

# Lorry Loader

**A36**

## 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 operators who do not comply with, or follow legislation and regulations.
	A
	8. Lorry loader 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. State the functions or job role of the following personnel: a) Appointed Person, b) Crane Supervisor, c) Slinger, d) Signaller
	A
	11. If required, in what situation does a hard hat NOT need to be worn on site when operating a lorry loader?
	A
	12. The operator has to use a new attachment that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
	A
	13. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	14. Give TWO examples of where The Work at Height Regulations may apply to lorry loader operations.
	A
	15. How can a qualification or card benefit a lorry loader operator?
	A
	16. Name THREE ways that a lorry loader operator can contribute in ensuring repeat business with the client or main contractor.
	A
Preparing for work	17. Where should the Operator's Manual be kept and why?
	A
	18. a) What is meant by the lifting capacity of the lorry loader and b) who determines it?
A	
19. What are the THREE actions or stages that a lorry loader operator undertakes during pre-use inspections?	
A	

Preparing for work continued	<b>For questions 20 and 21 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate</b>
	20. Using the Operator's Manual, state which components may need greasing.
	<b>A</b>
	21. Using the Operator's Manual, state the hydraulic tank oil capacity OR oil type.
	<b>A</b>
	22. Which parts of the lorry loader is the radius (for lifting) measured from?
	<b>A</b>
	23. If checking the oil level using a dipstick, why must gloves be worn?
	<b>A</b>
	24. Apart from the operator, who else may need to use the machine's Operator's Manual?
	<b>A</b>
	25. What is the purpose of stabilisers on the lorry loader?
	<b>A</b>
	26. What are the THREE actions that should be undertaken during pre-use inspections on lifting accessories?
	<b>A</b>
	27. As stamped on lifting accessories, what do the letters SWL signify?
	<b>A</b>
	28. Polyester webbing slings are coloured and have black lines. What do the different colours and number of lines indicate?
	<b>A</b>
	29. a) What is meant by a 'knuckle-boom' crane and b) what advantage do they have over straight boom cranes?
<b>A</b>	
30. Name FOUR attachments that may be fitted to a lorry loader.	
<b>A</b>	

*continued...*

Preparing for work continued	31. What information must be found on the loader's rating plate?
	A
	32. What is the function of a motion limiter?
	A
	33. When would an extension be fitted and used?
	A
Travelling and manoeuvring	34. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	35. Prior to travelling the machine on the public highway, describe four items to be taken into account when planning a route.
	A
	36. If the lorry loader host vehicle is being used 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?
	A
Setting up for work	37. a) What is the minimum distance allowed near open trenches when travelling the lorry loader on a site and b) explain why.
	A
	38. On many construction sites, when MUST a banksman or signaller be used before moving a lorry loader?
	A
	39. a) Which part of the lorry loader applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
	A
	40. If fitting an extension to the lorry loader, why is it important that the manufacturers' procedures are followed precisely?
	A
	41. What is the main purpose of the Rated Capacity Indicator (RCI)?
	A

*continued...*

Setting up for work continued	42. If setting up to lift loads in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	43. Who only can authorise partial stabiliser extensions and b) what is the effect on lifting capacity if partially extending the outriggers?
	A
	44. What information is needed when estimating the weight of a load?
	A
	45. What is meant by 'outreach'?
	A
	46. Describe FIVE factors to be taken into account when planning a lift.
	A
	47. Prior to placing loads on to the vehicle bed, explain FOUR items to be taken into account.
	A
	48. Name THREE possible underground hazards which may affect the stability of the vehicle during lifting operations.
	A
	49. If using a lorry loader from a fixed position operating station, what should be ensured for the safety of the operator?
	A
50. a) What should be fitted to the hook of a lorry loader and b) why?	
A	
51. What checks should be made to the transmitter of a remote-controlled loader before work?	
A	
52. What is meant by centre of gravity, or how is the Centre of Gravity determined, on a load to be lifted?	
A	

*continued...*

Setting up for work continued	53. If setting up to work near a bank, what is the recommended minimum distance between the stabilisers and the top of the bank?
	A
	54. 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.
	A
Working tasks	55. The safe working load or working load limit (SWL/WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
	A
	56. Name TWO things that happen if a load is not lifted vertically.
	A
	57. Give FOUR reasons that may cause the lorry loader to overturn.
	A
	58. What makes up the total (or gross) weight of a load that is to be lifted?
	A
	59. 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?
	A
	60. If a heavy load is being slewed at high speed over at least 180 degrees, what TWO factors must the operator take into account?
	A
61. a) When is a trial lift carried out and b) name THREE checks to be made?	
A	
62. After unloading brick and block type material from the vehicle bed, what action should the operator carry out before rejoining the public highway?	
A	

*continued...*

Working tasks continued	63. If a load has to be held suspended, what must the operator do?
	A
	64. Name THREE ways in which wind speed can affect the lifting operation.
	A
	65. If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take?
	A
	66. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted?
	A
	67. When slewing with a load, where should the operator be looking?
	A
Completing work	68. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	69. State the possible effect of lifting downhill on a slope.
	A
	70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken?
	A
	71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out?
	A
	72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway?
	A
Shutdown	73. Before rejoining the public highway after completing work, what check must be made to the stabilisers?
	A
Shutdown	74. Name THREE places where the vehicle should NOT be parked after completion of the lifting operation.
	A

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## Technical Test – Practical

### RESOURCES

#### Required

Machine	<ul style="list-style-type: none"> <li>Lorry Loader mounted on a host carrier vehicle</li> </ul>
Area	<ul style="list-style-type: none"> <li>Facilities for vehicle travel and parking</li> <li>Flat firm area to allow lifting and placing of loads</li> </ul>
Other equipment	<ul style="list-style-type: none"> <li>Measuring tape for measuring the maximum radius of the crane</li> <li>Applicable lifting accessories to lift and secure all loads</li> <li>Items to create restrictions for manoeuvring</li> </ul>
Loads	<ul style="list-style-type: none"> <li><b>LOAD 1</b> <ul style="list-style-type: none"> <li>Hook – 1 x load at least 75% of the crane’s maximum rated capacity</li> <li>Clamshell bucket – 4 FULL bucket loads of a spoil-type material</li> <li>Hydraulic clamp – 1 x load at least 75% of the crane’s maximum rated capacity</li> </ul> </li> <li><b>LOAD 2</b> <ul style="list-style-type: none"> <li>Hook – 1 x load at least 5 metres in length with an offset centre of gravity</li> <li>Clamshell bucket – 4 FULL bucket loads of a spoil-type material</li> <li>Hydraulic clamp – 1 x load with an offset centre of gravity</li> </ul> </li> <li><b>LOAD 3</b> <ul style="list-style-type: none"> <li>Hook – 1 x load at least 75% of the crane’s maximum rated capacity at full horizontal reach</li> <li>Clamshell bucket – 4 bucket loads of a spoil-type material</li> <li>Hydraulic clamp – 1 x load at least 75% of the crane’s maximum rated capacity at full horizontal reach</li> </ul> </li> </ul>
Notes	<ul style="list-style-type: none"> <li>The crane selected for the test must have at least a lifting capacity of 2.7 tonnes, meet the specification for the required endorsement, be in serviceable condition and conform with current legislation</li> <li>The host vehicle selected for the test must be able to carry and transport the required loads, be in serviceable condition and conform with current legislation</li> <li>Maximum radius equates to the configuration of the crane being used for the test</li> <li>The operator’s manuals for both host vehicle and crane must be available</li> <li>All lifting accessories must be fit for purpose and certificated</li> <li>The persons attaching/detaching and securing loads to the hook must be trained in selecting and using the relevant lifting accessories</li> <li>The weight of all loads must be known</li> </ul>

### ACTIVITY

#### Instructions

Sequence	<ul style="list-style-type: none"> <li>Activity 1 must be undertaken at the start of the test</li> <li>Activity 4 may be undertaken loaded or unloaded and undertaken at any time during the test</li> <li>Activity 10 must be undertaken at the end of the test</li> </ul> <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
Travelling & manoeuvring (refer to specifications)	2 Prepare the vehicle and crane for road travel (loaded and unloaded) 3 Travel to and within the work area (loaded and unloaded) 4 Reverse into a confined space
Setting up for work	5 Position the vehicle, prepare and set the crane and load for each lift
Working tasks (refer to specifications)	6 Lift LOADS 1, 2 and 3 and place onto the vehicle bed (see notes below) 7 Secure all loads in preparation for travel 8 Remove and place LOADS 1, 2 and 3 (to different locations from activity 6) 9 Stow all equipment and return the vehicle to the park position
Shutting down	10 Park the vehicle and carry out shut-down and securing procedures
Notes	<ul style="list-style-type: none"> <li><b>LOAD 1</b> <ul style="list-style-type: none"> <li>Hook – Lifted at minimum radius and placed in a given position</li> <li>Clamshell bucket – Lifted at minimum radius on the nearside of the vehicle and placed at the rear of the body</li> <li>Hydraulic clamp – Lifted at minimum radius and placed in a given position</li> </ul> </li> <li><b>LOAD 2</b> <ul style="list-style-type: none"> <li>Hook – Lifted at minimum radius from the opposite side from Load 1 and placed in a given position</li> <li>Clamshell bucket – Lifted at minimum radius on the offside of the vehicle and placed at the front of the body</li> <li>Hydraulic clamp – Lifted at minimum radius from the opposite side from Load 1 and placed in a given position</li> </ul> </li> <li><b>LOAD 3</b> <ul style="list-style-type: none"> <li>Hook – 1 x load at least 75% of the crane's maximum reach and placed in a given position</li> <li>Clamshell bucket – Lifted at least 75% of the crane's maximum reach and placed in the centre of the body</li> <li>Hydraulic clamp – 1 x load at least 75% of the crane's maximum reach and placed in a given position</li> </ul> </li> <li>The Tester must check that the Candidate has programmed the RCI/LMI correctly before carrying out each activity (if applicable)</li> <li>If the machine is hot, checks unable to be carried out (i.e. coolant) may be assessed by the Tester using verbal questions</li> </ul>

### Activity measurements

Reversing restriction	<ul style="list-style-type: none"><li>• No wider than the width of the vehicle plus 900 mm</li></ul>
Load placing	<ul style="list-style-type: none"><li>• 100 mm of a given position</li></ul>
Test timings	<ul style="list-style-type: none"><li>• The test must be completed within 1 hour and 45 minutes</li></ul>

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## Technical Test – Practical

<b>Basic details</b>	Test ref.	Candidate name
	Tester name:	Candidate ref.
	Tester ref.	Date of test
	Endorsement A <input type="checkbox"/> Endorsement B <input type="checkbox"/>	Start time of test
	Endorsement C <input type="checkbox"/>	Duration
	Make and model	

<b>MANDATORY</b>		Correctly carried out during the test?	Y / N
Preparing	1 All pre-start and running checks (or responses to relevant questions – vehicle, loader and attachment)		
Travelling	2 Vehicle and crane set for road travel		
	3 Stabilisers fully stowed and locked		
	4 Restrictions and hazards cleared		
Setting up	5 Area checked and safe prior to setting up for lifting and depositing loads		
	6 Vehicle positioning prior to lifting loads		
	7 Area secured		
	8 Stabilisers set		
	9 Ensured vehicle was level prior to lifting loads		
	10 Selected and assessed the appropriate lifting accessories (Endorsement A only)		
Working	11 Engaged pump drive systems (if applicable)		
	12 Vehicle stability maintained at all times		
	13 Load integrity and stability maintained at all times		
	14 Loads did not contact any obstructions		
	15 Loads kept low to ground (except when directly next to vehicle body)		
	16 Lifted, moved and placed all loads in a controlled manner		
	17 Loads secured and stable on vehicle bed/in tipping body		
	18 Crane re-configuring from lifting to travelling duties		
Shutdown	19 Parked in appropriate place		
	20 All shutdown and securing procedures		
Other	21 Legislation, manufacturers' and health and safety requirements complied with		
	22 Test completed within the given time		
<b>All of these items must be awarded</b>		Achieved / Not achieved	

<b>FAULTS</b>		Candidate incorrectly carried out the following:	Fault	Mark	Penalty
Travelling	1	Vehicle mounting and dismounting		1	
	2	Full observation before moving and reversing		3	
	3	Full observation whilst travelling		2	
	4	Full observation before slewing the crane		2	
	5	Gear ratios appropriate for travel speeds		1	
	6	Controlled load swings		2	
	7	Lifting accessories kept clear of the ground		1	
Working	8	Full bucket loads maintained (except to avoid exceeding SWL)		2	
	9	All loads placed at the given points within the given tolerance		2	
	10	Each load lifted clear of surface and checked for integrity		2	
	11	All loads vertically lifted		2	
	12	Sequence of using hydraulic/lifting controls		2	
	13	Smooth use of the steering, braking and hydraulic controls		1	
<b>Not exceeded 8 penalties</b>			Total penalties		
			Achieved / Not achieved		

