

Loader Compressor

A41

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	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.
	A
	8. Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

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. In what situation does a hard hat NOT need to be worn when operating a loader compressor?	
	A	
	11. 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?	
	A	
	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?	
	A	
	13. How can a qualification or card benefit a plant operator?	
	A	
	14. Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.	
	A	
	Preparing for work	15. Where should the machine's Operator's Manual be kept and why?
		A
16. If the operator has to refill the fuel tank, state TWO precautions to ensure cleanliness of the system.		
A		
	17. What is the purpose of a roll or ROPS frame?	
	A	

continued...

Preparing for work continued	For questions 18 and 19 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	18. Using the Operator's Manual, state the figure for the tyres' operating pressure.
	A
	19. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	20. What is a possible consequence of using a tyre with a deep cut in the sidewall?
	A
	21. If checking the oil level using a dipstick, why must gloves be worn?
	A
	22. How is a compressor output calculated?
	A
	23. What is the typical working pressure of an air operated breaker?
	A
	24. Apart from the operator, who else may need to use the machine's Operator's Manual?
A	
25. When air is compressed, what fluid is produced?	
A	
26. What is the purpose of the compressor's pressure relieve valve?	
A	
27. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	

Travelling and manoeuvring	28. An operator has to travel the machine on the public highway. List SIX requirements that must be followed.
	A
	29. If the loader compressor 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?
	A
	30. Name THREE conditions that mirrors must be in, on the machine.
	A
	31. Why must the seat belt be worn, even with the cab door closed?
	A
	32. What problems and hazards can soft ground cause to a loaded loader compressor?
	A
Setting up for work	33. Give FOUR reasons that may cause the loader compressor to tip over sideways.
	A
	34. Whenever possible, who should decide the positioning of a vehicle to be loaded?
	A
	35. Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
	A

Setting up for work continued	36. 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?
	A
	37. Why should air hosing length be kept to a minimum?
	A
	38. Give THREE possible reasons why loader compressors should not stray off the designated haul routes.
	A
	39. Describe ONE physical method of checking that the attachment is fully secured to the coupler prior to work.
	A
	40. a) What is meant by 'white finger' and b) name TWO methods of reducing the effect?
	A
	41. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account?
	A
	42. If using a compressed air tool to break up a concrete type surface, list FIVE items of PPE that must be worn.
	A
43. What is regarded as the most productive position for a vehicle to be loaded to be in when being loaded from a stockpile?	
A	
44. Before manually changing any bucket: a) where should the bucket be positioned (in relation to the ground) before removing the final pin and b) why?	
A	

continued...

Setting up for work continued	45. Give TWO reasons why the loader compressor operator should have an understanding of the type of material being loaded.
	A
Working tasks	46. The operator is asked to tip material into a trench. State FIVE different requirements that must be considered or implemented before tipping commences.
	A
	47. Who should determine the maximum load that should be placed into the body of a vehicle being loaded?
	A
	48. If a load has to be tipped on a slope, what may happen if the load is tipped downhill and why?
	A
	49. When working in a confined area or space, name THREE hazards that can occur.
	A
50. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when tipping loads and b) explain why a distance should be kept.	
A	
Completing work	51. State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
	A
Completing work	52. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A

Shutdown	53. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	54. 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.
	A
	55. 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?
	A
56. Why should a loader compressor be re-fuelled at the end of the day?	
A	

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Technical Test – Practical

RESOURCES

Required

Machine	<ul style="list-style-type: none"> • Purpose built Loader/Compressor with: <ul style="list-style-type: none"> – a general purpose bucket – compressor – ROPS and seat belt equipped
Area	<ul style="list-style-type: none"> • Ground, clear of hazards which must include a straight run for reversing
Other equipment	<ul style="list-style-type: none"> • Load-carrying vehicle for spoil/material • Stockpile of material for loading purposes and spread material for retrieval purposes • Pneumatic-operated breaker, hoses and fittings compatible with the compressor • Items to create restrictions for manoeuvring
Notes	<ul style="list-style-type: none"> • The machine selected for the test must be in serviceable condition and conform with current legislation • The operator's manual must be with the machine • The load-carrying vehicle must have a minimum capacity equivalent to 4 full bucket loads of the loader/compressor being used for the test • Sufficient quantity of material for the activities • The straight run must be at least 20 metres in length

ACTIVITY

Instructions

Sequence	<ul style="list-style-type: none"> • Activity 1 must be undertaken at the start of the test • Activities 3 and 7 can be undertaken at any time during the test • Activity 9 must be undertaken at the end of the test <p>The test must be completed within a given time. The specifications' section gives further information.</p>
Preparing for work	1 Complete all manufacturers' pre-start and running checks and prepare the loader/compressor for travel
Travelling & manoeuvring (refer to specifications)	2 Travel to the work area and pass through a restriction 3 Reverse the machine with a fully loaded bucket in a straight line
Setting up for work	4 Prepare and set the loader/compressor for the relevant work
Working tasks (refer to specifications)	5 Load the vehicle to capacity using material from the stockpile. On completion, this material to be re-deposited at the original place and spread 6 Load the vehicle to capacity using the spread material. On completion, this material to be deposited at the stockpile 7 Position the compressor at a given point and prepare the breaker for work. Test run the breaker. On completion, dismantle the breaker
Completing work	8 Clean and tidy the work area, stow all equipment and ready the machine for transport
Shutting down	9 Park the loader/compressor and carry out shut-down and securing procedures
Notes	<ul style="list-style-type: none"> • If the machine is hot, checks unable to be carried out (i.e. coolant) may be assessed by the Tester using verbal questions

Activity measurements

Travel restrictions	<ul style="list-style-type: none"> • 800 mm
Reversing length	<ul style="list-style-type: none"> • Minimum of 20 metres
Breaker / compressor distance	<ul style="list-style-type: none"> • At least 1.5 times the width of the bucket
Test timings	<ul style="list-style-type: none"> • The test must be completed within 1 hour and 45 minutes

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Technical Test – Practical

Basic details	Test ref.	Candidate name
	Tester name	Candidate ref.
	Tester ref.	Date of test
	Make and model	Start time of test
		Duration

MANDATORY		Correctly carried out during the test?	Y / N
Preparing	1 All pre-start and running checks (or responses to relevant questions)		
Travelling	2 Loader compressor set for travel and all equipment securely stowed		
	3 Seatbelt worn		
	4 Restrictions and hazards cleared		
Setting up	5 Straight line kept during reversing activity		
	6 Allocated area checked and clear of hazards prior to extracting and loading		
	7 Sited for compressor operations		
	8 Machine immobilised for compressor operations		
	9 Condition of hoses and connectors checked		
	10 SWP of system checked for compatibility for tool and hoses		
	11 Checked compressor/receiver and SWP of system		
Working	12 Air hose routed safely and connected securely to tool and compressor		
	13 Compressor engaged following required procedures		
	14 Ensured no digging below ground level		
	15 Loading vehicle positioning prior to loading		
	16 Vehicle loaded to capacity		
	17 Vehicle evenly loaded		
Completing	18 Spillage of material kept to minimum		
	19 Tool checked for functionality		
	20 Loader compressor stable during loading activities		
Shutdown	21 Working area cleaned after loading		
	22 Shut down procedures on the compressor		
Other	23 Tools, hoses equipment dismantled and securely stowed/stored		
	24 All shutdown and securing procedures		
	25 Legislation, manufacturers' and health and safety requirements complied with		
	26 Test completed within the given time		

All of these items must be awarded Achieved / Not achieved

FAULTS		Candidate incorrectly carried out the following:	Fault	Mark	Penalty
Travelling	1 Loader compressor mounting and dismounting			1	
	2 Full observation before moving and reversing			3	
	3 Full observation whilst travelling			2	
	4 Transmission drive engaged smoothly			1	
	5 Travel speed matched to the ground type and conditions			1	
Working	6 Bucket kept low at all times (except during loading work)			2	
	7 Wheel spin minimised			1	
	8 Full bucket loads maintained (except for cleaning work)			2	
	9 Material cleanly placed into the loading vehicle			2	
	10 Contact with vehicle avoided when loading			2	
	11 Use of steering/braking/hydraulic controls			1	
Not exceeded 8 penalties				Total penalties	
				Achieved / Not achieved	

