

Material Code : ZWI220101019
Work Order No : ZMET1300004

Annexure-"A"

Technical Specifications for Articulating Boom

S.No.	Description of BHEL Requirement	Specified / to be confirmed	Offered	Deviations	Remarks
1	<u>Purpose :-</u>				
1.1	The Articulating Boom is required for maintenance of machine tools & equipments , where high reach is required to carry out maintenance and inspection.				
2	<u>Technical Specifications :-</u>				
2.1	Type of Equipment : Trailer Mounted Articulating Boom	Vendor to confirm			
2.2	Lifting Capacity : 200 Kgs (Minimum)	Vendor to provide details			
2.3	Platform Height : 10 meter (Minimum)	Vendor to provide details			
2.4	Horizontal Reach : 5 meter (Minimum)	Vendor to provide details			
2.5	Stowed Height : 2.50 meter (Maximum)	Vendor to provide details			
2.6	Stowed Width : 2.00 meter (Maximum)	Vendor to provide details			
2.7	Stowed Length : 5.50 meter (Maximum)	Vendor to provide details			
2.8	Platform Rotation : 90 Degrees or more	Vendor to provide details			
2.9	Turntable Rotation : 359 Degrees	Vendor to provide details			
2.10	Stabilizers : Hydraulically operated	Vendor to confirm			
3	<u>Platform :-</u>				
3.1	The platform shall be mounted at the end of the structure to improve ability to manoeuvre and eliminating sight obstruction underneath the operator's feet to provide the operator a clear view to manoeuvre in work areas.	Vendor to confirm			
3.2	Platform control panel shall be convenient and easy to operate for all boom functions.	Vendor to confirm			
3.3	All movement controls should be provided on platform.	Vendor to confirm			

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3.4	Basket Type/Side hand railed platform suitable for at least two persons along with some tools and spares.	Vendor to confirm			
4	<u>Lift System :-</u>				
4.1	System should be hydraulically operated.	Vendor to confirm			
4.2	Proportional control for smoother operation	Vendor to confirm			
4.3	Simultaneous movements of various joints of the boom functions shall be possible during operation.	Vendor to confirm			
5	<u>Base :-</u>				
5.1	Rigid and stable base to support platform at all working heights.	Vendor to confirm			
5.2	All equipments like hydraulic power pack, electrical control equipments should be fixed on the infrastructure	Vendor to confirm			
5.3	All controls to be provided at ground level along with platform level to operate manually in emergency.(With suitable safety inter lock)	Vendor to confirm			
5.4	Ground control panel shall be available for convenient and user-friendly controls. Ground control panels includes emergency stop switch, platform or ground selector switch, auxiliary power control, function enable switch, indicator lights and re-settable circuit breakers.	Vendor to confirm			
5.5	Mobility of the equipment should be through wheels with tyres.	Vendor to confirm			
6	<u>Power Source :-</u>				
6.1	Rechargeable Battery operated DC Power Source	Vendor to provide details			
6.2	Low voltage Cut off system should be provided in the machine to prevent the battery & system damage during low voltage condition.	Vendor to confirm			
6.3	Suitable battery charger operating on Single Phase 230 VAC/50Hz or Three Phase 415VAC/50Hz should be provided with the equipment.	Vendor to confirm			
7	<u>Safety Arrangement :</u>				
7.1	The equipment should have emergency stop button at both platform and ground controls.	Vendor to confirm			
7.2	The equipment should have locking keys to prevent unauthorized use.	Vendor to confirm			
7.3	The equipment should comply with highest safety standard like ANSI/ OSHA or equivalent.	Vendor to confirm			

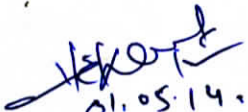
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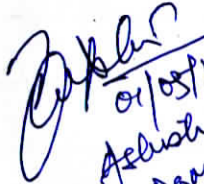
7.4	The equipment should have tilt level sensor with audible alarm to warn the operator when the machine is elevated on a slope that might create instability.	Vendor to confirm			
7.5	System shall have adequate and reliable safety interlocks/ devices to avoid damage to the system, workpiece and the operator due the malfunctioning or mistakes.	Vendor to confirm			
7.6	Stabilizers should be hydraulically operated with Interlock that should make the unit totally safe against overturning at maximum vertical or horizontal reach.	Vendor to confirm			
7.7	All electronic parts should be housed in shielded enclosures.	Vendor to confirm			
7.8	Suitable arrangement shall be provided to cope up with emergency like sudden failure of equipment resulting in sudden lowering of the lift.	Vendor to confirm			
7.9	Brakes should be provided for controlling and maneuvering the equipment.	Vendor to confirm			
7.10	Manual brake release should be provided which allows operator to release brakes if machine is disabled.	Vendor to confirm			
7.11	Dual control for controlling the equipment both from the platform and the Ground/base.	Vendor to confirm			
8	General :-				
8.1	First filling of Hydraulic oil, Lubricants & Electrolyte to be done by Vendor	Vendor to confirm			
8.2	The vendor should submit the following information:-				
8.2.1	Make and Model of the Equipment Offered	Vendor to provide details			
8.2.2	Total Weight of the Equipment Offered	Vendor to provide details			
8.2.3	Vendor to submit, along with offer, the reference list of customers where similar systems have been supplied mentioning the name of customer with full address, machine model, major specifications of the supplied system, year of the supply etc	Vendor to provide details			
8.2.4	Detailed catalogues, sketch/photographs/CD of the machine and accessories/ attachments shall be submitted with the offer.	Vendor to confirm			
9	Standard of Compliance :				
9.1	ANSI A92.2 / ANSI A92.5/ AS1418.10 / EN 280 or equivalent (These standards cover Design, Manufacture, Safety and Testing requirement of Mobile Elevating Work Platform).	Vendor to confirm			
10	Warranty of Equipment :				
10.1	One year from the date of successful commissioning.	Vendor to confirm			

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11	Acceptance Criteria:				
11.1	Party shall demonstrate operation of all parts of the equipment supplied.	Vendor to confirm			
11.2	No oil leakage shall be there in the system.	Vendor to confirm			
11.3	Acceptance shall be at BHEL, Hardwar after successful commissioning and testing of the supplied equipment for all operation of the system for which the same was procured.	Vendor to confirm			
12	Pre Despatch Inspection:				
	Inspection of the equipment shall be carried out by BHEL at vendor's works to check operation and functioning of the equipment. Only after the clearance given by BHEL, shall the equipment be dispatched to BHEL, Hardwar.	Vendor to confirm			
13	Commissioning:				
13.1	Vendor shall intimate date of delivery of the equipment to BHEL, Hardwar.	Vendor to confirm			
13.2	Vendor shall depute their manpower for commissioning of the equipment at BHEL, Hardwar.	Vendor to confirm			
13.3	The commissioning work should be completed within 30 days from the date of receipt of equipment at BHEL, Haridwar.	Vendor to confirm			


 01.05.14.
 Vikrant Kumar
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 01/05/14
 Ashish Gupta
 DSM / WEX PML