

# Technical Test Theory

## Wheeled Loading Shovel A21



No.	Question
1	What is regarded as the most productive position for the dump truck to be in when being loaded by a wheeled loading shovel working from a stockpile?
2	Many loading shovels have a turbo-charged engine. a) What is the normal procedure before switching off the engine after working and b) what happens if the procedure is not followed?
3	a) What is the purpose of a Method Statement and b) what is required of the operator?
4	Name THREE conditions that mirrors on the machine must be in.
5	The operator has to fit and use a new bucket using a quick-hitch coupler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
6	Who should determine the maximum load that should be placed into the body of the dump truck?
7	If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
8	What problems and hazards can soft ground cause to a loaded loading shovel?
9	If checking the oil level using a dipstick, why must gloves be worn?
10	Why must the seat belt be worn, even with the cab door closed?
11	If the loading shovel is being travelled or working on the public highway, including adjacent pavement and verges, 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?
12	Where should the loading shovel's Operator's Manual be kept and why?

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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	How can a qualification or card benefit a plant operator?
15	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
16	a) Give ONE advantage and b) TWO disadvantages of rear-mounted cameras.
17	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
18	If a load has to be tipped on a slope, what may happen if the load is tipped downhill and why?
19	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
20	What is the purpose of the counterweight of the machine?
21	An operator has been asked to transport a bucket of spoil down the public highway, for which the Road Traffic Act applies. What effect can this have on this activity?
22	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
23	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
24	The operator is asked to tip material into a trench. State FIVE different requirements that must be considered or implemented before tipping commences.

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25	<p>The operator has been asked to drive the machine onto a transporter/trailer.</p> <p>a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?</p>
26	<p>Give THREE possible reasons why loading shovels should not stray off the designated travel routes.</p>
27	<p>Apart from the operator, who else may need to use the machine's Operator's Manual?</p>
28	<p>Before manually changing any bucket:</p> <p>a) Where should the bucket be positioned (in relation to the ground) before removing the final pin and b) explain why?</p>
29	<p>Whenever possible, who should decide the positioning of the dump truck when being loaded?</p>
30	<p>How are loading shovel bucket sizes calculated?</p>
31	<p>What allows the wheels to follow the contours of the ground when travelling on uneven ground?</p>
32	<p>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.</p>
33	<p>a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a loading shovel if the lugs are severely worn?</p>

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34	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.
35	a) What is the minimum distance allowed near open trenches when travelling with a loaded loading shovel and b) explain why?
36	Manufacturer's Operators Manuals normally determine the direction of travel on steep slopes. If this information is not supplied, what is the general rule that applies to travelling on steep slopes?
37	In what situation does a hard hat NOT need to be worn when operating a loading shovel?
38	On a semi-automatic quick-hitch bucket attaching system: a) what is the purpose of the safety pin and b) what checks MUST be made to the pin before use?
39	Give TWO reasons why the loading shovel operator should have an understanding of the type of material being loaded.
40	Why should different materials be segregated during extracting?
41	What THREE main duties of The Health and Safety at Work Act must employees follow?
42	State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
43	When travelling on wet clay or rock, what effect does this have on the loading shovel?
44	Using the Operator's Manual, state the figure for the tyres' operating pressure. Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
45	Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.

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46	Why are plant operators generally regarded as 'safety-critical' workers?
47	Give TWO examples of where The Work at Height Regulations 1995 may apply to loading shovel operations.
48	What is the purpose of a roll or ROPS frame?
49	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?
50	Give FOUR reasons that may cause the loading shovel to tip over sideways.
51	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
52	Many loading shovels have 'limited-slip' axles. How can this help production?
53	What is the purpose of a risk assessment?
54	What is the definition of, or how can a hazard be described?
55	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or principal contractor.
56	When constructing a ramp to load a crusher, name THREE considerations to take into account.
57	Describe ONE physical method of checking that the attachment is fully secured to the coupler prior to work.

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58	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.
59	List SIX typical subject areas that should be covered in a site induction.
60	Why should a loading shovel be re-fuelled at the end of the day?
61	When working in a confined area or space, name THREE hazards that can occur.
62	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
63	Smaller loading shovels may be equipped with a clamshell bucket. Name TWO functions of this type of bucket.