

# Technical Test Theory

## Piling Rig - Bored below 20 tonnes A47



No.	Question
1	On CFA rigs, if the auger cleaner is failing to clean off the spoil during extraction, what action should be taken?
2	When are the auger gates allowed to be opened in the middle of a CFA operation?
3	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
4	If both travel levers are pushed forwards when the track motors are in front of the cab, in which direction would the machine move?
5	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
6	What is ODEX drilling?
7	a) What is the minimum distance allowed near an open excavation when travelling the rig and b) explain why?
8	Why is bored piling more suitable for use within urban areas compared with a driven rig?
9	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.
10	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
11	Generally, what distance is the controlled or restricted zone around a CFA drilling operation?
12	Why are rig operators generally regarded as 'safety-critical' workers?

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13	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?
14	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
15	What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?
16	How is drive transmitted to the short auger?
17	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.
18	How can a qualification or card benefit a rig operator?
19	Where should the Operator's Manual be kept and why?
20	Name THREE ways that a rig operator can contribute in ensuring repeat business with the client or principal contractor.
21	What is meant by a 'contiguous pile line'?
22	What is the function of the shoe/bung/end-cap/flap as used in CFA piling?
23	If setting up to pile near a pedestrian footpath, state THREE precautions that could be adopted.
24	How is the rotary auger of a bored rig or a CFA rig cleaned of soil?

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25	What is the definition of, or how can a hazard be described?
26	What THREE main duties of The Health and Safety at Work Act must employees follow?
27	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?
28	In what situation does a hard hat NOT need to be worn when operating a piling rig?
29	List SIX typical subject areas that should be covered in a site induction.
30	a) What is the purpose of a Method Statement and b) what is required of the operator?
31	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.
32	List FIVE checks that should be made to the tracks and running gear.
33	If the rig has to cross the public highway between two parts of a site, the Road Traffic Act applies. a) What type of licence and which class should the operator hold and b) what is the minimum age allowed?
34	If checking the oil level using a dipstick, why must gloves be worn?
35	When towing a power pack why should you never position yourself between the rig and the power pack?
36	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.

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37	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.
38	Why should a rig be re-fuelled at the end of the day?
39	Apart from the operator, who else may need to use the machine's Operator's Manual?
40	If the words STOP NOW are given to the rig operator by radio during the lift, what action must the operator take?
41	What is the purpose of a roll or ROPS frame?
42	A piling rig has been delivered to site, assembled and configured for work. What must be carried out before piling starts and by whom?
43	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
44	What checks and procedures need to be made before a 'permit to dig' can be issued?
45	When MUST a banksman or signaller be used before moving a rig?
46	What is the purpose of a risk assessment?
47	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?
48	a) What is meant by the lifting capacity of the rig winch and b) who determines it?

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49	When working in cellars or confined spaces: a) explain THREE precautions you must take to avoid a build up of fumes and b) why this is important?
50	Give FOUR reasons that may cause the rig to overturn.
51	Name TWO different types of bored piling methods.
52	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.
53	Give TWO examples of where The Work at Height Regulations may apply to piling rig operations.
54	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?
55	What is meant by the term 'refusal'?
56	When using a CFA rig, how does the operator ensure that the auger is vertical?
57	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?
58	What is the purpose of a bored pile wall (contiguous piles or secant wall)?
59	Explain the purpose of the casings when piling or drilling.
60	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.

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61	What is the purpose of counterweight(s) on the rig?