

Technical test - Practical

Piling rig - A47

Bored below 20 tonnes



Resources required

Machine	<ul style="list-style-type: none"> • Piling rig configured for boring operations
Area	<ul style="list-style-type: none"> • Facilities for rig travel and parking • Flat area to bored works to take place
Other equipment	<ul style="list-style-type: none"> • Boring equipment to meet the specification • Equipment to create piles • Equipment to remove spoil at the boring location • Crane for lifting operations (if required) • Suitable personnel to assist with the operations • Applicable lifting accessories for all loads (if required) • Items to create restrictions for manoeuvring
Pile specification	<ul style="list-style-type: none"> • Diameter of 150 mm (or as per working specification)
Notes	<ul style="list-style-type: none"> • The machine selected for the test must be in serviceable condition and conform with current legislation • Depth of all piles to be 6 metres (or as specified for working operations) • The operator's manual must be with the rig • All lifting accessories must be fit for purpose and certificated • The weight of all loads must be known • Specification detailing location, type and depth of completed piles

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Activity instructions

Sequence	<ul style="list-style-type: none"> • 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 • Activity 1 must be undertaken at the start of the test • Activity 8 must be undertaken at the end of the test <p>The test must be completed collectively within a given time. The specifications' section gives further information</p>
Preparing for work	<ol style="list-style-type: none"> 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 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
Travelling & manoeuvring <i>(refer to specifications)</i>	<ol style="list-style-type: none"> 2. Travel to the work area 3. Manoeuvre through a restriction
Setting up for work	<ol style="list-style-type: none"> 4. Configure, prepare and set the rig for bored works
Working tasks <i>(refer to specifications)</i>	<ol style="list-style-type: none"> 5. Form bored piles to specification 6. Ensure the bore is plumb throughout the boring activity
Completing work	<ol style="list-style-type: none"> 7. On completion of all piling activities, configure the rig for travel
Shutting down	<ol style="list-style-type: none"> 8. Park the rig and carry out shut-down and securing procedures
Notes	<ul style="list-style-type: none"> • 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. • A minimum of 4 piles must be formed to completion. Should ground conditions or the pile type prevent the forming of the stated minimum, a reduced number may be formed but at least one pile must be formed to completion • 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

Manoeuvring restriction	<ul style="list-style-type: none">• Maximum of the width of the rig plus 800 mm
Bore placing	<ul style="list-style-type: none">• Within 100 mm of the given position
Bore measurement	<ul style="list-style-type: none">• Maximum of 10 degrees from vertical
Bore depth	<ul style="list-style-type: none">• At least 6 metres and within 100 mm of the given depth
Test timings	<ul style="list-style-type: none">• The test must be completed collectively within 2 hours

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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 bored works		
	7 Rig positioned accurately prior to bored works		
	8 Ensuring rig was level prior bored works		
	9 RCI programmed for all duties (if fitted)		
Working	10 Communication arrangements confirmed with the signaller		
	11 Aligned the flight for the required bore angle		
	12 Created each bore to the specification		
	13 Soil spun of flight in the agreed area (if applicable)		
	14 Formed pile to the specification		
	15 Did not exceed rig's capacity		
	16 Rig stability maintained		
Shutdown	17 Instructions conformed with		
	18 Rig re-configured from piling to travelling duties		
Other	19 Parked in appropriate place		
	20 All shut down and securing procedures		
Other	21 Legislation, manufacturers' and health and safety requirements complied with		
	22 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 Rig 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 Drive sprockets kept to the rear when travelling		1	
	7 Matched travel speed to ground types		1	
	8 Auger motor and flight setting for travel		2	
Working	9 Minimal manoeuvring maintained during work		2	
	10 Used planned cycles of operation		2	
	11 Sequence of using boring (piling) controls		1	
	12 Smooth use of steering controls		1	
Not exceeded eight penalties		Total penalties		
Achieved / Not achieved				