
 <p>बि एच ई लि SBD-BHEL</p>	<p>PURCHASE SPECIFICATION FOR 1 TON SGEOT CRANE RELOCATION FOR POURING TUBE BAY 1</p>	Spec. No	EL-PS-PT-EOT
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**TECHNICAL SPECIFICATION FOR
1 TON SGEOT CRANE RELOCATION
at SOLAR BUSINESS DIVISION,
BHARAT HEAVY ELECTRICALS LTD.,
IISc POST, BANGALORE, INDIA
560012**


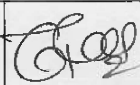
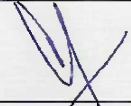
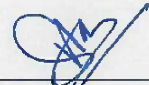
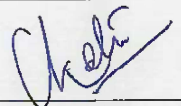
				
Manoj Kumar DGM-IP	Thirupathi G DGM-CTI	Navit Mahajan Manager- CI & NP	Amarpoti Saikia Dy Manager- M&S	Chandraketu Sr. Engineer- M&S

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SPECIFICATION FOR 1 TON SGEOT CRANE RELOCATION FOR POURING TUBE BAY 1		
Scope of Work for Relocation of 1 Ton SGEOT Crane		
The available 1 Ton SGEOT Crane of Span of 14 mtrs with Long Travel drive mechanism to be relocated to new bay with the following details.		
EL8110200613- 1 Ton EOT Crane Relocating Supply		
1	Supply of 6 meter height of lift 1-ton capacity Wire rope hoist with electricals and accessories. Including Festoon system for CT & Independent Festoon for Control pendent, Cables, Control Panel, Control Pendent & VFD with DBR for Hoist, CT & Existing LT Motor.	1 Set
2	Supply of Gantry girder, Corbel, LT Rail & columns, suitable for 1-ton Single Girder EOT crane. For 33 meters of bay length Including Corbel for 7 number existing columns, 3 number new columns, Gantry girders & LT-Rail, Chemical anchoring Bolts	1 Set
3	Supply of RYBG Enclosed DSL busbar suitable for 1-ton SGEOT Crane (GI Conductor) with supporting bracket and current collector for the bay length of 33 Meters.	1 Set
General		
Capacity of Hoist	1 metric Ton	
Quantity	1 No	
Type	Single Girder Underslung with 4 wheels, Crane with motorised cross travel long travel and Motorised Wire rope hoist as per specification below with control panel	
Application	Indoor Loading & Unloading	
Area Classification	Safe	
Specification & Class	M5 as per IS 3177 & Applicable IS	
Ambient Temp	45° C	
Speed		
Cross Travel Speed Fast/ Slow	17/ 5 mts/min	
Main & Micro Hoist Speed	10 / 2 mts/min	
Dimension		
Crane Span	14.0 mts approx	
Height of Lift	Minimum 6 mts	
Crane Bay Length	33.0 mtrs approx	
Mechanical & Structural		
Gear Boxes for Hoist & CT	Bidders to provide details of gear box construction	
LT Rails, Total weight & Hoist Weight	Bidders to provide the LT rails to match the existing LT Wheels. Hoist Weight to be mentioned in the technical bid.	
Column, Gantry Girder	Suitable ISMB/ISMC/plate built sections. Details to be provided in technical bid.	

				
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Electrical	
Power Supply	415 Volts AC, 3 phase 50 Hz
Control Voltage	110V AC
Pilot Lamp	A red pilot lamp (LED type) shall be connected to indicate that the crane is ready for operations and it shall be so located that it is visible to the operator. The pilot lamp shall be connected so that it indicates whether the control supply is ON or OFF or the contactor is CLOSED or OPEN.
Motors	Squirrel cage induction motor with IP-54/ Higher protection, Class F insulation, Copper Winding, Crane Duty with IS / CE Certification. Bidders to specify the ratings of Hoist & CT Motors.
Cable Type	IS Certified PVC Insulated FR cables with copper conductors with standard colour codes to be used
Variable Frequency Drive with DBR	To be provided for Hoist & CT Motors. To be provided for LT Motor 3 Phase 3.7 KW, 960 Rpm.
DSL system	For Crane Span: Festoon Cable system For Crane Bay Length: DSL to be Provided. Details to be provided in Technical Bid.
Hook, Brake & Wire Rope	
Hook Type	Single shank Swivelling type hook mounted on Anti-frictional thrust bearing. Hook shall be provided with safety latch as per IS.
Braking System	Bidders to provide details of braking system for Hoist & CT
Wire Rope	Details to be mentioned in Technical bid
No of Falls	To be mentioned in Technical Bid
Operation	
Operation	Operation through pendent push button at floor level.
Others	
Painting	The complete crane structure shall be applied with 2 coats synthetic enamel paint. Colour: Golden Yellow. RAL: 1004 For Gantry columns, Gantry Girders & Corbel- 2 coats of metal primer & two coats of Enamel paint Colour RAL: 9000 or similar.
Overload Protection	To be provided. Details to be provided in Technical Bid.
Over travel Limit switches	Two way type limit switch is to be provided for Restricting the movements of CT & LT.


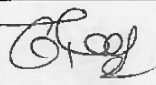



				
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General Requirements	
Motors	Copper Winding, TEFC, IP 54/ Higher rating With IS/ CE Certification
Brake	Electromagnetic Disc Brake. Bidders to Mention AC/ DC
Wire Rope	USHA MARTIN
Limit Switches	Heavy Duty with IS/ CE Certification
Bearings	Anti Friction Ball/ Roller Bearings
VFD	ABB/L&T/ MITSUBISHI/ SIEMENS/ TOSHIBA/ YASKAWA/ SEW/ FUJI/ SCHNEIDER
MCB	SIEMENS/SCHNEIDER/ ABB/ GE
Control Pendant	IS/ CE certified Control Pendant.
Wires & Cables	FRLS Copper Wires & Cables with BIS
Warranty	Minimum 12 months from the date of successful commissioning on the workmanship. OEM warranty for the bought out items should be passed to BHEL. Vendor has to mention the complete list of bought out items along with technical bid. Warranty for these bought items as provided by OEM should be clearly mentioned.
Service	Bidders to have service backup facility in Bangalore. Bidders to confirm of providing service during emergency within 24 hrs.
Catalogue / Technical Brochure/ Documents to be submitted by Vendor	Catalogue/ Technical brochure of the offered Hoist to be provided along with technical bid. Documents & Drawings to be submitted after P O placement before manufacturing: a) GA drawings of the crane b) GA drawings of individual mechanisms c) Drawings of Corbels, Gantry Columns, Gantry girders and their connection d) Sub-assembly drawing for wheels, hook blocks and hoist drums e) Calculation for selection of motor, brake etc f) Quality assurance plan for inspection Along with supply the test certificates of material used for fabrication & test certificates of brought out items such as Motors, Brakes, Wire Rope, Hook etc to be provided.

				
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EL8110200621- 1 Ton EOT Crane Relocating Installation & Commissioning





1	Installation of 1 Ton SGEOT Crane including Existing Crane Shifting Gantry Columns, Corbels, Gantry Girders for 33 Meters of Bay length DSL system for 33 Meters bay length	1 Set
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General

Civil foundation	The Civil foundation GA Drawing & RC Details Drawing along with Detailed Civil Design Document to be provided by bidder along with Technical bid. Anchoring arrangement to the foundation (Base plate, Anchor bolts/ J Bolts & Chemical fastening) will be in Bidders Scope. The Civil foundation work will be in BHEL Scope.
Erection & Commissioning	In the Scope of supplier. Crane Load Test certificate from Competent Person authorised by Department of Factories & Boilers, Govt of Karnataka to be submitted.

Pre- Qualification Requirements

1. Supply materials shall be for new & not for any refurbished or used items
2. Vendor should either be an OEM (Original Equipment Manufacturer) or an Authorized Dealers/ Service Provider of the OEM. Authorized Dealers / Service providers to submit the authorization and competency certificate issued from OEM in executing EOT Crane commissioning work. Details of such works executed through OEM's in the last three years to be enclosed in their technical bid.
3. Vendor/ OEM should have supplied and commissioned EOT Cranes of Capacity 1 MT or higher for minimum 3 customers in the past five years from the date of Technical bid opening. Relevant Purchase/Work orders issued from their customers and completion of work with relevant commissioning certificates and documents issued by the customer should be submitted along with the techno-commercial bid.
4. Vendor should confirm compliance to all statutory conditions as per factories act and its relevant amendments for the Installation & Commissioning activity within the premises of BHEL SBD. The workman of vendor should possess ESI/ Medical Insurance/ Group insurance for executing the work at BHEL-SBD.
5. Vendor should provide 24x7 basis service support.
6. **Bidders must visit our plant BHEL SBD on Working days to study the actual requirement and the copy of the document certifying the vendors visit to BHEL SBD should be submitted along with the technical bid. Bids without this document will be disqualified.**

				
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