

# Industrial Forklift Truck

**A16**

**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 to plant operators who do not comply with, or follow legislation and regulations.
	A
	8. Forklift 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 forklift?
	A
	11. The operator has to use a new type of forklift 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
Preparing for work	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
	15. a) What is meant by the lifting or rated capacity of the forklift and b) who determines it?
A	
Preparing for work	16. Where should the Operator's Manual be kept and why?
	A
Preparing for work	17. Forklift operations fall within the scope of the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998. Name TWO requirements of the act with regards to lifting.
	A

*continued...*

Preparing for work continued	18. What is the purpose of a roll or ROPS frame?
	A
	19. What are the THREE actions or stages that a forklift operator undertakes during pre-use inspections?
	A
	20. State FOUR checks that should be made to the forks.
	A
	21. Using the Operator's Manual, state the procedure for greasing the mast components.
	A
	22. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	23. Explain THREE checks that should be made to the mast lift chains.
	A
24. If checking the oil level using a dipstick, why must gloves be worn?	
A	
25. Apart from the operator, who else may need to use the machine's Operator's Manual?	
A	
26. What is the purpose of the counterweight of the machine?	
A	

*continued...*

Preparing for work continued	27. What is a possible consequence of using a pneumatic tyre with a deep cut in the sidewall?
	A
	28. Compared to a duplex (double) mast: a) why would a triplex mast be fitted/used and b) what disadvantage does the mast have over the duplex?
	A
	29. a) What THREE checks would be made specifically to the batteries and b) what specific PPE would be worn?
	A
	30. As a lifting machine, the forklift must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
	A
	31. Before manually changing any attachment: a) where should the attachment be positioned (in relation to the ground) and b) why?
	A
	32. What THREE items must be printed on a forklift's rating plate?
	A
33. If changing an LPG cylinder, state THREE specific precautions to be observed.	
A	
34. On an IC engine forklift, 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	35. If the forklift is being travelled or working 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

continued...

Travelling and manoeuvring continued	36. Name THREE conditions that mirrors must be in, on the machine.
	A
	37. Why must the seat belt be worn, even though a ROPS frame is fitted?
	A
	38. a) What is the minimum distance allowed near open trenches when travelling with a forklift and b) explain why.
	A
	39. A manufacturer must give recommendations on how to travel a forklift up and down slopes. If this information is not known first hand, what is the general rule about travelling up and down slopes?
	A
	40. What is the best method of driving the forklift across humps, drainage gullies etc?
	A
	41. When working in a confined area or space, name THREE dangers that can be present.
	A
	42. How is it possible that forklifts can still tip over, even when travelling on gentle gradients, are not overloaded and not being driven at excessive speed?
	A
	43. What problems and hazards can soft ground cause to a loaded forklift?
A	
44. Before travelling with a physically large load, name FIVE factors that must be taken into account by the operator before moving.	
A	
45. When working in a confined area or space: a) what danger can be present with regards to the counterweight or rear of the machine, b) what is the recommended minimum distance and c) what measures must be implemented if the gap is less?	
A	

Setting up for work	46. a) What is meant by the load centre and b) why must it be known for each lift?
	A
	47. If the load centre of the load is longer (increased) than stipulated for the model of forklift, what effect does it have on the lifting capacity of the machine?
	A
	48. Before picking up a load, why should the forks be equally spaced or distanced on the carriage?
	A
	49. Which parts of the forklift is the load centre usually measured from?
	A
	50. Name FOUR factors to consider and know before picking up a load.
	A
	51. If fitting an attachment (e.g. a drum clamp), why would a forklift need to be de-rated?
	A
	52. If setting up to lift and move loads in a pedestrianised area, state THREE factors that need to be taken into account.
	A
Working tasks	53. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden pylons when tipping loads and b) explain why a distance should be kept.
	A
	54. Name TWO factors that determine the weight of a load.
	A
Working tasks	55. What are FOUR safety checks that should be made before loading or unloading a suitable vehicle?
	A
Working tasks	56. Give THREE reasons why it is important that a forklift is not leaning sideways before attempting to lift or place a load.
	A

*continued...*

Working tasks continued	57. When placing onto or lifting a load from a loading out tower or rack: a) why must the forklift's handbrake be on and the transmission in neutral and b) what would be the consequences if this was not done?
	A
	58. Give FOUR reasons that may cause the forklift to tip over sideways.
	A
	59. Give FOUR reasons that may cause the machine to tip forwards.
	A
	60. Before loading an uncoupled trailer, what THREE precautions must be taken?
	A
	61. An operator has been asked to transport a load down a small section of the public highway, for which The Road Traffic Act applies. What effect does this have on forklift operations?
	A
	62. What should be known about the loading out tower or racking before placing loads?
	A
	63. Name FOUR ways that wet weather can affect forklift operations.
	A
	64. If placing a variety of loads onto a rigid, flatbed transporter, where should the heaviest loads be placed?
	A
65. What is the meaning of this hand signal (being demonstrated by the Tester)?	
A	
66. State the possible effect of lifting downhill on a slope.	
A	

Completing work	67. After placing a load, who is responsible for ensuring the load is safe?
	A
Shutdown	68. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	69. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	70. 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	
	71. Why should diesel-engined forklifts 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"> <li>Industrial forklift with:               <ul style="list-style-type: none"> <li>– a seatbelt , ROPS and FOPS units</li> <li>– standard forks</li> </ul> </li> </ul>
Area	<ul style="list-style-type: none"> <li>Flat surface for travelling on and for placing/stacking loads</li> <li>Clear straight run not less than 10 metres in length</li> </ul>
Other equipment	<ul style="list-style-type: none"> <li>Truck bed fitted with a headboard</li> <li>Structure, racking or stacking to allow loads to be placed at high level</li> <li>Items to create restrictions for manoeuvring</li> </ul>
Loads	<ul style="list-style-type: none"> <li><b>LOAD 1</b> 1 x load at least 50% of the rated capacity of the forklift</li> <li><b>LOAD 2</b> 3 x same-sized loads (on pallets) for stacking purposes</li> <li><b>LOAD 3</b> A wide load at least 3 metres in length</li> </ul>
Notes	<ul style="list-style-type: none"> <li>The machine selected for the test must be of at least 1 tonne lift capacity, in serviceable condition and conform with current legislation</li> <li>The operator's manual must be with the forklift</li> <li>The weight of all loads must be known</li> <li>The truck bed can be simulated but <b>must</b> conform to road haulage standard specifications, including the ground/bed height</li> <li>The high level load-placing must be at least 75% of the forklift's full rated height</li> <li>Items for LOAD 2 must be safe for stacking</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>Activities 2–8 can be undertaken in any order</li> <li>Activity 8 may be incorporated during activities 5–7</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 and prepare the forklift for travel
Travelling & manoeuvring (refer to specifications)	2. In an unladen state and with LOAD 1, pass through a chicane executing full right- and left-hand turns in a forward and reverse direction 3. With LOAD 3, reverse with a load in a straight line for at least 10 metres and pass through a restriction at the end of the run
Setting up for work	4. Prepare and set the forklift for each lift
Working tasks (refer to specifications)	5. Lift and place LOAD 1 at high level on/in the structure/stack. When placed, move the forklift away from the structure/stack. Then retrieve the load A, lower to ground level and place at a given point 6. Lift and place 3 x LOAD 2 onto the truck bed. On completion, remove all loads bed 7. Stack 3 x LOAD 2 vertically on top of one another. On completion, de-stack all of LOAD 2 and place alongside each other in a straight line 8. Carry out undercutting by both lifting and placing a load
Completing work	9. All loads to be placed at ground level following completion of each activity
Shutting down	10. Park the forklift and carry out shut-down and securing procedures
Notes	<ul style="list-style-type: none"> <li>The forks must be set to the widest position at the start of the test</li> <li>For the truck loading activity, 2 x loads must be placed square to the headboard</li> <li>For Load 3, the restriction must be higher than the height of the load (the forks may not be raised during manoeuvring activities)</li> <li>The stack must be at least 10 metres away from the truck bed</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

Load placing	<ul style="list-style-type: none"> <li>100 mm of a given position</li> </ul>
Load placing (vehicle bed)	<ul style="list-style-type: none"> <li>Maximum of 75 mm clearance between all loads, and the loads and truck headboard</li> </ul>
Load placing (stacking)	<ul style="list-style-type: none"> <li>Maximum of 75 mm clearance between each load when placed back at ground level (activity 8)</li> </ul>
Manoeuvring (chicane and reversing)	<ul style="list-style-type: none"> <li>Maximum clearance less than 300 mm or 10% of the machine's width (the greater applies) between the forklift and chicane/restriction sides when undertaking each turn, or passing through the restriction</li> </ul>
Manoeuvring LOAD 3	<ul style="list-style-type: none"> <li>Maximum clearance less than 300 mm</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
	Make and model	Start time of test
		Duration

<b>MANDATORY</b>		Correctly carried out during the test?	Y / N
Preparing	1 All pre-start and running checks (or responses to relevant questions)		
	2 Forklift set for travel		
	3 Restrictions cleared		
Travelling g	4 Seat belt worn		
	5 Limbs and body kept within confines of cab/frame (when travelling)		
	6 Straight line kept during reversing activity		
	7 Loads secure on forks		
	8 Encountered hazards cleared		
Setting up	9 Allocated area checked and clear of hazards prior to lifting		
	10 Loads assessed for weight and condition prior to lifting		
	11 Forks spaced to match loads		
Working	12 Forklift level prior to lifting or placing loads		
	13 SWL not exceeded at all times		
	14 Machine's stability maintained at all times		
	15 Loads/pallets not damaged during operations		
	16 Sequence of loads placed and removed onto and from truck bed		
	17 Parking brake applied and neutral selected before lifting and placing loads		
18 Undercut loads			
Completing	19 Loads left safe and secure		
Shutdown	20 All shut down 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 and manoeuvring	1 Forklift mounting and dismounting			1	
	2 Full observation before moving and reversing			3	
	3 Full observation whilst travelling			2	
	4 Travel speed matched to ground conditions and type			1	
	5 All loads placed at the given points within the given tolerance			2	
	6 Forks or loads kept low but clear of the ground during travel			2	
	7 Position and set the forklift when lifting or placing loads			2	
Working tasks	8 Loads entered and exited cleanly			1	
	9 Loads heeled whilst travelling			2	
	10 Loads lowered within 1 metre after removing from truck bed			1	
	11 Sequence of using hydraulic/lifting controls			2	
	12 Smooth use of the steering, braking, transmission and hydraulic controls			1	
<b>Not exceeded 8 penalties</b>			Total penalties		
					Achieved / Not achieved

