

# Piling Rig

Driven below 15 tonnes

A45

Technical Test – Practical

## RESOURCES

### Required

Machine	<ul style="list-style-type: none"> <li>• Piling rig configured for driven operations</li> </ul>
Area	<ul style="list-style-type: none"> <li>• Facilities for rig travel and parking</li> <li>• Flat area to driven works to take place</li> </ul>
Other equipment	<ul style="list-style-type: none"> <li>• Driving equipment to install displacement piles</li> <li>• Crane for lifting operations (if required)</li> <li>• Suitable personnel to assist with the operations</li> <li>• Applicable lifting accessories for all loads (if required)</li> <li>• Items to create restrictions for manoeuvring</li> </ul>
Piles	<ul style="list-style-type: none"> <li>• At least one of the following pile types: <ul style="list-style-type: none"> <li>– steel casings</li> <li>– steel box section</li> <li>– steel ‘H’ section</li> <li>– timber section</li> <li>– concrete section</li> </ul> </li> </ul>
Notes	<ul style="list-style-type: none"> <li>• The machine selected for the test must be in serviceable condition and conform with current legislation</li> <li>• Pile sizes to be at least 150 mm (as specified for working operations)</li> <li>• Depth of all piles to be 6 metres (or as specified for working operations)</li> <li>• The operator’s manual must be with the rig</li> <li>• All lifting accessories must be fit for purpose and certificated</li> <li>• The weight of all loads must be known</li> <li>• Specification detailing location, type and depth of piles</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 8 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 rig for travel
Travelling & manoeuvring (refer to specifications)	2 Travel to the work area 3 Manoeuvre through a restriction
Setting up for work	4 Configure, prepare and set the rig for driven works
Working tasks (refer to specifications)	5 Install given displacement piles to the requisite specification 6 Ensure the pile is plumb throughout the driving activity
Completing work	7 On completion of all piling activities, configure the rig for travel
Shutting down	8 Park the rig and carry out shut-down and securing procedures
Notes	<ul style="list-style-type: none"> <li>The test may be carried out during actual work and discrepancies allowed for compared to the stated activities and pile types</li> <li>A minimum of 4 piles must be placed to completion</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 rig plus 800 mm</li> </ul>
Pile placing	<ul style="list-style-type: none"> <li>Within 100 mm of the given position</li> </ul>
Pile measurement	<ul style="list-style-type: none"> <li>Maximum of 10 degrees from vertical</li> </ul>
Pile depth	<ul style="list-style-type: none"> <li>6 metres and within 100 mm of the given depth</li> </ul>
Test timings	<ul style="list-style-type: none"> <li>The test must be completed within 2 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 Set the rig correctly for travel		
	3 Restrictions cleared		
	4 Faced the direction of travel		
Setting up	5 Encountered hazards cleared		
	6 Area checked and safe prior to setting up for driven works		
	7 Rig positioned accurately prior to driven works		
	8 Ensured rig was level prior to driven works		
Working	9 RCI programmed for all duties (if fitted)		
	10 Communication arrangements confirmed with the signaller		
	11 Placed the pile in the frame/rig and aligned for driving		
	12 Drove each pile to the specification		
	13 Did not exceed rig's capacity		
Shutdown	14 Rig stability maintained		
	15 Instructions conformed with		
	16 Rig re-configured from piling to travelling duties		
Other	17 Parked in appropriate place		
	18 All shut down and securing procedures		
	19 Legislation, manufacturers' and health and safety requirements complied with		
	20 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	Rig mounting and dismounting		1	
	2	Full observation before moving and reversing		3	
	3	Full observation whilst travelling		2	
	4	Full observation before slewing the upper structure		2	
	5	Drive sprockets kept to the rear when travelling		1	
	6	Matching travel speed to ground types		1	
	7	Piling hammer setting for travel		2	
Working	8	Minimal manoeuvring maintained during work		2	
	9	Using planned cycles of operation		2	
	10	Sequence of using driving (piling) controls		1	
	11	Smooth use of steering controls		1	
<b>Not exceeded 8 penalties</b>			Total penalties		
				Achieved / Not achieved	

