

Trencher – A37

Learning for CPCS



Outcomes

Through a combination of targeted training and experience, an individual with the trencher will be able to:

Roles and responsibilities	<ul style="list-style-type: none"> Describe the nature of the sector of industry and their role and responsibilities as a plant operator
Preparing for work	<ul style="list-style-type: none"> Name and explain the purpose of principal components, the basic construction, controls and terminology Conform with manufacturer's requirements as per the operator's handbook, other types of information source and relevant regulations and legislation Undertake all pre-use checks
Travelling and manoeuvring	<ul style="list-style-type: none"> Configure and set for travel Travel over rough, undulating ground, substantial inclines and level surfaces Manoeuvre in confined spaces
Setting up for work	<ul style="list-style-type: none"> Configure and set for excavating duties Explain actions required for hazards, underground and overhead services
Working tasks	<ul style="list-style-type: none"> Produce cut trenches in various types of ground Produce consistent depths of cut in level and uneven ground Cut trenches up and down inclines Explain techniques for radius cutting Place materials into transporting vehicles
Shutting down	<ul style="list-style-type: none"> Carry out shut down and securing procedures Explain the loading and unloading procedures for machine transporting

Trencher – A37

Learning for CPCS

Syllabus

Learning outcome	Training content	
<ul style="list-style-type: none"> Describe the nature of the sector of industry and their role and responsibilities as a plant operator 	<ul style="list-style-type: none"> Industry type Customer / client needs Sector contribution Role Reporting structures Lifelong skills Working practices Social responsibilities 	<ul style="list-style-type: none"> Communication with colleagues / management / other trades Health and Safety at Work Act Environmental issues Other trades
<ul style="list-style-type: none"> Name and explain the purpose of principal components, the basic construction, controls and terminology 	<ul style="list-style-type: none"> Differing types Functions and applications Power units Hydraulic systems Undercarriage / chassis / transmissions Steering systems 	<ul style="list-style-type: none"> Stability / ground pressure Cutting units Spoil discharging arrangements Safety systems ROPS / FOPS Attachments
<ul style="list-style-type: none"> Conform with manufacturer's requirements as per the operator's handbook, other types of information source and relevant regulations and legislation 	<ul style="list-style-type: none"> Operator's Manual Machine decals Health and Safety at Work Act PPE Codes of Practice 	<ul style="list-style-type: none"> Method statements Site plans / drawings Risk assessments / COSHH Inspection and reporting forms / procedures
<ul style="list-style-type: none"> Undertake all pre-use checks 	<ul style="list-style-type: none"> Regular and non-scheduled maintenance procedures 	<ul style="list-style-type: none"> Sequence of pre-use checks Defect reporting
<ul style="list-style-type: none"> Configure and set for travel 	<ul style="list-style-type: none"> Travel controls Attachments / accessories 	<ul style="list-style-type: none"> Travel position Site travel Visibility
<ul style="list-style-type: none"> Travel over rough, undulating ground, substantial inclines and level surfaces 	<ul style="list-style-type: none"> Travel routes Slopes / inclines Direction of travel Ground conditions 	<ul style="list-style-type: none"> Hazards Working area Environment protection / minimise damage
<ul style="list-style-type: none"> Manoeuvre in confined spaces 	<ul style="list-style-type: none"> Visibility Limitations of vision Protection of ground / tight turns 	<ul style="list-style-type: none"> Environmental / noise / fumes Height restrictions

Trencher – A37

Learning for CPCS

Syllabus (continued)

Learning outcome	Training content	
<ul style="list-style-type: none"> • Configure and set for excavating duties 	<ul style="list-style-type: none"> • Type of ground / stability • Required specification • Equipment / wheel size / type • Machine positioning 	<ul style="list-style-type: none"> • Spoil placing • Site markings • Loading vehicles positioning • Spoil segregation
<ul style="list-style-type: none"> • Explain actions required for hazards, underground and overhead services 	<ul style="list-style-type: none"> • Warning / identification systems • Minimum distances and clearances 	<ul style="list-style-type: none"> • Types of typical services • Reporting procedures for damage to services
<ul style="list-style-type: none"> • Produce cut trenches in various types of ground 	<ul style="list-style-type: none"> • Specification • Soil types • Disposal of spoil • Cutting speeds • Machine positioning • Spoil discharging 	<ul style="list-style-type: none"> • Environmental factors • Productive cycles of operation • Measuring depths and centres
<ul style="list-style-type: none"> • Produce consistent depths of cut in level and uneven ground 	<ul style="list-style-type: none"> • Terrain preparation • Cutting speeds • Steering controls 	<ul style="list-style-type: none"> • Measuring depths and centres • Levelling
<ul style="list-style-type: none"> • Cut trenches up and down inclines 	<ul style="list-style-type: none"> • Ground markings • Techniques • Stability 	<ul style="list-style-type: none"> • Machine adjustment / levelling • Spoil discharging
<ul style="list-style-type: none"> • Explain techniques for radius cutting 	<ul style="list-style-type: none"> • Specification • Lengths of cut 	<ul style="list-style-type: none"> • Machine positioning
<ul style="list-style-type: none"> • Place materials into transporting vehicles 	<ul style="list-style-type: none"> • Machine positioning • Signals / communication • Loading vehicle stability 	<ul style="list-style-type: none"> • Minimum overspill • Cleaning loading area
<ul style="list-style-type: none"> • Carry out shut down and securing procedures 	<ul style="list-style-type: none"> • Shut down procedures • Security 	<ul style="list-style-type: none"> • Parking and positioning
<ul style="list-style-type: none"> • Explain the loading and unloading procedures for machine transporting 	<ul style="list-style-type: none"> • Compatibility • Positioning 	<ul style="list-style-type: none"> • Security • Types of transporter

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

Trencher – A37

Learning for CPCS



Duration / Ratios

To allow effective learning, these training times are recommended for this category. Candidates must be profiled to establish learning needs. Durations should be of a length to ensure the learning outcomes are met.

Experience	Accumulated hours
• Novice operators with no industry or machine experience	28
• Novice operators with industry experience but no machine experience	21
• Operators with unrelated (earthmoving) machine experience	14
• Operators with similar (earthmoving) machine experience	7
All candidates must have received the equivalent to 7 hours of site safety and induction training	

To allow effective learning, the listed candidate / machine / instructor ratio is the maximum recommended for this category

4 candidates : 2 machines: 1 instructor

Resources

Practical equipment	Theory equipment
<ul style="list-style-type: none"> • Trencher that meets current legislation • Operator’s manual for the trencher • Measuring equipment to ensure levels and centres • Sufficient area of ground suitable for excavating • Slopes • Vehicle or trailer for loading into <p>PLUS</p> <ul style="list-style-type: none"> • Suitable PPE • Risk assessment for all areas where training is occurring 	<ul style="list-style-type: none"> • PUWER 1998 Regulations • HSE GS6 • Operator’s Manual • Specifications for types of trenchers <p>PLUS</p> <ul style="list-style-type: none"> • Suitable room for theory training purposes • Welfare and rest facilities during training

Trencher – A37

Learning for CPCS

Category



Category description and types

CPCS defines a category as an item of plant or equipment used within the construction or allied industries and worked in accordance with the manufacturer's basic design. For CPCS training and assessment standards, the descriptions reflect basic core use.

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

Category features

- Multi-axled wheeled or tracked chassis containing operating position, power, hydraulic and electrical units
- Wheeled or chain driven rotating excavating unit with cutting components
- Conveyer system to side-cast or load excavated material

Category characteristics

- Able to travel in forward and reverse and change direction during travel with most wheeled types having all-wheel drive and steering
- Can travel and operate on uneven and loose ground and slopes
- Carry out excavation duties in a linear motion using the wheel mounted or chain cutting components within the confines of the operating depth