

# Crawler Crane

A02

Technical Test – Practical

## RESOURCES

### Required

Machine	<ul style="list-style-type: none"> <li>• Crawler crane</li> </ul>
Area	<ul style="list-style-type: none"> <li>• Facilities for crane travel and parking</li> <li>• Flat area to allow lifting and placing of loads</li> <li>• Facilities for out-of-sight lifts to take place</li> </ul>
Other equipment	<ul style="list-style-type: none"> <li>• Measuring tape for measuring the maximum radius of the crane</li> <li>• Slinger and Signaller</li> <li>• Applicable lifting accessories for all loads</li> <li>• Radio communication</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 being a minimum 50% load at 75% of maximum radius of the crane</li> <li>• <b>LOAD 2</b> 1 x load being within the duties chart for 2 falls of rope</li> <li>• <b>LOAD 3</b> 1 x load being within the duties chart for 3 falls of rope</li> <li>• <b>LOAD 4</b> 1 x load being a tube or structure not less than 6 metres in length</li> </ul>
Notes	<ul style="list-style-type: none"> <li>• The machine selected for the test must meet the specification, be in serviceable condition and conform with current legislation</li> <li>• The operator's manual must be with the crane</li> <li>• Duties charts for the crane being used for the test must be available for use</li> <li>• The slinger and signaller must be certificated and competent</li> <li>• All lifting accessories must be fit for purpose and certificated</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>• Activities 6–11 can be undertaken in any order</li> <li>• Activities 9 and 11 may be incorporated during activities 6, 7 or 8</li> <li>• Activity 14 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 crane for travel
Travelling & manoeuvring (refer to specifications)	2. Travel to the work area 3. Manoeuvre through a restriction
Setting up for work	4. Prepare and set the crane for each lift 5. Change the number of falls on the hook block from 3 to 2, to 2 to 3
Working tasks (refer to specifications)	6. Lift LOAD 1 which must be at 75% of maximum radius, and land at minimum radius at a designated place. Once landed, move back to at least 75% of maximum radius and then rotate for at least 360 degrees. Land the load at mid radius at a designated place 7. Lift LOAD 3 using three falls of rope, rotate for at least 270 degrees and land at a designated place 8. Lift LOAD 4 which must be at ground level and at minimum radius and rotate for a minimum of 360 degrees maintaining minimum radius. Land at a designated place 9. Lift a load from a given point and land in a designated place out of sight of the candidate 10. Lift LOAD 2 using two falls of rope from a designated position and travel with the load suspended for at least 10 metres. Whilst travelling, execute a 90 degree angle turn 11. Recover simulated 2 metre load swings
Completing work	12. All loads to be made safe following each activity 13. On completion of all lifting activities, configure the crane for travel
Shutting down	14. Park the crane and carry out shut-down and securing procedures
Notes	<ul style="list-style-type: none"> <li>• The instructor must ensure that the candidate has programmed the RCI correctly before carrying out each activity</li> <li>• On activities 6, 7 and 8, the load must follow the ground contours and able to be handled by the slinger/signaller</li> <li>• Activity 11 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</li> <li>• Activity 9 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</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

Manoeuvring restriction	<ul style="list-style-type: none"><li>• Maximum of the width of the crane plus 800 mm</li></ul>
Load placing	<ul style="list-style-type: none"><li>• To be landed within 100 mm of a designated place</li></ul>
Load swing	<ul style="list-style-type: none"><li>• To be corrected within 3 moves</li></ul>
Test timings	<ul style="list-style-type: none"><li>• The test must be completed within 3 hours and 15 minutes</li></ul>



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<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

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 Faced direction of travel		
Setting up	5 Encountered hazards cleared		
	6 Area checked and safe prior to setting up for lifting and depositing loads		
	7 Crane positioned prior to lifting loads		
	8 Ensured crane was level prior to lifting loads		
	9 RCI programmed for all lifting duties		
Working	10 Communication arrangements confirmed with the signaller		
	11 Hook blocked re-reeved to requested number of falls		
	12 Turntable locked/braked prior to travelling with a suspended load		
	13 SWL not exceeded at all times		
	14 Load integrity and stability maintained at all times		
	15 Loads did not contact any obstructions		
Completing	16 Lifted, moved and lowered all loads in a controlled manner		
	17 Route assessed and travelled with the suspended load in a controlled manner		
Shutdown	18 Instructions conformed with		
	19 Crane re-configured from lifting to travelling duties		
Other	20 Parked in appropriate place		
	21 All shut down and securing procedures		
	22 Legislation, manufacturers' and health and safety requirements complied with		
	23 Test completed within the given time		
<b>All of these items must be awarded</b>		Achieved / Not achieved	

FAULTS		Candidate incorrectly carried out the following:	Fault	Mark	Penalty
Travelling	1 Crane mounting and dismounting			1	
	2 Full observation before moving and reversing (where applicable)			3	
	3 Full observation whilst travelling			2	
	4 Full observation before slewing the upper structure			2	
	5 Keeping drive sprockets to the rear when travelling			1	
	6 Keeping lifting accessories clear of the ground			1	
	7 Keeping load swings within 0.5 of a metre / rectify swinging			2	
Working	8 Placing all loads at the given points within the given tolerance			2	
	9 Lifting each load clear of surface and checking for integrity			2	
	10 Lifting all loads vertically			2	
	11 Sequence of using lifting controls			2	
	12 Smooth use of steering and lifting controls			1	
<b>Not exceeded 8 penalties</b>			Total penalties		
			Achieved / Not achieved		

