

# Technical test - Practical

## Concrete pump - A06 - Truck mounted boom



### Resources required

<b>Machine</b>	<ul style="list-style-type: none"> <li>• Truck mounted boom concrete pump</li> </ul>
<b>Area</b>	<ul style="list-style-type: none"> <li>• Ground, clear of hazards which must include:             <ul style="list-style-type: none"> <li>- place to receive poured material</li> <li>- wash-out point</li> </ul> </li> </ul>
<b>Other equipment</b>	<ul style="list-style-type: none"> <li>• Pipe sections, taper and bends, including incorrect sized versions</li> <li>• Ground lines with couplings, seals, packing and anchors</li> <li>• Pipe cleaning equipment</li> <li>• Supply of concrete material for pumping</li> <li>• Structure of at least 3 metres in height</li> <li>• Signaller assistance</li> </ul>
<b>Notes</b>	<ul style="list-style-type: none"> <li>• The machine selected for the test must have all controls clearly marked, be in serviceable condition and conform with current legislation</li> <li>• The operator's manual must be with the vehicle</li> <li>• A pipeline specification must be constructed for the activity, requiring a pipe length of at least 15 metres</li> <li>• Couplings must be fitted with locking facilities</li> <li>• The pumpable material must be deposited into the hopper from a self-propelled vehicle i.e. mixer</li> </ul>

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### Activity instructions



<b>Sequence</b>	<ul style="list-style-type: none"> <li>• Due to the nature of the equipment, all activities can be undertaken at different 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>• Activities 2 to 10 to follow the described sequence</li> <li>• Activity 2 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>
<b>Preparing for work</b>	<ol style="list-style-type: none"> <li>1. Complete all manufacturers' pre-start and running checks and prepare the truck 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>
<b>Travelling &amp; manoeuvring (refer to specifications)</b>	<ol style="list-style-type: none"> <li>2. Travel to the work area</li> </ol>
<b>Setting up work</b>	<ol style="list-style-type: none"> <li>3. Site the truck and prepare for the relevant work following the given pipeline specification*</li> <li>4. Lubricate the pipeline and placing hoses with a suitable primer</li> <li>5. Direct the material-carrying vehicle into position</li> </ol>
<b>Working tasks (refer to specifications)</b>	<ol style="list-style-type: none"> <li>6. Pump the material to the pour location whilst following signals</li> <li>7. Whilst pumping material, the boom must change radius whilst keeping the end of the hose at a constant height*</li> <li>8. Stop and restart the pour during work</li> </ol>
<b>Completing work</b>	<ol style="list-style-type: none"> <li>9. Clean all pumping system components</li> <li>10. Dismantle and store all components and prepare the truck for travel</li> </ol>
<b>Shutting down</b>	<ol style="list-style-type: none"> <li>11. Park the truck and carry out shut-down and securing procedures</li> </ol>
<b>Notes</b>	<ul style="list-style-type: none"> <li>• The boom must be placed over the structure</li> <li>• The unfolding of the boom and extension to the pour point to be undertaken following given 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> <li>• * 3 - Where part of the test is integrated with production activities, the pipeline specification and securing requirements may be simulated</li> <li>• *7 - May be simulated if unable to be carried out during production activities</li> </ul>

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### Activity measurements

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<b>Pumping duration</b>	<ul style="list-style-type: none"><li>• Minimum of 15 minutes</li></ul>
<b>Test timings</b>	<ul style="list-style-type: none"><li>• The test must be collectively completed within 2 hours and 15 minutes or until the pour has been completed</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:

<b>Mandatory</b>		<b>Correctly carried out during the test?</b>	<b>Y/N</b>
<b>Preparing</b>	1 All pre-start and running checks (or responses to relevant questions)		
<b>Travelling</b>	2 Restrictions cleared		
	3 Truck set for travel		
	4 Travel route checked for safe travelling		
	5 Encountered hazards cleared		
	6 Allocated area checked and clear of hazards prior to pumping		
<b>Setting up</b>	7 Vehicle level and secured prior to pumping		
	8 Outriggers set for pumping duties (as applicable)		
	9 Axle(s) restrained (as applicable)		
	10 Relevant piping selected		
	11 Boom extended to work area avoiding hazards and structures		
	12 Couplings compatible with, connected and locked to piping		
	13 Flexible piping checked for condition		
	14 Piping anchored, supported and secured		
	15 Pipeline conformed with specifications		
	<b>Working</b>	16 Pump engaged following required sequence	
17 Pump function checked			
18 Pipeline grouted and lubricated with appropriate mix			
19 Mix conformed with specification			
20 Material pumped to required location at the desired time			
<b>Completing work</b>	21 Waste material disposed of following guidelines and regulations		
	22 All components dismantled and stored		
<b>Shut down</b>	23 All shut down and securing procedures		
<b>Other</b>	24 Legislation, manufacturers' and health and safety requirements complied with		
	25 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	Truck 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 and during boom extending		2	
	6	Matching vehicle travel speed to ground and environmental conditions		1	
Working	7	Positioning material carrying vehicle to allow unloading of material		3	
	8	Following signaller's instructions		2	
	9	Cleaning components and vehicle thoroughly after use		2	
	10	Sequence of using hydraulic/lifting controls		2	
	11	Smooth use of steering/braking and hydraulic controls		1	
<b>Not exceeded eight penalties</b>			<b>Total penalties</b>		
			Achieved / Not achieved		