

Technical Test Theory

Crawler Crane above 10 tonnes A02



No.	Question
1	If the crane has to cross the public highway from one part of a site to another, the Road Traffic Act normally applies. a) What type of licence and which class should the operator hold and b) what is the stipulated minimum age?
2	During the lifting operation, part of the task cannot be carried out as detailed in the lift plan. a) What initially must happen to the lifting operation and b) who authorises any changes?
3	If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take?
4	If a load of 40 tonnes is lifted on four falls or lines of rope, what is the tension in each fall or line?
5	If assisting in fitting a fly jib to the crane, why is it important that the manufacturers' procedures are followed precisely?
6	In what situation does a hard hat NOT need to be worn when operating a crawler crane?
7	Name TWO things that happen if the hoist rope is not vertical when lifting a load.
8	What makes up the total (or gross) weight of a load that is to be lifted?
9	What THREE main duties of The Health and Safety at Work Act must employees follow?
10	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.
11	a) Which part of the crane applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
12	The operator has to use a new model of crawler crane that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?

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13	If checking the oil level using a dipstick, why must gloves be worn?
14	If a load is slewed too fast for its size, what TWO factors must the operator and signaller take into account?
15	When slewing with a load, where should the operator be looking?
16	When parking the crane at the end of the shift, name THREE places where the machine should NOT be parked.
17	If a load is slewed rather quickly, what TWO initial effects does it have on the load whilst slewing?
18	On a busy construction site, how would the slinger/signaller be identified to the crane operator?
19	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
20	If asked to travel with a suspended load, name FIVE factors that must be taken into account by the operator before moving.
21	On cranes fitted with two travel levers, if both travel levers are pushed forwards when the track motor/drive sprockets are in front of the cab, traditionally, in which direction would the machine move?
22	Give TWO examples of where The Work at Height Regulations may apply to crawler crane operations.
23	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
24	a) What is meant by the lifting capacity of the crane and b) who determines it?

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25	The number of falls has been changed on the hook block. How has this action affected the RCI?
26	What is the purpose of a roll or ROPS frame?
27	a) What is the minimum distance allowed near open trenches when travelling the crane and b) explain why?
28	Using the lifting capacity diagram for A02: a) what is the maximum lifting capacity and b) what is the lifting capacity in kg at 24 metre radius using a 32 metre boom/ jib?
29	The operator has been asked to drive the crane 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.
30	Give FOUR reasons that may cause the crane to overturn.
31	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.
32	Name THREE ways in which wind speed can affect the lifting operation.
33	Which parts of the crane is the radius (for lifting) measured from?
34	A crawler crane has been delivered to site, assembled and configured for lifting. What must be carried out before lifting starts and by whom?
35	The safe working load or working load limit (SWL/WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
36	How does the rope or line length affect load swings?

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37	When working in a confined area or space: a) what danger can be present with regards to the counterweight of the machine, b) when should measures be taken and c) what measures should be implemented?
38	a) What is the purpose of a Method Statement and b) what is required of the operator?
39	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
40	a) How does the number of lines or falls of rope affect the lifting capacity for the crane and b) how is hoist speed affected when the number of lines (or falls of rope) is reduced?
41	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.
42	Apart from the operator, who else may need to use the machine's Operator's Manual?
43	When would a fly jib or lattice extension be fitted and used?
44	Only two legs of an 8 tonne four-legged chain sling are being used. What is the maximum load that can be lifted?
45	Although not best practice, state the possible effect if lifting a load whilst facing downhill on a slope.
46	How can a qualification or card benefit a crane operator?
47	If fitted, why should the seat belt be worn, even with the cab door closed?
48	Where should the Operator's Manual be kept and why?

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49	Why should a crane be re-fuelled at the end of the day?
50	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
51	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
52	If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the crane operator before use?
53	Describe THREE stages and relevant actions that a crane operator undertakes during pre-use inspections, and required action if a defect is found?
54	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
55	List SIX typical subject areas that should be covered in a site induction.
56	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.
57	Two cranes are working in the same vicinity that encroach the operating radius of each. What actions would the lift plan or method statement normally specify?
58	If setting up to lift loads in a pedestrianised area, state THREE factors that need to be taken into account.
59	If the hook block inadvertently (accidentally) lands, what course of action should be taken?
60	What is the main purpose of the Rated Capacity Indicator (RCI)?

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61	Why are crane operators generally regarded as 'safety-critical' workers?
62	When MUST a banksman or signaller be used before moving a crane?
63	What is the definition of, or how can a hazard be described?
64	What effect can a swinging load have on a crane?
65	What is the purpose of the hoisting limit switch (also known as the 'chandelier')?
66	How does the deflection of the boom or jib affect the lift?
67	State the functions or job role of the following personnel: a) Appointed Person, b) Crane Supervisor, c) Slinger, d) Signaller.
68	Name THREE ways that a crane operator can contribute in ensuring repeat business with the client or principal contractor.
69	What is the purpose of counterweight(s) on the crane?
70	What is the purpose of a risk assessment?
71	What is the difference between a contract lift and a 'standard' crane hire?