

# Advanced On-Site Assessment

## Piling rig - A45

### Driven below 20 tonnes



#### Resources required

<b>Machine</b>	<ul style="list-style-type: none"> <li>• Piling rig configured for driven operations</li> </ul>
<b>Area</b>	<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>
<b>Other equipment</b>	<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>
<b>Piles</b>	<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> <li>• Other pile types may be used depending on contract requirements</li> </ul>
<b>Notes</b>	<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 (or 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 and all other related supporting documents such as risk assessments etc. 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>

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## Activity instructions

<p><b>Sequence</b></p>	<ul style="list-style-type: none"> <li>• Due to the nature of the equipment, piling activities can be undertaken on different rigs (of the same category), locations and different days if required. CPCS must be informed prior to any tests taking place and be given full details of any divided tests</li> <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 collectively within a given time. The specifications' section gives further information</p>
<p><b>Preparing for work</b></p>	<ol style="list-style-type: none"> <li>1. Complete all manufacturers' pre-start and running checks and prepare the rig 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"> <li>• Additional information to be identified by the candidate referring to the operator's manual. Tester to decide what information will be identified</li> </ul> </li> </ol>
<p><b>Travelling &amp; manoeuvring</b> <i>(refer to specifications)</i></p>	<ol style="list-style-type: none"> <li>2. Travel to the work area</li> <li>3. Manoeuvre through a restriction</li> </ol>
<p><b>Setting up for work</b></p>	<ol style="list-style-type: none"> <li>4. Configure, prepare and set the rig for driven works</li> </ol>
<p><b>Working tasks</b> <i>(refer to specifications)</i></p>	<ol style="list-style-type: none"> <li>5. Install given displacement piles to the requisite specification</li> <li>6. Ensure the pile is plumb throughout the driving activity</li> </ol>
<p><b>Completing work</b></p>	<ol style="list-style-type: none"> <li>7. On completion of all piling activities, configure the rig for travel</li> </ol>
<p><b>Shutting down</b></p>	<ol style="list-style-type: none"> <li>8. Park the rig and carry out shut-down and securing procedures</li> </ol>
<p><b>Notes</b></p>	<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 including time needed to move to a new pile position.</li> <li>• A minimum of 4 piles must be placed to completion. Should ground conditions or the pile type prevent the placing of the stated minimum, a reduced number may be placed but at least one pile must be inserted 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>

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#### Activity measurements

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<b>Manoeuvring restriction</b>	<ul style="list-style-type: none"><li>• Maximum of the width of the rig plus 500 mm</li></ul>
<b>Pile placing</b>	<ul style="list-style-type: none"><li>• Within 100 mm of the given position</li></ul>
<b>Pile measurement</b>	<ul style="list-style-type: none"><li>• Maximum of 5 degrees from vertical</li></ul>
<b>Pile depth</b>	<ul style="list-style-type: none"><li>• At least 6 metres and within 100 mm of the given depth</li></ul>
<b>Test timings</b>	<ul style="list-style-type: none"><li>• The test must be completed collectively within 1 hour 30 mins</li></ul>

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#### Basic details

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		
	5 Encountered hazards cleared		
Setting up	6 Area checked and safe prior to setting up for driven works or controlled as per risk assessment		
	7 Rig positioned accurately prior to driven works		
	8 Ensured rig was level prior to driven works		
	9 RCI programmed for all duties (if fitted)		
Working	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		
	14 Rig stability maintained		
	15 Instructions conformed with		
Shutdown	16 Rig re-configured from piling to travelling duties		
	17 Parked in appropriate place		
Other	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 Identified 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 Drive sprockets kept to the rear when travelling		1	
	7 Matching travel speed to ground types		1	
	8 Piling hammer setting for travel		2	
Working	9 Minimal manoeuvring maintained during work		2	
	10 Using planned cycles of operation		2	
	11 Sequence of using driving (piling) controls		1	
	12 Smooth use of steering controls		1	

Not exceeded five penalties

Total penalties

Achieved / Not achieved