

Sl. No.	TECHNICAL SPECIFICATIONS/PARTICULARS MID RANGE HEAVY LIFT CRANE (As Revised In Facility Engg. Heads Meet held at BHEL House, Sirifort, New Delhi on 4th & 5th Oct. 2007)
1	<u>Description</u> — Crawler Mounted Lattice Boom Hydraulic Crane.
2	<u>Standard</u> — As per DIN/ISO/ANSI/BIS Standard or equivalent
3	<u>Stability rating</u> —75%
4	<u>Critical Loads to be handled by offered crane (360° slew)</u> — Minimum 50 MT at minimum 12 M radius with minimum clear boom point height of 70 M with main boom. Note: Weight of hook block and lifting slings shall be deducted from the lifting capacity of the crane to meet above requirements.
5	<u>Main boom and fixed jib :</u> Minimum length of main boom: 85 M Minimum length of fixed jib: 20 M (With at least 70 M main boom) with minimum 2 offsets
6	<u>Boom hoisting, slewing, main/aux. hoisting, travel drives etc :</u> ALL Hydraulic drives.
7	<u>Central Ballast</u> — Base Frame for full ballast to meet offered load chart.
8	<u>Engine</u> —Turbo charged water/coolant-cooled diesel engine of adequate power.
9	<u>Control levers</u> —Fully electronic synchronizing device by two four-way control levers and two two-way control levers, self-centering joy sticks type.
10	<u>Winches</u> — All winches (main hoist, jib hoist and boom/derrick hoist) and to be operated by hydraulic motors, drum with integrated planetary and spring applied hydraulically released disc brake.
11	<u>Crane Cabin</u> — Spacious, all steel construction cabin, swiveling sideways with operating and control/monitoring instruments. Cabin to be preferably tiltable backward for better vision.
12	<u>Crane operation</u> — Multiple movements simultaneously.
13	<u>Safety devices</u> —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, boom / jib sheave height etc. and fault display. b) Safety valve against pipe and hose rupture. c) Hoist limit switch. d) Boom Back stop e) Display arrangement for self error detection system. f) Self Test system. g) 24V double flash Aviation light mounted on lattice boom or jib head with battery charger 240V/24V h) Anemometer
14	<u>Electrical system</u> —24 V DC
15	<u>Hook blocks</u> — Hook block for maximum rated capacity of the crane offered shall be provided with the crane. In addition suitable hook blocks of approximately 100 MT, 50 MT capacities, and a ball hook block shall be provided.
16	<u>Brakes</u> —Preferable Disc type Brakes.
17	<u>Self erection system</u> : The crane should have self erection system of its own.
18	<u>Free fall facility</u> : Free fall facility shall be provided for the jib ball hook.
19	<u>Over all crawler end to end outer width of the crane</u> — Not above 8 M
20	<u>Spare Parts</u> : Mandatory spare parts for two years operation to be supplied with the crane.
21	<u>Experience - Bidder shall meet all the following requirements:</u> a) Bidder should have been manufacturing and supplying crawler crane of quoted capacity or higher for at least past 5 years. b) Minimum 2 units of quoted capacity and quoted make (or higher capacity/model) crawler cranes should have been supplied and working outside the country of their manufacture. c) Offered model should be in current manufacturing range.
22	<u>Commissioning</u> : Supervision of assembly and commissioning of crane shall be provided at BHEL site by the vendor without any additional charges.
23	<u>After Sales Service Facility</u> : 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.
24	<u>Inspection</u> — 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. At site, load test shall be carried out with available loads.
25	<u>Training</u> — For each crane, necessary training for operation & maintenance shall be given to two BHEL personnel free of charge for 1 week at manufacturers works and again at site for another 1 week during commissioning.
26	<u>Drawing / Documentation</u> 3 sets— Operating and Maintenance manual along with equipment part list, shop manual for bought out items to be submitted to the customer during the time of delivery of the equipment.