carry out all end of work and shut down procedures	Explain and demonstrate procedures to be adopted including: Shut down procedures and machine security • Clean machine thoroughly after use to avoid corrosion, facilitate maintenance, prevent personal contamination • Inspect machine for signs of wear and damage

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Learning Outcomes for N221
Piling Rig

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as an operator	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 1974, Restraining systems in accordance with risk assessment, PUWER Regulations, LOLER Regulations, COSHH, risk assessment, method statements, codes of practice and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular machine to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation
Be able to locate and identify the major components of the machine and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the machine • Explain power units, counterweights, steering, hydraulic system, undercarriage, wheels, booms, masts, tracks, RCI, lifting equipment, piling equipment, pile types, transmissions, fuel tank, guards, stability, ground pressure, ROPS, FOPS and safety systems etc
Be able to locate and identify key controls and explain their functions	Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety of the machine and help prolong machine life by reducing wear and tear. Refer to the manufacturer's handbook, codes of practice, decals etc
Conduct all pre-operational checks in accordance with manufacturer's and legislative requirements	Explain the importance of pre-operational checks and legal implications of using a machine without having checked it. Go through the sequence of checking. Use manufacturer's handbook, check sheet, defect reporting procedure etc
Select suitable type of piling rig relative to the work being undertaken	Explain different types are available, and may be selected dependant on the type of work being conducted the location etc
Identify and maintain PPE appropriate for piling rig use	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, overalls, hard hat etc

Learning Outcomes for N221 Piling Rig

Learning Outcome	Instructor Notes
Prepare piling rig for use	Explain and demonstrate all safety procedures to be adopted including: Correct starting procedure, travel position and routes • Correct piling / boring procedure on slopes / inclines • Follow all safe working procedures – direction of travel etc • Check electrical safety, overhead cables / underground cables • Check falls of rope • fuel level
Conduct all necessary safety checks at the work area	Explain and demonstrate the following fully: Walk the site and highlight or remove any hazards • Confirm that the condition of the site is safe to work in, visibility • Report any hazards that cannot be removed • Set out warning signs, safety / protection devices
Operate machinery safely and efficiently	Explain and demonstrate all safety procedures to be adopted including: Correct starting procedure, confined areas • Mount and dismount the machine • Correct operating / boring / piling procedure on slopes / inclines • RCI • Identify and report any defects • Correct procedure for signalling, lifting, load securing / connection • Follow all safe methods of communication • Rig positioning • Soil type • Maintaining vertical piles, pile positioning • Types of piles • Productive cycles of operation
Environmental considerations	Explain and demonstrate procedures to be adopted including: Clear visibility • Communication system – signals etc • Noise • Dust • Vibration • Ground contamination • Fuel spills • Fumes
Demonstrate knowledge of loading and unloading procedures for machine transportation	Explain and demonstrate the following: Different types of transport vehicle • Positioning of load on vehicle • Load security • Use of banksman • Environmental conditions
Carry out all end of shift and shut down procedures	Explain and demonstrate procedures to be adopted including: Shut down procedures and machine security • De-rigging procedures • Clean machine thoroughly after use to avoid corrosion, facilitate maintenance, prevent personal contamination • Inspect machine for signs of wear and damage

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Learning Outcomes for N721
Static Concrete Placing Boom

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as an operator	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration and can lead to lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 1974, PUWER, LOLER, MHSAWR, CDM Regulations, Vibration at Work Regulations, Working at Height Regs, HSG150, GS6, risk assessments, method statements, ACOP and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular Static Placing Concrete Boom to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it must be used in conjunction with all relevant legislation
Be able to locate and identify the major components of the Static Concrete Placing Boom and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the machine • Explain power units, safety locking devices, support structures, Boom, boom assembling, parts of turntable, slewing mechanism, fixed revolving tower, pillar, delivery pipeline, hydraulic, system, electrical system and climbing system, guards, compressor, hoses, attachments and safety systems, delivery pipeline etc
Be able to locate and identify key controls and explain their functions	Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety of the machine and help prolong machine life by reducing wear and tear. Refer to the manufacturer's handbook, codes of practice, decals etc
Conduct all pre-operational and running checks in accordance with manufacturer's and legislative requirements	Explain the importance of pre-operational and running checks and legal implications of using a Static Concrete Placing Boom without having checked it. Assess wind speeds and proximity to cranes and other high reach equipment, Go through the sequence of checking. Use manufacturer's handbook, check sheet, defect reporting procedure etc. Prime the line, safety checks of safety pins, couplings etc

Learning Outcomes for N721
Static Concrete Placing Boom

Learning Outcome	Instructor Notes
Identify and maintain PPE appropriate for Static Concrete Placing Boom use	Explain that PPE should include the following: Suitable safety helmet, safety footwear, impervious gloves / gauntlets, ear defenders, suitable face / eye protection, dust mask where appropriate, disposable coveralls and high visibility clothing **NOTE:** Concrete operatives often work in concrete, consequently all footwear should be impervious, clothes should be prevented from becoming contaminated with concrete and arrangements should be made to ensure that any contaminated clothing is dealt with appropriately
Conduct all necessary safety checks at the work area	Explain and demonstrate the following fully: • Walk the site and highlight or remove any hazards • Underground hazards • Overhead cables • under foot condition • Confirm that the condition of the site is safe to work in • Report any hazards that cannot be removed • Set out warning signs and barriers, exclusion zones to warn members of the public of the danger areas
Prepare the Static Concrete Placing Boom for use and operate machinery safely and efficiently	Explain and demonstrate all safety procedures to be adopted including: • Placing boom • Correct starting procedure • Correct operating procedure for different pouring distances • Identify and report any defects • Correct procedure for adjusting and changing different attachments • Follow all safe working procedures • Check all hose joints • Check all safety clips – whip cords etc • Check electrical safety, overhead and underground services • Identify maximum outreach and stability • Concrete density • Safe use of the remote control • Follow instructions and signals given by placing gang. Correct 'blockage' procedures
Environmental considerations	Explain and demonstrate procedures to be adopted including: • Clear visibility • Communication system – signals etc • Noise • Vibration • Ground contamination • Ground damage • Lubricant / material spills • Fumes • Flying debris • Cleaning procedures • Correct disposal of waste concrete
Storage of Static Concrete Placing Boom attachments	Explain and demonstrate the following: • Allow power driven implements to slow down • Check condition of hoses, attachments etc • Correct / secure storage of attachments • Clean correctly • Refer to manufacturer's handbook

Learning Outcomes for N721
Static Concrete Placing Boom

Learning Outcome	Instructor Notes
Carry out all end of work and shut down procedures	Explain and demonstrate procedures to be adopted including: • Shut down procedures and boom security • Clean boom thoroughly after use to avoid corrosion, facilitate maintenance, prevent personal contamination • Inspect machine for signs of wear and damage • Clean delivery lines using compressed air (when no alternative available due to long pipes, e.g. fast setting concrete or hot weather)

* ***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***