

A60 – Mobile crane

No.	Question
1	Name TWO ways that wet weather can affect lifting operations.
2	If a load of 40 tonnes is lifted on four falls or lines of rope, what is the tension in each fall or line?
3	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.
4	What THREE main duties of The Health and Safety at Work Act must employees follow?
5	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
6	When would a fly jib or lattice extension be fitted and used?
7	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
8	If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take?
9	Name TWO things that happen if the hoist rope is not vertical when lifting a load.
10	As the crane rotates through 360 degrees with a load, what happens to the loading on each outrigger or wheel?
11	What is the definition of, or how can a hazard be described?
12	Only two legs of an 8 tonne four-legged chain sling are being used. What is the maximum load that can be lifted?
13	An operator has been asked to pick and carry a load down a small section of the public highway, for which The Road Traffic Act applies. What effect does this have on crane operations?
14	If a load is being slewed too fast for its size, what TWO factors must the operator and signaller take into account?
15	When must a banksman or signaller be used before moving a crane?

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16	State the functions or job role of the following personnel: a) appointed person, b) crane supervisor, c) slinger, d) signaller.
17	Using the Operator's Manual, state the figure for the tyre pressures. Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
18	If the hook block inadvertently (accidentally) lands, what course of action should be taken?
19	Name THREE ways in which wind speed can affect the lifting operation.
20	Using the Operator's Manual, state the cold-starting procedure for the crane (can be the drive engine or auxiliary engine). Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
21	Crane operations fall within the scope of the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998. Name TWO requirements of the regulations with regards to lifting.
22	Why must the seat belt be worn, even with the cab door closed?
23	Why are crane operators generally regarded as 'safety-critical' workers?
24	Which parts of the crane is the radius (for lifting) measured from?
25	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?
26	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?
27	Give FOUR reasons that may cause the crane to overturn.

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28	a) Who only can authorise partial outrigger extensions and b) what is the effect on lifting capacity by partially extending the outriggers?
29	Where should the Operator's Manual be kept and why?
30	If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the crane operator before use?
31	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
32	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
33	How does the deflection of the boom or jib affect the lift?
34	What is the difference between a contract lift and a 'standard' crane hire?
35	If asked to travel with a suspended load, name FIVE factors that must be taken into account by the operator before moving.
36	a) What is meant by the lifting capacity of the crane and b) who determines it?
37	What makes up the total (or gross) weight of a load that is to be lifted?
38	a) Which part of the crane applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
39	When slewing with a load, where should the operator be looking?
40	In what situation does a hard hat NOT need to be worn when operating a mobile crane?
41	Name THREE ways that a crane operator can contribute in ensuring repeat business with the client or principal contractor.

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42	List SIX typical subject areas that should be covered in a site induction.
43	a) What is the purpose of a Method Statement and b) what is required of the operator?
44	What is the purpose of the hoisting limit switch (also known as the 'chandelier')?
45	What is meant by the footprint of the crane?
46	If a load is slewed rather quickly, what TWO initial effects does it have on the load whilst slewing?
47	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
48	What is the purpose of counterweight(s) on the crane?
49	Using the lifting capacity diagram for A60: a) what is the maximum lifting capacity, b) what boom extension is required for a load weighing 7.6 tonnes needed to be placed at 15 metres radius and c) what counterweight is required?
50	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?
51	As a lifting machine, the crane must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
52	What are the THREE actions or stages that a crane operator undertakes during pre-use inspections?
53	What is the main purpose of the Rated Capacity Indicator (RCI)?
54	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.

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55	What effect can a swinging load have on a crane?
56	The number of falls has been changed on the hook block. How has this action affected the RCI?
57	The safe working load or working load limit (SWL/WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
58	On a busy construction site, how would the slinger/signaller be identified to the crane operator?
59	Apart from the operator, who else may need to use the machine's Operator's Manual?
60	Give TWO examples of where The Work at Height Regulations may apply to mobile crane operations.
61	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
62	Why should a crane be re-fuelled at the end of the day?
63	What is the purpose of a risk assessment?
64	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?
65	What is the purpose of a roll or ROPS frame?
66	The operator has to use a new model of mobile crane that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
67	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.
68	How can a qualification or card benefit a crane operator?
69	If checking the oil level using a dipstick, why must gloves be worn?
70	What is the meaning of this hand signal (being demonstrated by the Tester)?
71	If the crane has to travel on the public highway, the Road Traffic Act applies. a) What type of licence and which classes should the operator hold and b) what is the minimum age allowed?
72	If setting up to lift loads in a pedestrianised area, state THREE factors that need to be taken into account.

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73	a) What is the minimum distance allowed near open trenches when travelling the crane and b) explain why?
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