

MATERIAL
CODE
EL8119010051



1800-01
Rev. 00

PURCHASE SPECIFICATION FOR SIDE LOADER FOR MPRS SYSTEM

ISSUE NO : 06

DOC.NO: SPV-UT-013

REV : 00

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PURPOSE: To store pallet containing Glass sheets weighing 2T and raw materials containers stacked on pallets

SCOPE: Supply installation & commissioning of Electric Multidirectional Side Loader of required parameters as detailed below :

Slno	Parameters	Requirement of BHEL
1	Description of Operation	<p>The operator will pick up the pallet and start loading the Mobile pallet racking system from top deck down.</p> <p>Total height available , from ground to truss is 5700 mm, clear Aisle space available 2829 mm</p> <p>(Refer Drg No SPV/RM/01/2016 for motorised pallet racking system, which is indicative only)</p>
2	Broad supply scope	Design, manufacture , supply and E&C of complete Side Loader unit as per specification given.
3	Qty	2 Set
4	Size of the Storage Yard	13.5 x 20 meters – approximate
5	Height of storage	Upto 6 meters
6	Size of the goods to be stored	1. Size of the pallet containing 100 Nos of ARC Glass-2030x1060x500 mm–App weight:2000 kg
		2. Size of the pallet containing 120 boxes of PV Cells–970x1150x850 mm–App weight :400 kg

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7	Model No	<i>Bidders to specify</i>
8	Features	<p><i>3-wheel chassis with 1 drive wheel and 2 double load wheels</i></p> <p><i>Multidirectional steering system (lengthwise, crosswise, circular and diagonal driving)</i></p> <p><i>Big-sized rubber tyres for combined indoor and outdoor operation</i></p> <p><i>Stand-up cabin with low entrance height, to provide wide vision all around</i></p> <p><i>Security glass at load side, mesh wire at front side and battery side</i></p> <p><i>Height-adjustable back rest</i></p> <p><i>Ergonomic dead-man mat (floor-integrated)</i></p> <p><i>Acceleration via ergonomic grip handle</i></p> <p><i>2/3 stage lift mast with full free lift</i></p> <p><i>Standard fork carriage</i></p> <p><i>Pair of knife forks</i></p> <p><i>Hydraulic fork adjustment</i></p> <p><i>Rotating beacon light on cabin roof with beeper</i></p>
9	Capacity	<i>Min 2000 kg at a lift Height of 4.5 - 5 mtrs</i>
10	Lift mast	<i>2 -3 stage lift mast</i>
	<i>collapsed height</i>	<i>Bidders to indicate</i>
	<i>lift height</i>	<i>Bidders to indicate</i>
	<i>extended height</i>	<i>Bidders to indicate</i>
	<i>height of carriage</i>	<i>Bidders to indicate</i>
11	Load pick-up device:	
	<i>Fork carriage width</i>	<i>1300 - 1350 mm</i>
	<i>hydraulic fork adjustment</i>	<i>500 up to 1350 mm (outside of forks)</i>
	<i>hydraulic fork tilt</i>	<i>Bidders to specify</i>
	<i>Fork length</i>	<i>1200 - 1400 mm</i>
	<i>Forks cross section: 45 x 120 mm</i>	<i>Bidders to specify</i>

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12	Measurements of unit	
	height of cabin	Bidders to indicate
	frame length	To match asile space as in drg no SPV/RM/01/2016 ,Bidders to indicate
	Load bed width	To match asile space as in drg no SPV/RM/01/2016 ,Bidders to indicate
	frame width	To match asile space as in drg no SPV/RM/01/2016 ,Bidders to indicate
	height of load bed from ground	Bidders to indicate
	Ground clearance	Bidders to indicate
	Turning radius	To match aisle space as in drg no SPV/RM/01/2016 ,Bidders to indicate
13	Steering system	Multidirectional steering system lengthwise, crosswise, circular and diagonal driving
14	Speeds	
	Driving: with / without load	Bidders to specify
	Lifting: with / without load	Bidders to specify
	Lowering: with / without load	Bidders to specify
	Mast reach: with / without load	Bidders to specify
15	Chassis	
	3-wheel chassis -	Bidders to confirm
	Drive unit at battery side -	Bidders to confirm
	Heavy-duty double wheels at load side	Bidders to confirm

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16	Ramp capability	
	With / without load:	4 / 6 %
17	Tyres:	Polymer- bidders to provide details
18	Wheel measurements:	Bidders to specify
	Guide roller height from ground	
	Drive	
	Type (AC / DC)	Bidders to specify
	Drive motor	Bidders to specify
	Hydraulic pump	Bidders to specify
19	Hydraulic system:	
	Proportional valve technique	Bidders to confirm
	Stepless and smooth operating	Bidders to confirm
20	Brake system:	
	service brake:	Automatically activated counter-current brake
	handbrake:	Electro-magnetic parking brake
21	Operation:	
	via push-buttons / fingertip levers	bidders to provide details
	Via rotary encoder	Speed control FW/REV

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22	Driver's cabin:	
	Stand-up cabin with height adjustable back rest	Bidders to provide details
	Entrance and exit from aisle (low entrance height)	Bidders to provide details
	Protection roof (opening according to ISO 6055)	Bidders to provide details
	Security glass at load side	Bidders to provide details
	Mesh wire at front side and battery side	Bidders to provide details
23	Display in the panel	
	Battery capacity	Bidders to provide details
	Maintenance interval	Bidders to provide details
	Speed indicator	Bidders to provide details
	Status notifications	Bidders to provide details
24	Finish:	
	Body	Bidders to specify
	Battery, cover plates for hydraulic aggregation, design covers	Bidders to specify
	Cabin	Bidders to specify
	Frame (chassis)	Bidders to specify
	Lift mast, fork carriage, cabin, hydraulic aggregation, bonnet	Bidders to specify
25	Battery and charger	
	Suitable heavy duty battery with charging station	Bidders to provide details of battery specification ,capacity and charging station

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26	NOTE:	
(i)	At most safety features to be incorporated for guiding the operator.	
(ii)	The dimensions and constructional features given above is indicative. Bidders to provide their best selection to suit the design load for full capacity storage. Adequate safety provision in design to be taken for possible swing / vibration while placing and removing the pallets.	
(iii)	Bidders to visit the site in BHEL-EPD Bengaluru for assessment of exact requirement and for clarifications if any before submission of their offer.	
27	Load test	<p>Bidders to provide test plan and docs for complete load test at user works.</p> <p>Transit Insurance shall be in the scope of Supplier.</p> <p>Unloading of equipment shall be in the scope of BHEL.</p> <p>Training for Operation & maintenance should be provided to BHEL personnel during commissioning.</p>
28	Pre dispatch Inspection	Pre dispatch inspection shall be carried out at supplier's works by BHEL engineer. Supplier has to inform well in advance (7 days) about the readiness of material for inspection. Supplier has to make all arrangement for inspection within the quoted rate.
29	Documents required along with dispatch:	<p>(a) Load test certificates</p> <p>(b) 2 sets of O&M manual, Integrated list of Spare parts & their catalogue and all drawings</p> <p>(c) Guarantee Certificate – Minimum 12/24 month from the date of commissioning or 18/36 months from date of dispatch of at site whichever is early.</p>
30	AFTER SALES SERVICE	Reliable after sales service should be available. Vendor to provide necessary details

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Sl no	BHEL Standard Terms & Conditions (PQC)	Documents to be submitted by vendor / Remarks
01	Bidder should be original equipment manufacturer (OEM) of the quoted item. Bidder to submit company credentials to prove as OEM.	Registration certificate as a manufacturer or any other document to establish bidder as manufacturer.
02	Foreign vendor shall have an authorized India dealer(s)/representative (s) for sales and service who has handled the sales and service of this system for at least 2 years.	Certificate as OEM to be produced. If the offer is submitted by the dealer/representative, authorization letter from the original equipment manufacturer (OEM), shall be enclosed along with the offer. No authorized representative shall quote for more than one OEM.
03	Bidder should have manufactured, supplied and successfully commissioned minimum of 3 numbers of Side Loaders or more in the last 3 years.	Bidder to submit copy of purchase orders and performance certificates from the users.
04	BHEL preserves the right for independent verification of the reference provided.	Accepted / Not accepted
05	Offer shall be for new equipment and not For any refurbished or used equipment	YES / NO
06	Bid shall be kept valid for a period of 60 days starting from the date of opening of Techno-commercial bid.	YES / NO

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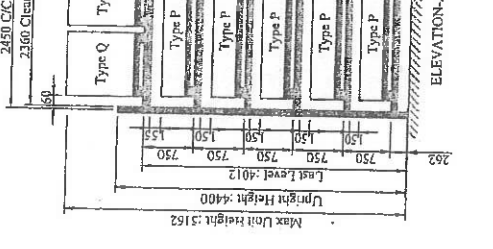
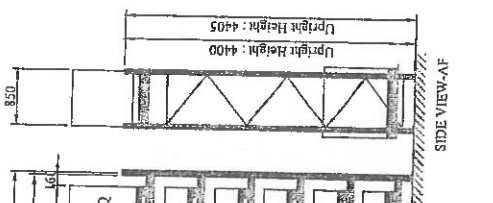
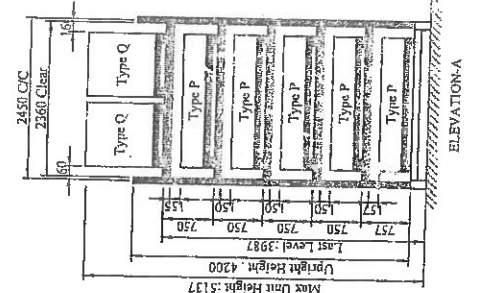
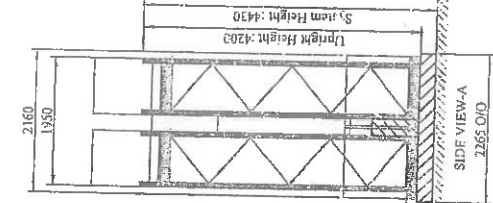
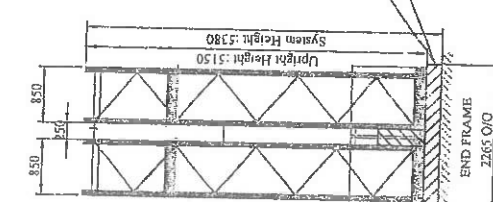
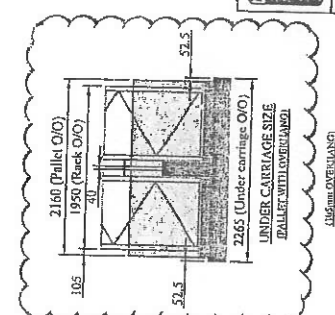
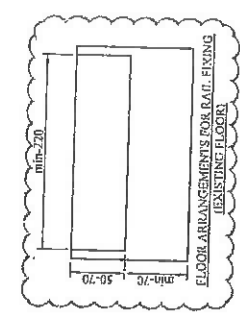
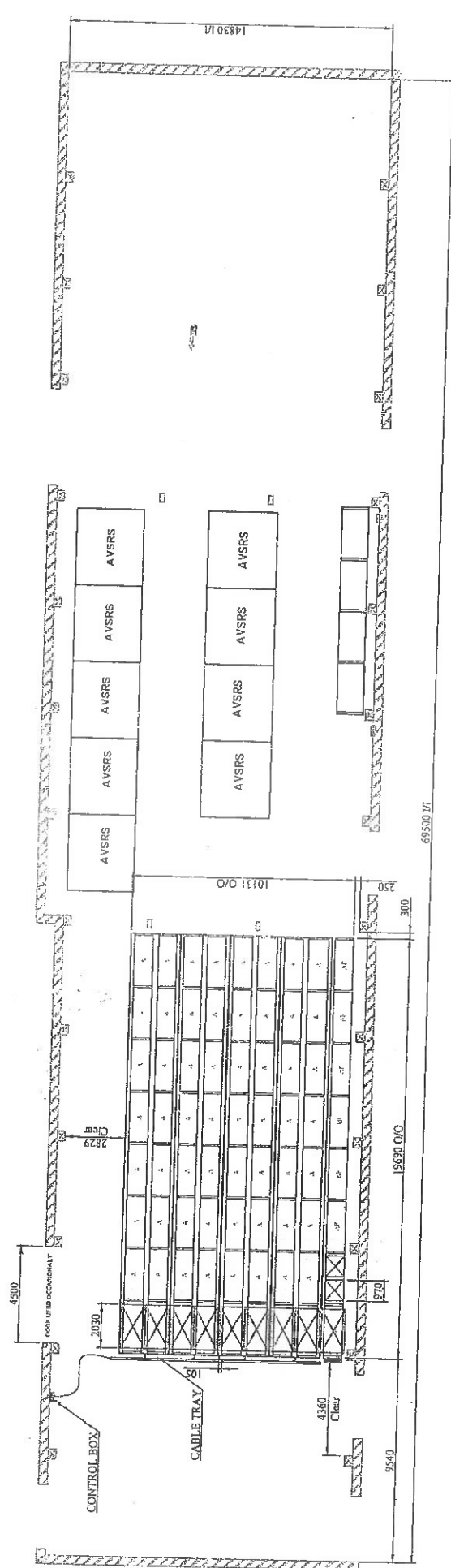
SPECIFICATION REVIEWED AND APPROVED

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BLTA
BHARAT HEAVY ELECTRICALS LTD.
 ELECTROPORCELAINS DIVISION
 BANGALORE - 560 012

DEPT: _____ SCALE: _____ WEIGHT (kg): _____
 CODE: _____ (Approx): _____

SPV - MOBILE PALLET RACKING SYSTEM
 DRG NO - SPV / RM / 01 / 2016

BHARAT HEAVY ELECTRICALS LTD.,
ELECTRIC & PHOTOVOLTAIC DIVISION, ISC POST, BENGALURU - 560012
DEPARTMENT : SPV & WEX - Projects

Ref : PR No. 5000323K
 Date: 04.07.2015

LIST OF LINE ITEMS / BILL OF MATERIALS

SI No.	Item / Description	Unit	Quantity	Rate	Amount	Remarks
1	Multi Directional Side Loader Battery operated Truck	Each	2			The Multidirectional Side Loader as per Purchase Specification No. SPV-UT-013 Complete inclusive of the following units / components and not limited to: a. Main machine unit b. Additional / Associated equipment : Other accessories as required.
2	Installation and Commissioning of the system at BHEL - EPD	Set	2			
3	Training of BHEL Staff on Operation and Maintenance					
4	Technical Documentation and other associated information					
5	Consumables for a period of 2 years	Set	1			Bidder to indicate and provide details (Option)
6	Spare Parts package for a period of 2 years	Set	1			Bidder to indicate and provide details (Option)