

# Concrete Pump

**A06**

Truck Mounted Boom

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	<b>A</b>
	2. What is the purpose of a risk assessment?
	<b>A</b>
	3. List SIX typical subject areas that should be covered in a site induction.
	<b>A</b>
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	<b>A</b>
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	<b>A</b>
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	<b>A</b>
	7. Name FOUR different types or levels of sanctions that can be applied (by employers and judicial bodies) to plant operators who do not comply with, or follow legislation and regulations?
	<b>A</b>
	8. Boom concrete pump operators are generally regarded as 'safety-critical' workers. What does this mean?
	<b>A</b>

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Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. If required, in what situation does a hard hat NOT need to be worn when operating a boom concrete pump?
	A
	11. The operator has to use a new type of vehicle that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to boom concrete pump operations.
A	
Preparing for work	14. How can a qualification or card benefit a boom concrete pump operator?
	A
	15. Name THREE ways that a boom concrete pump operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the Operator's Manual be kept and why?
	A
	17. What are the THREE actions or stages that a boom concrete pump operator undertakes during pre-use inspections?
	A
	18. Using the Operator's Manual, state the tyres' operating pressure.
A	
19. Using the Operator's Manual, state TWO maintenance items to be carried out on the boom.	
A	

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Preparing for work continued	20. Which parts of the boom concrete pump is the operating radius measured from?
	<b>A</b>
	21. If checking the oil level using a dipstick, why must gloves be worn?
	<b>A</b>
	22. Apart from the operator, who else may need to use the machine's Operator's Manual?
	<b>A</b>
	23. What is the purpose of stabilisers on the boom concrete pump?
	<b>A</b>
	24. What is the purpose of the blanking piece?
	<b>A</b>
	25. What are the main component parts of a concrete mix?
	<b>A</b>
	26. What is the difference between: a) a placement hose and b) a delivery hose?
	<b>A</b>
27. What FIVE types of information would a client need from pump hirer/owner before a hire?	
<b>A</b>	
28. What checks should be made to the transmitter of a remote-controlled pump before work?	
<b>A</b>	
29. a) What is meant by a knuckle-boom and b) what is an advantage of this type of arrangement?	
<b>A</b>	
30. What is the function, if fitted, of the mixer paddles?	
<b>A</b>	
31. On a piston type pump, what is the purpose of the water bow?	
<b>A</b>	

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Preparing for work continued	32. Why must the thickness of steel pipelines be checked on a regular basis?
	<b>A</b>
	33. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	<b>A</b>
Travelling and manoeuvring	34. Prior to travelling the machine on the public highway, describe THREE items to be taken into account when planning a route.
	<b>A</b>
	35. If the boom concrete pump vehicle is being travelled 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?
	<b>A</b>
	36. a) What is the minimum distance allowed near open trenches when travelling the boom concrete pump on site and b) explain why.
	<b>A</b>
	37. On many construction sites, when MUST a banksman or signaller be used before moving a boom concrete pump?
	<b>A</b>
Setting up for work	38. Give THREE possible reasons why concrete pump vehicles should not stray off the designated access routes.
	<b>A</b>
	39. a) Which part of the boom concrete pump applies loading or pressure to the ground and b) how can that pressure be reduced?
	<b>A</b>
	40. If setting up to pump concrete in a pedestrianised area, state THREE factors that need to be taken into account.
	<b>A</b>

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Setting up for work continued	41. a) Who can authorise partial stabiliser extensions and b) what is the effect on lifting capacity if partially extending the outriggers?
	<b>A</b>
	42. What is the purpose of pumping grout through the pipeline?
	<b>A</b>
	43. When setting up to work, what should be taken into account for the mixer vehicles?
	<b>A</b>
	44. On what basis are pipelines and couplers selected?
	<b>A.</b>
	45. Name THREE possible underground hazards which may affect the stability of the vehicle when in operation.
	<b>A</b>
46. If using a boom concrete pump from a fixed position operating station, what should be ensured for the safety of the operator?	
<b>A</b>	
47. What checks should be made to the couplers?	
<b>A</b>	
48. Before the start for work: a) how should signallers be identified and b) what should be agreed between the pump operator and a signaller?	
<b>A</b>	
49. If setting up to work near a bank, what is the recommended minimum distance between the stabilisers and the top of the bank?	
<b>A</b>	
50. What can occur if the placement hose is longer than specified?	
<b>A</b>	

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Setting up for work continued	51. What is the purpose of using axle locks?
	<b>A</b>
	52. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden pylons when setting up the machine and b) explain why a distance should be kept.
	<b>A</b>
Working tasks	53. Give THREE reasons that may cause the boom concrete pump to overturn.
	<b>A</b>
	54. If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the boom concrete pump operator before use?
	<b>A</b>
	55. During the pumping operation, part of the task cannot be carried out as detailed in the method statement. a) What initially must happen to the operation and b) who authorises any changes?
	<b>A</b>
	56. Describe at least TWO causes of blockages that may occur within the pipeline.
	<b>A</b>
	57. During pumping, if the operator (using a remote control) needs to leave the pump, what needs to be ensured?
<b>A</b>	
	58. a) What is considered as the danger zone around the placement hose and b) what is regarded as the safe minimum?
	<b>A</b>
	59. Name TWO ways in which wind speed can affect the pumping operation.
	<b>A</b>

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Working tasks continued	60. If the words STOP NOW are given to the boom concrete pump operator by radio during the lift, what action must the operator take?
	A
	61. What is the meaning of this hand signal (being demonstrated by the Tester)?
Working tasks continued	A
	62. A boom concrete pump is working in the same vicinity that encroaches the operating radius of a crane. What actions would need to be taken?
	A
Completing work	63. Before leaving the vehicle for a rest break, after parking and switching off the vehicle, what final action must be carried out?
	A
Shutdown	64. Name THREE places where the machine should NOT be parked after completion of the pumping operation.
	A
	65. When is it acceptable to use compressed air to clean out pipelines?
	A
	66. Before cleaning a pipeline with compressed air, what must be removed from the line itself?
	A
	67. What is the maximum allowable air pressure to clean out the pipes?
	A
	68. Where must waste from the cleaning process be deposited?
A	
Shutdown	69. Before rejoining the public highway after completing work, what check must be made to the stabilisers?
	A