

Technical Test - Practical

Mobile Crane - A60



Resources required

<p>Machine</p>	<ul style="list-style-type: none"> Mobile Crane Endorsement A - 4 outriggers minimum <i>Blocked Duties</i> Endorsement B - capability for pick and carry duties <i>Pick & Carry Duties</i> Endorsement C - 4 outriggers minimum <i>All duties</i> - capability for pick and carry duties
<p>Area</p>	<ul style="list-style-type: none"> Facilities for crane travel and parking Flat area to allow lifting and placing of loads Facilities for out-of-sight lifts to take place
<p>Other equipment</p>	<ul style="list-style-type: none"> Measuring tape for measuring the maximum radius of the crane Slinger and Signaller Applicable lifting accessories for all loads Radio communication Items to create restrictions for manoeuvring
<p>Loads</p>	<ul style="list-style-type: none"> LOAD 1 1 x load being a minimum 50% load at 75% full radius of the crane LOAD 2 1 x load being within the duties chart for 2 falls of rope LOAD 3 1 x load being within the duties chart for 3 falls of rope LOAD 4 1 x load being a tube or structure not less than 6 metres in length
<p>Notes</p>	<ul style="list-style-type: none"> The machine selected for the test must meet the specification for the required endorsement, be in serviceable condition and conform with current legislation The operator's manual must be with the crane Duties charts for the crane being used for the test must be available for use The slinger and signaller must be certificated and competent All lifting accessories must be fit for purpose and certificated The weight of all loads must be known

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Activity instructions

<p>Sequence</p>	<ul style="list-style-type: none"> • Activity 1 must be undertaken at the start of the test • Activities 5–10 can be undertaken in any order • Activities 8 and 10 may be incorporated during activities 5–7 • Activity 15 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>
<p>Preparing for work</p>	<ol style="list-style-type: none"> 1. Complete all manufacturers' pre-start and running checks and prepare the crane for travel as detailed in the operator's manual which must be referred to by the candidate during the activity <ul style="list-style-type: none"> • Additional information to be identified by the candidate referring to the operator's manual. Tester to decide what information will be identified
<p>Travelling & manoeuvring <i>(refer to specifications)</i></p>	<ol style="list-style-type: none"> 2. Travel to the work area 3. Reverse into a confined space
<p>Setting up for work</p>	<ol style="list-style-type: none"> 4. Prepare and set the crane for each lift 5. Change the number of falls on the hook block from 2 to 3 or 3 to 2
<p>Working tasks <i>(refer to specifications)</i></p>	<ol style="list-style-type: none"> 6. Lift LOAD 1 which must be at 75% of maximum radius, and land at a designated place at minimum radius. Once landed, move back to at least 75% of maximum radius and rotate for at least 360 degrees. Land the load at mid-radius at a designated place 7. Lift LOAD 2 and simulate a concrete pouring exercise by travelling the load in a straight line for a distance of not less than 6 metres. Land the load at a designated place 8. Lift LOAD 3 using 3 falls of rope, rotate for at least 270 degrees, and land in a designated place 9. Endorsements B and C – Lift LOAD 2 from a designated position and travel with the load suspended for at least 10 metres. Land the load at a designated place 10. Lift LOAD 4 using a minimum radius and rotate maintaining minimum radius for at least 360 degrees. Land the load at a designated place 11. Lift a load from a given position and land in a designated place out-of-sight of the Candidate 12. Recover simulated 2 metre load swings
<p>Completing work</p>	<ol style="list-style-type: none"> 13. All loads to be made safe following each activity 14. On completion of all lifting activities, configure the crane for travel
<p>Shutting down</p>	<ol style="list-style-type: none"> 15. Park the crane and carry out shut-down and securing procedures

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Activity instructions (Continued)

Notes	<ul style="list-style-type: none"> • The instructor must check that the candidate has programmed the RCI correctly before carrying out each activity • On activities 6, 7, 8 and 10, the load must follow the ground contours and be able to be handled by the slinger/signaller • On activity 7, the line must be angled so that both slew and radius change functions are used simultaneously • Activity 12 shall consist of a minimum of 1 x swing in a left to right plane and a minimum of 1 x swing in a forward to reverse plane • Activity 11 must be undertaken twice – once using hand signals and once using radio communication. All other lifts may be undertaken using either radio or hand signals • For the purposes of the test, all hand signals shall conform with BS 7121 Part 1:2016 • If the machine is hot, checks unable to be carried out (i.e. coolant) may be assessed by the Tester using verbal questions
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Activity measurements

Reversing specification	<ul style="list-style-type: none"> • No wider than the width of the crane plus 900 mm
Load placing	<ul style="list-style-type: none"> • To be landed within 100 mm of a designated place
Load swing	<ul style="list-style-type: none"> • To be corrected within 3 moves
Test timings	<ul style="list-style-type: none"> • The test must be completed within 3 hours

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Basic details

Test ref:	Candidate name:
Tester name:	Candidate ref:
Tester ref:	Date of test:
Endorsement: A <input type="checkbox"/> B <input type="checkbox"/> C <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)		
Travelling	2 Crane set for travel		
	3 Restrictions cleared		
	4 Encountered hazards cleared		
Setting up	5 Area checked and safe prior to setting up for lifting and depositing loads		
	6 Crane positioned prior to lifting loads		
	7 Stabilisers set (A & C only)		
	8 Ensured crane was level prior to lifting loads		
	9 RCI programmed for all lifting duties		
	10 Hook blocked re-reeved to requested number of falls		
	11 Communication arrangements confirmed with the signaller		
Working	12 Turntable locked/braked prior to travelling with a suspended load (B and C only)		
	13 SWL not exceeded at all times		
	14 Load integrity and stability maintained at all times		
	15 Loads did not contact any obstructions		
	16 Lifted, moved and lowered all loads in a controlled manner		
	17 Route assessed and travelled with the suspended load in a controlled manner (B & C only)		
Completing	18 Instructions conformed with		
	19 Crane re-configured from lifting to travelling duties		
Shutdown	20 Parked in appropriate place		
	21 All shutdown and securing procedures		
Other	22 Legislation, manufacturers' and health and safety requirements complied with		
	23 Test completed within the given time		

All of these items must be awarded Achieved / Not achieved

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Faults		Candidate incorrectly carried out the following:	Fault	Mark	Penalty
Travelling	1	Crane mounting and dismounting		1	
	2	Identify information from the Operator's Manual		2	
	3	Full observation before moving and reversing		3	
	4	Full observation whilst travelling		2	
	5	Full observation before slewing the upper structure		2	
	6	Lifting accessories kept clear of the ground		1	
	7	Load swings kept within 0.5 of a metre / rectified swinging		2	
Working	8	All loads placed at the given points within the given tolerance		2	
	9	Each load lifted clear of surface and checking for integrity		2	
	10	All loads vertically lifted		2	
	11	Sequence of using hydraulic/lifting controls		2	
	12	Smooth use of the steering, braking and hydraulic controls		1	
Not exceeded eight penalties			Total penalties		
Achieved / Not achieved					