

# Technical Test Theory

## Piling Rig - Driven above 20 tonnes A46



No.	Question
1	If setting up to pile near a pedestrian footpath, state THREE precautions that could be adopted.
2	a) Which part of the rig applies loading or pressure to the ground and b) what needs to be in place to cope with the pressure.
3	a) What is the purpose of a Method Statement and b) what is required of the operator?
4	a) What is the minimum distance allowed near an open excavation when travelling the rig and b) explain why?
5	Apart from the operator, who else may need to use the machine's Operator's Manual?
6	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
7	Give TWO examples of where The Work at Height Regulations may apply to piling rig operations.
8	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
9	List FIVE checks that should be made to the tracks and running gear.
10	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
11	Using the Operator's Manual, state the figure for setting the track tension. Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
12	List SIX typical subject areas that should be covered in a site induction.

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13	What is the purpose of a cofferdam?
14	When MUST a banksman or signaller be used before moving a rig?
15	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
16	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
17	When working in a confined area or space: a) what danger can be present with regards to the counterweight of the machine, b) what is the recommended minimum distance and c) what measures must be implemented if the gap is less?
18	What is the purpose of a roll or ROPS frame?
19	If checking the oil level using a dipstick, why must gloves be worn?
20	What is meant by 'splicing'?
21	What is the definition of, or how can a hazard be described?
22	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
23	Name THREE different types of driven hammers.
24	Why are driven piles generally used on contaminated sites?

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25	What are pre-cast piles most suitable for?
26	The operator has to use a new model of rig that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
27	If the words STOP NOW are given to the rig operator by radio during the lift, what action must the operator take?
28	How can a qualification or card benefit a rig operator?
29	Name THREE different types of driven pile.
30	What is the function of the shoe (end-cap) as used in cast in-situ piling?
31	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
32	When towing a power pack why should you never position yourself between the rig and the power pack?
33	During the piling operation, part of the task cannot be carried out as detailed in the method statement: a) what initially must happen to the piling operation and b) who authorises any changes?
34	In what situation does a hard hat NOT need to be worn when operating a piling rig?
35	What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?
36	Name THREE ways that a rig operator can contribute in ensuring repeat business with the client or principal contractor.

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37	How can the noise level of the hammering operation be reduced on: a) pre-cast types and b) cast in-situ types?
38	Give THREE reasons that may cause the rig to overturn.
39	What THREE main duties of The Health and Safety at Work Act must employees follow?
40	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
41	Where should the Operator's Manual be kept and why?
42	What is the purpose of counterweight(s) on the rig?
43	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
44	What checks and procedures need to be made before a 'permit to dig' can be issued?
45	The operator has been asked to drive the machine onto a transporter/trailer. a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?
46	What is the purpose of a risk assessment?
47	What is meant by the term 'refusal'?
48	Using the Operator's Manual, state the cold-starting procedure for the machine. Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.

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49	<p>If the rig has to cross the public highway between two parts of a site, the Road Traffic Act applies.</p> <p>a) What type of licence and which class should the operator hold and b) what is the minimum age allowed?</p>
50	<p>If both travel levers are pushed forwards when the track motors are in front of the cab, in which direction would the machine move?</p>
51	<p>Why are rig operators generally regarded as 'safety-critical' workers?</p>
52	<p>A piling rig has been delivered to site, assembled and configured for work. What must be carried out before piling starts and by whom?</p>
53	<p>What does 'backdriving' mean?</p>
54	<p>In driven piling, what is meant by the 'drop height'?</p>
55	<p>Why should a rig be re-fuelled at the end of the day?</p>
56	<p>When working in cellars or confined spaces:</p> <p>a) explain THREE precautions you must take to avoid a build up of fumes and b) why this is important?</p>
57	<p>What is a 'driven cast in-situ' pile?</p>
58	<p>What is meant by 'toeing in' when referring to the piling activity?</p>
59	<p>a) What is meant by the lifting capacity of the rig and b) who determines it?</p>
60	<p>During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.</p>

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61	What is meant by the term 'raking angle'?
62	Where would you find the dolly on a percussive-driven hammer?