

Advanced On-Site Assessment

Concrete pump - A06 - Truck mounted boom



Resources required

Machine	<ul style="list-style-type: none"> • Truck mounted boom concrete pump with a minimum boom length of 26 metres, and have appropriate ground support pads and (if applicable) axle lift chains or blocks
Area	<ul style="list-style-type: none"> • Ground, clear of hazards which must include: <ul style="list-style-type: none"> - place to receive poured material - wash-out point
Other equipment	<ul style="list-style-type: none"> • Pipe sections, taper and bends, including incorrect sized versions and 1 x pipe reducer and 2 x 90 degree bends • Catch basket and wash-out ball for cleaning purposes • Limited vision from the pump to the pour point • Ground lines with couplings, seals, packing and anchors • Pipe cleaning equipment • Supply of concrete material for pumping • Structure of at least 3 metres in height • Signaller assistance
Notes	<ul style="list-style-type: none"> • The machine selected for the test must have all controls clearly marked, be in serviceable condition and conform with current legislation • The operator's manual and all other related supporting documents such as risk assessments etc. must be with the vehicle • A pipeline specification must be constructed for the activity, requiring a pipe length of at least 15 metres • Couplings must be fitted with locking facilities • The pumpable material must be deposited into the hopper from a self-propelled vehicle i.e. mixer

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Activity instructions



<p>Sequence</p>	<ul style="list-style-type: none"> • 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 • Activity 1 must be undertaken at the start of the test • Activities 2 to 10 to follow the described sequence • Activity 2 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>
<p>Preparing for work</p>	<ol style="list-style-type: none"> 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"> • Additional information to be identified by the candidate referring to the operator's manual. Tester to decide what information will be identified
<p>Travelling & manoeuvring <i>(refer to specifications)</i></p>	<ol style="list-style-type: none"> 2. Travel to the work area
<p>Setting up work</p>	<ol style="list-style-type: none"> 3. Site the truck and prepare for the relevant work following the given pipeline specification* 4. Lubricate the pipeline and placing hoses with a suitable primer 5. Direct the material-carrying vehicle into position
<p>Working tasks <i>(refer to specifications)</i></p>	<ol style="list-style-type: none"> 6. Pump the material to the pour location whilst following signals 7. Whilst pumping material, the boom must change radius whilst keeping the end of the hose at a constant height* 8. Stop and restart the pour during work
<p>Completing work</p>	<ol style="list-style-type: none"> 9. Clean all pumping system components 10. Dismantle and store all components and prepare the truck for travel
<p>Shutting down</p>	<ol style="list-style-type: none"> 11. Park the truck and carry out shut-down and securing procedures
<p>Notes</p>	<ul style="list-style-type: none"> • The boom must be placed over the structure • The unfolding of the boom and extension to the pour point to be undertaken following given signals • If the machine is hot, checks unable to be carried out (i.e. coolant) may be assessed by the Tester using verbal questions • * 3 - Where part of the test is integrated with production activities, the pipeline specification and securing requirements may be simulated • *7 - May be simulated if unable to be carried out during production activities

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Activity measurements



Pumping duration	<ul style="list-style-type: none">• Minimum of 15 minutes
Test timings	<ul style="list-style-type: none">• The test must be collectively completed within 1 hour and 30 minutes or until the pour has been completed

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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 as per the manufacturers' operating handbook (or responses to relevant questions)		
Travelling	2 Restrictions cleared		
	3 Truck set for travel		
	4 Travel route checked for safe travelling		
	5 Encountered hazards cleared		
Setting up	6 Allocated area checked and clear of hazards prior to pumping or controlled as per risk assessment		
	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			
Working	16 Pump engaged following required sequence		
	17 Pump function checked		
	18 Pipeline grouted and lubricated with appropriate mix		
	19 Mix conformed with specification		
Completing work	20 Material pumped to required location at the desired time		
	21 Waste material disposed of following guidelines and regulations		
Shut down	22 All components dismantled and stored		
	23 All shut down and securing procedures		
Other	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	
Not exceeded five penalties			Total penalties		
Achieved / Not achieved					