

TENDER DOCUMENT

**Retrofitting of existing 10 MT Chain Wheel Operated Overhead
Double Girder Crane by Electric Wire Rope Hoist of 10MT in
Compressor House, HEEP, BHEL, Haridwar**

NIT No.: WEX/SP/CH/Crane/2012-13 Dt.20.12.2012



**BHARAT HEAVY ELECTRICALS LIMITED,
HEEP, RANIPUR, HARIDWAR-249403**

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HEEP, RANIPUR, HARIDWAR**

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**BHARTAT HEAVY ELECTRICALS LIMITED,
HEEP, RANIPUR, HARDWAR-249403**

OFFICE OF MANAGER (WEX-DG&PGP)

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TENDER NOTICE

Open Tender in Sealed envelope are invited for **Retrofitting of existing 10 MT Chain Wheel Operated Overhead Double Girder Crane by Electric Wire Rope Hoist of 10MT in Compressor House, HEEP, BHEL, Hardwar** in single part bid through Registered Post/ Courier/ By Hand **up to 02:00 PM on dated 21.01.2013** in the tender box kept in the Tender Room of Purchase department at the 4th floor of the Main Administrative Building of BHEL, HEEP, Haridwar.

Last date of receipt of Tender : 21.01.2013 upto 02:00 PM

Date of opening of Tender : 21.01.2013 at 02.30 PM

**Place of opening of Tender : Tender Room, 4th Floor,
Main Administrative Building, HEEP
BHEL, Ranipur, Haridwar-249403**

NIT No. & Date	Name of work	Earnest Money (Rs)	Tender Cost (Rs)
WEX/SP/CH/Crane/2012-13 Dt.20.12.2012	Retrofitting of existing 10 MT Chain Wheel Operated Overhead Double Girder Crane by Electric Wire Rope Hoist of 10MT in Compressor House, HEEP, BHEL, Hardwar	20,000/-	250/-

Manager(WEX-DG/PGP)

NIT No. : WEX/SP/CH/Crane/2012-13 Dt.20.12.2012

SPECIAL INSTRUCTIONS

- 1.** Tender shall be submitted in single part. The bid shall be sealed in an envelope, Superscripted with NIT No., Name of work, Name of Party/Contractor and their offer No.
- 2.** **Tender cost of Rs. 250/-** shall be submitted in the form of Bank Draft of any nationalized Bank in favour of Accounts Officer (Finance), HEEP, BHEL, Ranipur, Haridwar and should be kept in bid envelop. The tender cost may be deposited in the form of Cash at BHEL Cash Counter & receipt of the same to be kept in Bid envelope. The Tender documents shall be downloaded from our web-site i.e. www.bhelhwr.co.in.
- 3.** **Earnest Money for Rs. 20,000/-** shall be submitted in the form of Bank Draft of any nationalized Bank in favour of Accounts Officer (Finance), HEEP, BHEL, Ranipur, Haridwar payable at Haridwar and shall be placed in the Bid envelope.
- 4.** The bid shall be opened on **21.01.2013 at 2.30 PM** in the presence of interested authorized representatives of the parties available at the time of opening of the tender.
- 5.** The contractor shall sign each page of tender document set along with their seal.
- 6.** The rates must be quoted in figures as well as in words.
- 7.** Tenders which are not received in the above manner, shall be rejected.
- 8.** All subsequent amendments / changes shall only be notified on BHEL website www.bhel.com

Manager(WEX-DG/PGP)

Scope of Supply and Work

NIT No. : WEX/SP/CH/Crane/2012-13 Dt.20.12.2012

Name of Work : Retrofitting of existing 10 MT Chain Wheel Operated Overhead Double Girder Crane by Electric Wire Rope Hoist of 10MT

Existing System : At present cross travel, longitudinal travel and hoist movement of existing 10 MT overhead double girder crane is operated through chain wheel system which is manually operated. (Refer drawing no. WEX/SP/CRANE/12-13/01)

Purpose : To retrofit existing crane with Electric wire rope hoisting system to replace chain wheel hoisting system. Scope of work covers design, supply, installation, testing and commissioning of Electric wire rope hoist on existing crane. Operation of cross travel and longitudinal travel will remain though existing chain wheel system.

S.No.	Description	Compliance (Yes/No)
1.0	Supply of Electric wire rope hoist as per following Technical Specification	
1.1	<u>Capacity</u> :- 10 MT	
1.2	<u>Lift</u> :- 4 to 5 mtrs.	
1.3	<u>Hoisting Speed</u> :- 2- 4 Mpm (approx.)	
1.4	<u>Main Hoist Motor</u> :- Slip Ring type, 6 pole and 15 H.P as per IS-325 40% CDF CLF Insln, with IP 55 enclosures (Make: Crompton/Alston/ABB/Havells/ BBL/GEC/Siemens)	
1.5	<u>Brakes</u> :- Electro-Hydraulic Thruster Type for both main hoist and cross travel Make: Magtech / Crane Control Equipments / Anand Systems/ Speed-O-Control/ CCE/ Eletromag/ Omega	
1.6	<u>Wire rope Dia.</u> :- Twisted wire rope in crane will be used. (Make: Usha Martin/Asahi) - FMC / IWRC 6x36 in 4 falls dia. 16-18mm	
1.7	<u>No. of falls</u> :- 4 falls	
1.8	<u>Rope Drum</u> :- Fabricated from seamless MS Pipe having double grooved machined for proper laying of wire rope with antifricition bearing moving block. The rope drum will be designed to withstand the compressive stresses caused by the wound on rope and the bending stress due to beam action of the drum. The seamless steel Pipes are used as rope drums and drum diameter is strictly confirm to IS: 2062-1984 (or latest) quality. The drum will be designed to take the entire length of the rope in a single layer. The drum will be flanged at both ends. The grooves are accurately machined for proper sitting of rope, specially designed arrangement is provided so that wire rope changing is easy without involving any clamping or tightening in the drum.	

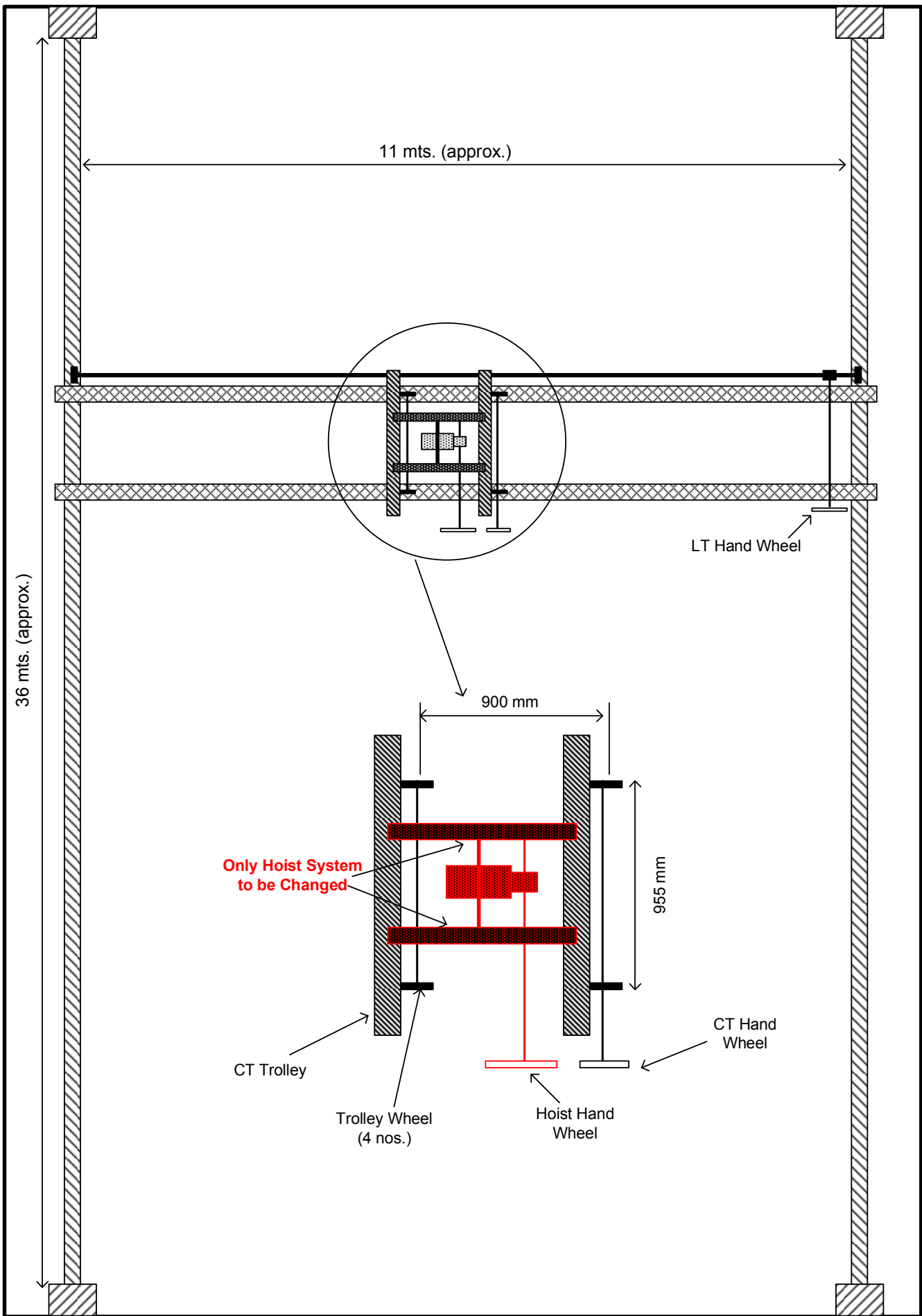
1.9	<u>Gear Box</u> :- Gears in all motions will be of case carburizing low carbon alloy steels ie EN8 for Gears and EN24 for Pinions. High speed reductions are given only through helical gears with surface hardness of 50 to 60 HRC. The hardness of pinions will be 2-3 HRC higher than hardness of Gears. The Gearbox will be fabricated type duly stress relieved	
1.10	<u>Lifting Hook</u> :- Standard plain shank type trapezoidal section hooks will be used. Hooks will be mounted on grease lubricated anti-friction thrust bearings and a protective skirt will fitted to prevent rotation of the hook.	
1.11	<u>Bearings</u> :- Heavy duty antifriction ball, roller and spherical bearing will be fitted in Trolley	
1.12	<u>Operator Control</u> :- Floor pendent push button operated supported with wire rope steel chain	
1.13	<u>Control Panel</u> :- All power and auxiliary Contactors, individual overload relay, H.R.C. Fuses, Transformers will be mounted in a sheet steel cubical with lockable sheet Box. All the equipments will be so mounted in panel as to enable its easy removal/replacement.	
1.14	<u>Cables</u> :- Flexible copper cables of reputed make tested to 1100V will move fitted along with hoist unit.	
1.15	<u>Limit Switches</u> :- Geared Rotary type / Snap Action Roller Type to control vertical movement	
1.16	<u>Supply</u> :- 415V, 50 Hz, 3 Phase	
2.0	<u>Design</u> :- The hoist will be designed, manufactured, erected and tested generally in accordance with the following specifications:	
2.1	IS: 807-1976 (or latest) - Indian Standard Code of Practice for design, manufacture, erection and testing (structural portion) hoists.	
2.2	IS: 3938-1979 (or latest) - Indian Standard specification for Electric wire rope hoists	
2.3	IS: 800 -1984 (or latest) – Indian Standard code of practice for General Construction in steel.	
3.0	<u>Scope of Work</u>	
3.1	Dismantling of existing chain wheel hoist system	
3.2	Installation of supplied Electric wire rope hoisting system	
3.3	Laying of electric wires and their connection for hoisting control	
3.4	Commissioning and Testing of complete system	

NIT No. : WEX/SP/CH/Crane/2012-13 Dt.20.12.2012

Terms & Conditions of Tender

S. No.	Terms & Conditions	Compliance (Yes/No)
1.	Tenders without earnest money deposit (EMD) & tender cost shall be rejected. No other ground for waving of EMD is acceptable other than if the company is Joint venture company of BHEL / Central /State PSUs / Government Deptts	
2.	Earnest money shall be refunded to the unsuccessful bidders after award of the work to the successful bidder. Earnest money shall bear no interest. Earnest money shall be forfeited if a bidder withdraws his offer after opening of tender and/or if the lowest bidder refuses/shows his inability to execute the work and/or stops/abandon the work before completion	
3.	Party will have to sign a Contract Agreement and Indemnity Bond on Non Judicial Stamp Paper of Rs. 100/- respectively after getting work order from HEEP, BHEL, Haridwar	
4.	Party shall submit copies of valid Sales Tax, Service Tax registration and along with tender	
5.	All other General Terms and Condition of BHEL will also be applicable to this contract	
6.	<u>Security Deposit(SD) & Performance Bank Guarantee(PBG):</u> Successful vendor shall deposit security as follows	
6.1	For work up to Rs.10 Lakhs : 10% of work order value	
6.2	Above Rs. 10 Lakhs up to Rs. 50 Lakhs : 1 Lakh + 7.5% amount exceeding Rs.10 Lakhs	
6.3	Security Deposit shall not carry any interest.	
6.4	EMD of successful vendor can be converted and adjusted against the Security Deposit.	
6.5	100% of the Security Deposit amount shall be refunded to the vendor after post commissioning successful running of the machine for one month. SD shall be released after the submission of Performance Bank Guarantee(PBG) by the vendor	
6.6	Vendor shall be required to submit a performance bank guarantee (PBG) for 10% of the total work order value which shall be valid for a period of 12 months from the date of successful commissioning.	
6.7	The PBG shall be submitted on a non-judicial stamp paper of value not less than Rs.80/- issued by any one of the nationalized banks	
7.	<u>Payment Terms:</u>	
7.1	First payment of 80% of material cost along with 100% taxes & duties shall be payable after receipt of material at BHEL.	
7.2	Final payment of balance 20% of material cost, 100% of commissioning cost and refund of 100% of the Security Deposit amount will be made after post commissioning successful running of the machine for one month, subjected to submission of PBG	

8.	<u>Delivery Period:</u>	
8.1	<u>Material</u> : 03 months from the date of placement of work Order	
8.2	<u>Commissioning</u> : within 01 month from the date of release of crane for work	
9.	<u>BHEL's Obligation</u>	
9.1	Input Power Supply: 415 volt \pm 10 %; 50 Hz, 3 phases, 4wire AC supply at single point.	
9.2	Oxygen Gas & Acetylene Gas cylinders supply, Water Supply	
9.3	Any type of civil relate work	
9.4	Welding Set will be provided	
10.	<u>Vendor's Obligation:</u>	
10.1	Vendors shall visit the site, study the furnace and hold technical discussions with BHEL before submitting their bids.	
10.2	Any Material or work not specified in scope of supply/scope of work but required for successful completion of work may be advised and quoted by the Party along with their bid. No changes shall be permissible after the placement of P.O. by BHEL and the same shall have to supplied and commissioned free of cost.	
10.3	Party shall bring all required tools (power as well as hand tools), Meters and testing equipment as required for installation and commissioning.	
10.4	All Welding rods and man power required for welding shall be party's responsibility.	
11.	<u>ACCEPTANCE :</u> Acceptance after demonstration of all features of crane control system & load test to the satisfaction of BHEL.	
12.	<u>COMMERCIAL TERMS</u>	
12.1	Prices shall be quoted on "Firm Price" basis only. The prices should only on F.O.R BHEL, Haridwar basis inclusive of Packing charges, Forwarding charges, Freight & Insurance. Applicable % of ED, Sales Tax, Service Tax etc. should be clearly indicated in Price bid.	
12.2	Validity of offer shall be for a minimum period of 120 days from the date of Tender Opening.	



EXISTING CHAIN OPERATED DOUBLE GIRDER CRANE

PRICE BID FORMAT

Name of Work : **Retrofitting of existing 10 MT Chain Wheel Operated Overhead Double Girder Crane by Electric Wire Rope Hoist of 10MT**

NIT No. & Date: **WEX/SP/CH/Crane/2012-13 Dt.20.12.2012**

Bidder's Offer No. & Date : _____

S. No.	Item	Basic Rate (in Rs.)	Excise Duty (in %)	VAT/CST (in%)	Service Tax (in %)	Total Value (in Rs.)
1.	Material Cost					
2	Installation & Commissioning Charges					
	Total Cost (in Figures)					
	Total Cost (in Words) :					