Bharat Heavy Electricals Limited

Power Sector - Southern Region
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BHE PSSR PUR : EC 19010 **DATE : 20 06 2009**

Addendum No:2 to NIT 6480 - EC19010

Please ref our above enquiry hosted through web page ,NIT No: 6480 for supply of Lattice boom hydraulic crane for 600MW boiler cranes . The following amendments / Informations are being issued

1) The Technical specification of above tender is replaced with the following specification and all other terms and conditions are remain unchanged

Regards ,

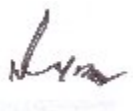
For BHARAT HEAVY ELECTRICALS LTD

For AGM / P&S

TECHNICAL SPECIFICATION OF CRANE REQUIRED FOR 600 MW PROJECTS

S.No.	TECHNICAL SPECIFICATION
1	**Description** : Crawler Mounted Lattice Boom Hydraulic Crane.
2	**Standard:** As per DIN/ISO/ANSI/BIS Standard.
3	**Stability rating:** 75%
4	**Critical Loads to be handled by offered crane (360^0 slew)** a) Minimum 194 MT below hook at minimum 16M radius with minimum clear height of 100 M under hook. The requirement can be met with main boom or with suitable boom & jib combination. The hook block with a ceiling girder flange width of 1.5 M must not foul with the boom at girder elevation (top of girder) of 95M. At this elevation, a minimum clearance of 0.50 M must exist between the boom and the girder flange. A lifting drawing showing clearances between the boom and girder flange shall be submitted with the technical offer. b) Minimum 10T below hook at minimum 50 M radius with minimum clear height of 130 M under hook with suitable boom and jib combination. Note: Above capacities should be met either with the basic crane or the basic crane with suitable capacity enhancer. Weight of hook block and lifting slings shall be deducted from the lifting capacity of the crane to meet above requirements.
5	**Boom hoisting, slewing main/aux. hoisting, travel drives etc**.: All Hydraulic drives.
6	**Central Ballast** : Base Frame for full ballast to meet offered load chart.
7	**Engine**: Turbo charged water/coolant-cooled diesel engine of adequate power, preferably CUMMINS/CATTERPILLAR make.
8	**Winches**: All four winches (main hoist, jib hoist and boom/derrick hoist) to be operated by hydraulic motors, drum with integrated planetary and spring applied hydraulically released disc brake.
9	**Crane Cabin** : Spacious cabin, swiveling sidewise with operating and control/monitoring instruments.
10	**Crane Operation** : Multiple movements simultaneously.
11	**Safety devices**: The crane shall be equipped with all the following safety devices: a) Cut off devices when exceeding the permissible load moments. Electronic control to stop all dangerous operation in case of instability. Safe load indicator with visual display in operator's cabin for load chart, maximum allowed load, gross load, net load on hook, operating radius & angle, boom/jib length, book/jib sheave height etc., and fault display. b) Safety valve against pipe and hose rupture. c) Hoist & boom hoist limit switches. d) Display arrangement for self error detection system. e) Anemometer. f) Self Test System. g) Electronic inclinometer.
12	**Electrical system**: 24 V DC
13	**Aviation Light** : 24 V double flash light mounted on lattice boom or jib head with

	battery charger 220/24 V
14	**Hook block** : Suitable Hook blocks of approximately 400-450 MT, 200-250 MT, 100 MT capacities and a ball hook block to be provided. Modular hook block also acceptable.
15	**Tool Box** – It shall contain 2 Nos. track adjusting hydraulic jacks, 4 Nos. Boom handling slings besides Standard Hydraulic Test Kit and Standard Tool Kit.
16	**Observation Camera** : 2 Nos. to be installed at superstructure in winch area with a single common monitoring unit in crane cabin for observation of winches.
17	**Self Erection System** : The crane should consist of self erection system.
18	Over all crawler and to end outer width of the crane – Not above 11 M.
19	**Spare Parts**: a) 2 Nos. Lattices of 6M length of each size of lattices pipes used in the boom sections (b) 6 sets of Engine Filters and Hydraulic Filters.
20	**Experience – Bidder shall meet all the following requirements**:- a) Bidder should have been manufacturing and supplying crawler cranes of minimum 400 MT capacity or higher for at least past 3 years. b) Minimum 2 units of quoted capacity or higher capacity crawler cranes should have been supplied and working anywhere in the world. c) Offered model should be in current manufacturing range. d) Offers can be submitted directly or through Indian Agent.
21	**Commissioning:** Supervision of assembly and commissioning of crane shall be provided at BHEL site by the vendor.
22	**After Sales Service Facility**: The manufacturer or his authorized service provider shall have suitable infrastructure in India to adequately take care of after sales servicing/repairs of the crane. 6 periodic service visits each of 2 days duration shall be provided by the Service Engineer of the Indian Agent & 3 visits shall be provided by the manufacturer service engineer during warranty period.
23	**Inspection** : Crane shall be inspected and load tested at manufacturers' works and at BHEL site as per international norms and mutually accepted quality plan, according to the load charts supplied along with the offer.
24	**Training:** Necessary training for operation & maintenance shall be given to two BHEL personnel free of charge for 2 weeks at manufacturer's works and again at site for another 2 weeks during commissioning.
25	**Drawing/Documentation:** 3 sets-Operation and Maintenance manual along with equipment part list, shop manual (for bought out items) boom repair manuals are to be submitted to the customer during the time of delivery of the equipment.



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