

Concrete pump trailer mounted - A44



Learning for CPCS Outcomes

Through a combination of targeted training and experience, an individual with the trailer mounted concrete pump 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
Setting up for work	<ul style="list-style-type: none">• Confirm the position and configure the machine for pumping duties• Deploy the outriggers to specification (where applicable)• Arrange, anchor and secure all pipes and lines• Confirm a given mix is able to be pumped• Arrange and comply with communication procedures• Direct the loading / mixer vehicle to position• Explain action required for hazards, underground and overhead services
Working tasks	<ul style="list-style-type: none">• Pump and control materials accurately to the desired pour location• Explain how blockages occur and solution methods• Maintain safe working situations
Completing work	<ul style="list-style-type: none">• Complete end-of-use cleaning procedures
Shutting down	<ul style="list-style-type: none">• Carry out shut down and securing procedures

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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 Chassis / trailer types 	<ul style="list-style-type: none"> Pump types Safety systems Attachments Remote control units
<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 Duties charts Ground loading charts Machine decals Health and Safety at Work Act PPE 	<ul style="list-style-type: none"> Codes of Practice Site plans / drawings Method statements 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"> Confirm the position and configure the machine for pumping duties 	<ul style="list-style-type: none"> Positioning Stability Environmental conditions Required configuration Pipe / hose configuration / routes Operating controls 	<ul style="list-style-type: none"> Site markings Hazards Levelling / working on inclines Environmental considerations
<ul style="list-style-type: none"> Deploy the outriggers to specification (where applicable) 	<ul style="list-style-type: none"> Types of outriggers Support conditions Bearing pressure 	<ul style="list-style-type: none"> Packing / load spreading Footprint Inclines / uneven ground
<ul style="list-style-type: none"> Arrange, anchor and secure all pipes and lines 	<ul style="list-style-type: none"> Specification Supporting piping / hoses / boom Anchor types Anchoring methods 	<ul style="list-style-type: none"> Securing types and methods Creating pipelines Hazards and defects

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Learning for CPCS



Syllabus (continued)

Learning outcome	Training content	
<ul style="list-style-type: none"> Confirm a given mix is able to be pumped 	<ul style="list-style-type: none"> Principles Different types of mixes Specifications 	<ul style="list-style-type: none"> Uses / applications Time factors Hazards
<ul style="list-style-type: none"> Arrange and comply with communication procedures 	<ul style="list-style-type: none"> Methods and types of signals Methods of verbal instruction Multiple signalling 	<ul style="list-style-type: none"> Electronic communication / setting-up Codes of Practice Radio protocol
<ul style="list-style-type: none"> Direct the loading / mixer vehicle to position 	<ul style="list-style-type: none"> Signals Ground conditions Visibility 	<ul style="list-style-type: none"> Access / egress routes Hazards
<ul style="list-style-type: none"> Explain action required for hazards, underground and overhead services 	<ul style="list-style-type: none"> Warning / identification systems Reporting procedures for damage to services 	<ul style="list-style-type: none"> Types of typical services Minimum distances and clearances
<ul style="list-style-type: none"> Pump and control materials accurately to the desired pour location 	<ul style="list-style-type: none"> Flow rates Signalling / communication Noise Visibility 	<ul style="list-style-type: none"> Flow controls Working efficiently Hazards Environmental considerations
<ul style="list-style-type: none"> Explain how blockages occur and solution methods 	<ul style="list-style-type: none"> Type of blockages Communication of blockages Shut-down and re-starting methods Cleaning procedures 	<ul style="list-style-type: none"> Cleaning methods Components subject to blockages Hazards Environmental considerations
<ul style="list-style-type: none"> Maintain safe working situations 	<ul style="list-style-type: none"> Stability Visibility 	<ul style="list-style-type: none"> Pipe / hose security Hazards
<ul style="list-style-type: none"> Complete end-of-use cleaning procedures 	<ul style="list-style-type: none"> Components Cleaning equipment Cleaning area Hazards 	<ul style="list-style-type: none"> Methods and procedures Environmental considerations / waste disposal
<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

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

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Safety critical

Emphasis to be placed on the following topics:

Topic	Emphasis
• Cleaning procedures / blockages	• Planned and controlled use of cleaning balls and compressed air

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 (pumping) machine experience	14
• Operators with similar (pumping) 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

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Resources

Practical equipment	Theory equipment
<ul style="list-style-type: none">• Concrete pump (trailer mounted) that meets current legislation• Operator's manual for the pump• Structure and works to pump materials <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• LOLER 1998 Regulations• HSE GS6• BS 7121 (parts 1, 2 and 3)• Operator's Manual• Specifications for types of concrete pumps <p>PLUS</p> <ul style="list-style-type: none">• Suitable room for theory training purposes• Welfare and rest facilities during training.

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. Although this category can have varying uses within industry, for CPCS training and assessment standards, the descriptions reflect basic core use.

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

Category features	Category characteristics
<ul style="list-style-type: none">• Axled chassis containing a power, hydraulic, electrical and pumping unit• Driven piston type pumping unit with a hopper to externally receive a pumpable material	<ul style="list-style-type: none">• Pumps loads via the hopper and pump through the pipe-work to the desired pour location