

## Learning Outcomes for N203 Trencher

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 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, 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, hydraulic systems, undercarriage, chassis, transmissions, wheels / tracks, rotor housing, steering, rotor drive systems, cutting units, conveyor systems, ROPS, FOPS, ground pressure, stability, spoil discharging, attachments and all safety systems etc
Be able to locate and identify steering, driving and braking 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
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, observations, use of safe hand holds
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, driving and braking controls, travel position • Good visibility, hill starts, slopes, inclines • Selection of attachments, stability, ground pressure • Travel around site and road travel



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Conduct all necessary safety checks at the work area	Explain how to carry out pre trencher safety checks, including: Vehicles • Ground conditions, travel routes / directions, access and egress • Vision, soil types, soil stability • Overhead obstructions, minimum distances • Power lines • Buried services • Other workers
Identify and maintain PPE appropriate for trencher 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
Manoeuvre the machine to the work area and correctly configure in readiness to carry out trenching tasks	Explain all safety procedures to be adopted including: Observations to be made prior to and during manoeuvring machine • Correct machine set up, check ground type, work specification, placement of material etc
Carry out trencher tasks	Explain procedures to be adopted including: Different types of trenching machine / methods, job specifications, method statements, risk assessments, permits • Types of buried services and how they are identified • Reporting procedures if services are damaged • Minimum clearance • Placement or disposal of material, segregation of materials • Measuring techniques and devices • Machine positioning / levelling • Cutting speeds, lengths of cut • Clean loading area, minimum overspill and environmental issues
Load material onto transporting vehicles or into containers	Explain procedures to be adopted including: Clear visibility • Communication system – signals etc • Vehicle positioning, minimum overspill, clean loading area • Maintaining safety and stability of vehicle during loading • Safe positioning of vehicle driver
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 • Fumes • Dust • Flying debris • Vibration • Disposal of material • Ground contamination • Fuel / oil spills
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

<sup>\*</sup>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