

Mobile Elevating Work Platform

A26

Boom

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. Dedicated MEWP operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

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. What determines the type of harness that can be worn when operating a MEWP boom?
	A
	11. When can a MEWP work (raise the platform) on sloping ground?
	A
	12. The operator has to use a new type of MEWP that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
	A
	13. What are the possible outcomes of being prosecuted for not complying with legislation and regulations?
	A
	14. How can a qualification or card benefit a plant operator?
	A
	15. Name THREE ways that a plant operator can contribute to ensuring repeat business with the client or main contractor.
	A
	16. a) What is meant by the working range of the MEWP and b) who determines it?
A	
17. What is the difference between: a) a work restraint system and b) a fall arrest system?	
A	
Preparing for work	18. Where should the Operator's Manual be kept and why?
	A

continued...

Preparing for work	19. a) What is the difference between outreach and radius of a MEWP boom and b) why would an operator need to know the difference?
	A
	20. What are the THREE actions that a MEWP operator undertakes during pre-use inspections?
	A
	For questions 21 to 22 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	21. Using the Operator's Manual, state the figure for the tyre pressures. For tracked types, state checks that must be made to the track belts.
	A
	22. Using the Operator's Manual, state any cold-starting procedures for the machine. For electric units only, state the battery function checks that need to be made.
	A
	23. State the purpose of the check valve(s) located on the boom cylinder ram (or rams), circuit.
	A
	24. When or why would foam filled tyres be specified for platform operations?
	A
25. What is meant by a bi-fuel MEWP?	
A	
26. How do stabilisers increase the potential stability of a MEWP boom?	
A	

continued...

Preparing for work continued	27. a) Why must all travel and platform controls be clearly marked as to function and direction or mode and b) what consequences could occur if controls were not clearly marked?
	A
	28. The Safe Working Load (SWL) means exactly what?
	A
	29. When checking fluid levels, why must gloves be worn?
	A
	30. Apart from the operator, who else may need to use the machine's Operator's Manual?
	A
	31. What THREE types of information may be found on the operating envelope chart of a MEWP boom?
	A
	32. What is the purpose of the counterweights of the machine?
	A
	33. If required to wearing a safety harness or belt: a) where must it be attached to and b) where should the harness not be attached to?
	A
34. As a machine for the lifting of persons, the MEWP must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?	
A	
35. On IC engines, 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	36. If a self-propelled MEWP 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
	37. If travelling near an open trench which has a depth of 2.0 metres, what is the minimum distance to maintain?
	A
	38. What would happen if the steering axle is to the rear of the direction for travel?
	A
	39. On vehicle mounted MEWPs, what main precaution should be taken before travelling on the public highway?
	A
Setting up for work	40. An operator has to travel a MEWP along a stretch of the public highway, for which the road traffic act applies. List SIX requirements that must be followed.
	A
	41. Before climbing or descending a slope, what FOUR factors should be checked?
	A
	42. When setting up for work, what should be in place should machine failure happen?
	A
	43. If setting up to work near a steep slope, apart from ground support: a) what could be a danger and b) what actions should be taken?
	A
44. When siting the MEWP for work, what checks must be made to the ground type?	
A	
45. If using a MEWP in an area where there are moving vehicles, state THREE precautions to be taken	
A	

continued...

Setting up for work continued	46. Apart from ground conditions, list FIVE checks that must be taken into account when siting the MEWP.
	A
	47. If setting up to lift in a pedestrianised area, state TWO factors that need to be taken into account.
	A
	48. What must you take into account when calculating the safe working load of the platform of a MEWP?
	A
	49. Before taking passengers up in a MEWP, what should be ensured about the individual or individuals?
	A
	50. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the MEWP and b) explain why a distance should be kept.
	A
Working tasks	51. Name TWO factors that determine the weight of a load.
	A
	52. If setting up to work near a bank, what is the recommended distance between the stabilisers or wheels and the top of the bank?
	A
	53. Give TWO reasons why is it important that a MEWP is not leaning sideways before attempting to raise the platform.
	A
Working tasks	54. Give FOUR reasons that may cause the MEWP to tip over sideways.
	A
	55. Give THREE reasons that may cause the machine to tip forwards.
A	

continued...

Working tasks continued	56. When working in a confined area or space with a diesel powered machine, name THREE dangers that can be present?
	A
	57. Name FOUR ways that wet weather affect MEWP operations.
	A
	58. If raising the platform up to a ceiling of a structure, why must extra care be taken when nearing the ceiling?
	A
	59. How can high wind speeds affect MEWP operations?
A	
60. What is the meaning of this hand signal (being demonstrated by the tester)?	
A	
Shutdown	61. Before leaving the cab or platform for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	62. When parking the machine at the end of the shift, name THREE places where the MEWP should NOT be parked.
	A
	63. The operator has been asked to drive a self-propelled MEWP 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	
64. Why should a diesel MEWP 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"> • MEWP Boom
Area	<ul style="list-style-type: none"> • Ground, clear of hazards which must include: <ul style="list-style-type: none"> – level area for carrying out activities – structure or structures for accessing purposes
Other equipment	<ul style="list-style-type: none"> • Harness • Toolbox or similar item of a known weight • Signaller • Items to create restrictions for manoeuvring
Notes	<ul style="list-style-type: none"> • The machine selected for the test must have a platform height of at least 5 metres and a horizontal reach of at least 3 metres, meet the specification for the required endorsement, be in serviceable condition and conform with current legislation • To meet the criteria for endorsement B, the MEWP must be capable of travelling with the platform in the raised position • The operator's manual must be with the MEWP • The structure must have items or objects positioned at a height of at least 75% of the platform's working height • The toolbox or similar, which must weigh at least 10 kilos • The type and need for harness equipment may vary with different types of MEWP. A risk assessment must be undertaken to establish the correct type. Further information may be obtained from the Health and Safety Executive (HSE), The Construction Plant-hire Association (CPA), the International Powered Access Federation (IPAF) or other reputable organisations

ACTIVITY

Instructions

Sequence	<ul style="list-style-type: none"> Activity 1 must be undertaken at the start of the test Activities 3, 4, 6 and 7 can be undertaken in any order Activity 8 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	<ol style="list-style-type: none"> Complete all manufacturers' pre-start and running checks and prepare the MEWP for travel Carry out an emergency lowering function check
Travelling & manoeuvring (refer to specifications)	<ol style="list-style-type: none"> Travel to the work area and pass through a chicane executing full left- and right-hand turns Travel the MEWP with the platform raised and pass through a restriction (endorsement B only)
Setting up for work	<ol style="list-style-type: none"> Prepare an exclusion zone in the relevant area
Working tasks (refer to specifications)	<ol style="list-style-type: none"> Access given points at height Access given points requiring use of horizontal reach
Shutting down	<ol style="list-style-type: none"> Park the MEWP and carry out shut-down and securing procedures
Notes	<ul style="list-style-type: none"> At least two points shall be accessed for height and at least two points for reach – one with and one without given signals For activity 3, the platform should be at least 50% of maximum available height 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"> 500 mm
Chicane restrictions	<ul style="list-style-type: none"> 20% of the MEWP's width
Height to be accessed	<ul style="list-style-type: none"> At least 75% of the MEWP's maximum operating height
Horizontal reach	<ul style="list-style-type: none"> At least 75% of the MEWP's horizontal reach ability
Travel distance with raised platform	<ul style="list-style-type: none"> 10 metres
Test timings	<ul style="list-style-type: none"> The test must be completed within 1 hour and 15 minutes

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Basic details	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
	Make and model	Duration

MANDATORY		Correctly carried out during the test?	Y / N
Preparing	1 All pre-start and running checks (or responses to relevant questions)		
	2 Emergency lowering function checked		
Travelling	3 MEWP set for travel		
	4 Tools/equipment checked for security and positioning		
	5 Route assessed prior to travel		
	6 Encountered hazards and restrictions cleared		
Setting up	7 Faced direction of travel whilst travelling		
	8 Allocated area checked and clear of hazards prior to accessing		
	9 Accessing area secured		
	10 Signal arrangements confirmed with the signaller		
	11 Harness donned and attached		
Working	12 MEWP positioned to access each point		
	13 Accessed given points and height		
	14 Accessed given points using horizontal reach		
	15 No contact with obstructions		
Shutdown	16 Followed given instructions		
	17 Maintained stability at all times		
	18 All shutting down and securing procedures		
Other	19 Fall arrest equipment stowed for future use		
	20 Legislation, manufacturers' and health and safety requirements complied with		
	21 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 MEWP mounting and dismounting			1	
	2 Full observation before moving and whilst travelling			2	
	3 Full observation before and during raising the platform			2	
	4 Full observation before and during lowering the platform			2	
	5 Full observation before and during slewing or extending the platform			2	
Working	6 Platform raised smoothly			1	
	7 Platform lowered smoothly			1	
	8 Platform slewed smoothly			1	
	9 Intended direction selected for travel			1	
	10 Travelling smoothly with a raised platform			2	
	11 Sequence of using steering and hydraulic controls			1	
Not exceeded 8 penalties			Total penalties		
					Achieved / Not achieved

